

**The mine management professions in the Scottish coal industry,
1930- 1966**

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Abstract

The mine management professions in the Scottish coal industry, 1930- 1966

With a few exceptions, colliery managers and other mining professionals (referred to collectively in this thesis as the mine management professions) have been excluded from the history of the British, and particularly the Scottish, coal industries. This thesis starts to redress that imbalance by examining these groups within the most crucial period of their ascendancy, 1930- 1966, in the Scottish coal industry.

It places them within the context of both private and state ownership and examines their role, status and behaviours through their relationship with their employers, and the prosecution of their functions in the fields of production, health and safety and industrial relations. It also examines their terms and conditions of employment and outlook of their professional associations, and, in the nineteen years under nationalisation, that of their union. This coincided with an intense public discussion, within the mining professions, over their future shape, principles and occupational standards.

In so doing the thesis repositions the mine management professions as a distinct grouping rather than simply an adjunct to their employers. However, it shows the parameters within which mining professionals were constrained by both private colliery companies and the National Coal Board. Mining professionals' outlook and behaviours, like other social groupings within the industry, were permeated with both common themes and a diversity of approach.

The absence of mine management professionals from the historical narrative of the coal industry is made all the more glaring because of the wealth of sources upon which to draw, particularly for the period after nationalisation and not least amongst the voices of those mining professionals whose invaluable testimony may be lost forever. This thesis has used these sources to weave into this tapestry.

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This thesis is dedicated to my wife, Paula, and daughter, Orla, and to the memory of my father, Stanley Drelaud Perchard (1916- 2002), and my friend, Andy McCafferty (1953- 2003).

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Abbreviations

AGM	Area General Manager
AIM	Accounting Information Management
AMEE	Association of Mining Electrical Engineers (after 1942 became - AMEME)
AMEME	Association of Mining Electrical and Mechanical Engineers
APM	Area Production Manager
BACM	British Association of Colliery Managers
BISMA	British Iron and Steel Managers' Association
CCC	Colliery Consultative Committee
CG	Colliery Guardian
CINA	Coal Industry Nationalisation Act (1946)
CYB&CTD	Colliery Year Book & Coal Trades Directory
DPLA	Divisional Power Loading Agreement (see SPLA)
DPT	Directed Practical Trainee
ECAS	Engineering Craft Apprenticeship Scheme
GUBA	Glasgow University Business Archives
IME	Institution of Mining Engineers
LCA	Lanarkshire Coal masters' Association
MAGB	Mining Association of Great Britain
MFGB	Miners' Federation of Great Britain
MIS	Management Information System
NACODS	National Association of Colliery Oversmen, Deputies and -Shotfirers
NACM	National Association of Colliery Managers
NAS	National Archives of Scotland
NCB	National Coal Board
NLS	National Library of Scotland
NPLA	National Power Loading Agreement
NUM	National Union of Mineworkers
OMS	Output per Manshift
SD	Scottish Division
SIMA	Steel Industry Management Association
SPLA	Scottish Power Loading Agreement (Scottish DPLA)
SSEB	South of Scotland Electricity Board
SUMA	Scottish Under Managers' Association

Glossary of mining terms

Anderson-Boyes (AB) Meco- Moore: So-called because of the joint effort on the part of the Anderson- Boyes and the Mining Engineering Companies to create it. This, the first machine to successfully integrate the cutting and loading of coal was introduced during the Second World War. However it met with only limited success.

Anderton Shearer- Loader (ASL): Introduced in the late 1950s and invented by an AGM in Lancashire, the ASL consisted of a motor with an arm with a steel drum (originally five feet in diameter) armed with teeth which rotated to cut the coal. This was mounted on an armoured flexible conveyor (AFC) so that cutting and loading could be combined. To enable the use of ASLs in thin seams, the drums were reduced to four feet in diameter. In addition, during the 1960s, they were tried with hoods (cowls) and sprays to reduce dust levels. In the 1970s, ranging arm and double ended shearers were introduced, which could move vertically up and down and horizontally across the face. A picture of an Anderton Shearer Loader in action on a coalface is provided in appendix 5.

Armoured Flexible Conveyor (AFC): Adapted from German heavy conveyors, Panzerförder, introduced during WW2 and adopted by British mining engineers who saw them in use after the war, these conveyors could support the strain of coal-cutters mounted on top of them and large quantities of coal falling onto them. The armoured flexible conveyor (AFC), as these became known, also had a powerful engine to drive the conveyor and could be segmented to allow it to snake around a face.

Beat knee and elbow: Chronic joint pain caused by working in thin seams and spending the entire shift either kneeling or working on one's side.

Briquetting plant: Industrial-processing plants for turning coals into fuel blocks.

Coal washeries: Attached to collieries and used for cleaning and sorting coals. Also still known by their old name, the tables. They were one of the few places that women could work at a colliery after the 1842 Mines Act.

Dirt band seam: A strip of impurities cutting across a coal seam. These could cause considerable disruption if they extended for any distance, especially on mechanised faces as the machines had to be dismantled and the pure coal seam met later on.

Duckbill conveyor: US made conveyors (so-called because the front was shaped like the bill of a Duckbill Platypus) introduced to some British mines, which worked using 'stoop and room' methods (see below), designed for working in small areas and shaking coal onto roadway conveyors.

Faulting: Breaks in a coal seam, caused by geological disruption during the formation of the seams.

Fireman: A junior official responsible for carrying out gas checks and safety inspections. This term was used variably as it was often performed by Deputies. Later on these tasks were also taken by colliery Safety and Ventilation Officers.

First Class Certificate of Competency: Statutory qualification required by anyone wishing to manage a mine, other than those employing less than 25, by the Home Office under the Coal Mines Act (1911).

Flight loaders: Existing cutting machines fitted with scraper bars, which followed the cutter and pushed the coal onto the coalface conveyor. These were adapted during the 1940s and represented one of the largest categories of coal cutters throughout much of the late 1940s and 1950s until they were gradually replaced, from the late 1950s onwards, by power-loaders (see Anderton- Shearer Loader).

Floor redd: Red coloured clay found in the floor of some mines.

Horizon mining: The working of underground roadways and faces from different levels (horizons). The benefits of working to a horizon, instead of following the coal seam, was that roadways could be kept fairly straight for long distances and with considerably less inclines.

Igneous intrusions: layers of rock cutting across coal seams.

Longwall mining: The method of mining increasingly adopted in British collieries, especially after nationalisation. Longwall methods allowed for a longer coalface to be exposed and more coal worked (than 'stoop and room'), supported by 'props' to hold the roof up and 'straps' across between the props and the face to further support the roof. Originally longwall faces were worked using hand or semi-mechanised methods over three or four shifts (see appendix 5). One for preparing the face by undercutting the coal, the second for boring holes, dusting the face with lime, setting and exploding charges, and the third for loading the coal onto a conveyor and resetting props and straps to on the next stage of the coalface. Eventually this was overtaken by power-loading methods, which expedited the use of explosives and allowed for coal to be cut on three out of four shifts. Longwall working also allowed for greater control over faceworkers, especially once method-study, increased

supervision and targets (based on distance and time) were used (to replace piece-rates). Initially, longwall mining was just done on an advancing system (following the coal seam). However a retreating system (where the face was driven [hollowed out] in advance and then worked) was experimented with. This met with mixed success given the variability of mining conditions.

Nystagmus: a disease of the retina common amongst miners working in poorly lit mines. It was particularly bad in pits which used low light safety lamps where miners were working the coal by hand and caught the light in the corner of their eye every time they swung a pick or turned around. Nystagmus eventually faded out with better mine lighting.

Norse miner: A giant tunnelling machine introduced in the 1960s. This eliminated the need for using explosives to drive a mine (create the tunnels for roadways, etc.).

Pneumoconiosis: The term covering any respiratory disease but most commonly identified in coal mining with coal dust. This includes simple pneumoconiosis, ranging in severity from one to three, to the most serious form, Progressive Massive Fibrosis (PMF). In the case of simple pneumoconiosis (sometimes categorised as bronchitis emphysema), sufferers experience different degrees of shortness of breath and are gradually incapacitated. PMF is a terminal condition, which may be developed by sufferers of the former categories, in which the lung capacity is critically diminished with sufferers often seriously incapacitated and reliant on oxygen tanks.

Power Loading: The integration of cutting and loading into one task. This was achieved gradually with a mix of machinery but was aided particularly by two discoveries- the Armoured Flexible Conveyor (AFC) and the Anderton Shearer Loader. For an example of a power-loaded longwall face see illustration in appendix 5.

Remotely Operated Longwall Face (ROLF): Computerised coal faces, which were being designed in the late 1960s but did not come into their own until the late 1970s. These coalfaces could be controlled from the surface, using CCTV and infrared controls, with a handful of technicians at the face.

Seam agreements: Discrete contracts for piece rates, agreed between colliery management and men, on individual coalfaces. Bargaining centred largely around conditions and quality of coal.

Second Class Certificate of Competency: Qualification which had to be held by under-managers, under the Coal Mines Act 1911, allowing them to oversee operations underground at a mine.

Shortwall cutters: Coal cutting machinery used for working on small coalfaces. For example, the sort of machinery used on a 'stoop and room' face.

Silicosis: A serious and often fatal respiratory disease caused by silica dust. Most common amongst those involved in mine driving in coal mines.

Stoop and room methods: Large areas of coal worked in stables leaving pillars of coal supporting the roof. This had the benefit of being much safer but made integrated cutting and loading systems impossible to introduce and left considerable amounts of coal untouched.

Trepanner: These machines were developed by Anderson-Boyes and introduced in 1952, reaching their peak of popularity in 1964. They consisted of a rotating head, which was an open cylinder with teeth around the lip. This moved along the face taking a core of coal along the face. They also had jib cutters (rather like chain saw blades at floor and roof level as well as a vertical one). Later on, trepanners were designed with rotating heads at both ends to enable it to cut in both directions. The machine cut large chunks of coal but left considerable amounts untouched. Between 1961 and 1970 inclusive, 20 per cent of all mechanised output came from trepanners. A picture of a trepanner is provided in appendix 5.

Tubs: underground coal wagons used to convey coal.

Vibration White Finger: A progressive form of Raynaud's disease caused by use of some vibrating heavy machinery. The loss of circulation to the fingers can cause them to go into spasm. In the worst-case scenario, this can lead to gangrene setting in.

Washouts: Flooding of coal seams, caused by new workings intersecting with old, by underground-secreted water or working close to porous rock.

Weil's disease: Blood poisoning from wounds caused by unsanitary conditions underground and spread by rats.

Winding cage: lift cages used to convey men and tubs up and down the mineshaft in deep collieries.

Introduction: historiography, methodology & sources

Thesis' aims and objectives: arriving at a typology of the Scottish mine management professions

This thesis examines the role, status, growth and professionalisation of colliery managers and the other branches of the mining professions (referred to collectively, in this thesis, as the mine management professions) in the Scottish coal industry between 1930 and 1966.

If the narrative of the British coal industry between the eighteenth and early twentieth centuries can be said to have been dominated by the forces of owner-entrepreneurs and labour, then the period from 1930-1966 saw the emergence and consolidation of two other distinct but loose confederations of employees: the mine management professions and junior officials (deputies, firemen and oversmen).¹ As the official historian of the British coal industry in the inter-war years has noted, nowhere was the demand for professional managers, to manage the day-to-day operations of colliery companies more evident than in the Scottish coalfield.² A combination of factors leading to the nationalisation of the industry, along with the progressive modernisation of industrial processes and organisation, acted as a catalyst to the rise of colliery managers and the specialised branches of the mining professions (mining engineers, mining electrical and mechanical engineers, and surveyors) to a position of pre-eminence in the industry after 1947. The next nineteen years of

¹ For a discussion of junior colliery officials, see: Peter Ackers, 'Colliery Deputies in the British Coal Industry Before Nationalization', *International Review of Social History*, 39, 3, (December 1994), pp.383-414; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in Modern Europe: the quest for productivity*, (Cheltenham, 1998), pp.145-173.

² Barry Supple, *The history of the British coal industry, volume 4: The political economy of decline* (Oxford, 1987), pp.362-366.

nationalisation and a wider commitment in political and official circles to the professionalisation of British management, from 1947- 1966, led to the specialisation and bureaucratisation of mine management. It also signalled the transition from operational responsibility (if not always power and discretion) invested in the colliery manager's position, to management teams, led by colliery managers, but directed increasingly by the prerogative of organisational processes.

The thesis examines Scottish colliery managers' and mining professionals' pay and conditions of employment; their changing status, roles and responsibilities within the industry and the pit community; their education, training and social background; their outlook and relationships with their employers, mineworkers and junior officials (both before and after nationalisation); performance of their duties within the constraints presented by the political, economic and social context of their industry; and representation of the mine management professions by professional associations and, after nationalisation, their union. A broad but limited overview of trends in Scottish mine management over this period are provided in appendix 1. However, as the ensuing pages show, the picture of mine management professions was a great deal more diverse than this.

The period 1930-1966 was a critical one in that it was marked by two significant events for the industry, and for management. The passing of the Coal Mines Act 1930 was significant in that it recognised the failure of the coal industry to reorganise itself and to contain suicidal competition (particularly prevalent amongst some Scottish owners).³ The markedly higher number of colliery amalgamations after the Act saw a visible concentration of production in some colliery companies, which accompanied the growth of the large colliery concerns. This had a significant impact on the way that colliery operations were conducted, signalling, in the larger companies, the more widespread use of modern management techniques, such as Management Information Systems (MIS) and Accounting Information Management (AIM), and consequently impacted on some colliery managers.⁴

The introduction of the National Power Loading Agreement (NPLA) in 1966 represented the apparent attainment of management by process.⁵ No longer could colliery management determine the wages of faceworkers. Furthermore the NPLA was designed expressly as a tool to centralise management control so that productivity data and personnel direction could be integrated with unit costing and determined at National and Divisional level. The NPLA was hailed as a crowning achievement for

³ Maurice W. Kirby, *The British Coal Mining Industry* (London, 1977); Ben Fine, *The Coal Question. Political economy and industrial change from the nineteenth century to the present day*. (London, 1990); Ben Fine, 'Economies of scale and a featherbedding cartel? : a reconsideration of the interwar British coal industry'. *Economic History Review*, 2nd Series, XLIII, 3, 1990, pp.438-449; Trevor Boyns, 'Strategic responses to foreign competition: the British coal industry and the 1930 Coal Mines Act'. *Business History*, Volume 32, 3, 1990, pp.133-145.

⁴ Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The case of the Interwar British coal industry'. *Business History*, 62, 1988, pp.1-34; Trevor Boyns and Judith Wale, 'The development of management information systems in the British coal industry, c.1880-1947'. *Business History*, Volume 38, 2, 1995, pp.55-80.

⁵ David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Willmott (eds.), *Managing the Labour Process* (Aldershot, 1986), pp. 109-141; Ben Fine, Kathy O' Donnell and Martha Prevezer, 'Coal After Nationalisation' in Ben Fine and Laurence Harris, *The Peculiarities of the British Economy* (London, 1985), pp. 167-200.

industrial democracy- and the rational organisational ideal- and of the NUM Scottish and South Wales Areas' campaigns for a fair pay settlement across the British coalfield. Yet it prompted a backlash amongst miners and proved unpopular amongst colliery managements who felt alienated.⁶ The period 1930- 1966 marked the beginning and end of a process to reorganise the coal industry along bureaucratic lines. It saw the growth and rise of the mine management professions, and ultimately their integration into a corporate process. The process was one in which, ultimately (like the factory manager and process), they were purveyors of their labour as much as the mineworker.

The historiography of management in the coalfield

Yet despite the mine management professions' increasingly central role in the industry, as Neville and Benson remarked in a 1975 review of 'labour in the coalfields', 'the absence of any interpretation of the 'management revolution' in the context of the British coal industry as a whole during the nineteenth and twentieth centuries remains a glaring gap in the existing state of our knowledge.'⁷ In the twenty- nine intervening years, since Neville and Benson's article, only a handful of histories and reviews have broached the subject of the mine management professions with anything more than a cursory glance.⁸ Still less has been written about the mine management professions in Scotland.⁹

⁶ Joel Krieger, *Undermining Capitalism. State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983); W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries*, (Liverpool, 1963).

⁷ R. G. Neville and J. Benson, 'Labour in the coalfields (II). A select critical bibliography', *Bulletin of the Society for the Study of Labour History*, Volume 31, (1975), p.49.

⁸ Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The experience in South Wales', *Business History (BH)*, Volume 34, Number 4, (1992), pp.59- 78; Brian McCormick, 'Managerial Unionism in the Coal Industry', *British Journal of Sociology (BJS)*, II, (1960), pp.356-369; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in Modern Europe: the quest for productivity*, (Cheltenham, 1998), pp.145-173; George R. Strong, *A History of the Institute of Mining Engineers 1889- 1989*, (Doncaster, 1988); David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Wilmott (eds.), *Managing the Labour Process*, (Aldershot,

This neglect of managers in the coal industry has been mirrored across the historiography of British industry, with a few notable exceptions, as recent reviews of existing literature on British industry have noted.¹⁰

Of the historiography, which deals with mining professionals in Scotland in this crucial period, only the brief (but valuable) references of Joseph Melling's work to colliery managers and under-managers, whilst the industry was still under private control, have really glimpsed into managers' pay and conditions of service, their relationship with their employers, labour and junior colliery officials and the constraints of employer prerogative on mine management professionals' conduct and performance of their duties.¹¹ Whilst George Maxwell's work provides a fairly thorough digest of technical aspects of mine management, it does

1986); (Theses and unpublished papers): Alan J. Arthurs, 'Managerial Unionism in the Coal, Steel and Electricity Supply Industries', Unpublished University of Warwick M.A. thesis, 1975; Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', Unpublished Cambridge University Ph.D. thesis, 1990; Stephanie Tailby, 'Labour utilization and labour management in the British coalmining industry, 1900- 1940', Unpublished University of Warwick Ph.D. thesis, 1990; George Millar Maxwell, 'Between Rocks and Hard Masters. A review of mine management in Scotland c.1800- 1960', unpublished paper by a former Emeritus Professor of mining at Strathclyde.
⁹ Ibid; Baron F. Duckham, 'The Emergence of the Professional Manager in the Scottish Coal Industry, 1760- 1815', *Business History Review*, Volume 43, (1969), pp.21-38; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in modern Europe*, pp.145-173.

¹⁰ Examples include the following: Sidney Pollard, *The genesis of modern management. A study of modern management. A study of the industrial relations in Great Britain*, this edition, (Harmondsworth, 1968); Leslie Hannah, 'Managerial innovation and the rise of the large-scale company in interwar Britain', *The Economic History Review*, 2nd Series, Vol. XXXVII, Number 2, May 1974, pp.252-270; W. J. Reader, *Imperial Chemical Industries: A history. Volume I: The Forerunners 1870-1926*, (Oxford, 1970); W. J. Reader, *Imperial Chemical Industries: A History. Volume II: The First Quarter-Century 1926- 1952*, (Oxford, 1975); W.J. Reader, *Metal Box. A history*, (London, 1976); Leslie Hannah, *Engineers, Managers and Politicians. The first fifteen years of nationalised electricity supply in Britain*, (London, 1982); (for an example of criticisms, see): Derek Matthews, 'British Business History: A Review of the Periodical Literature for 1989', *Business History*, Volume 33, Number 2, (April 1991), p.192.

¹¹ Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960', pp.159-160.

not embark on any detailed examination of mine management professionals or their social and economic context.¹²

The most in-depth and consistently valuable studies of colliery managers and the mining professions, for the purpose of this study, have been those provided by Ina Maria Zweniger- Bargielowska, Brian McCormick and Alan J. Arthurs, none of which specifically focus on the Scottish industry. It should be emphasised that this does not obviate the usefulness of the references in the other studies cited but rather that they mention the mine management professions in passing.

Zweinger-Bargielowska, in particular, has used her studies of four South Wales' mining communities, including an examination of colliery management (featuring interviews with colliery managers who worked in the industry both prior to and post nationalisation), to contest the image of colliery managers as 'hand-in-glove with, if not identical, to the hated owners'.¹³ She has added further qualification to Brian McCormick's earlier recognition of the fact that prior to nationalisation mining professionals and colliery managers were constrained by their reliance for prospects in the industry (training and promotion) and ultimately their livelihood (pay, secure employment, housing and compensation for occupational injuries or illness) on their employers.¹⁴ Zweiniger-Bargielowska contrasts this with what she sees as the generally good treatment of colliery managers under nationalisation, apparently borne out

¹² George Millar Maxwell, 'Between Rocks and Hard Masters. A review of mine management in Scotland c.1800- 1960', unpublished paper by a former Emeritus Professor of mining at Strathclyde.

¹³ Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', Unpublished Cambridge University Ph.D. thesis, 1990, p.341.

¹⁴ Ibid, pp.351-2; Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The experience in South Wales', *Business History*, Vol. 34, No. 4, (1992), pp.60-62; B. McCormick, 'Managerial Unionism in the Coal Industry', *British Journal of Sociology*, II, (1960), p.357.

by the positive reaction of her management interviewees which contests the complaints of some contemporary sources.¹⁵

Similarly, McCormick's study, whilst heeding the complaints of colliery officials at the loss of perquisites from members of the mining professions and of the managers' union (formed after nationalisation), the British Association of Colliery Managers (BACM), notes the considerable improvement to managers' pay and conditions of service under nationalisation.¹⁶ Alan Arthurs, in particular, provided an invaluable insight into the structure and direction of the BACM and exposes some of the schisms between colliery managers and the other branches of the mining professions in particular.¹⁷ This included the distinctly undemocratic practices of colliery managers and senior mining engineers in disproportionately limiting the number of other mining professionals from the union's national executive and the national joint council.¹⁸ Arthurs also shows how, despite the best efforts of the joint leadership of Jim Bullock and George Tyler from the late 1950s onwards, the majority of members remained fundamentally opposed to TUC membership.¹⁹

A number of the other histories mentioned have added to the material on mining professionals, in some cases reiterating some of these points in the three main texts, to contribute to a clearer picture of colliery management. In particular, Stephanie Tailby points out that colliery management, especially in Scotland, throughout the period of her study (1900-1940), was largely drawn from amongst the ranks of miners with a sound but limited

¹⁵ Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The experience in South Wales', pp.65-75.

¹⁶ B. McCormick, 'Managerial Unionism in the Coal Industry', pp.360-2.

¹⁷ A. J. Arthurs, 'Managerial Unionism in the Coal, Steel and Electricity Supply Industries', Unpublished University of Warwick M.A. thesis, 1975, p.8; A. J. Arthurs, 'Managerial Trade Unionism', *Journal of Industrial Relations*, Vol. 25, (1983), p.146.

¹⁸ Ibid.

¹⁹ A. J. Arthurs, 'Managerial Unionism in the Coal, Steel and Electricity Supply Industries', p.16.

general education, whose managerial and technical skills had been honed through practical training.²⁰ This view of poorly qualified and educated managers and a dearth of mine management professionals is reiterated in Barry Supple's suggestion that a 'conservatism amongst managers' partly contributed to the stagnation of the industry prior to nationalisation, whilst William Ashworth, the official historian of the nationalised industry, (mirroring the comments of a number of post-war studies of the industry) suggests that management were poorly equipped to meet the challenges of nationalisation.²¹ Roy Church and Quentin Outram have argued that colliery management was extremely influential in deciding industrial relations at a colliery.²² Melling's study has qualified McCormick's hypothesis- that colliery officials were reliant and therefore 'pro-employer' - by showing that throughout the 1920s and 1930s colliery companies and owners stymied management's attempt to negotiate pay rises and superannuation packages, and discouraged representative bodies for managerial grades.²³

The ensuing pages will outline how this thesis both challenges and qualifies existing hypotheses, although it re-iterates the general dearth of detailed studies of mine management professionals in British coalfields, including a recognition of the differences between colliery managers and mining engineers, and the other branches of the mining professions (crucial given their ascension in the industry, especially after 1947) and,

²⁰ Stephanie Tailby, 'Labour utilization and labour management in the British coalmining industry, 1900- 1940', Unpublished University of Warwick Ph.D. thesis, 1990, p.298.

²¹ Barry Supple, *The history of the British coal industry, Volume 4*, p.32; William Ashworth, *The history of the British coal industry, Volume 5. 1946- 1982: The nationalised industry*, (Oxford, 1986), p.113.

²² Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889- 1966*, (Cambridge, 1998), pp.196-218.

²³ Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960', pp.159-160; B. McCormick, 'Managerial unionism in the coal industry', p.357.

with a few exceptions, the changes to managerial processes in the industry and their impact on management over the twentieth century.²⁴

Furthermore, there has been little attempt to differentiate between personal and statutory responsibility and organisational failure and employer/corporate culpability. This tendency to opt for an individual blame culture, whilst appropriate in some cases, has been referred to by one authority on risk as follows; 'the fundamental claim is that the systems of which humans are a part call forth error from humans, not the other way around.'²⁵ Barry Turner has further illustrated this by showing how the individual closest to accidents, in complex organisations, is often blamed despite the fact that the cause often lies in the culture, structure, strategies or reserves of the organisation.²⁶ In essence, what this thesis provides is a more sophisticated model of the mine management professions and the various strands of managerial behaviour to emerge in the industry over this period.

Structure, chapter outcomes and sources

The following two chapters examine the pay and conditions of employment of the mine management professions, and their role and relationship with their employers and other groups in the industry, through the core functions of production, labour relations and health and safety.

²⁴ Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960', pp.145-173; David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Wilmott (eds.), *Managing the labour process*, (Aldershot, 1986); Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The experience in South Wales', p. 72.

²⁵ N. Moray, 'Error reduction as a systems problem' in M. Bognor (ed.), *Human Error in Medicine*, (New Jersey, 1994), p.37.

²⁶ Barry Turner, *Man Made disasters* (London, 1978).

Chapters two and three broadly support Zweiniger-Bargielowska and Melling's illustrations of managerial dependency on employers by showing further examples of the reliance of Scottish colliery managers and under-managers on their employers and sometimes their victimisation by the latter.²⁷ However, it shows that this was not always, as McCormick suggested, expressed as pro-employer orientation.²⁸ Chapter three illustrates how managers' ability to perform their statutory health and safety duties, their conduct in the field of labour relations and operational innovation were, by and large, constrained by employer prerogatives for maximum output at the lowest unit cost. Nevertheless, it acknowledges the existence of 'local autocrats', as does Zweiniger-Bargielowska's study, and differentiates between the few progressive Scottish colliery concerns and the majority of operators.²⁹ This was particularly well illustrated by the failure of most colliery companies to invest in the professional development of their management grades, contrasted against the education and training which companies like the Fife Coal Company provided for its employees.

²⁷ Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining industry', p.341; Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The experience in South Wales', pp.60-62; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960', pp.159-160.

²⁸ B. McCormick, 'Managerial Unionism in the coal industry', p.357.

²⁹ Ina Maria Zweiniger- Bargielowska, 'Industrial relationships and nationalisation in the South Wales coalmining industry', p.114; David C. Gemmell, 'Presidential address: mining memories', *Transactions of the Mining Institute of Scotland*, Volume 64, 1949- 1950, p.37; (The most infamous example being the Lothian Coal Company's General Manager and manager of the Newbattle collieries, Mungo Mackay): Ian MacDougall, *Mungo Mackay and the green table. Newtongrange miners remember*, (East Linton, 1995)

Stephanie Tailby's assertion that colliery managers in Scotland were largely drawn from the ranks of miners with a modicum of practical training is supported in this chapter with examples of these, 'colliers with a collar on', and parallels are drawn with managers in the US bituminous coal industry.³⁰ In contrast, in both France and Germany, provision of education and training was much more structured.³¹ It argues that ultimately professional managerial employees were projected to prominence in the industry, by the end of this period, by the perceived and actual failure of private ownership of the industry.³² Whilst the mining professions were becoming more self-confident and outspoken

³⁰ Stephanie Tailby, 'Labour utilization and labour management in the British coalmining industry, 1900- 1940', Unpublished University of Warwick Ph.D. thesis, 1990, p.298; (For the reference to 'a collier with a collar on', see David C. Gemmell's remarks after Andrew Bryan's paper): Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', Presentation to the Mining Institute of Scotland, 6 December 1941, *Transactions of the Institution of Mining Engineers (IME)*, Volume LX, 1941-1942, p.32; For references to the US bituminous coal industry, see: Price V. Fishback, *Soft coal, hard choices. The economic welfare of bituminous coal miners, 1890- 1930*, (New York, 1992), p.49.

³¹ Bernd Weisbrod, 'Entrepreneurial politics and industrial relations in mining in the Ruhr region: From managerial absolutism to co-determination' in Gerald D. Feldman and Klaus Tenfelde (eds.), *Workers, Owners and Politics in Coal Mining. An international comparison of industrial relations*, (Oxford, 1990), pp.118- 202; Joël Michel, 'Industrial Relations in French Coal mining from the late nineteenth century to the 1970s' in G. D. Feldman and K. Tenfelde (eds.), *Workers, Owners and Politics in coal Mining*, pp.271- 314; This distinction between Britain, on the one hand, and Germany, Sweden and France is discussed more generally in: J. Melling, 'Management, labour and the politics of productivity: strategies and struggles in Britain, Germany and Sweden' in A. McKinlay and J. Melling, (eds.), *Management, labour and industrial politics in modern Europe*, p.7.

³² (For a discussion of this, see): Neil K. Buxton, *The Economic Development of the British Coal Industry. From the Industrial Revolution to the Present Day* (London, 1978); Neil K. Buxton, 'Entrepreneurial Efficiency in the British Coal Industry between the Wars'. *Economic History Review*, Vol. 23, 3, December 1970, pp.476-497; Maurice W. Kirby, *The British Coal Mining Industry* (London, 1977); Ben Fine, *The Coal Question. Political economy and industrial change from the nineteenth century to the present day*. (London, 1990); Ben Fine, 'Economies of scale and a featherbedding cartel? : a reconsideration of the interwar British coal industry'. *EHR*, 2nd Series, XLIII, 3, 1990, pp.438-449; Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', *Business History*, 62, 1988, pp.1-34; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947'. *BH*, Volume 38, 2, 1995, pp. 55-80; Trevor Boyns, 'Strategic responses to foreign competition: the British coal industry and the 1930 Coal Mines Act'. *Business History*, Volume 32, 3, 1990, pp. 133-145; David Greasley, 'The coal industry: images and realities on the road to nationalisation' in Robert Millward and John Singleton (eds.), *The political economy of nationalisation in Britain 1920- 1950* (Cambridge, 1995), pp.37-64; See also Barry Supple's volume 4 of the official history.

within the industry, as wartime control showed, there were few who were adequately prepared for the task of leading the industry.³³

Chapter four illustrates how a combination of Morrison's vision of a public service ethic, the National Coal Board's first Secretary, Sir Arthur Street's civil service experience and Labour's commitment to promoting professionalism throughout British management starting with its nationalised industries (though this was not a commitment which was enthusiastically embraced in equal measure by the Conservative administrations in this period), and an ambitious training and education programme, aimed to create a cadre of well trained and educated NCB managers and mining professionals.³⁴ This chapter argues that the NCB's professional development and recruitment schemes met with mixed success. In particular, formal management education was undermined by many mine management professionals' conviction that managerial ability was based on innate qualities. This view was extolled by some leading members of the mining professions. Concurrently, other leading mining professionals conducted a public debate about management philosophy and a campaign to further develop management education programmes for the industry. The period 1947- 1966 saw the convergence of the two dominant schools of management adhered to in the industry (human relations and scientific management) and their eventual crystallisation into

³³ Barry Supple, *The History of the British Coal Industry, Volume 4*; William Henry Bassano Court, *Coal*, (London, 1951)

³⁴ Herbert Morrison, *Socialisation and Transport. The organization of socialised industries with particular reference to the London Passenger Transport Bill*, (London, 1933), pp.156-7; A.A. Rogow, *The Labour Government and British Industry 1945- 1951*, (Oxford, 1955), pp.69-70; Kenneth O. Morgan, 'The rise and fall of public ownership in Britain' in J. M. W. Bean (ed.), *The political culture of Modern Britain: Studies in Memory of Stephen Koss*, (London, 1987), p.294; John Singleton, 'Labour, the Conservatives and nationalisation' in Robert Millward and John Singleton (eds.), *The political economy of nationalization in Britain 1920- 1950*, (Cambridge, 1995), p.17; Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939- 51* (London, 1993), pp.46-49; Anthony Carew, 'The Anglo-American Council of Productivity (1948- 52): The Ideological Roots of the Post-War Debate on Productivity in Britain', *Journal of Contemporary History*, Volume 26, (1991), p.50; Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951-64. Thirteen wasted years?*, (London, 1998); Nigel Harris, *Competition & the Corporate Society. British Conservatives, the State and Industry 1945- 1964*, (London, 1972); William Ashworth, *The History of the British Coal Industry, Volume 5*.

a modern management philosophy for mine management professions, under the guidance of prominent mining professionals. In the meantime, NCB recruitment to the mine management professions continued to rely heavily on those who had ascended the NCB's staff development plan- the Ladder Scheme- and thus those who had formerly worked as miners, although the NCB's Directed Practical Training Scheme- which augmented graduates in mining engineering's technical education with practical experience in key areas of production and administration- did also provide a growing number. The reality fell short of Hegelian-Weberian models of an altruistic public service tradition but the mine management professions were transformed into a more highly qualified, specialised and bureaucratized elite- not quite a technocracy but closer to the 'organisation man'.³⁵

And, whilst Zweinger-Bargielowska is partially correct in refuting managers' claims of a loss of power and pointing to the lack of real autonomy prior to nationalisation, seeing this as a longer term trend, this thesis shows that while the bureaucracy itself was less of a restraint, the organisational process and uniformity of targets and systems (the NCB's 'iron cage of rationality'), did lead to very real impediments on colliery managers', and later colliery management teams', operational priorities and statutory responsibilities.³⁶ Ultimately it prompted a conflict with

³⁵ Max Weber, 'Legitimate Authority and Bureaucracy' in Derek S. Pugh (ed.), *Organization Theory. Selected Theory, Fourth Edition*, (London, 1997), pp.8-9; Anthony Giddens, *The class structure of Advanced Societies*, (London, 1974), pp.48-9; Karl Marx, 'Critique of Hegel's doctrine of the state' in K. Marx, *Early writings*, (London, 1992), pp.103-7; William H. Whyte, *The Organization Man*, (London, 1965), pp.10-11; Anthony Crosland, *Socialism Now and other essays*, (London, 1974), p.69.

³⁶ Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', pp.65-75; David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Wilmott (eds.), *Managing the Labour Process*, (Aldershot, 1986), pp.109-141; Beverly H. Burris, 'Technocratic Management: Social and political implications in D. Knights and H. Wilmott (eds.), *Managing the Labour Process*, pp.166-185; Harry Braverman, *Labor and Monopoly Capitalism. The Degradation of Work in the Twentieth Century*, (New York, 1974)

both mineworkers and some mine management professionals.³⁷

Nevertheless amongst a younger generation of managers, and especially some mining professionals in Area and Divisional production departments, there were those who embraced this organisational ethos.³⁸

The ensuing three chapters, five- seven, illustrate changes to the role of managers and the growth of the mine management professions within the NCB's bureaucratic process through the media of production, industrial relations and health and safety. Whilst remnants of the autocratic 'King of the village' are evident and illustrated, Zweinger-Bargielowska's suggestion that this picture needs to be reappraised is supported.³⁹

Concurrently, Ashworth's suggestion that, 'old structures also encouraged the retention of old ideas and practices, and resistance to new, amongst both managers and miners', is scrutinised and challenged.⁴⁰ These chapters present a far more complex picture of mine management professionals. They identify a number of influences on their behaviour and perhaps unsurprisingly considerable variations in approaches to management. They also acknowledge the pressures that colliery management were placed under by unrealistic productivity and unit cost targets, especially in a climate of severe contraction of the industry in the Scottish coalfields from the late 1950s onwards, and how this affected their ability to perform their job.⁴¹ As chapters six (industrial relations) and seven (health and safety) show, this was illustrated in clashes between colliery and Area management over miners' wages and health and safety

³⁷ Joel Krieger, *Undermining Capitalism. State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983); W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries*, (Liverpool, 1963).

³⁸ Nicos Poulantzas, *Classes in Contemporary Capitalism*, (London, 1975), pp.180-1.

³⁹ Ina Zweinger- Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', p. 75

⁴⁰ William Ashworth, *The History of the British Coal Industry, Volume 5*, p.113.

⁴¹ Trevor Hopper, David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Wilmott (eds.), *Managing the Labour Process*, (Aldershot, 1986), pp.109-141; Beverly H. Burris, 'Technocratic Management: Social and political implications in Ibid, pp.166-185.

against production priorities. They show the variety of responses from colliery management, faced, in some cases, with considerable coercion from Area management. It provides examples of a technocratic breed of production official, at colliery, Area and Divisional level, who embraced the 'currently dominant variant of bourgeois ideology', 'in its form of 'economic rationality', 'efficiency of returns' and 'expansion'.⁴² Their adoption by some colliery managements, to the detriment both of balanced industrial relations or health and safety, reflected in equal measure, calculated ambition amongst some managers, and self-preservation amongst others as well as the popularity of human relations and scientific management tools expounded as part of the NCB's ambitious professional development programmes. This could also illustrate the latent tensions between the theoretical ambitions of mining professionals and the practical realities and statutory responsibilities of the colliery manager. Alternatively these chapters provide examples of colliery management teams and individual managers who were genuinely consultative and prioritised health and safety. The sort of managers, who, Scots' miners leader, Mick McGahey, referred to as, 'those that have a compassion, a feel for the industry.'⁴³ Even within the confines of the bureaucratic process, managers' behaviour as individuals could still have a critical bearing on health and safety, industrial relations and production.

Chapter eight examines the development and growth of the union of the mine management professions, the British Association of Colliery Managers (BACM), from one with the outlook of a professional association under the stewardship of its then President, Major Stanley Walton-Brown, to a more distinctively managerial unionism under President, Jim Bullock, and General Secretary, George Tyler. The contrast was characterised by the deferential conduct of negotiations between the union's national

⁴² Nicos Poulantzas, *Classes in Contemporary Capitalism*, (London, 1975)., pp.180-1.

⁴³ Jane Denholm, 'Mick McGahey', *Coalface, The Bulletin of the Scottish Mining Museum*, Number 25, August 1987, pp.3-4.

executive and senior NCB officials in the early days of nationalisation and their apparent attachment to their former employers compared with the stridently independent lobbying of Bullock and Tyler, and their support for both the TUC and the Labour Party by the 1960s. The development of the BACM is examined alongside the development of other white-collar and managerial unions.⁴⁴ It is also examined using Blackburn's measure of 'unionateness'.⁴⁵ It concludes that the BACM's character throughout much of this period was more illustrative of a managerial, rather than a white-collar union, highlighted specifically by the almost universal opposition of members to strike action and the majority resistance to TUC membership. The chapter also reinforces the picture drawn by Arthurs' seminal work on the BACM by showing the dominance of union executive bodies by colliery managers - the 'unmistakable "aristocracy" - and their gerrymandering to keep other mining professionals out.⁴⁶ It shows how Bullock and Tyler led the internal campaign to have other mining professionals' rights to power-share recognised, their attempts to reposition the union into a position of pragmatic dialogue with the rest of trade union movement and the outspoken opposition of those colliery managers and senior mining engineers who felt it was the managers' union. Ultimately, there was a symbiosis between the two, the union retained a much more conservative face as long as its structures were

⁴⁴ Greg Bamber, *Militant Managers? Managerial Unionism and Industrial Relations* (Aldershot, 1986); C. Wrigley, 'From ASSET to ASTMS: An Example of White-Collar Union Growth in the 1960s', *Historical Studies in Industrial Relations*, No.7, (Spring 1999), pp.57-74; J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', *International Review of Social History*, 48, (2003), pp.245-271; G. S. Bain, 'The Growth of White-Collar Unionism in Britain', *British Journal of Industrial Relations*, IV, 1-3, (1966), pp. 305-6; Guy Routh, 'White-collar Unions in the United Kingdom' in Adolf Sturmthal (ed.), *White-collar trade unions. Contemporary developments in Industrialized Societies* (London, 1966), p. 165.

⁴⁵ R.M. Blackburn, *Union Character and Social Class*, (Batsford, 1967).

⁴⁶ Alan J. Arthurs, 'Managerial Unionism in the Coal, Steel and Electricity Supply Industries', pp.7-8.

dominated by the 'mining mafia' (a term used to refer to colliery managers and senior mining engineers).⁴⁷

The mine management professions have been confined to an undeserved footnote in the history of the coal industry. In the historiography of the Scottish coal industry, as in that of the rest of the British coalfield, the passing references to their existence have been simply as the village autocrat and agent of capital. This thesis challenges the simplicity of that model and offers a more nuanced picture of the development of the mine management professions in Scotland over this period, whilst acknowledging the constraints of their conditions of employment both prior to and post nationalisation. As chapter two notes they were not the architects of their rise to pre-eminence. Under both private employers and the NCB, failure to achieve, sometimes unrealistic, targets could make their position untenable. In the first sixteen years of this study, rarely were colliery managers the masters of their pits, more often than not, they were, as Roy Church remarked of the industry prior to this period, 'essentially technical or under-managers'.⁴⁸ After nationalisation, the features of modern (scientific) management- comprehensive accounting and management information systems (though used by a number of advanced companies prior to nationalisation) and centrally devised productivity targets- reduced managerial functions to a bureaucratic process at the same time as continuous power-loading schemes dispensed with the number of different jobs at the coalface. Some embraced these changes as the route to advance in an organisation with tremendous opportunities for the ambitious who were willing to assume the mantle of the NCB man, whilst others accepted these changes in resignation that their livelihood depended on it. Nevertheless many exhibited a considerable and perhaps

⁴⁷ Trevor Hopper et al., 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Wilmott (eds.), *Managing the Labour Process*, pp.123-4.

⁴⁸ Roy Church with the assistance of Alan Hall and John Kanefsky, *The History of the British Coal Industry, Volume 3. 1830- 1913: Victorian Pre-eminence*, (Oxford, 1986), p.463.

understandable, given the NCB professional development and recruitment schemes, sense of pride of being part of the NCB management cadre.

The thesis was aided by a rich reserve of published and unpublished sources. The Glasgow University Business Archives (GUBA), the National Archives of Scotland (NAS), the National Library of Scotland (NLS) and the Public Records Office (PRO) house a wealth of unpublished records. The records of various West of Scotland private colliery concerns like the Coltness Iron Company Ltd., Bairds and Dalmellington, and Wm. Bairds & Co. Ltd., along with the minute books of the Lanarkshire Coalmasters' Association (LCA), stored at GUBA, were a valuable record of the operations of private colliery concerns and of owners' reaction to attempts at collective bargaining on the part of management employees. NAS bore forth the records of the Fife Coal Company Ltd., the minutes of the Coal Owners of Scotland and the extensive records of the NCB, Scottish Division, whilst further NCB sources were found in the NLS. The records of the Ministry of Fuel and Power, Cabinet papers on the coal industry and reports of the Coal Mines Reorganisation Committee were referred to at the PRO. In addition, I was allowed access to the BACM's records and copies of the *BACM News Letter* housed at BACM-TEAM head office in Doncaster and was granted interviews with retired mine management professionals, which was preceded by the distribution and analysis of biographical questionnaires, across Scotland. This augmented interviews carried out previously with a colliery manager, two deputies and over a dozen miners, across Scotland.⁴⁹ Whilst these oral testimonies cannot be seen as a wholly representative frame of mine management professionals by any shape or form, they were useful in gleaning attitudes. The small numbers of mine management professionals- limited by the number of

⁴⁹ Andrew Perchard, 'Bonnie fighters' Class consciousness and solidarity in the Scots coalfield, 1947- 1960', M.Phil. dissertation, Universities of Glasgow and Strathclyde, 2000; A. Perchard, 'Bonnie fighters' Class consciousness and solidarity in the Scots coalfield, 1947-1960', *Race, Gender and Class*, 9, 2, 2002, pp.32-46.

volunteers, age, infirmity and the death of potential respondents-interviewed for this study should not detract from the value of the clear and rich narrative provided by those interviewed. In spite of time and the nuances of a reflective memory, few other primary sources can provide the historian with such an insight into how social actors viewed events. The value of oral history can after all lie in its subjectivity. As one of John Steinbeck's characters notes, 'He's tellin' the truth awright. The truth for him. He wasn't making nothin' up.'⁵⁰ Similarly, Paul Thompson has pointed out that, 'reality is complex and many-sided; and it is a primary merit of oral history that to a much greater extent than most sources it allows the original multiplicity of standpoints to be recreated.'⁵¹ This Thompson has posited as an antidote to the impoverishment of history, through the absence of participants' voices, in the name of subjectivity.⁵² And the need for mining history populated by its actors has been the clarion call of a number of mining historians.⁵³ This thesis uses oral testimony sparingly as an illustration of opinions and an insight into perspectives of nuanced events amongst those who worked in the industry in this period, interspersed with the tapestry of other sources.

Further evidence on the provision of mining education, curriculum and funding of both was found in the records for the now closed Department of Mining, Royal Technical College (latterly University of Strathclyde). All of this was further supported by a huge amount of published material, in the form of the influential reports of the Ministry of Fuel and Power's *Technical Advisory Committee on Coal Mining*, 1945, (the Reid Report), the report and minutes of evidence from the 1938 Royal Commission on Safety

⁵⁰ Quoted in Michael Frisch, 'Oral history and *Hard Times*. A review essay', in Robert Perks and Alistair Thomson, (eds.), *The oral history reader*, (London, 1998), p.33.

⁵¹ Paul Thompson, *The Voice of the Past: Oral History*, 2nd edition, (Oxford, 1988), p.5.

⁵² Ibid.

⁵³ Alan Campbell, 'Exploring Miners' Militancy, 1889- 1966: I', *Historical Studies in Industrial Relations (HSIR)*, 7, (Spring 1999), p. 163; Vic L. Allen, *The militancy of British miners*, (Shipley, 1981), p.xvii.

in Coal Mines (The Rockley Commission), the report of the NCB's advisory committee on organisation, 1955, (The Fleck Report), the NCB's annual accounts and reports, their strategic documents (*Plan for Coal* (1950); *Scotland's Coal Plan* (1955); *Investing in Coal* (1956); and *Revised Plan for Coal* (1959) , the reports of HM Inspectorate of Mines and public enquiry reports into accidents at Valleyfield (1939), Knockshinnoch Castle Colliery (1950), Kames (1957), Auchengeich (1959) and Cardowan Collieries, evidence from the Parliamentary Select Committees on Nationalised Industries and Fuel and Power, along with party political tracts. Along with all of these records, Strathclyde University's Andersonian Library also held the transactions of the National Association of Colliery Managers (NACM), the Mining Institute of Scotland (MioS), the Institution of Mining Engineers (IME) and *The Mining Electrical Engineer/ The Mining Electrical and Mechanical Engineer* (the journal of the Association of Mining Electrical Engineers (AMEE) later reconstituted as the Association of Mining and Mechanical Engineers (AMEME), which provided an invaluable insight into the views of the mine management professions- a resource which has been woefully neglected by historians in general. Other coal industry journals, reviewed at a number of repositories, which have been used include *The Colliery Guardian*, *Coal* and *Coal News* (the NCB's employee papers). A number of useful biographies have also been referred to, not least the autobiography of Jim Bullock (the BACM's second and, arguably, most influential National President), *Them and US*, Lord Robens (Parliamentary Private Secretary at the Ministry of Fuel and Power, 1948- 1951 and NCB Chairman, 1961- 1972), *Ten Year Stint* , the diaries of Hugh Gaitskell, edited by Phillip Williams, (including Gaitskell's period as Minister of Fuel and Power, 1948- 1950), the biography of Emmanuel Shinwell (Minister of Fuel and Power, 1946- 1948), *Conflict without malice*, along with political biographies of Clement Attlee, Hugh Gaitskell, Ernest Bevin, Aneurin Bevan, Herbert Morrison, Stafford Cripps, Winston Churchill, Harold Macmillan and Harold

Wilson.⁵⁴ There also exist a number of company histories, notably, John L. Carvel's history of the Coltness Iron Company Ltd., and Augustus Muir's histories of the Fife Coal Company Ltd. and the Shotts Iron Co. Ltd.

Another valuable published source, used in this study, is Mark Benney's *Charity Main*, one civil servant's account of his wartime visit (1942) to a Durham mining district, which includes lengthy and illuminating discussions with a colliery manager.⁵⁵

The preponderance of such a wealth of resources, which provide evidence of the mine management professions, only further accentuates the dearth of a more comprehensive historiography on them.

⁵⁴ Kenneth Harris, *Attlee*, (London, 1982); Alan Bullock *Ernest Bevin. A biography*, this edition, (London, 2002); Michael Foot, *Aneurin Bevan 1897- 1960*, this collected edition (London, 1997); Brian Brivati, *Hugh Gaitskell*, (London, 1996); Bernard Donoghue and G. W. Jones, *Herbert Morrison. Portrait of a politician*, this edition, (London, 2001); Peter Clarke, *The Cripps Version. The Life of Sir Stafford Cripps 1889- 1952*, this edition, (London, 2003); Martin Gilbert, *Churchill. A Life*, (London, 1991); Alistair Horne, *Harold Macmillan 1957- 1986. Volume II of the official biography*, (Basingstoke, 1989); Ben Pimlott, *Harold Wilson*, (London, 1992); See also, Kenneth O. Morgan, *Labour in Power, 1945- 1951*, (Oxford, 1984); Brian Lapping, *The Labour Government 1964-70*, (London, 1970); Peter Hennessy, *Never Again. Britain 1945- 1951*, (London, 1992); Kenneth O. Morgan, *Britain since 1945. The People's Peace*, (Oxford, 1992); Martin Chick, *Industrial policy in Britain 1945-1951*, (Cambridge, 1998); ; Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51* (London, 1993), pp.46-49; Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951-64. Thirteen wasted years?* , (London, 1998); Nigel Harris, *Competition & the Corporate Society. British Conservatives, the State and Industry 1945- 1964*, (London, 1972).; David Marquand, *The Progressive Dilemma. From Lloyd George to Blair, Second Edition*, (London, 1999); Edmund Dell, *A strange eventful history. Democratic socialism in Britain*, (London, 1999).

⁵⁵ Mark Benney, *Charity Main. A Coalfield Chronicle*, this edition, (Wakefield, 1978).

2

The rise of the mine management professions in Scotland, 1930-1946

One of the many myths of industrial relations in the coalmining industry conjures up the image of colliery managers as local tyrants hand-in-glove with, if not identical to, the hated owners. They are described as *bosses whose* main motivation was to exploit the mineworker.¹

Colliery officials strongly identified with their employers. Their individualistic, pro-employer orientation stemmed from the scattered nature of the coal industry, the small size and heterogeneous nature of the managerial unit at collieries, promotion possibilities which broke down group solidarity and the resistance of the coal-owners to trade-unionism among their staffs, resistance which often took the form of establishing company unions.²

These two observations of the generalised perceptions of colliery managers on the one hand, and behaviour of colliery officials prior to nationalisation on the other hand, provide a fairly comprehensive and accurate assessment of the portrayal of mine management professionals, in particular, colliery managers.

Aims, objectives and historical overview

As the introduction explained, there have been few detailed studies of these groups. This chapter focuses on the further growth and rise to a position of prominence of the mine management professions in the Scottish coal industry in the period 1930- 1946. It will examine the changes in pay, conditions, role and status of colliery managers and the various branches of the mining professions (mines surveyors, mining engineers,

¹ Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', Unpublished Cambridge University Ph.D. thesis, 1990, p.341.

² Brian McCormick, 'Managerial Unionism in the coal industry', *British Journal of Sociology (BJS)*, II, (1960), p.357.

mining electrical and mechanical engineers), and appraise the hypotheses of the two main studies of these groups as set out in the opening quotes. This thesis does not examine the growth of clerks or accountants in the industry who also played an important role in the bureaucratisation of management in the industry. Mine management professionals' role and status within the industry is examined in more detail, through their involvement in production, health and safety and labour relations, in the next chapter.³

The rise of the mine management professions is explained in the context of a gradual historical shift towards salaried professional managers which was further sustained, in this period, by the increase in amalgamations of colliery concerns to create large combines, the technical modernisation of aspects of the industry and the dominance of the more technically progressive combines. This is identified as part of the wider movement towards 'modern industry' and the 'appropriation of the labour process' within the coal industry from the late nineteenth to the late twentieth centuries.⁴ The impact of this on management in Scottish collieries, from

³ Joseph Melling's study provides a critical insight and deterministic explanation of the relationship between these factors, see: Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in Modern Europe: the quest for productivity*, (Cheltenham, 1998), pp.145-173; Whilst Church and Outram provide a more pluralistic explanation of management's role in labour relations, see: Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889- 1966*, (Cambridge, 1998), pp.196-218.

⁴ Karl Marx, *Capital, Volume I*, this edition, (London, 1990), p.492-495; Harry Braverman, *Labor and Monopoly Capital. The Degradation of Work in the Twentieth Century*, (New York, 1974); For impact of mechanisation in mines, see: Joseph Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry, 1900- 1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in modern Europe: the quest for productivity*, (Cheltenham, 1998), pp.145-173; Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in modern Europe*, pp.122-144; J. H. Goldthorpe, 'Technical organisation as a factor in supervisor-worker conflict. Some preliminary observations on a study made in the mining industry', *British Journal of Sociology*, X, 3, (1959); For the impact in Scotland, see: Alexander Renfrew, *Mechanisation and the miner: work, safety and labour relations in the Scottish coal industry, c.1890-1939*, Unpublished University of Strathclyde Ph.D. thesis, 1997; Alan Campbell, 'The social history of the Political conflict in the Scots coalfields, 1910-1939', in Alan Campbell, Nina Fishman

1930-1946, was to vary. In many small concerns, the majority of colliery managers remained little more than 'grieves', with limited supervisory and operational functions, statutory responsibilities but little real power.⁵ In others, including the most advanced concerns, they fulfilled the role of technical managers but rarely with more than a prescribed operational role.

The professionalisation of management in the industry and the bureaucratisation of managerial processes were further accelerated by statutory measures imposed by an increasingly anxious state and finally wartime control measures (from 1942 onwards). These measures and the decision to nationalise the industry, after Labour's election victory of 1945, reflected in equal measure the intransigence of the majority of colliery companies and owners, in responding to industry-devised and statutory attempts to concentrate production in the industry and regulate selling schemes to stop futile domestic competition, and the growing frustration amongst some mining circles (directors from more progressive companies, some mining professionals, miners and mining trade unionists), policymakers (politicians, officials and Ministers) and the public with the attitude of many companies and owners.

The vast majority of colliery companies in Scotland remained smaller concerns than much of the rest of the British coalfield. There was a greater concentration of ownership in Fife in comparison to Lanarkshire and Ayrshire (see later references). In many of these pits, managers and under managers had little discretion either in how they managed their pit or over capital developments. However, managers in larger concerns were also

and David Howell, (eds.), *Miners, Unions and Politics, 1910- 1947*, (Aldershot, 1996), pp.145-174.

⁵ 'Grieve' was a Scots word for farm overseers used by nineteenth century Scottish coal masters to refer to their managers which denoted their limited functions and the feudal nature of the industry in the late eighteenth and early nineteenth centuries Baron F. Duckham, 'The Emergence of the Professional Manager in the Scottish Coal Industry, 1760-1815', *Business History Review*, Volume 43, (1969), pp.21-38.

critical of the interference of senior management. Increasingly, the growth of industrial units and their modernisation produced anomalies for colliery managers, who still retained responsibility for safety in the colliery under the Coal Mines Act (1911), and gave greater power to some mining professionals who reported directly to the Agent or Directors.

Consequently, a colliery manager and under-manager might find their views over-ridden by the plans of a more senior mining engineer. On the other hand, many colliery managers schooled largely in the practical mining were, as one President of the Mining Institute of Scotland was to note, lacking the technical qualifications and skills needed for developing aspects of a modernised mine, and thus could benefit from the advice of a mining professional.⁶

Roy Church and Barry Supple, in their two volumes of the official history of the British coal mining industry covering, between them, the period 1830 to 1946, have suggested that the structure of the British coal industry, between the late nineteenth century and 1946, was far removed from the corporations, which Harold Perkins suggests was prevalent across the British economy, although the Scottish coal industry had the highest proportion of companies run by professional managers rather than owners.⁷ Many British, and Scottish, colliery companies continued to be prime examples of Bernard Elbaum and William Lazonick's criticism of

⁶ David C. Gemmell, 'Presidential address: mining memories', address to the Mining Institute of Scotland, 7 September 1949, *Transactions of the Institution of Mining Engineers* [hereafter *IME*], Vol.64, 1949-50, p.34-38.

⁷ Roy Church with the assistance of Alan Hall and John Kanefsky, *The history of the British coal industry, Volume 3: 1830- 1913: Victorian Pre-eminence* (Oxford, 1986); Barry Supple, *The history of the British coal industry, Volume 4. 1913- 1946: The Political Economy of Decline* (Oxford, 1987) pp.362-366; Peter L. Payne, 'The Economy', in Tom M. Devine and Richard J. Finlay (eds.), *Scotland in the 20th century* (Edinburgh, 1996), p.15; Price Fishback notes a similar trend in US mines by the 1930s noting that, 'Eventually, ownership was separated from management, and the mines became more specialized.', Price V. Fishback, *Soft Coal, Hard Choices. The Economic Welfare of Bituminous Coal Miners, 1890-1930* (New York, 1992), p.49; And Klaus Tenfelde suggests a similar long-term trend across Western Europe, Klaus Tenfelde, 'On the History or Industrial Relations in Mining' in Gerald D. Feldman and Klaus Tenfelde (eds.), *Workers, Owners and Politics in Coal Mining. An International Comparison of Industrial Relations* (Oxford, 1990), pp.2-3; Harold Perkins, *The rise of professional society. England since 1880*, this edition, (London, 1989), pp.299-307.

British industry's 'atomistic, nineteenth-century economic organisation'.⁸ The fact that large Scottish colliery companies, like Wm. Bairds & Co. Ltd/ Bairds and Dalmellington and the Fife Coal Company Ltd., had a distinctive professional management cadre reporting to a Board of Directors and separated from owners, did not necessarily mean, as this chapter shows, that colliery managers and mining professionals in Scottish colliery companies, as a whole, were free from interference in managerial innovation and, even in the large professionally run companies, had much of a say in the funding of capital development projects.⁹ Nevertheless, changes in the capital formation of the industry, company structure, market competition, mining legislation and greater state involvement (in the industry), particularly from 1916 onwards, had a major impact on the demand for mining professionals. This was part of a wider trend, between the wars (in Britain), in the growth of the modern firm and modern management techniques, which required the specialisation of management.¹⁰

In particular, these changes affected the status of colliery managers and the other mining professions (in one way or another), raised their profile and drew attention to the adequacy, or not, of their professional development (qualifications and practical experience). Inevitably this also raises questions for the historian of these groups, as with any other group of employees, about their pay, conditions of employment and relationship

⁸ Bernard Elbaum and William Lazonick (eds.), *The Decline of the British Economy* (Oxford, 1986), pp.2 and 45.

⁹ Up until 1923, Charles Augustus Carlow, the Chairman of the Fife Coal Company Ltd., oversaw the work of each one of the company's twenty-three works committees: Roy Church et al., *The history of the British coal industry, Volume 3.*, p.443; Barry Supple, *The history of the British coal industry, Volume 4.*, pp.404-5.

¹⁰ Leslie Hannah, 'Managerial Innovation and the Rise of the Large-Scale Company in Interwar Britain', *The Economic History Review (EHR)*, 2nd Series, Vol. XXVII, No.2, (May 1974), pp.257-8; See overview of shift to managerial processes in W. R. Garside and H. F. Gospel, 'Employers and Managers: Their Organizational Structure and Changing Industrial Strategies' in Chris J. Wrigley, *A History of British Industrial Relations 1875- 1914*, (Brighton, 1982), pp.99-115.

with their employers, whether Boards of Directors or coal owners (and, latterly, the specific issues which wartime control (1942- 1945) presented). Like other aspects of the coal industry's history and the variations in the local physical conditions in coal mines, generalisations about the Scottish colliery managers, under-managers and the mining professions' behaviours and conditions are difficult to draw, if their characteristics less so. Although colliery managers and mining engineers did (along with some more progressive Directors of colliery companies and coal owners) become more vocal over this period about solutions for the future survival of the coal industry (and, in some cases, openly critical of entrepreneurial *laissez-faire* solutions) and their working conditions within companies, their reliance on the colliery companies and owners (for their livelihood and professional development) and the control the latter exercised over their training, constrained them from taking a more independent stance. They were neither architects nor artificers in their collective destiny, but diligent salarieds who ascended to this role in the wake of historical forces.

I

'Colliers with a collar on' or 'uncrowned kings of the village'? The role and status of the mine management professions¹¹*Pay and terms of service*

Numbers of and information on pay and terms of employment for salaried colliery officials prior to nationalisation are, in general, difficult to glean, although easier amongst colliery managers because of Home Office requirements for their registration under the key safety legislation, the Coal Mines Act 1911.

In 1934, there were 1,535 colliery managers who were certified - those who held a First Class Certificate of Competency required by the Home Office, under the Coal Mines Act 1911 (their obligations under the Coal Mines Act, 1911, and anomalies with their statutory responsibilities, in view of changes in the industry, are examined in chapter three), to run a colliery-covering 2,123 mines at work in British coalfield.¹² Since 1931, the number of colliery managers certificated to run mines had fallen by 126.¹³ This was due, in part, to the longer-term decline in candidates presenting themselves for examination for the First Class Certificate (as well as the Second Class Certificate of Competency required for under-managers) from 737 in 1923 to 287 by 1938, with a similar trend for the Second Class Certificate.¹⁴ It was also attributable to the general depression in the coal

¹¹ Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941-1942, p.32; David C. Gemmell, 'Presidential address: mining memories', address to the Mining Institute of Scotland, 7 September 1949, *Mining Institute of Scotland*, Vol.64, 1949-50, p.37; Sir Andrew Bryan, 'The Manager of Yesterday and Tomorrow', abstract of an address to the National Coal Board (NCB) Summer School, 10 September 1957, *Colliery Guardian* [hereafter CG], 19 September 1957, p.346.

¹² Some of the smaller mines did not need the manager to hold a First Class Certificate: *Transactions of the National Association of Colliery Managers* [hereafter NACM], Vol.XXXI, 1934, pp.21-32; Figures for mines at work in 1934 from the *Colliery Managers' Pocket Book, Almanac and Diary* (London, 1936), p.69.

¹³ NACM, Vol.XXXI, 1934, 19-30.

¹⁴ *IME*, Vol.LX, 1941-1942, p.21.

industry and perception of the decline in the number of job opportunities (there were still more mines than managers, as colliery amalgamations and closures did not outstrip the supply of managers), better opportunities for mining engineers and managers in the colonies, and the aggregately lower and below inflation rises in pay than for other groups of professionals (although substantially higher than the 42 per cent of the population who earned less than £250 per annum in 1938), and poor conditions of employment in the industry.¹⁵

Between 1931 and 1934, the National Association of Colliery Managers (NACM), the professional association for colliery managers, lost 482 members (the majority of the NACM membership lost during this period) from the export areas of Scotland, South Wales and Durham alone, with the highest losses of membership being in the Scottish coalfields where 197 members had relinquished their membership.¹⁶ By 1936, the NACM claimed to have 1,340 members in Britain out of the 1,500 or so certificated colliery managers.¹⁷ One member of the Scottish Branch of the NACM, expressing concern at the scale of the recruitment problem in Scotland, suggested, in a paper to the branch in 1940, that they target Kilmarnock, Bathgate and Dunfermline (a reference to the mining education colleges in those localities suggesting perhaps an attempt to recruit away from the watchful eye of the colliery companies and owners).¹⁸

¹⁵ Harold Perkins, *The rise of professional society. England since 1880*, this edition, (London, 2001), p.308.

¹⁶ NACM, Vol.LXXXI, 1934, p.30.

¹⁷ Deposition from NACM, *Royal Commission on Safety in Coal Mines* [hereafter *Rockley Commission*], *minutes of Evidence*, Volume II: 19-34, (HMSO, 1936), p. 892.

¹⁸ NACM, Vol.LXXXVII, 1940, p.344.

However, the apparent haemorrhage of membership was not exclusively a reflection of the macro-economic state of the industry. It can also be explained by those leaving the industry, because of pay and conditions, and the association, to ensure job security or promotion, due ultimately to employer opposition to collective bargaining (and those professional associations, like the NACM and the Scottish Under Managers Association (SUMA) who attempted to lobby for it). Despite the NACM's claims, in its evidence to the Royal Commission on Safety in Coal Mines (the Rockley Commission), that in no part of the British coalfield were colliery managers discouraged from membership of the NACM, evidence shown later in this chapter suggests that this was not an entirely accurate picture.¹⁹ Given evidence, to follow, of a refusal amongst Scottish coal owners and companies to engage in negotiations with the NACM and evidence of victimisation of managers, along with comparatively stable membership figures for the other professional mining associations, it seems unlikely that personal economies by colliery managers or redundancies accounted for these losses of membership alone. If colliery managers were not overtly discouraged from NACM membership by employers, then they may well have realised that their future and prospects in many companies company depended on them not declaring their NACM credentials.

Average salaries for certificated colliery managers (those holding the First Class Certificate of Competency), in 1913, have been established at £400 per annum.²⁰ If these same estimates are used as a baseline, then they suggest that there was little improvement in the wages of Scottish colliery managers over the next twenty-nine years. In July 1942, the Lanarkshire Coalmasters' Association (LCA) recommended that members increase

¹⁹ *Rockley Commission, minutes of evidence*, Vol. II, A. V. Reis, Q 23,460. Reis also claimed that the NACM limited itself to the discussion of safety matters, which the chapter will show, was a distortion, see Q. 23,451-2.

²⁰ Roy Church, *The history of the British coal industry*, Volume 3, p.463.

colliery managers salaries by 15 per cent to an absolute maximum of £595 5s.²¹ This increase, on the 1913 figure, of 49 per cent, should be viewed against price increases and average salary rises of 56 and 71 per cent respectively, between 1913 and 1938.²² In comparison, between 1931- 1935-7, salaries for engineers, chemists, doctors, dentists and army officers rose by 93 per cent.²³

Scottish colliery managers' below inflation rises in salaries were due in no small part to the repeated defeat of NACM collective claims for its membership throughout the 1920s and 1930s and the assertion and success of employer preference for company bargaining. Colliery employers' opposition to collective wage bargaining is well illustrated by this draft reply, drawn up by Andrew Kirkwood McCosh Jnr, from the LCA's Executive Committee to the Glasgow and District Chamber of Commerce:

He [Mr McCosh] stated that, as the Coal Owners had had considerable experience over a period of years of the effects of National Agreements and political interference with the affairs of the industry, the Association had no hesitation in saying that the handling of wages and hours not only in the coal industry but in other industries on a National basis had a most detrimental effect on the industry in the district.²⁴

In the face of NACM popularity in 1920, Scottish owners had agreed to meet with the NACM to discuss colliery managers' salaries and superannuation, despite stiff opposition from some quarters, notably amongst some of the Lanarkshire owners.²⁵ However, despite this and the

²¹ Lanarkshire Coalmasters' Association [hereafter LCA], Minute book, No.19, 13 July 1942, Glasgow University Business Archive (GUBA), UGD 159/1/19.

²² Harold Perkins, *The rise of professional society. England since 1880*, this edition, (London, 2001), pp.270-1.

²³ *Ibid*, p.270.

²⁴ Andrew K. McCosh Jnr. was Director of Wm. Bairds & Co. Ltd. For more details of McCosh see Robert D. Corrins, 'Andrew Kirkwood McCosh Jnr' in Checkland, Sydney, G., and Slaven, Anthony, (eds.), *Directory of Business Biography Volume I, 1860- 1960* (Aberdeen, 1986), pp.118-120; LCA, Minute book, No.17, 22 September 1931, GUBA, UGD 159/1/17.

²⁵ Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', in J. Melling and Alan McKinlay (eds.) *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), p.159.

Mining Association of Great Britain's development of a policy for representation of and superannuation for colliery managers, West of Scotland coal owners continued to bitterly oppose these moves.²⁶ This was also reflected in the owners' negotiations with the newly formed Scottish Under-Managers' Association (SUMA).²⁷ By 1922, with the defeat of the miners in the Lockout of the previous year, the owners were able to force through wage reductions for managers and under-managers.²⁸ Through the late summer months of 1931, the LCA imposed further wage reductions on under-managers and oversmen, refusing to even meet with their representatives.²⁹ They also called a meeting with the Coal Owner Members of the Conciliation Board to insist that, 'coal owners should be left free to deal with their own officials.'³⁰ Nevertheless, perusal of the minutes of the Coal Owners of Scotland between 1934-1938 does suggest an East- West divide on these issues, with West of Scotland coal owners apparently far more belligerent on wages and labour issues than their East coast counterparts.³¹ This may be attributable to a number of factors- age of collieries, increased competition (because of the proliferation of small firms and consequently their reliance on extracting surplus-value from labour and staff in local agreements) and the paucity of new reserves in the West.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid; LCA, Minute book, No.17, 22 September 1931, GUBA, UGD 159/1/17.

²⁹ LCA, Minute book, No.17, 24 August and 22 September 1931, GUBA, UGD 159/1/17.

³⁰ Ibid.

³¹ In particular, the contrast between the views of Andrew K. McCosh Jnr. and Charles A. Carlow: Coal Owners of Scotland, minutes, 1934-1938, National Archives of Scotland (NAS), CB 7/1/7.

Coal owner attachment to localised bargaining, and exploitation of attendant weaknesses in colliery officials' isolated bargaining position, was not confined to Scotland, as Zweiniger- Bargielowska's studies of South Wales show.³² In one South Wales colliery, employing 150 men, the colliery manager was being paid less than a fireman.³³

Scottish owners also rejected any form of collective agreement on colliery managers' superannuation claims, although, a request, in January 1937, from the NACM Scottish Branch for a meeting with coal owners to discuss superannuation of colliery managers, was felt by at least one member of the LCA Executive Committee to merit favourable consideration.³⁴ In February 1939, in response to a letter from the Central Committee of the MAGB, announcing that the MAGB had agreed with the NACM to set up a joint advisory committee to investigate drawing up a model pension plan scheme for managers, the LCA snubbed the MAGB's invitation to send a representative and sought the views of other Scottish coal owners to consolidate their position.³⁵ Inevitably, attempts to seek a national solution collapsed and the matter was referred to the individual colliery companies.³⁶ In South Wales, by 1941, 70 per cent of colliery companies operated superannuation schemes, although a meeting a year later revealed that some of the largest combines did not.³⁷

Ina Zweiniger-Bargielowska's research on the South Wales coal industry suggests that salaried colliery officials were also reliant in the event of an

³² Ina Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', *Business History*, Vol.34, No.4, (1992), pp.60-62; Ina Maria Zweiniger-Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', pp.351-2.

³³ Ibid.

³⁴ LCA, Minute book, No.18, 25 January 1937, UGD 159/1/18.

³⁵ LCA, Minute book, No.18, 27 February 1939, UGD 159/1/19.

³⁶ Although Sir Evan Williams did recommend that colliery companies engage in dialogue with the NACM: LCA, Minute book, No.19, 28 August 1939, UGD 159/1/19.

³⁷ Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.353.

occupational injury or disease on *ex-gratia* payments from their employers.³⁸ Scottish colliery employers, particularly in the West of Scotland, vigorously and effectively pursued a policy of localised bargaining with their management employees over this period. It was a policy that profited employers but left colliery officials with depressed wages and patchy agreements on superannuation. It is quite possible that this was more actively pursued in the Lanarkshire coalfields because of the proliferation of small companies, who relied on extracting their surplus-value from their wage-labour, whether that be white or blue-collar. Furthermore, colliery staffs lacked cohesion with which to challenge employers. Employers, for their part, at best discouraged what they saw as the intrusion into terms and conditions of service of the NACM and SUMA.

In contrast to employers' apparent thrift when it came to their employees' wage claims, using Church's index for coal company directors' fees, it is worth noting that the Coltness Iron Company Ltd. increased fees to its directors by 144 per cent between 1913 and 1936.³⁹ Between 1933 and 1936 alone, fee payments to Coltness directors increased by £400, rising from £3,600 to £4,000 and, between 1933 and 1939, the company's profits, after dividend payments, rose from £216,587 3s 8d to £415,369 0s 1d.⁴⁰ Over the period 1930- 1938, Fife Coal Company Ltd. also profits fared well with returns, after dividend payments and other expenditure, never falling below £152,000 annually.⁴¹ With this in mind, it is interesting to note, in the climate of wage cuts for salaried officials and miners over this period, the comments of Sir Adam Nimmo to a meeting of the Coal Owners of Scotland in Scotland:

³⁸ Ina Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', p.63.

³⁹ Coltness Iron Company Ltd., reports, 1933-1940, GUBA, UGD 109/3/1/1; Roy Church, *The history of the British coal industry, Volume 3*, p.463.

⁴⁰ Coltness Iron Company Ltd., reports, 1933-1940, GUBA, UGD 109/3/1/1.

⁴¹ Fife Coal Company Ltd, private journals, 1916-1957, December 1930, NAS, CB3; FCC, private journals, December 1938, NAS, CB3.

He desired the Workman to appreciate the Owners' policy and to acknowledge that during the years of depression the Owners, while maintaining the Minimum Wage, had not secured their due proportion of income, which was evidenced by the load of deficiencies which had accumulated. Deficiencies represented real losses to the Owners and made the struggle by the Collieries, particularly the average Collieries, very severe indeed during the years of depression.⁴²

Salaries, conditions and numbers of mining engineers, mining surveyors, mining electrical and mechanical engineers employed were much smaller than colliery managers.⁴³ In the case of mining engineers, the fact that they were employed as colliery managers, Agents (who earned, according to Church's estimates, about double the salary of colliery managers) and Directors (see Coltness figures) gives a better idea of their salaries.⁴⁴ However figures of salaries for these groups are not readily available even from the records of their professional associations, the Institution of Mining Engineers (IME), the Mining Institute of Scotland and the Association of Mining Electrical Engineers (AMEE).⁴⁵ In contrast to the NACM, membership of the Mining Institute of Scotland increased between 1934 and 1936 from 526 to 590 members.⁴⁶ AMEE had 479 members in the three Scottish branches as of March 1936 and the Colliery Under-Managers of Great Britain represented around 30 per cent of the 1,250 colliery under-managers at work in British mines.⁴⁷ The relatively stable membership

⁴² Sir Adam Nimmo, son of Coal Master, James Nimmo: Chairman & Managing Director of Jas. Nimmo & Co. Ltd.; Chairman of Fife Coal Company Ltd.; One-time Chairman of the Lothian, Lanarkshire and Scottish coal owners associations; Described by the Asst. Secretary to the Cabinet as, 'one of the greatest stumbling blocks to peace' in the 1926 strike. For further detail see: Maurice W. Kirby and Sheila Hamilton, 'Sir Adam Nimmo', in Anthony Slaven and Sidney G. Checkland (eds.), *Directory of Business Biography Volume I, 1860- 1960*, pp.57-59; Coal Owners of Scotland, minutes, 9 November 1936, NAS, CB7/1/7.

⁴³ Church estimates that the ratio of professional mining engineers to mines rose from 1 engineer to every 2 mines in 1890 to 1.2 engineers to every mine by 1914: Roy Church., *A history of the British coal industry, Volume 3*, p.429.

⁴⁴ Ibid, p.463-4 (see footnote 6 on p.463 in Church et al's text as well).

⁴⁵ After 1942, with the incorporation of mechanical engineers into the association, AMEE became the Association of Mining Electrical and Mechanical Engineers (AMEME).

⁴⁶ *Transactions of the Mining Institute of Scotland* [hereafter *Mining Institute of Scotland*], Vol. LV, 1934- 1935, p.2; *Mining Institute of Scotland*, Vol. LVII, 1936- 1937, List of members, pp. B- 28.

⁴⁷ AMEE membership at Scottish Branches stood at 62 for Fife; 117 for Lothians; and 300 for the West of Scotland and Ayrshire. Some under-managers in the North of England were

tallies of the professional associations were in marked contrast respectively to the low density and disparate membership of under managers' representative bodies and the high drop in membership of the NACM, particularly in Scotland, during the 1930s.

This leads to the plausible conclusion, given employers' behaviour over salaries and conditions of employment and examples of victimisation (despite the NACM's contention that they did not represent managers' grievances if they were dismissed), that the decline of membership in both the NACM and CUMGB was attributable to colliery managements' fear of victimisation by their employer.⁴⁸ By and large, coal employers' treatment of colliery officials, contrasts with the tendency of some large West of Scotland engineering and shipbuilding employers who groomed their supervisory and management officials.⁴⁹

In brief, colliery managers and under-managers, in particular, suffered from stagnated wages and, apart from perquisites ranging from housing to a Christmas turkey, few companies operated superannuation schemes. Scottish coal employers, particularly in the West, refused to engage in collective bargaining with managers or under-managers' professional associations. As McCormick has suggested, colliery management remained very isolated. The conditions of the various branches of the mining professions were very variable, ranging from senior mining engineers serving as Directors of companies to electrical engineers or surveyors acting either in a consultancy capacity or, more often, offering

represented by the Northern Officials' Association or the National Federation of Colliery Officials (see Roberts, Q.18, 917, and Mr. John Ritson, Q.19,828-19,831 and 19,875-19,882): *Rockley Commission, minutes of evidence*, Vol. II, Major E. Ivor David (AMEE), Submission to Rockley Commission and Mr. Arthur Roberts, Colliery Under-Managers of Great Britain, Q. 18, 916-7.

⁴⁸ Reis in his evidence to the Rockley Commission claimed that though they defended managers, they did not take up a manager's grievances if dismissed because 'they were not a trade union', see *Rockley Commission, minutes of evidence*, Reis, Q. 23,451-2.

⁴⁹ See: Joseph Melling, 'Non-Commissioned Officers': British employers and their supervisory workers, 1880-1920', *Social History*, Vol. 5, No.2, (May 1980), pp.208-211.

their technical perspective to the company Agent, General Works Manager or Board of Directors.

Professional development of the mine management professions

In Scotland, over ninety per cent of managers were 'drawn from the ranks of miners'.⁵⁰ The two managers (one of whom started working in the industry in 1937), interviewed for this thesis and prior research, both came from mining families and worked as miners, whilst taking night classes, before becoming junior officials and then managers.⁵¹ This was also common, albeit to a lesser degree, elsewhere in the British coalfields.⁵² These 'colliers with a collar on', as one Scottish mining engineer described himself and his colleagues, studied part-time at mining schools and the mining departments of universities (many at their own expense), and gained their practical experience by working their managerial apprenticeship as mineworkers, junior officials, under-managers and then onto a position as a manager.⁵³ Smaller numbers were attracted from those

⁵⁰W. D. Stewart, *Mines, Machines and Men* (London, 1935), p.54 cited in Stephanie Tailby, 'Labour utilization and labour management in the British coalmining industry', Unpublished Warwick University Ph.D. thesis, 1990, p.298; This is confirmed in Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, p.24.

⁵¹ Interviews with George Gillespie, Newtongrange, East Lothian, 14 August 1999, and Bill Marshall, Kirkcaldy, Fife, 29 May 2004. David Gemmell, President of the Mining Institute of Scotland, 1949-1950, worked as 'a collier's boy' and worked his way to manager, see: David C. Gemmell, 'Presidential address: mining memories', address to the Mining Institute of Scotland, 7 September 1949, *IME*, Vol.64, 1949-50, p.36.

⁵² Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.345; See also, Jim Bullock, *Them and US* (London, 1972).

⁵³ Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.24 and 32; Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.345: two illustrations of this were David Gemmell, President of the Mining Institute of Scotland, 1949-1950, who started as 'a collier's boy' and worked his way to manager, and John C. George, who similarly started underground at 14, served as a colliery manager and Mining Agent for the Alloa Coal Company between 1926 and 1938, followed by his appointment as General Manager of the New Cumnock Collieries and eventually becoming Parliamentary Secretary at the Ministry of Power in 1960, see: David C. Gemmell, 'Presidential address: mining memories', address to the Mining Institute of Scotland, 7 September 1949, *IME*, Vol.64, 1949-50, p.36; Robert L. Carvel, *One hundred years of coal. The*

who had carried out their apprenticeships as mines surveyors (after leaving secondary schools later with their leaving certificate of general education) and studied part-time to get their certificate of competency and from an even smaller group of mining engineering graduates and diplomates who had to put in at least three years of practical training and experience in a mine.⁵⁴

Candidates sitting for the Home Office certificates of competency and for the Institution of Mining Engineers (IME), who were not graduates or diplomates of mining engineering, were required to pass examinations in maths, English, the physical sciences, mechanics, principles of mining, mechanical and electrical engineering in collieries, surveying and mining geology, fuel technology and coal preparation.⁵⁵ Whilst all colliery mechanical and electrical engineers had been trained either in mining schools or the mining departments of universities, there was no statutory obligation for them to be certificated along the lines of colliery managers.⁵⁶ Similarly, mines surveyors underwent an apprenticeship, which combined vocational studies and practical experience, but similarly were not required to hold a statutory certificate of competency.⁵⁷

However, the mining schools and mining departments of universities, where apprentices for the managerial and professional grades (as well as

history of the Alloa Coal Company, (Edinburgh, 1944), pp.130 and 160; *Colliery Year Book & Coal Trades Directory*, (1960)..

⁵⁴ Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.24; Alistair Moore, a retired mines surveyor (who joined the industry after nationalisation) interviewed as part of this research, confirmed that a large number of his cohort of apprentice surveyors took this route: Interview with Alistair Moore, Bo'ness, West Lothian, 12 March 2004.

⁵⁵ Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.24-27; 'Second Report of Committee on qualifications and training for mining engineers', *IME*, Vol.CIV, 1944-45, pp.371-391.

⁵⁶ *Ibid*, *Rockley Commission, minutes of evidence*, Major E. Ivor David, Q 21,244 and Q.21,250-21,254.

⁵⁷ *Ibid*, submission to Rockley Commission, point. 71, p.896.

for junior officials) were trained, were also all dependent for funding on the coal owners and thus owners were able to determine curriculum, organisation and research (see references to silicosis and pneumoconiosis in chapter three) conducted in these establishments.⁵⁸ For example, in the West of Scotland, the mining departments of both the Royal Technical College and the University of Glasgow were heavily reliant on coal owner, James Dixon's funding of their running costs.⁵⁹ Ultimately, it was pressure from the West of Scotland coal owners, which brought about the amalgamation of the two departments.⁶⁰ In the East of Scotland, coal owner, James Hood, funded the Chairs of both the University of Edinburgh and Heriot Watt College's mining departments.⁶¹ Similarly, in Fife, all the major mining schools were reliant on the Fife and Clackmannanshire Owners' Association and, in particular, the contributions of Charles Augustus Carlow, of the Fife Coal Company.⁶² Furthermore, whilst the 1923 Miners Welfare Fund had extracted money from the coal owners towards the support of miners studying at university, those wishing to enter management were largely reliant on the

⁵⁸ Professor A. M. Bryan, 'Mining education in the West of Scotland', CG, 7 September 1934, pp.427-431; LCA, Minute book, No.17, 12 December 1930 and 24 June 1931, GUBA, UGD159/1/17; LCA, Minute book, No.18, 28 September 1937, GUBA, UGD 159/1/18.

⁵⁹ Letter from Sir Adam Nimmo to Sir Donald MacAlistair, Vice Principal, University of Glasgow, 17 April 1920; Letter from Sir Adam Nimmo to Professor Dron, Department of Mining, University of Glasgow, 7 March 1929, University of Strathclyde, Department of Petroleum and Mining Engineering, E11/8/1; Professor A. M. Bryan, 'Mining education in the West of Scotland', CG, 7 September 1934, pp.427-431; LCA, Minute book, No.17, 12 December 1930 and 24 June 1931, GUBA), UGD159/1/17; LCA, Minute book, No.18, 28 September 1937, GUBA, UGD 159/1/18.

⁶⁰ James Archibald Hood, Chairman of the Lothian Coal Company. For more detail, see: Michael S. Cotterill, 'James Archibald Hood' in S. G. Checkland and A. Slaven, (eds.), *Directory of Business Biography Volume I, 1860- 1960*, pp.42-45; Letter from Sir Adam Nimmo to Sir Donald MacAlistair, Vice Principal, University of Glasgow, 17 April 1920; Letter from Sir Adam Nimmo to Professor Dron, Department of Mining, University of Glasgow, 7 March 1929, University of Strathclyde, Department of Petroleum and Mining Engineering, E11/8/1; Professor A. M. Bryan, 'Mining education in the West of Scotland', CG, 7 September 1934, pp.427-431; LCA, Minute book, No.17, 12 December 1930 and 24 June 1931, GUBA, UGD159/1/17; LCA, Minute book, No.18, 28 September 1937, GUBA, UGD 159/1/18.

⁶¹ Miners' welfare and mining education, University of Strathclyde, Dept. of Petroleum and Mining Engineering, E11/8/2-6.

⁶² Charles Augustus Carlow, Chairman of the Fife Coal Company Ltd. Augustus Muir, *The Fife Coal Company Limited. A Short History*, (Leven, 1952), p.112.

scant funding which most owners or colliery companies were reluctant to give.⁶³

Some of the more progressive colliery companies offered scholarship schemes. The Fife Coal Company, for example, was at the forefront of developments, both in Scotland and Britain, in its provision of classes for miners, officials and managers (both appointed and aspirant) and of its adoption of a university scholarship scheme for employees.⁶⁴ Between 1934 and 1944, thirty-five Fife Coal Company employees were awarded the First Class Certificate of Competency; nineteen, the Second Class Certificate; five, a B.Sc. in Mining (all with first class honours); and one, a Mining Diploma- all of which were either wholly funded or financially supported by the company in some form of study entitlement.⁶⁵ By 1940, the Ashington Coal Company in Northumberland had put 500-600 employees through their scholarship scheme.⁶⁶ In contrast, the Lanarkshire and Ayrshire coal owners' associations finally agreed in the 1940s, at the proposal of Sir A. J.C. Huddleston of the Royal Technical College (RTC), Glasgow, to reimburse the travelling and maintenance costs for employees undergoing management training at both RTC and Heriot Watt College.⁶⁷

Despite the schemes offered by progressive companies, the belated schemes of the LCA and the Ayrshire coal owners, coming some time after the Royal Commission on Safety's criticisms of colliery companies and owners for their failure to set up scholarship schemes, appear to have been

⁶³ *Report of the Committee appointed by the University Grants Committee on the Miners' Welfare Fund*, (HMSO, 1923), pp.14-15; *The Mining Electrical Engineer* (journal of the Association of Mining Electrical Engineers [AMEE], Vol. XVI, No.182, November 1935, p.149.

⁶⁴ *Mining Institute of Scotland*, Vol. LXII, 1946-1947, pp.45-48.

⁶⁵ *Ibid*, p.48.

⁶⁶ *NACM*, Vol.XXXVII, 1940, p.29.

⁶⁷ LCA, 25 November 1942, No.19, GUBA, UGD 159/1/19; LCA, 29 April 1946, No.20, GUBA, UGD 159/1/20.

very much the norm.⁶⁸ The lack of adequately trained officials, and the failure of the colliery companies to invest in their mine management employees, was the cause of much concern to the Divisional Inspector for Mines in Scotland by the late 1930s, as this extract from his 1938 report shows:

Colliery companies might do more to attract young men of good education to the profession and to encourage attendance at classes at university or college centres by offering small financial grants to cover travelling expenses and fees, and by so arranging the work of students that regular attendance at classes is possible. Where students have to change from day to back shift at intervals, regular attendance is impossible. The day is fast approaching when only men with sound academic and technical as well as practical training will be adequate to fill the higher posts in the industry and suitable candidates for these posts are undoubtedly becoming very scarce.⁶⁹

Subsidised formal programmes of provision of mining education and training, either for in-service or for aspirant colliery officials, certainly came nowhere near the formal rigours of the German mining education schools, the 'Bergschulen', which had been set up in the German mining areas in the late nineteenth century, which may explain one of the pronounced advantages the German industry in the Ruhr had over its British counterpart.⁷⁰ However, it would appear that the British coal industry was not alone in its tardiness to train officials. One historian of the US bituminous coalfields notes that up until 1918, 'many superintendents gained their positions by working their way up through the ranks from pick miner to foreman to superintendent', and that, with the gradual replacement of owner-management, 'collegiate or specialized training became more important than on-the-job training'.⁷¹ In Britain,

⁶⁸ *Rockley Commission, report, 1938, (Cmd. 5890), p.162.*

⁶⁹ *The Mines Department, Reports of H.M. Inspectorate of Mines. Scotland Division, 1938, p.82; See also Rockley Commission, report, pp.160-190.*

⁷⁰ *Stephanie Tailby, 'Labour utilization and labour management in the British Coalmining Industry, 1900-1940', p.297; 'The qualifications of colliery officials.- II.', CG, 12 September 1930, p.959.*

⁷¹ *As in Scotland, most mine superintendents in US bituminous mines were drawn from the ranks of foreman and ultimately miners, see: Price V. Fishback, Soft Coal, Hard Choices. The Economic Welfare of Bituminous Coal Miners, 1890-1930, p.49.*

there was also increasing criticism throughout this period both inside and from outwith the industry of the adequacy of the certificate of competency, given technological advances, for running a colliery, the paucity of practical mining offered by university mining departments, and the general education of colliery managers and mining engineers.⁷²

Thus the mass of Scottish colliery management was largely practically trained with a basic education in the mining disciplines. Subsidised study and well organised career development paths and continuous professional development schemes were limited to a few progressive colliery concerns, most notably the Fife Coal Company, whilst the majority of managers were forced to pay for their own professional education. The outlook of mining education departments in universities and mining schools and the curriculum was heavily influenced by colliery employers because of mining education providers' reliance on the latter for funding.

Status and role of colliery managers and the mining professions

The status and role of colliery managers and under-managers, as with junior officials, remained ambiguous. For, whilst they were held responsible by statute for health and safety at the colliery, under the Coal Mines Act 1911, in reality, health and safety, labour relations and production were, in the majority of colliery concerns, determined by the management hierarchy of company Agents, Directors or owners, placing colliery management in the same unenviable position which Melling ascribed to supervisors in other sections of industry:

⁷² Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.21-37; *Rockley Commission, report*, pp.160-206; *NACM*, Vol. XXXVII, 1940, pp.33 and 419-423; *IME*, Vol. LX, 1943-44, pp. 95-98 and 126; *The Mining Electrical Engineer*, Vol.XXII, No.251, August 1941, p.25; *LCA*, 24 June 1931, No.17, GUBA, UGD 159/1/17.

The supervisor is caught between the demands for maximum output and the need to maintain social relations with those under him, between accumulation and legitimation.⁷³

Concurrently, the position of mines surveyors, mining engineers and mining electrical and mechanical engineers became increasingly important with the increase in mechanisation and changes in mining techniques (and, in some cases, underground layout). In a speech to the Mining Institute of Scotland in 1941, Andrew M. Bryan outlined the changes to the role and duties of colliery managers, concluding that the occupational standards required in modern management were, 'formidable, and, despite Teutonic claims, the age of supermen has not yet arrived.'⁷⁴

However changes in the scope and scale of colliery operations, the increased burden on colliery managers, and the shortfall between managers' training, statutory responsibilities and mining practice in the modern mine had been identified as a growing problem for some time. For example, the Divisional Inspector for Mines in Scotland remarked, in 1922, that demands on managers were changing rapidly, with advances in mining techniques, and that consequently provisions in the Coal Mines Act, 1911, were increasingly becoming overtaken by developments in the industry, placing a mounting strain on colliery management.⁷⁵

The significance and influence of Bryan's statement, both at the time and for the future, from a man of his stature in the mining industry and

⁷³ Joseph Melling, 'Non-Commissioned Officers': British employers and their supervisory workers, 1880-1920', *Social History*, Vol.5, No.2, (May 1980), p.191.

⁷⁴ Andrew (later Sir) M. Bryan: HM Inspector of Mines, 1920- 1932; Professor of Mining at Royal Technical College and University of Glasgow, 1932- 1939; Deputy Director of Mining Supplies, Mines Department, 1939- 1940; General Manager and Managing Director, Shotts Iron Co. Ltd., 1940-1944; Group Production Engineer, Scotland Region, Ministry of Fuel and Power, 1944- 1945; Chief Inspector of Mines, 1947; National Coal Board member, 1951-1956; Past President of the NACM, BACM IME and Mining Institute of Scotland: Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.23-24.

⁷⁵ *Rockley Commission, minutes of evidence*, deposition of Colliery Under-Managers of Great Britain, point 8, p.702.

amongst the mining professions should not be underestimated. It was also reinforced by examples of accidents, which arose, in part, from the scarcity of officials (see chapter three). Furthermore, Bryan's comments reiterated the NACM's deposition to the Rockley Commission.⁷⁶ His views were also reflected in the comments of a growing number of professional managers of stature, with many Scots, such as Charles Carlow Reid and Dr William Reid, amongst them, who were setting the foundations for the complete professionalisation of the industry within large combines and would be central to the development of the mine management professions in the nationalised industry.⁷⁷ These comments should be seen as part of a longer-term public debate, in the fora of the professional associations, about the future shape and outlook of the mine management professions, which continued well into the 1960s (see chapter four).

There were, however, only a few Scottish colliery companies, in this period, which operated with expert colliery management teams.

However, those companies that did develop qualified and specialised management cadres, namely some of the large public limited colliery companies, were also those that dominated their respective coalfields. It was no coincidence that the Boards of these companies and their operations were increasingly dominated by experienced mining engineers of note: William H. Telfer; Robert L. Angus; Charles C. Reid; Andrew M. Bryan.⁷⁸ The proportion of market share in Scottish coal output gives

⁷⁶ Ibid, deposition of the NACM, points 15-33, pp.892-3.

⁷⁷ (Sir) Charles Reid was one of Britain's foremost mining engineers who became Managing Director of the Fife Coal Company Ltd., chaired the famous Technical Advisory Committee of Coal Mining (1945) and became an NCB Board member. Dr William Reid became the Fife Coal Company's General Works Manager and later the Deputy Chairman of the NCB, Scottish Division, and later Chairman of the Northern (and then Durham) Division). For details of both, see: A. Muir, *The Fife Coal Company Ltd.*: See an account of Charles C. Reid's broadcast on BBC Scotland: 'The future of the mines: The Scottish coal industry', CG, 26 January 1934, p.165; For comments of Dr. William Reid see: *IME*, Vol.LX, 1943-1944, pp.21-37.

⁷⁸ W. H. Telfer was the General Manager and later Director of the Coltness Iron Company Ltd.. R. L. Angus was Director and Chairman of Bairds and Dalmellington Ltd. For details of

some indication of the dominance of these companies and of company structure in the different parts of the Scots coalfields. By 1930, twenty firms controlled seventy-five per cent of the output in the Scottish coalfield.⁷⁹ In comparison, twenty-eight companies accounted for 90 per cent of coal tonnage in Yorkshire, whilst twenty-four firms in South Wales, twenty-one in Durham and seventeen in Northumberland controlled around 90 per cent of output.⁸⁰ Scottish coal output in 1934 stood at 31,332,648 tons produced by 370 working mines with the majority of output coming from the twenty largest firms.⁸¹ In contrast, 99 million tons, of the Ruhr coalfield's annual output of 110 million tons, was produced by twenty colliery concerns, and seventeen colliery firms controlled all of Poland's 70.2 million tons of output.⁸²

Larger collieries increasingly dominated the Scottish and British coal industries, as a result of commercial takeovers and statutory measures to reorganise the industry, although there was still a larger proliferation of smaller units in the Scottish coalfields, as the extensive literature on this subject illustrates.⁸³

both: R. D. Corrins, 'Robert Lawrence Angus' in S. G. Checkland and A. Slaven, (eds.), *Directory of Business Biography Volume I, 1860-1960*, pp.18-20; A. Slaven, 'William Hamilton Telfer', in S. G. Checkland and A. Slaven, (eds.), *Directory of Business Biography Volume I, 1860-1960*, pp.67-70; John L. Carvel, *The Coltness Iron Company. A study in private enterprise* (Edinburgh, 1948); Augustus Muir, *The Fife Coal Company Ltd. A short history* (Leven, 1952); Letter from Robert L. Angus Esq. to the Board of Bairds and Dalmellington Co. Ltd, Bairds and Dalmellington Co. Ltd., Development schemes, 1937-1942, GUBA, UGD 164/3/3/9.

⁷⁹ Neil Buxton, 'Entrepreneurial efficiency in the British Coal Industry between the Wars'. *Economic History Review*, (December 1970), 23, 3, p.488.

⁸⁰ Neil Buxton, 'Entrepreneurial efficiency in the British Coal Industry between the Wars', p.488.

⁸¹ *The Colliery Manager's Pocket Book, Almanac and Diary*, 1936; Department of Mines, *Reports of H.M. Inspectorate of Mines, Scotland Division*, 1935, p.5.

⁸² Ministry of Fuel and Power, *Report of the Technical Advisory Committee on Coal Mining* [hereafter *Reid Report*], 1945, (Cmd. 6610), pp. 16-23; *The Colliery Guardian*, January 26, 1934, p. 165; *The Colliery Managers' Pocket Book, Almanac and Diary*, 1936, p.74..

⁸³ For example, the Fife Coal Company controlled seventy-five per cent of output in the Fife coalfields, twenty companies controlled seventy-five per cent of output in Ayrshire and four companies controlled one third of the tonnage in Lanarkshire in 1930. By 1935, William Baird & Co. Ltd and Bairds and Dalmellington, and the Fife Coal Company Ltd. were two of the largest combines in the British coalfield producing between them eight million tons of coal annually. By 1938-9, the four largest Scottish combines produced 35 per cent, whilst Bairds &

Company structure, and thus the context in which colliery managers and other mining professionals operated, varied enormously even between the large colliery concerns. For example, the Fife Coal Company Ltd. and Bairds and Dalmellington operated very centralised structures, whilst the Coltness Iron Co. Ltd. operated much of their control of day-to-day production through subsidiaries (see figures 1-3).⁸⁴

These amalgamations and concentration of production were not always well received amongst the mining professions, and by colliery managers in particular, for a number of reasons (including concerns about their tenure, status and role).⁸⁵ In an already uncertain employment situation, colliery managers were deeply concerned about their livelihood. Those managers who had been used to working for small colliery concerns were anxious about their status under the hierarchies in large combines. Furthermore, the modernisation of production raised a host of problems for the manager not least the fact that whilst he retained statutory responsibility for safety

Dalmellington alone accounted for 12 per cent, of Scotland's output. Supple notes that the growth of large concerns occurred at the expense of medium rather than smaller concerns. Despite the perceived shortcomings of the Coal Mines Act 1930 it, and to a lesser extent the Coal Mining Industry Act 1926, partly contributed to the fairly extensive reorganisation of the industry. Between 1926 and 1938, 101 collieries were involved in amalgamations, with 15 of these in the worst years of the depression. Although the nationalisation of coal reserves, under the Coal Act 1938, considerably speeded up the process of amalgamations. P B. Long, 'The Economic and Social History of the Scottish Coal Industry, 1925- 1939, with particular reference to Industrial Relations', unpublished University of Strathclyde Ph.D. thesis, 1978, p.82; A. Slaven, *The development of the West of Scotland, 1750-1960* (London, 1975), p.197; Barry Supple, *The history of the British coal industry, Volume 4*, pp. 303-9, 351-8, 405, 409, and 608-9; Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry'. *Business History*, 62, (1988), pp.1-34; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947'. *Business History*, Volume 38, 2, (1995), pp.55-80; Augustus Muir, *The Fife Coal Company Ltd. A short history* (Leven, 1952), pp.59- 62; Roy Church., *The history of the British coal industry, Volume 3.*, pp.434-7; Ben Fine, *The Coal Question*, pp.22-25; Reid Report, pp. 16-23.

⁸⁴ T. Boyns and J. Wale, 'The Development of the Management Information Systems in the British Coal Industry, c.1880-1947', pp.66-68; A. Muir, *The Fife Coal Company Ltd.*, p.118; Coltness Iron Company Ltd. Printed balance sheets, 1906- 1946. GUBA, UGD 109/3/1/1; various references; John L. Carvel, *The Coltness Iron Company*, pp.193-5; Barry Supple, *The history of the British coal industry, Volume 4*, pp.404-5.

⁸⁵ For examples: NACM (Scottish Branch) Vol. XXX, 1933, pp.414-5; NACM (Scottish Branch), Vol. XXXI, 1934, pp.444-456; NACM, Vol. XXXVII, 1940, pp.34-7

in the pit, often production policy, which might affect it, was determined centrally.⁸⁶ The following extract of a speech, from a leading light in the national executive of the NACM throughout the late 1930s and early 1940s, Captain Stanley Walton-Brown, is an expression of just these sort of misgivings:

When there was a proposition to be put up, it was good to be able to put it before the individual owner... But when they came to an organisation with a large number on the board, the technical man appearing before was going to be exceedingly fortunate if he had not a hole shot in all his proposals. He himself had the good fortune to work for an individual coalowner who did not trouble his experts too much, taking the view that he did pick out a proposal he might pick out the wrong one, but if he let the technical man get on with the lot and there was a good one then he was bound to get it right.⁸⁷

Colliery managers, including Scottish colliery managers, had voiced concerns about the changing role of colliery management in the face of company amalgamations for some time before Walton-Brown's comments.⁸⁸ Although, as the President of the Scottish Branch of the NACM, 1932- 1933, Peter Burt, declared:

While a result of such arrangements the modern manager had lost some of his individuality, he was still the person responsible for the safe conduct of the mine under his charge. No doubt his responsibilities had grown manifold as the result of increasing legislation, while the speeding up of modern mining practice had called for a wider engineering knowledge... than in the past.⁸⁹

⁸⁶ See references in chapter three to conflict over the role of mining and mining electrical and mechanical engineers, and mines surveyors in decisions which interfered with colliery managers' statutory obligations: *Rockley Commission, report*, pp. 72, 170 and 177-8.

⁸⁷ Captain (later Major) Stanley Walton-Brown: Manager of Seghill Colliery, Northumberland, 1914-1928; Agent, General Manager, Director and Managing Director, Seghill Colliery Ltd., 1930-1947; President of the Association of Mining Electrical Engineers (AMEE), 1929-1930; President of the NACM, 1938-1940; President of the British Association of Colliery Managers (BACM), 1947-1956. *NACM*, Vol.XXXVII, 1940, p.36.

⁸⁸ For examples, see comments of Doug McAvoy (President of the NACM, 1933-1934) and Peter Burt (Scottish Branch President, 1932-1933): *NACM*, Vol.XXX, 1933, p.42 and 398-9.

⁸⁹ *Ibid*, pp.398-9.

Figure 1: Fife Coal Company structure, 1946

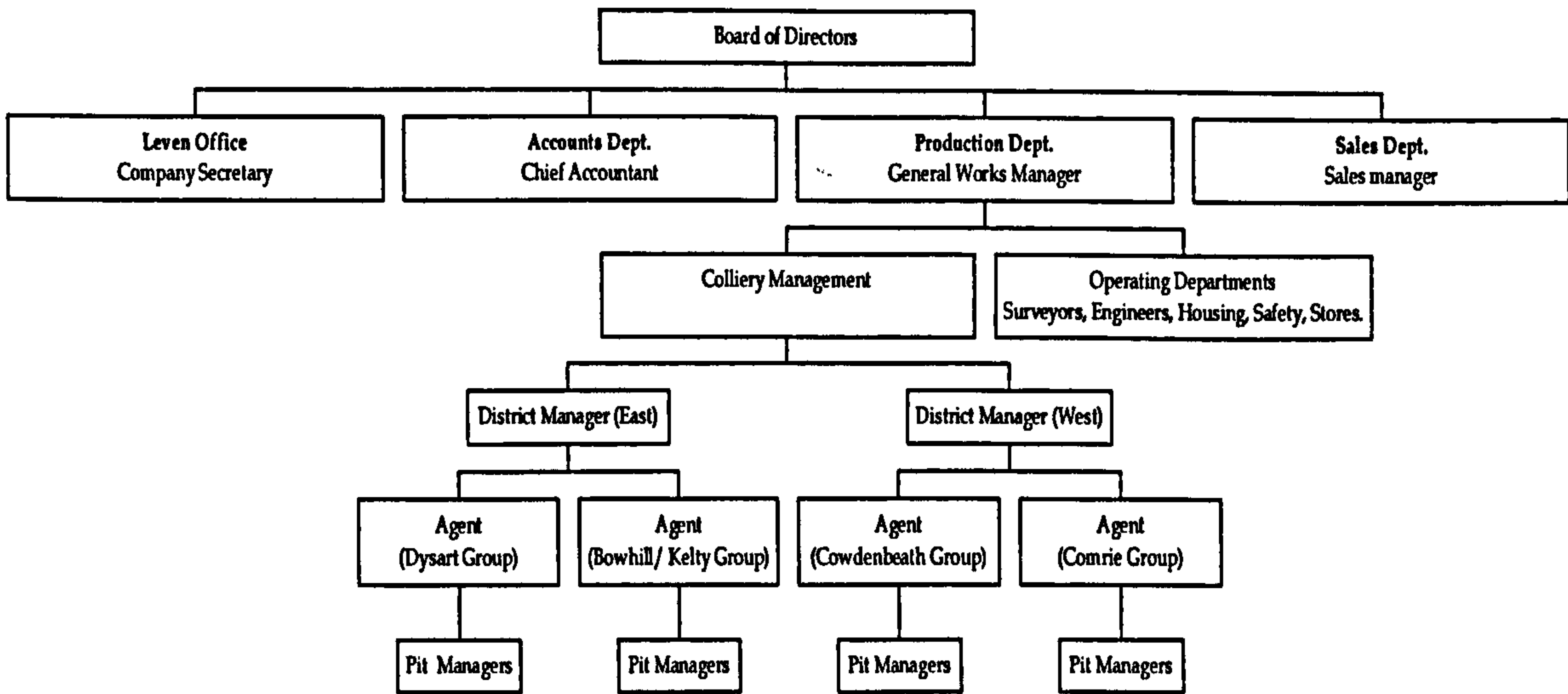


Figure 2: Coltness Iron Company Ltd., 1946

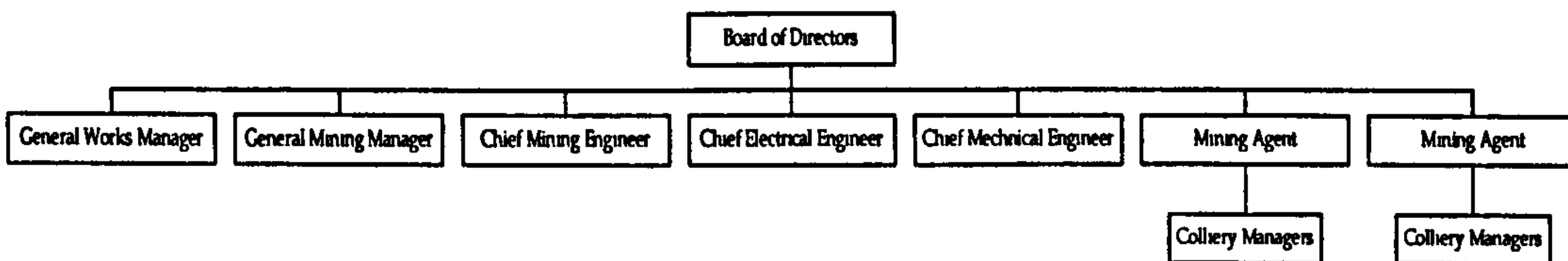
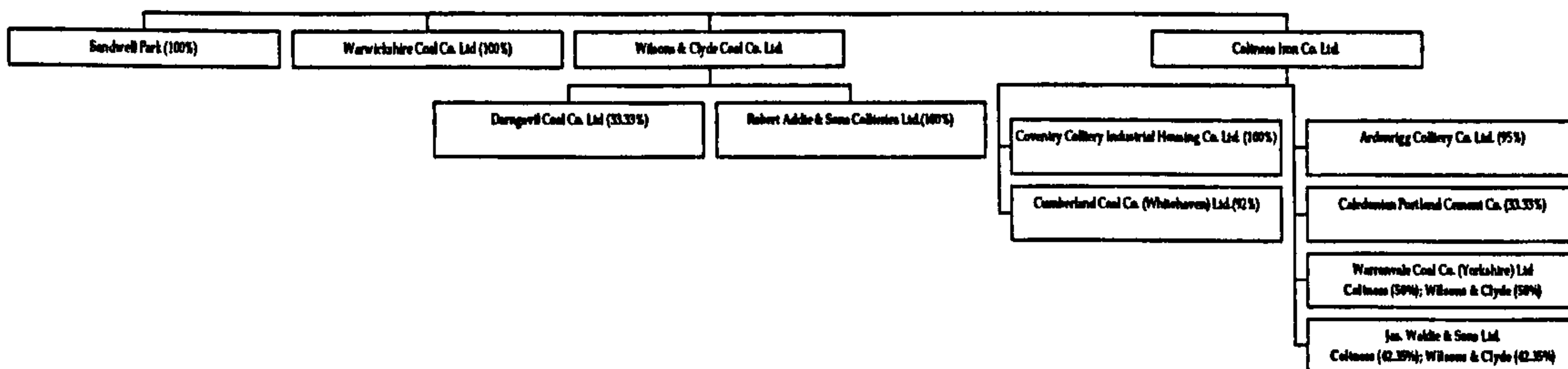


Figure 3: Coltness Iron Co. Ltd. with Associates and Subsidiaries, 1946 (% share of ownership)



Burt's comments, in particular, illustrate the organic nature of the changes to the colliery manager's role, mirroring those of Andrew Bryan (see his 1941 reference), as well as those prompted by legislation, of changes to the job of the colliery manager, not least the dissipation of sole operational discretion away from the colliery manager to managerial processes (these comments would be reflected by others outside the NACM- see health and safety in chapter three).⁹⁰

Some colliery managers were even less enamoured with aspects of wartime control (after 1942) of collieries, under which they reported to the colliery companies but were also subject to directives from the regional coal controller's production, labour and services staff.⁹¹ The wartime development of district and pit production committees, consultative bodies constituted of representatives of management, mineworkers and junior officials, also required a change in managerial outlook to the mineworker which was not always met with enthusiasm amongst colliery managers (see next chapter). These precursors to the National Coal Board's Divisional, Area and Colliery Consultative Committees could operate productively but were apparently largely unsuccessful, with much of the blame being attributed to managers' unwillingness to consult.⁹² Certainly, evidence from the early years of nationalisation suggests that some Scottish colliery managers were hardly amenable to consultation, whilst others paid lip- service to it or were sceptical of consultation (see

⁹⁰ For similar comments, see Mark Benney, *Charity Main: A Coalfield Chronicle*, this edition (London, 1978), p.66.

⁹¹ Barry Supple, *The history of the British coal industry*, Vol. 4, pp.552-3.

⁹² Ibid, pp.566-7; Roy Church, 'Employers, Trade Unions and the State, 1889- 1987: The Origins and Decline of Tripartism in the British Coal Industry' in Gerald D. Feldman and Klaus Tenfelde (eds.), *Workers, Owners and Politics in Coal Mining. An International Comparison of Industrial Relations* (Oxford, 1990), pp.38-9; Mark Benney, *Charity Main*, pp.141-160; Hywel Francis and Dai Smith, *The Fed. A History of the South Wales Miners in the Twentieth Century*, this edition (Cardiff, 1998), pp.402-3; Andrew Taylor, 'The politics of labourism in the Yorkshire coalfield, 1926- 1945', Alan Campbell, Nina Fishman and David Howell (eds.), *Miners, Unions and Politics, 1910-1947* (Aldershot, 1996), p.242; Robin Page Arnot, *A history of the Scottish Miners* (London, 1955), p.262.

chapter six). Nevertheless, there were cases of more genuinely consultative managers. Concerns amongst colliery staffs about redundancies, during the inter-war years, seem well founded. Between 1930 and 1936, Wilson and Clyde, Bairds and Dalmellington, the Fife Coal Company, Colville's and United Collieries alone ceased operations at 46 collieries.⁹³

Few colliery managers had the freedom to operate outside the financial constraints of the colliery companies and, in many cases, were thoroughly dependent on their employers. This makes the later claims, of some colliery managers (and leading members of the British Association of Colliery Managers (BACM), that managers enjoyed greater freedom of control over their collieries under the private collieries than under nationalisation, spurious in many cases. Clearly where mining education and promotion opportunities existed, they were also dependent on the support of colliery owners and companies.

However Brian McCormick's observation that many colliery officials were employer-orientated, due to their isolation and reliance on coal owners and companies requires closer examination. Comments from mining professionals like the following extract from the report of the Presidential address, of Captain Stanley Walton-Brown, to the annual conference of the NACM would seem to support McCormick's views:

The President said that whatever the outcome [of the Government's policy of colliery amalgamations] he hoped nothing would happen to disturb the happy relations between the individual owners, agents and managers.⁹⁴

Further support for this viewpoint is apparently illustrated by comments from Albert V. Reis, the technical assistant to the Fife Coal Company's General Manager and the NACM's president, 1936-7, who repeatedly

⁹³ Robin Page Arnot, *A history of the Scottish Miners*, pp.311-2.

⁹⁴ NACM, Vol.XXXVII, 1940, p.36.

claimed, in his evidence to the Rockley Commission, that he knew of no cases of victimisation of or pressure being applied to colliery managers by owners or senior company managers.⁹⁵ However Walton-Brown's apparently unctuous remark (and Walton-Brown's later happy reminiscences of private ownership- see chapter eight) and the reply from coal owner, Ridley Warham, who declared that, 'coal owners and colliery managers were so united in their interests that they were part and parcel of each other' (along with the NACM's evidence to the Royal Commission on Safety in Coal Mines (the Rockley Commission) were not always reflected by other members of the mine management professions who were less than happy about their status and role within the private colliery companies.⁹⁶

The following report of a reply, to a statement made by A. V. Reis to a meeting of the NACM, Scottish Branch, in which Reis extolled the 'fellowship and camaraderie that existed between managers and agents', by the manager of a Lanarkshire pit suggests that colliery managers were less 'united in their interests', with coal owners and company agents, than Reis, Ridley Warham, and later Walton-Brown suggested:

Mr A. Lawson said he personally had no experience of mine agents, but he had heard them discussed by other managers. If some of the stories he had heard about the treatment meted out to managers by agents were true, then he was glad he had never served under one. It was nonsense to talk of the spirit of comradeship between managers and agents. In some areas, there was good feeling, but in others managers dreaded when agents appeared on the scene. Many a manager never knew what spoke was likely to be applied by an agent to the wheel of any useful work that might be going on at the colliery. Where an agent had authority and control over three or four managers the latter had not

⁹⁵ A. V. Reis was an Agent and then Organising Engineer for the Fife Coal Company Ltd. Reis' evasiveness clearly did not convince many of the commissioners. Furthermore, the fact that all of the NACM representatives, bar one, A. M. Bryan (who was Professor of Mining at Glasgow University and the RTC), were company agents (or in Reis' case, the same grade as a company agent) led commissioners to question just how representative they were. For examples: *Rockley Commission, minutes of evidence*, A. V. Reis, Q. 23,483- 23, 503, Q. 23,689- 23,691, Q. 23,831, Q. 23,945- 23,973, and Q. 24,118-24,120.

⁹⁶ NACM, Vol. XXXVII, 1940, p.37.

the status of colliery managers. Their status was only a little higher than that of under-managers. Personally, he hoped to be a mine agent some day but if he could not be more humane to the managers under him than some agents he had heard about, then he sincerely trusted that preferment and promotion never come his way. He was glad to notice the criticism of mine agents to which Mr. Reis had specially alluded. It had opened up in a most interesting way the real position of colliery managers at many Scottish collieries.⁹⁷

It is quite possible that Lawson and Reis' differences of opinion, and Ridley Warham's over-optimistic view, over the relationships between colliery managers and their employers were a reflection of the differences between the management structures and company cultures of the more progressive firms like the Fife Coal Company and Warham's company, the Ashington Coal Company, and the intrinsic conservatism of other companies, more of which will be examined later.⁹⁸ However, members of the Rockley Commission were able to offer examples of managers and under managers who had been dismissed by companies for failing either to meet targets or their refusal to flout safety regulations, and Arthur Roberts, the Colliery Under Managers of Great Britain (CUMGB) President, was able to cite cases where he had left the employ of colliery companies because they had wanted him to flout safety regulations to get output.⁹⁹ In the end, even Reis' evasiveness to the Rockley Commission gave something away:

⁹⁷ Andrew Lawson was manager of Wm. Baird & Co. Ltd's Glenboig and then Bedlay Colliery. *NACM*, Vol. XXX, 1933, p.414-5; *Colliery Year Book and Coal Trades Directory* (CYB&TD), 1930, p.152; CYB&TD, 1934, pp.45 and 148.

⁹⁸ For an examination of company structures at both the Ashington and Fife Coal Companies see Dintenfass' study of these two progressive concerns: Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', *Business History Review*, 62, (1988), pp.1-34.

⁹⁹ Ebby Edwards referred Roberts to a pamphlet that Colliery Under- Managers of Great Britain had published, entitled *Colliery Officials and Safety in Mines*, in which they had suggested that officials and men were put under great pressure to secure production at the expense of safety. Both Ebby Edwards, the Miners' Federation of Great Britain's representative and W. T. Miller, a Deputies' representative on the commission was able to cite cases of under-managers and colliery managers who were dismissed for failing to carry out company orders: *Rockley Commission, minutes of evidence*, Mr. Ebby Edwards, Q. 18,995-18,998, Q.23,762- 23,774; Roberts, Q. 19,011, Q. 19,176-Q.19,186; Lord Rockley (Chairman), Q.23,689-23,691; W. T. Miller, Q.23,855- 23,856; Judge Allsebrook, Q. 23,945- 23,973.

[Judge Allsebrook]: As to policy and as to technical management. I suggest further that if the manager is dissatisfied with it [orders from the company agent, see, Q. 23,957] and fears that it [investment in safety equipment] is not done, there is no choice left to the manager: it is one of two things, either to carry out the directions of the agent or resign his office? **[Reis]:** I would not put it so forcibly as that. I do not think we find it like that.¹⁰⁰

The validity of Reis' evidence, indeed the NACM's entire deposition, to the Rockley Commission was questionable given that all of their representatives, bar one, were Agents or senior production officials, as a number of the Rockley Commissioners noted.¹⁰¹ Similarly Walton-Brown's job as an Agent and Managing Director of a colliery company since the early 1930s needs to be taken into account when judging whether his views mirrored those of colliery management. Additional evidence in the next chapter gives further examples of interference of senior company managers and owners in the day-to-day running of collieries. This evidence, along with that to follow, suggests that, in some companies, at best, little had changed to alter Roy Church's observations on the status of some colliery managers in 1913 who:

... were essentially technical or under-managers, and while mining operations depended on them for day-to-day efficiency, the major policy decisions affecting investment, finance, markets, innovation, and industrial relations were the concern of managers with access to partners or to board of directors, or who were represented on it.¹⁰²

The constraints placed on colliery managers by many directors and owners are evident from the remarks of this Durham colliery manager questioned in 1944, about delays in developments at his colliery:

I know how my pit *should* [sic] be run. But I never had a chance before the war... you know damned well that output was achieved in an atmosphere of cut-throat competition, with every cost cut to the bone. Now you've put a ceiling on the company's profits, but you haven't put one on costs. So my directors aren't keen to eat up reserves, and to me

¹⁰⁰ Rockley Commission, evidence, Q. 23, 958.

¹⁰¹ Rockley Commission, evidence., Judge Allsebrook, Q. 23,945- 23,973.

¹⁰² Roy Church, *The history of the British coal industry*, Vol. 3, p.463.

it's a heaven-sent chance to put back into the pit some of the things I've been robbing it of all these years.¹⁰³

The comments and frustrations of Mark Benney's manager are evident in the following views, expressed ten years earlier, by the then President of the Scottish Branch of the NACM:

Admittedly, it was the duty of the colliery manager to keep his costs of production as low as possible, but there was a limit to which costs could be cut without sacrificing efficiency. There was an absolute minimum cost for each colliery at which it might work in a state of permanent efficiency.¹⁰⁴

This, along with evidence provided in chapter three, sheds a different light on Barry Supple's statement that poor productivity owed much to 'short-term attitudes amongst owners and conservatism amongst managers'.¹⁰⁵ Interference was not restricted to production as Bert Coombes, the South Wales miner and writer, noted of his experiences of bargaining with one under-manager at a South Wales mine he worked at (see also George Gillespie's comments in chapter three under labour relations):

He knew he was robbing us, and was decent enough to feel ashamed, and we knew that his statement was true- that he had to do it '*because of the orders from headquarters*'. *The policy of the mines is very often - controlled by directors who live many miles away and rarely dirty their person by coming near to them [my emphasis]*.¹⁰⁶

Despite examples of criticisms of the relationship between employers and professional managers in some quarters of the mine management professions, the general picture of colliery management was one of resigned, but increasingly frustrated, acceptance of the state of affairs rather than jubilant embracing of employers' prerogatives.

¹⁰³ Mark Benney, *Charity Main*, p.74.

¹⁰⁴ NACM, Vol.XXXI, 1934, pp.457-461.

¹⁰⁵ Barry Supple, *The history of the British coal industry, Vol. 4*, p.32.

¹⁰⁶ Bert L. Coombes, *These poor hands. The autobiography of a miner working in South Wales*, this edition, (Cardiff, 2002), p.86; For constraints on managers over labour management and safety in the Scottish coalfield see: Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', pp.145-173.

The image of colliery managers, specifically, as the coal owners' vassals who autocratically dominated both the colliery and pit community, the 'uncrowned kings of the village', which Ina Zweiniger- Bargielowska challenges in the opening quote of this chapter, was indeed a prevalent view of this group prior to nationalisation, even amongst colliery managers and mining engineers themselves (albeit one which they were keen to have re-evaluated).¹⁰⁷

The most infamous example of the colliery manager as local autocrat in Scotland was the Lothian Coal Company's General Manager, Mungo Mackay, who was not only a highly acclaimed mining engineer but a tyrant who oversaw every aspect of life in the company's village of Newtongrange, in Midlothian, up until his death in 1939.¹⁰⁸ Mackay policed the company village with a network of spies and company constabulary, and miners and their families who fell foul of him could find themselves fined (for leaving their garden unkempt, for example) or, worse still, unemployed and evicted from company housing.¹⁰⁹ He was an Elder of the Kirk, on the school board and established the local chapter of the Masonic Order.¹¹⁰ As one former Lothian Coal Company wages clerk recalled:

Mungo Mackay was the type that demonstrated to the full 'master and man'. He was a master's man first and foremost. There were a class which he belonged to, and there was a class that ah belonged tae. He

¹⁰⁷ For examples, see: Sir Andrew Bryan, 'The Manager of Yesterday and Tomorrow', abstract of an address to the National Coal Board (NCB) Summer School, 10 September 1957, CG, 19 September 1957, p.346; David C. Gemmell, 'Presidential address: mining memories', address to the Mining Institute of Scotland, 7 September 1949, *IME*, Vol.64, 1949-50, p.37.

¹⁰⁸ Mungo Mackay was the General Manager of the Lothian Coal Company Ltd. Ian MacDougall, *Mungo Mackay and the Green Table. Newtongrange Miners Remember* (East Linton, 1995); *Scottish Mining Museum Bulletin*, No.13, (May 1984), p.3; *Scottish Mining Museum Bulletin*, No.17, May- June 1985, p.3; 'When coal was king and the large coal companies ruled supreme', *Coalface, The Bulletin of the Scottish Mining Museum*, No.20, (January 1986), pp.3-4.

¹⁰⁹ Ian MacDougall, *Mungo Mackay and the Green Table. Newtongrange Miners Remember* (East Linton, 1995), pp.xii, 30-32 and 46-70; *Scottish Mining Museum Bulletin*, No.13, (May 1984), p.3; *Scottish Mining Museum Bulletin*, No.17, May- June 1985, p.3

¹¹⁰ *Scottish Mining Museum Bulletin*, No.13, (May 1984), p.3; *Scottish Mining Museum Bulletin*, No.17, (May- June 1985), p.3

was lord of the manor. Everybody walked in fear and tremblin' of Mungo Mackay. As ah say, ye didn't see much of him but ye heard the stories. He really ruled like a king in this village [Newtongrange]. He was the lord o' the manor and we were the serfs. He ruled over the village with an iron rod.¹¹¹

Certainly there were other examples of tyrannical colliery managers, evident in two cases that were brought to the attention of the Scottish Divisional Board in the early years of nationalisation (see chapter six). Zweiniger- Bargielowska also acknowledges that some South Wales colliery managers were tyrants, and cites examples, but claims, using the oral testimony from retired South Wales miners and managers, that the concept of the 'king of the village' and the 'village patriarch' were largely a thing of the past by this period.¹¹² This, she claims, was due in part to the fact that increasingly colliery managers played less of a role in pit villages' social events (and where they did, it was a more positive one) and because of their pedigree, drawn as many were from mining families and having previously worked as miners.¹¹³

In Scotland, it would appear that at some collieries, members of the colliery management team were, even after nationalisation, expected to attend social events, as this testimony from a retired mines surveyor, who worked largely in the Lothians, Fife and Alloa, shows:

The management, in general terms, tended to be part of the family but a bit aloof... but I think that was right. Yes, you would go down to the bowling green, become a member and play bowls with brushers and faceworkers. I found that in social activities, say at that time you'd have a dance, the under-manager would be down for about an hour- putting in an appearance, having a pint, whatever. The men appreciated that the manager had put in an appearance but went away after a short while so that he didn't see their indiscretions, if you see?¹¹⁴

¹¹¹ James Reid's recollections quoted in Ian MacDougall, *Mungo Mackay and the Green Table*, p.51.

¹¹² Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.345.

¹¹³ Ibid.

¹¹⁴ Interview with Alistair G. Moore, Bo'ness, West Lothian, 12 March 2004; Phillip Weekes, one of Ina Zweiniger- Bargielowska's respondents, played rugby for the local pit village see

Certainly Jim Bullock, the future President of mine management's trade union (formed after nationalisation) and a former miner himself, went to great lengths to participate and contribute in, rather than dominate, community life in the Yorkshire pit village of Fryston where he worked.¹¹⁵ Other members of the mine management professions exhibited an apparently benevolent, but nevertheless patriarchal, interest in the welfare of the mineworker and the mining community (and associating their own with those), as this extract from Stanley Walton-Brown's speech to the 1940 NACM conference suggests:

It is becoming more and more evident that the sphere of influence of the technical management of mining undertakings can no longer be limited by the boundaries of the colliery and its commercial operations. Colliery managements must identify themselves with all the social problems of their employees and in so doing one of the most important considerations is residence in close touch with the general body of the workmen. One of the ultimate aims should be to afford a feeling of security among the workers in the industry not only during their working days but also during their declining years. The problems of pensions or superannuation will have to be solved some day for members of the colliery managements as a well as for other grades... Savings to supplement holiday allowances must be accumulated by the miners annually in the same way as other persons have to do and colliery managements should assist and guide their employees as to the best and most economical methods of visiting the places which are most attractive to them.¹¹⁶

Walton-Brown's statement should be seen, if not as an implicit criticism of the existing relationship between many colliery companies, colliery managements and miners, then as a conscious attempt, like Andrew Bryan, Charles and William Reid's cited elsewhere in this chapter, to position mine management professionals as the future leadership (in this case, moral and social, as well as economic and technical) of the industry.

Ina Maria Zweiniger- Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.345-7.

¹¹⁵ Jim Bullock was the Colliery Manager for Fryston Colliery in Yorkshire and had been a miner himself. He became the second President of the BACM in 1957. See various references and anecdotes: Jim Bullock, *Them and US* (London, 1972).

¹¹⁶ NACM, Vol.XXXVII, 1940, p.26.

However, it was by no means a declaration of either 'organic solidarity' (exchange and reliance) or 'Gemeinschaft' (respect for individual diversity and values within togetherness).¹¹⁷ Notwithstanding apparent displays of Gemeinschaft by colliery management, owners and miners in the Ruhr coalfields in the highly unusual circumstances of the Ruhr Crisis of 1923 (which nevertheless reverted to class conflict and the normal vestiges of wage-labour transaction within a few years of the crisis), this was not evident in the Scottish coalfield of this period.¹¹⁸

Over this period, the Human Relations School of Elton Mayo and, in particular, the Hawthorne Investigations, along with scientific management ideas were proving popular amongst the mine management professions.¹¹⁹ For example, the Lanarkshire Coalmasters' Association encouraged attendance at Elton Mayo's lecture to the Industrial Welfare Society in Glasgow's Central Station Hotel on, 'some human problems affecting production', in 1934.¹²⁰

A number of other managers and mining engineers, who had visited US mining companies on sabbaticals, notably, Dr William Reid of the Fife Coal Company, returned with a fervour for and implemented scientific management methods and day wage systems at collieries upon their

¹¹⁷ For a discussion of Durkheim's concept of *organic solidarity*, Tönnies' *gemeinschaft* and Parsons' *pattern variables* see Barry A. Turner, *Industrialism* (Harlow, 1975), pp.28-31 and 41-46.

¹¹⁸ See Conan Fischer's description of the temporary alliances built by managers, owners and miners during the Ruhr Crisis. Fischer notes that in 1922, an attempt had been made by coal owners to 'return to pre-war labour relations when the boss had been 'master in his own house': Conan Fischer, *The Ruhr Crisis, 1923- 1924* (Oxford, 2003), pp.49-79 and 214-218.

¹¹⁹ For a thorough description of the development of the scientific management and some of the human relations schools, including the Hawthorne experiments see: L. F. Urwick and E. F. L. Brech, *The Making of Scientific Management, Volume 1: Thirteen Pioneers*, this edition, (Chippenham, 2002); L. F. Urwick and E. F. L. Brech, *The Making of Scientific Management, Volume 2: Management in British Industry*, this edition, (Chippenham, 2002); L. F. Urwick and E. F. L. Brech, *The Making of Scientific Management, Volume 3: The Hawthorne Investigations*, this edition, (Chippenham, 2002). The three volumes were originally published sequentially in 1945, 1946 and 1948.

¹²⁰ LCA, No.18, 28 May 1934, GUBA, UGD 159/1/18.

return to Britain.¹²¹ The adherence to and enthusiasm for more scientific management methods amongst some members of the mine management professions is evident from the following extracts from Walton-Brown's speech to the NACM national conference of 1940:

The ordinary workman at the face did not want to be chased, but simply to be told what to do and how to do it; then they would get results. It might be our weakness that we had not educated him sufficiently as to how to do things and what would happen if he did them in the wrong way.¹²²

Scientific methods, where employed, such as at some Fife Coal Company pits, were allied to a day wage system and improved social conditions for the colliery workforce. The popularity of these ideas (both those of the HR and scientific management schools) shaped a good deal of the NCB's policies for increasing productivity (see chapters five and six), perpetuated largely, though not wholly, because of the support for this amongst some prominent mining professionals and policy makers.¹²³

The emergence of a consciousness, confidence and readiness amongst the mine management professions to take a lead in the industry by the 1940s was evident and is well illustrated by the following extract of a letter from the Institution of Mining Engineers to Emmanuel Shinwell, Minister of Fuel and Power, 1945- 1947, in 1945 about the future management structure of the coal industry under nationalisation:

It is submitted that, subject to the policy of the National Coal Board, the general management of the Industry should be placed in the hands of

¹²¹ NACM, Vol. XXX, 1933, pp.479-498; IME, Vol. LX, 1943-1944, p.118; IME, Vol. LXI, 1944-1945, p. 69.

¹²² NACM, Vol. XXXVII, 1940, p.33

¹²³ For a discussion of the growth of scientific methods in British industry between from 1920-1950s, see: Wayne A. Lewchuk, 'The Role of the British Government in the Spread of Scientific Management and Fordism in the Interwar Years', *Journal of Economic History*, No.44, (1984), pp.355-361; Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, (London, 1993); Anthony Carew, 'The Anglo-American Council on Productivity (1948- 1952): The Ideological Roots of the Post-War Debate on Productivity in Britain', *Journal of Contemporary History*, Volume 26, (1991), pp.49- 65; Anthony Carew, *Labour under the Marshall Plan. The politics of productivity and the marketing of management science*, (Manchester, 1987).

technical men of wide experience, who should be given the maximum freedom to organise production, reconstruction, and the scientific planning of collieries at the highest level. They should be enabled to carry out this work without undue interference from officials without these qualifications.¹²⁴

The road to nationalisation, in Scotland as in other parts of the British coalfield, as ensuing discussions show, owed much to the catalogue of errors on the part of coal owners and many of the colliery companies, brought on by the frustration of politicians, officials and those progressive elements in the forefront of the private industry who could, for various reasons, observe the further decline of an industry upon which British society was reliant. However, ultimately the rise to pre-eminence of the mine management professions was more indicative of the longer-term professionalisation of management in the coal industry, mirrored in the coal industries of Western Europe and the United States, as a result of the modernisation of production methods and business processes and more rigorous safety legislation, on the one hand, and the withdrawal of owner-management from day-to-day operations, on the other. The response to the need for professional management teams in the Scottish coal industry lagged far behind the example of the British coal industry's main European competitor, Germany.

Throughout much of this period, as the preceding pages show, the majority of colliery managers were bound by employer prerogatives. The growth of large colliery concerns did not improve this, replacing an almost feudal hierarchy with managerial processes in which colliery management were simply a tool. The image of the 'king of the village', as Zweiniger-Bargielowska has suggested, is no less moribund as a general description of colliery management. On the other hand, the mine management professions were becoming more vocal and conscious of their future role

¹²⁴ Quoted in G R. Strong, *A History of the Institute of Mining Engineers 1889- 1989*, (Doncaster, 1988), p.89.

in the industry, albeit, in many cases, influenced by dominant forms of business and organisation theory.

II

The road to nationalisation, 1930-1946

Constraints of focus and particularly of size will not allow for anything but the briefest of summaries of the background to nationalisation of the industry and economic position of the industry over this period. Furthermore the transfer of the coal industry into public ownership and debate over the failure of British coal entrepreneurs to organise the industry, both effectively and efficiently, are already the subject of an extensive historiography.¹²⁵ This literature is an important component of

¹²⁵ Broadly these can be divided into two schools, those like Buxton, who argue that coal owners committed as much capital as they could (in a trade depression) to the development of the industry and modernised their business process (albeit within the limitations of a serious downturn in the world economy). Most of the others agree that coal owners were on the whole intransigent and irresponsible and ran the industry into the ground by their shortsighted undercutting of coal prices; a failure to invest properly in their fixed capital and to modernise in their business processes, with the result that the state was forced to step in to force amalgamations. More recent histories, such as those of Dintenfass, Boyns and Wale have used disaggregated examples of firms to contrast the progressiveness of a small number of firms with the majority of colliery concerns. Neil K. Buxton, *The Economic Development of the British Coal Industry. From the Industrial Revolution to the Present Day* (London, 1978); Neil K. Buxton, 'Entrepreneurial Efficiency in the British Coal Industry between the Wars'. *Economic History Review*, Vol. 23, 3, December 1970, pp.476-497; Maurice W. Kirby, *The British Coal Mining Industry* (London, 1977); Ben Fine, *The Coal Question. Political economy and industrial change from the nineteenth century to the present day.* (London, 1990); Ben Fine, 'Economies of scale and a featherbedding cartel? : a reconsideration of the interwar British coal industry'. *Economic History Review*, 2nd Series, XLIII, 3, (1990), pp.438-449; Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', pp.1-34; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947', pp.55-80; Trevor Boyns, 'Strategic responses to foreign competition: the British coal industry and the 1930 Coal Mines Act'. *Business History*, Volume 32, 3, (1990), pp.133-145; David Greasley, 'The coal industry: images and realities on the road to nationalisation' in Robert Millward and John Singleton (eds.), *The political economy of nationalisation in Britain 1920- 1950* (Cambridge, 1995), pp.37-64; Barry Supple, *The history of the British coal industry, vol.4*, various references; For a contemporary study, see: Political and Economic Planning (PEP), *Report on the Coal Industry* (London, 1936) .

historical discourse on the decline of British industrial capitalism.¹²⁶ Similarly, there are a number of extensive histories of the British coal industry during the Second World War and of British nationalisation.¹²⁷

That nationalisation of the coal industry occurred with relatively few objections was a reflection of the apparent intransigence and sheer obstinacy of the vast majority of coal owners to the suffering of mining communities and the demise of the 'life blood of the nation' (the coal industry), the inadequacy of existing statutory provisions to reorganise the industry and latterly to meet the demands of the wartime economy, and the exasperation of politicians, civil servants, trade unionists and some industry insiders (including many mining professionals) with the way that many colliery companies insisted on conducting their business.¹²⁸

It is clear from chapters two and three that a number of more progressive colliery companies over the period, 1930- 1946, used the time to modernise

¹²⁶ Donald N. McCloskey, *Economic Maturity and Entrepreneurial Decline. British Iron and Steel, 1870- 1914* (Massachusetts, 1973); B. Elbaum and W. Lazonick (eds.), *The Decline of the British Economy* (Oxford, 1986); Eric J. Hobsbawm, *Industry and Empire. From 1750 to the Present Day*, this edition, (London, 1990) ; Martin J. Wiener, *English Culture and the Decline of the Industrial Spirit, 1850- 1980*, (Cambridge, 1981).; R H. Campbell, *Scotland since 1707. The Rise of an Industrial Society* (Edinburgh, 1985); P L. Payne, 'The Economy' in T M. Devine and R J. Finlay (eds.), *Scotland in the twentieth century* (Edinburgh, 1996), pp.13-45;¹²⁶ Anthony Slaven, *The development of the West of Scotland: 1750-1960* (London, 1975).

¹²⁷ Barry Supple, *The history of the British coal industry, Vol.4*, pp.549-552; William Henry Bassano Court, *Coal* (London, 1951); Alan Booth, 'How Long are Light Years in British Politics? The Labour Party's Economic Ideas in the 1930s', *Twentieth Century British History*, Vol.7, No.1, (1996), pp.1-26; Martin Chick, *Industrial policy in Britain 1945- 1951. Economic planning, nationalisation and the Labour governments*, (Cambridge, 1998) ; N. Tiratsoo and J. Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51* (London, 1993); John Singleton, 'Labour, the Conservatives and nationalisation' in Robert Millward and John Singleton (eds.), *The political economy of nationalization in Britain 1920- 1950*, (Cambridge, 1995), pp.13-36.

¹²⁸ For an example of objections amongst politicians, industry insiders and civil servants, see: Harold Macmillan, M.P., *The Middle Way* (London, 1938), p.231; Extract of Charles C. Reid's broadcast on BBC Scotland: 'The future of the mines: The Scottish coal industry', CG, 26 January 1934, p.165; Augustus Muir notes of Reid's comments, 'although Mr. Reid did not speak as a representative of The Fife Coal Company, his views were in consonance with those frequently expressed round the Board-room table', A. Muir, *The Fife Coal Company Limited. A Short History*, (Leven, 1953),p.74.; Internal memo from Sir Ernest Gowers, Chairman of the Coal Mines Reorganisation Commission (CMRC) [which was charged with attempting to enforce the Coal Mines Act 1930] to the Department of Mines, 1935, cited in Barry Supple, 'Ideology or pragmatism? The nationalisation of coal, 1916- 1946' in W. McKendrick and R B. Outhwaite (eds.), *Business Life and Public Policy* (Cambridge, 1986), p.239.

and invest in their industrial and business processes, and, in a few cases, in the skills of their workforce. Furthermore, some leading mining professionals, and even *The Colliery Guardian*, were outspoken in their criticism of the conduct of much of the leadership of the industry, while others recognised the untenable position of coal owners.¹²⁹ This was compounded by the glaring inadequacies of the industry highlighted during wartime control (1942-1945) and by the damning evidence in the Ministry of Fuel and Power's Technical Advisory Committee on Coal Mining (led by Charles C. Reid), including the dearth of adequately qualified mine management professionals.¹³⁰

One Durham colliery manager, interviewed for a wartime study, explained in essence the shortcomings of private ownership of the industry:

My point simply is, that from the point of view of the colliery manager- and the nation, too, if it comes to that- the natural period of planning in the natural term of life of the pit. The owner's natural period is much shorter.¹³¹

This strikes at the heart of the realisation which had dawned on policy-makers during the inter-war years but had long been evident to those within the industry who were concerned with a long-term future for the

¹²⁹ See Charles Reid's remarks (reference cited above); See also William H. Telfer's pleas to fellow members of the Lanarkshire Coal masters' Association on 5 February 1945, LCA, No.20, 5 February 1945, GUBA, UGD 159/1/20; Even, the staunchly pro-employer industry journal, *The Colliery Guardian* (CG), commented in 1936, 'The Government may be strongly tempted to take matters out of the coal owners' hands, as many of their supporters would like them to do, for there is a general belief, not entirely unwarranted by the events of the last few years, that the owners are incapable of carrying out measures for their own redemption unless they are goaded at every yard.', CG, 8 May 1936, p.882

¹³⁰ The coal owners even placed obstacles in the way of wartime attempts to group collieries so that resources, including mining professionals, could be shared: Barry Supple, *The history of the British coal industry, vol.4*, pp.549-552; William Henry Bassano Court, *Coal* (London, 1951), p.243; Mark Benney, *Charity Main*, p.79; Ministry of Fuel and Power, *White Paper on Coal*, 1942, (Cmd. 6364), pp.4-5; IME, Vol. 62, 1946-1947, p.93; Ministry of Fuel and Power, *Report of the Technical Advisory Committee on Coal Mining*, 1945, (Cmd. 6610).

¹³¹ Mark Benney, *Charity Main*, p.67.

industry, that the future of the industry and private ownership in its existing state were no longer compatible with each other.¹³²

III

Conclusion

This chapter has explored the pay, conditions, status, role and professional development of the mine management professions between 1930 and 1946. It presents a diverse picture but one, nonetheless, with some recurrent themes. By and large Scottish colliery managers and under-managers were, in comparison with other professional groupings, certainly badly paid. They lacked security, both in terms of pensions and tenure of employment, and were reliant on charity from the owners in the event of industrial injury or developing an occupational disease. This and their isolation made them very reliant on their employers. Mine management professionals' isolation and conditions were further compounded by colliery employers' refusal, particularly in the West of Scotland, to engage in collective agreements or even sanction discussions with managers or under-managers' professional associations. Other branches of the mining professions' pay and conditions of employment were even more variable.

Colliery managers and under-managers, in the vast majority of Scottish collieries, were largely drawn from the ranks of ex-miners, who had a general education, management skills and mining education and training, gleaned from a combination of practical experience and night classes, taken in their own time and paid for out of their own pockets, necessary

¹³² Barry Supple, *The history of the British coal industry*, Vol. 4, pp.403-4.

for them to achieve the certificates of competency required to manage a mine. In a few Scottish colliery companies, most notably the Fife Coal Company, fairly well developed schemes for career development existed, which included subsidised mining education and time off for study. It was this nurturing of their human capital, amongst other supply-side developments, which set the Fife Coal Company apart from the pack. Mining professionals ranged between the small numbers of university educated mining engineering graduates, and the majority of professionals, who had acquired their skills in apprenticeships, which varied in quality.

The status and role of colliery managers and under-managers remained ambiguous during this time. They were held responsible for safety in coal mines, under the Coal Mines Act 1911, and yet they were subject to employer's overriding prerogatives. This is explored in more detailed discussions of their labour relations, production and health and safety duties in the next chapter. In contrast, other mining professionals became more influential, often in practice reporting directly to senior colliery management, whilst remaining free of the statutory responsibilities and personal liability of colliery management. In essence, colliery management were moving from being a presence, if not an influential one, in the industry to an instrument in its business processes.

Despite this otherwise subjugated picture, the mine management professions as a whole became increasingly vocal, in this period, about their role in the industry. In some cases, they were becoming more critical of the way that the industry was being run and pressing forward their vision for the shape of professional development, the regulation of health and safety and the conduct of labour relations in the industry of the future.

Yet the mine management professions ascended to their role as the leadership of the industry (even if, in the case of colliery managers, as

chapters four to seven show, this was more figurative and symbolic rather than practical) on the wave of public indignation and dissatisfaction with the way the industry was being run. This chapter concludes that, though McCormick's observations of colliery officials in this period (in the second quote of the chapter) was an accurate appraisal of their position and status, he misconstrues mine management professionals' resigned compliance as self-interested complicity in their employers' actions. Zweiniger-Bargielowska's work has provided a long awaited appraisal of the one-dimensional image of managers, which is reflected in this chapter and explored in more detail in the next, which also addresses other discrete historical critiques of the position of colliery managers and under-managers, in particular, in the industry.

3

Mine management professionals and the 'politics of productivity' in Scotland, 1930- 1946¹

Chapter aims, objectives and historical overview

The preceding chapter outlined the pay, conditions and status of colliery managers and mining professionals, and their changing role in the Scottish coal industry prior to nationalisation. It also explained the context in which they rose to prominence in the industry.

This chapter, covering the same period, examines, in more detail, changes to the role of the mine management professions and the parameters in which they operated at Scottish collieries through three key functions of mine management: production, health and safety, and labour relations. Through mine management's role in these facets of colliery operations, it further explores the changing characteristics of managing a colliery, and opportunities for and constraints on managerial innovation. It also examines the ability of colliery managers and under managers to fulfil their statutory safety obligations both in view of interference from and their dependency on employers, and the increasing bearing of mining professionals on safety in collieries.

The chapter explores mine management professionals' interaction with and impact on junior officials and mineworkers, in view of the transition from relative work autonomy for the faceworker, in particular, and the introduction, to a greater or lesser extent, of mechanisation and its pursuant labour processes. Furthermore, it asks whether colliery

¹ Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in Modern Europe: the quest for productivity*, (Cheltenham, 1998), pp.145-173.

management's outlook in its relations with labour adjusted in light of public exhortations by prominent members of the mine management professions for greater social responsibility amongst the membership and the wartime experience of pit production committees.

The general picture, which has emerged from the historiography, of colliery managements and the other mining professions' role in colliery operations between the wars reflects McCormick and, broadly, Zweiniger-Bargielowska's premise that colliery management was constrained by its reliance on its employers and its isolated position.² However one study in particular has suggested that the behaviour of colliery management to mineworkers varied regardless of employer's policy and this was critical to determining labour relations at the colliery.³ There is undoubtedly a measure of truth in the fact that some managers pursued employers' prerogatives with more zeal. Nevertheless, Church and Outram's history fails to grasp the influence exerted by their employers on all aspects of mining professionals' and junior officials' development and functions.⁴

It is argued, in this chapter, that most colliery management teams were limited in the development work they could carry out in collieries, throughout much of this period, bar the three years during the Second World War, when under dual control (of owners and the state), by a

² Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', in J. Melling and Alan McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), pp.145-173; Trevor R. Boyns, 'Powell Duffryn: the use of machinery and production planning techniques in the South Wales coalfield', in Klaus Tenfelde (ed.), *Towards a Social History of Mining in the 19th and 20th Centuries: Papers Presented to the International Mining History Congress Bochum, Federal Republic of Germany, September 3rd -7th, 1989*, (Munich, 1992), pp.379-380; Supple acknowledges tension but ultimately concedes that managers were, on the whole, subject to employer requirements, see: Barry Supple, *The history of the British coal industry, Vol.4*, pp.403-4.

³ Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889- 1966* (Cambridge, 1998), pp.196-218.

⁴ Ibid; For an example of the pressure on junior officials see: Peter Ackers, 'Colliery Deputies in the British Coal Industry Before Nationalization', *International Review of Social History*, 39 (3), December 1994, pp.383-414.

World War, when under dual control (of owners and the state), by a variety of constraints placed on them by the age and layout of many collieries, the physical conditions of some coalfields, but also by their employers. The primary constraint on colliery managements and the mining professions, for much of this period, was caused by a false market for coal, attributable in a large part to the fierce and destructive competition of over proliferated industrial units in the industry with the knock-on demand on productive units from many coal companies and owners for coal at unfeasibly low costs. In the case of many colliery companies, this led to a moratorium on all but the most critical of developments in collieries, in terms of real physical changes to the layout of pits, and often the misplaced direction of capital expenditure solely on coalface plant machinery. Thus to rebut one of Supple's claims and reinforce another, the industry was not so much held back by, 'conservatism amongst managers', as much as by, 'short-term attitudes amongst employers'.⁵ Increasingly towards the end of this period, as the last chapter has shown, mining professional circles became openly critical of the criteria used by many colliery companies and owners to run the coal industry.

The chapter also shows how the statutory safety duties of colliery management were undermined by the culture, in many colliery companies, of output at any cost (and dependency of colliery officials on employers for future prospects) and by the increasing trespassing, of both consultant engineers and salaried mining professionals, on colliery operations, which affected the practice of health and safety in collieries. Furthermore, it shows how colliery owners and companies controlled research outputs on industrial diseases, most notably silicosis and other pneumoconioises, and limited the dissemination of dissenting views in the epidemiological materials on the subjects, including those which informed

⁵ Barry Supple, *The history of the British coal industry, vol.4*, p.32.

the curriculum of the mining schools. Thus, many colliery officials were misinformed about some of the pulmonary occupational diseases contracted in mines. Nevertheless, as amongst miners, the exposure of mining officials, both personally and in their wider social environs, to the effects of dust prompted dissenters to the existing conventions.

Labour relations took place on two levels. Firstly, those parameters and company policies determined by colliery Directors and owners, and secondly the social interaction between colliery management, junior officials and mineworkers. The reliance in most colliery companies, aggravated by the ruthless climate of the coal price-war, on extracting their surplus-value from labour costs only further inflamed the already fraught social relations at the point of production, and minimised the possibility for colliery managements of building reasonably stable industrial relations with both junior officials and mineworkers. Most Scottish colliery companies throughout much of this period, bar the years under dual control when labour policies were effectively determined by the Ministry of Labour, combined varying types of company welfare policies with the courting of Labourist county miners' union officials (using a mixture of local bargaining and district and central arbitration to contain trade unionism whilst asserting companies' preference for local agreements) and the victimisation of rank and file militants.

This allowed for a degree of colliery level bargaining within strict parameters set at senior management level within the colliery companies. Some colliery managers and under managers, as the previous chapter noted, were more autocratic than others. At the same time, the period was starting to see the introduction of 'managerial labour processes', particularly in the Fife Coal Company, prompted by greater mechanisation and modernisation of underground haulage and extraction methods, the adoption of day-wages for some categories of workers and the

accompanying employment of scientific management and human relations practices.⁶ On the other hand, the use of human relations strategies and scientific methods was also associated with an advocacy, amongst some mining professionals, for a far more equitable wage for mineworkers, far more rigorous health and safety measures and vastly improved social conditions for miners and their families. The wartime experience of pit production committees (which was far from universally popular amongst colliery managers not least because they felt that their power was being even further eroded) and calls from within the mining professions for greater consultation with the colliery workforce prompted changes to mining professionals' approach to social relations at the pit, particularly that of colliery managers and under managers.

Andrew Bryan noted that, it was, 'becoming increasingly difficult for one man to undertake efficiently all the responsibilities of Coal-mine Management as now commonly practised.'⁷ He might have added, as he inferred in a 1936 article to the Mining Institute of Scotland, that rarely did colliery managers have a free hand to run their pits or, at times, to fulfil their statutory responsibilities.⁸

⁶ Ad. W. M. Teulings, 'Managerial Labour Processes in Organised Capitalism; the Power of Corporate Management and the Powerlessness of the manager' in D. Knights and H. Willmott (eds.), *Managing the Labour Process* (Aldershot, 1986), p.142; Teulings' essay was prompted by the concept of 'management apparatus' in H. Braverman, *Labor and Monopoly Capital* (New York, 1974), p. 267.

⁷ Andrew M. Bryan, 'The recruitment and training of a mining engineer, with special reference to colliery management', presentation to the Mining Institute of Scotland, 6 December 1941, *IME*, Volume LX, 1941- 1942, pp.23-24.

⁸ *Mining Institute of Scotland*, Volume LVI, 1935- 1936, p.125.

I

Production

The war has changed things a bit for us- in some ways better, in some ways worse. But remember first of all that this generation of managers has been trained in a pinch-and-scrape, cost-cutting atmosphere in which we all got a lot of practice in 'making do' and no practice at all in being efficient. We'd learnt to rely on cheap labour and plenty of it- and now you make labour expensive and scarce. That's put most of us out to sea. For years we'd only got to put a notice up at the colliery gate to have skilled men walking ten miles to get a job- and now you expect us suddenly to learn to be tactful, to take pit production committees into our confidence, to be patient with trainees. That's the hard part of the war for us. The easy part is, that we've now got a chance to tidy our pits up a bit.⁹

This wartime reflection of a colliery manager over the changes in colliery management since the inter-war years, placed within the context of his earlier observations (cited at the end of the last chapter), of the short-term outlook of colliery companies and owners, illustrates very graphically the philosophy that underpinned colliery operations throughout much of this period, and the changes to colliery management which wartime control occasioned. The Alloa Coal Company's Mining Agent and President of the NACM, Scottish Branch between 1933-34, John C. George (reflecting the views of a number of his contemporaries) vented his frustration, ten years earlier, at what he saw as the chief cause of these economies:

The unenviable position of the coal trade to-day was not the fault of the productive side of the industry, but was due to the sheer incompetence of the selling side and to the cut-throat methods of competition which had been practised and were being practised by the coal owners of the country.¹⁰

George's account illustrated the devastating effect which under-cutting of coal prices was having across the British coalfields, with it critically

⁹ Mark Benney, *Charity Main*, p. 73.

¹⁰ John C. George later became the General Manager of the New Cumnock Collieries: NACM, Vol. XXX, 1933, pp.415-7; John L. Carvel, *One hundred years in coal. The history of the Alloa Coal Company*, (Edinburgh, 1944), p.160.

affecting miners' wages and colliery developments. He concluded by identifying the main culprits: 'it was a vicious business altogether, and it was due to incompetence of those responsible in Scotland for the selling side of the industry.'¹¹ A. V. Reis, in a paper to the Scottish branch of NACM in April 1934, painted a similarly bleak picture for the future of Scottish industry in the face of constant economising and a spiralling drop in coal prices:

How many colliery companies to-day were making developments of sufficient extent in new areas to offset decreasing outputs at existing collieries? Pits were being shut down on every side and there were no new collieries being built.¹²

The failure of many colliery companies to respond positively to either coal trade initiated or statutory attempts (under the Coal Mines Act, 1930) to regulate coal prices and sales, through regional or national selling schemes has been commented upon in chapter two, as have attempts to concentrate production and colliery services through colliery amalgamations. Despite the fact that Scottish colliery companies over the period 1930- 1938 as a whole, made one of the highest profits per ton (of coal), and enjoyed one of the greatest proportions of profit per ton, they consistently paid mineworkers below the British average per shift and failed to invest in either their fixed or human capital.¹³

The dilapidation of Scottish collieries and a fall in productivity was due to a certain degree to the early development of some colliery companies, particularly the joint iron concerns, and their early short-sighted explorations for and extraction of coal. Certainly the lack of thought involved in the underground layout of collieries and the poorly planned extraction of coal in the early stages of the development of the industry in Scotland were more damaging, particularly in the central belt of Scotland,

¹¹ Ibid.

¹² NACM, Vol. XXXI, 1934, p.455.

¹³ Barry Supple, *The history of the British coal industry, vol.4*, Tables 7.8, 10.2 and p.389.

than any innate geological differences in the Scottish coalfields. Despite evident difficulties presented by faulting, flooding and thin coal seams in some districts and steep inclines in others, evident also in other parts of the British coalfields like Durham, Northumberland and South Wales, many of the problems in developing pits in this period were caused by a lack of early planning.¹⁴ The neglect of the industry by many colliery companies for the first forty years of the twentieth century, along with the suicidal battle for sales between 1919- 1939 in the face of a worldwide depression, damaged the Scottish coal industry irrevocably.

The industry's major operational weaknesses were glaringly exposed by the Reid Report's cataloguing of their failures and 109 recommendations needed to improve the technical organisation and productivity of the industry, including investment in, and planning and development of collieries.¹⁵

At company and colliery level, the clash between company policy and managerial innovation was evident throughout the 1930s. This divergence of views between the many company directors and owners and their mining professionals and pit managers has been summed up by Barry Supple as, ' a latent, and frequently an actual, tension between colliery managers who wished to plough resources into development and directors who were reluctant to find more money or give up available profits.'¹⁶

This difference of opinion, and constraint on managerial innovation, is

¹⁴ My thanks to Emeritus Professor George Maxwell, formerly Chair of Mining and Petroleum Engineering at Strathclyde University for a sight of this thoroughly informative technical study of coal mining in Scotland: George Millar Maxwell, 'Under Rocks and Hard Masters. A Review of Mine Management in Scotland c.1860- 1960', Unpublished work, 2002, p.20; The Scottish Home Department, *The Report of the Scottish Coalfields Committee, 1944*, (Cmd. 6575), various references; G. L. Kerr, *Practical Coal-Mining. A manual for managers, under-managers, colliery engineers and others*, (London, 1914), p.7; Jonathan Hyslop, *Colliery Management* (London, 1876), pp.103-7.

¹⁵ *Reid Report*, paragraph 14, p.3; For similar views expressed by Sir Charles Reid earlier, see: Charles C. Reid, 'Presidential address', *Mining Institute of Scotland*, Vol. LVIII, 1937- 1938, pp.47-55.

¹⁶ Barry Supple, *The history of the British coal industry, Vol.4*, pp.403-4.

well illustrated by the following evidence from one interviewee, who recalled his attempts, as a young manager in Ayrshire in 1944, to change production methods at his colliery:

I came in from outside, from Lanarkshire, as a young man into this pit and wanted to change things and oh boy... I remember changing a system on the surface and getting belted, the bosses assistant [Agent] came out [to the colliery] and said, "What's all this?" Because I'd stopped the pit 'cos I'd ordered a change in sequence. He said, "Get it back."
I said, "Mr. P?"
[Agent], "Get it back."
[George Gillespie], "But it's stupid."
[Agent], "The bosses say get it back. You go away and do your work and I'll get it back."
It was very feudalistic, but if you did your work, your job was secure.¹⁷

George Gillespie's evidence reinforces the view that little had changed in some collieries to alter Church's view of managers, in some pits, as little more than, 'technical or under-managers', and that of Zweiniger-Bargielowska's respondents (see below) that managers' job security was reliant on them adhering to direction from the owners, even on operational matters.¹⁸ However Gillespie attributed this to what he referred to as the 'patriarchy' that he felt was particularly prevalent in Ayrshire collieries.¹⁹ Despite the fact that Ayrshire pits were apparently more antiquated in plant terms in the early part of the twentieth century (see Table 1), it would seem, from the evidence given by mining professionals and those of a number of reports on the state of the industry as a whole in this period (along with much of the historiography), that little had been achieved to change the following observations in the Coal Mines Reorganisation Committee's report to the Secretary of Mines of 1933 by the time of the Reid Report's publication in 1945:

The picture now presented by the greater part of the coal mining industry is one of haphazard development of each coalfield by a large

¹⁷ Interview with George Gillespie, Newtongrange, 14 August 1999.

¹⁸ Roy Church, *The history of the British coal industry, Volume 3. 1830- 1913: Victorian Pre-eminence* (Oxford, 1986), p.463.

¹⁹ Interview with George Gillespie, Newtongrange, 14 August 1999.

number of uncoordinated units, brought into existence on no rational plan, nearly all working below capacity, competing suicidally, whether in capital expenditure, or in prices, or both, for a market that cannot absorb the product of all.²⁰

Indeed, the complaints of industry insiders alone suggest that short-termism amongst Scottish colliery companies and owners, when it came to investing in anything which they could not see as bringing immediate capital returns, was far more widespread than Ayrshire. Ultimately though, colliery managers, under managers and, to a lesser degree, mining professionals were hindered by a lack of investment, most colliery companies insisted that they get coal at unsustainably low costs and threatened them with dismissal if they did not achieve targets, as one of Zweiniger- Bargielowska's respondents and one witness to the Rockley Commission testified to.²¹

Almost inevitably the impact was seen in the conduct of all aspects of colliery operations.

However the view that private ownership left the industry in a state of impoverishment and that mining engineers and managers offered both a compelling critique of and a solution for the industry have been challenged by two historians of the industry in this period.

²⁰ Department of Mines, Report of the Coal Mines Reorganisation Commission to the Secretary of State for Mines, 1933, (Cmd. 4468), p.11; Various references: Political and Economic Planning (PEP), *Report on the British coal industry*, (London, 1936); *Reid Report*, points 14, 195-200, X and XI, pp.3, 35 and 38; Barry Supple, *The history of the British coal industry, Vol.4*, pp.403-4; M. W. Kirby, 'Entrepreneurial in the British Coal Industry between the Wars: A Comment', *Economic History Review*, 23, (December 1972), pp.655-7; M. W. Kirby, *The British Coal Mining Industry* (London, 1977).; Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry'. *Business History*, 62, 1988, pp.1-34; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947'. *Business History*, Volume 38, 2, (1995), pp.55-80.

²¹ 'If there were no [results] sooner or later you would lose your job. The least thing you did wrong- out. So if you had a staff job you always had to give some thought to the fact that any day you'd be out as well and in those days you couldn't get a job anywhere else, you see... [for managers] there weren't discontent but a lot of fear. Fear that they'd lose their job' quoted in Ina Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', p. 62; See also: *Rockley Commission, minutes of evidence*, Vol. II, Roberts, Q. 18,995- 18,998, 19,005- 19,043, 19,176- 19,186; Reis, Q. 23,851, 23,855-23,856.

Neil Buxton and David Greasley have both argued that private colliery companies wisely weathered the storm of volatile coal markets and, in particular, have claimed that this was illustrated by the increasing concentration of production and capital investment in machinery.²² Greasley argues that the views of the mining professions, as epitomised by the Reid Report, were ill-judged given economic realities and the physical legacy of the industry's development in the nineteenth century.²³ Placed in a wider context, Buxton and Greasley's views are reflected in the view that, 'the businessmen are said to have been rational and the comprehensive conclusion has been drawn that "technological backwardness" (or more generally "entrepreneurial failure") was probably not a significant cause of Britain's relative economic decline.'²⁴ Greasley argues that barriers to development and modernisation in the industry were not in the 'minds of the owners'.²⁵ This defence of coal entrepreneurs by Greasley and Buxton, part of a wider defence offered by a number of business and economic historians of British employers, on the grounds of employers' careful adherence to time honoured methods given economic constraints, has been roundly criticised for failing to distinguish between a reluctance to invest, due to inertia, and circumspection.²⁶

²² Neil K. Buxton, 'Entrepreneurial Efficiency in the British Coal Industry between the Wars'. *Economic History Review*, Vol. 23, 3, (December 1970), pp.476-497; Neil K. Buxton, *The Economic Development of the British Coal Industry. From the Industrial Revolution to the Present Day*. (London, 1978), p.167; David Greasley, 'Fifty years of Coal-mining Productivity: The record of the British Coal Industry before 1939.' *Journal of Economic History*, Vol.L, No.4, (1990), pp.877-901; David Greasley, 'The coal industry: images and realities on the road to nationalisation' in Robert Millward and John Singleton (eds.), *The political economy of nationalisation in Britain 1920- 1950* (Cambridge, 1995), pp.37-64.

²³ *Ibid*, pp.45- 50.

²⁴ Coleman and Macleod's summary of the arguments of those historians, like Lars Sandberg, who have rebutted claims of entrepreneurial failure, see: D. C. Coleman and Christine Macleod, 'Attitudes to New Techniques: British Businessmen, 1800- 1950', *Economic History Review*, 2nd Series, XXXIX, 4, (1986), p.598.

²⁵ David Greasley, 'The coal industry: images and realities on the road to nationalisation', p.45.

²⁶ D. C. Coleman and Christine Macleod, 'Attitudes to New Techniques: British Businessmen, 1800- 1950', p. 598.

Criticisms of colliery companies and owners' failure to adapt by radically reorganising and investing in the industry (improving the supply-side of their business) and contentment to rely on extracting surplus-value from an endless reserve army of labour, have, as the last chapter briefly showed, abounded in the historiography of the industry.²⁷ Furthermore from observations provided in the last chapter, it suggests that a great many coal owners, between 1919 and 1942, avoided every opportunity provided to them to reorganise and invest in the industry, both from within and outwith their own ranks.

The intervention of historians, like Michael Dintenfass, Trevor Boyns and Judith Wale into the debate, using examples of the business practices of individual companies, has provided a more diffuse picture of the industry, illustrating the differences between the more technically progressive companies and those firmly wedded to minimal investment in their business, irrespective of size, and the exploitation of a reserve army of labour to exact their profit.²⁸

The ensuing discussion shows how different that practice could be, drawing comparisons between a number of the large Scottish colliery companies (for whom records have survived). Whilst mine management professionals' parts are not always discretely discernible in the evidence of production developments in individual colliery companies during this period, the behaviour of individual colliery companies is directly indicative of the environment in which colliery managers and other mining professionals worked.

²⁷ Barry Supple, *The history of the British coal industry, Vol.4*, pp.403-4; M. W. Kirby, 'Entrepreneurial in the British Coal Industry between the Wars: A Comment', pp.655-7; M. W. Kirby, *The British Coal Mining Industry* (London, 1977).

²⁸ Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', p.3; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947', pp.55-80.

The weakness in Buxton and Greasley's arguments, as far as managerial innovation is concerned, lies also in their omission of another critical failing of the majority of private coal concerns, that of a lack of investment in their human capital.

With a few exceptions, Scottish colliery companies showed a remarkable short-sightedness by ignoring the importance of improving their workforces' skills and knowledge, including those of their managers and mining professionals. The relative good practice and investment, in technical development and professional development, of certain colliery companies in the Scottish coalfield, most notably, the Fife Coal Company, explains not only their success and prominence before nationalisation but also their dominance of management structures after 1947. After all, the Fife Coal Company was not as large as Bairds and Dalmellington but after nationalisation the Scottish Divisional Board, production department and a number of the Areas (not just Fife) were dominated for the first nineteen years by former Fife Coal Company staff (see later chapters). It was the training and administrative capabilities of Fife Coal Company staff, which identified them for the top jobs in the new nationalised Scottish coalfield, not the failure to attract senior officials from other colliery companies as one history of the Scottish coalfield has suggested.²⁹ This was almost certainly, in part, a legacy of the direct control over Fife Coal Company's work committees, exercised by Charles A. Carlow, Managing-Director until 1923, which persisted in the company throughout this period.³⁰

It also illustrates how, even in the most progressive of companies, managerial practice was subject to considerable scrutiny and control.

²⁹ Robert S. Halliday served first as the Secretary to the Scottish District Valuation Board (set up to determine the compensation due to private colliery companies for their pits and ancillary works under the terms of the Coal Industry Nationalisation Act (1946) and then as an administrator in the National Coal Board, Scottish Division's Production Department, see: Robert S. Halliday, *The Disappearing Scottish Colliery. A Personal View of some aspects of Scotland's Coal Industry since Nationalisation*, (Edinburgh, 1990), pp.172-174.

³⁰ Roy Church, *The history of the British coal industry, Vol.3*, p.443.

Ultimately, the operational policy of the Fife Coal Company was directed at reducing the labour bill, by shrinking the size of their workforce (through labour-saving devices) and the variety of jobs in the pits, and by introducing standardised tasks allied to daywages. This involved increased supervision and control over the labour processes, reducing managerial prerogatives to managerial processes. Comprehensive management and accounting information systems underpinned this. In essence, it was a sign of things to come. Throughout the late 1940s into the 1960s, the Scottish Divisional Board of the newly nationalised industry, and the National Coal Board (NCB), would extend this model across the rest of the Scottish, and British, coalfields.

At a superficial level the examination of productivity provides a useful general view of the performance and adaptive capabilities of the Scottish coal industry. This also provides some idea of production trends in the industry, but not necessarily the part of colliery management and mining professionals in these trends as the cause of productivity rates.

Fluctuations in productivity rates, as Greasley has himself noted, can be elusive and are rarely attributable to one factor.³¹ Nevertheless, exploration of levels of mechanisation can be a useful indication both of what forms of mechanised plant companies invested in and general levels of usage, as a reflection of the way colliery production, layout and methods were changing and what impact these were having on output, health and safety and labour relations.

At first sight the performance of Scottish colliery companies, in terms of the introduction of mechanised methods, looks markedly more advanced than many other areas of the British coalfield. In 1913, 22 per cent of Scottish output was cut by machine, in comparison to 6.2 per cent in

³¹ David Greasley, 'Fifty years of Coal-mining Productivity: The record of the British Coal Industry before 1939', pp.877-901.

England and Wales (for comparisons with other parts of the British coalfield, see Figure 4), whilst output per labour hour in Scotland, in 1913, was 50 per cent higher than that in the lowest region, South Wales.³² By 1937, 79 per cent of Scottish coal was cut and 57 per cent conveyed mechanically, with output per year and hour in Scotland standing fractionally below that of the highest productivity areas of the Midlands.³³ However, when these figures are disaggregated, there is a clear distinction between the newer areas of the coalfield and the older, with substantially higher rates of mechanisation and more prolific use of electricity in Fife, Dumfriesshire and Haddington (see Table 1, mechanisation and electricity usage in Scottish collieries by area, 1914).

Similarly if the figures for 1937 are examined on the basis of spread of Scottish collieries rather than as a percentage of output, it becomes apparent that the use of coal cutting machinery and mechanical conveyors was less widespread, with figures of 54.9 per cent and 29 per cent respectively.³⁴ This data also shows that by far the majority of investment in plant machinery was in coal-cutters and drills, plant which colliery companies misguidedly thought would bring them greater output returns (it did but at the coalface rather than the pithead), rather than conveyors, or underground haulage, (which could transfer the coal from the coalface to the pithead). Thus the picture which emerges, is one of semi-mechanised processes, and shift systems, in relatively concentrated areas and amongst select companies, rather than widespread integrated mechanical cutter-loading across the Scottish coalfield, suggested by some

³² Alexander Renfrew, 'Mechanisation and the miner: work, safety and labour relations in the Scottish coal industry, c.1890- 1939', unpublished University of Strathclyde Ph.D. thesis, 1997, p.40; David Greasley, 'Fifty years of Coal-mining Productivity: The record of the British Coal Industry before 1939', p.880.

³³ *The Colliery Managers' Pocket Book, Almanac and Diary*, 1939, p.32; Mines Department, *Reports of H.M. Inspectorate of Mines, Scotland Division* [hereafter HMIM, SD], 1938, pp.86-87; David Greasley, 'The coal industry: images and realities on the road to nationalisation', Table 3.1, p.43.

³⁴ *Ibid.*

historians.³⁵ Some indication of progress towards integrated and fully mechanised production is given in the official history of the Fife Coal Company, which stated that, by the late 1930s, 16 per cent of the company's production was power-loaded, which was more than half of the power-loaded coal output for Scotland.³⁶ This broadly correlates with the suggestion that most pits in Scotland at this time relied on semi-mechanised methods.³⁷

Some of the most successful semi mechanised systems, towards the end of this period, at the Fife Coal Company pits, mimicking US techniques, used stoop and room methods with short wall cutters and duckbill conveyors.³⁸ Stoop and room methods also persisted in Ayrshire, parts of Clackmannanshire and West Lothian up until 1939.³⁹ It was not until the 1940s, with the introduction of the adapted Anderson Boyes (AB) Meco-Moore cutter-loader, that machinery existed which could cope to some degree with cutting and loading (even then in many pits in Scotland, physical and geological conditions made use of them practically impossible).⁴⁰ By 1945, according to Ministry of Fuel and Power figures, AB Meco-Moores only loaded 0.25 per cent of all coal cut in Britain, and

³⁵ Alexander Renfrew, 'Mechanisation and the miner', p.40; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', in J. Melling and Alan McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), pp.145-173.

³⁶ A. Muir, *The Fife Coal Company Limited*, p.100.

³⁷ Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century', in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in modern Europe*, pp.129-130.

³⁸ Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', *Mining Institute of Scotland*, LXI, 1944-1945, pp.48-75.

³⁹ Paul Brook Long, 'The economic and social history of the Scottish coal industry 1925-1939, with particular reference to industrial relations', unpublished University of Strathclyde Ph.D. thesis, 1978, p.128.

⁴⁰ Mohammed Cherif Djilani, 'Evolutionary stages of technical development in longwall facelines in coal mining', unpublished University of Strathclyde M. Phil. thesis, 1988, pp.19-22; George Millar Maxwell, 'Under Rocks and Hard Masters. A Review of Mine Management in Scotland c.1860-1960', p.168; Barry Supple, *The history of the British coal industry, Vol.4*, pp.550-1.

only 2.0 per cent of coal output in the British coalfields was mined using all power-loading machinery.⁴¹

Attempts were made to introduce US machinery at other locations during the war as part of Lease-Lend arrangements and these proved successful both at Knockshinnoch Castle in Ayrshire and the Newbattle group of collieries in Midlothian.⁴² However, these wartime developments were limited due to the scarcity of the machinery and the cost of it, along with the realisation that it would necessitate a great deal, at a crucial time, of disruption to reshape work organisation and a change in wage systems.⁴³

Consequently, though about 60 per cent of coal in Scotland, was produced from mechanised longwall workings, its spread was not wide and tended to be limited to the three-shift working pattern of: *preparation* (undercutting of the coal seam, boring of the coal, followed by stowing and firing of shots to bring the rest of the coal down), *coaling* (the manual loading of the loose coal onto conveyors) and the *repairs shift* (the dismantling and reassembly of the conveyor by conveyor men, the building of stone packs to support the headings (workings) when the roof collapsed (in the worked out areas) and setting of new and removal of old roof supports (props), all carried out by packers, and removal of rock at the entrance and exits (gates) to the face).⁴⁴

⁴¹ Ibid.

⁴² For comments on experiments at Newbattle, see George Mackay's comments (George Mackay was the group manager at the Newbattle collieries and son of Mungo Mackay) in *Mining Institute of Scotland*, Vol. LX, 1943-1944, p.118; For details of the Knockshinnoch trials, see George Millar Maxwell, 'Under Rocks and Hard Masters', p.168; W. H. B. Court, *Coal* (London, 1951), pp.280-2; Barry Supple, *The history of the British coal industry*, Vol.4, pp.550-1

⁴³ W. H. B. Court, *Coal* (London, 1951), pp.280-2; Barry Supple, *The history of the British coal industry*, Vol.4, pp.550-1.

⁴⁴ Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century' in J. Melling and Alan McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), p.129; J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry, 1900-1960' in J. Melling and Alan McKinlay (eds.), *Management, labour, and industrial politics in modern Europe*, p.148.

However, most Scottish pits, during this period, would have struggled, because of their haulage arrangements alone, to cope with any more than three-shift working patterns. As Greasley has remarked, having increased output at the coalface in a mine or pit with long, poorly navigable roadways, inadequate haulage, winding or ventilation arrangements could cause far more problems than if the coal owners had retained the old methods of working.⁴⁵ The only difference being that greater supervision could be imposed on machine teams at the coalface and that the imposition of machinery could be used by employers to force down the wages of both machine teams and the price lists of hand hewers, and consequently the wage bill could be reduced still further.⁴⁶

In some older collieries, extensive mechanisation was simply not feasible yet their production of valuable specialist coals made it worthwhile for the colliery companies to keep them working with hand hewing and loading methods. An example of this was the Coltness Iron Company's Woodend Colliery, which, despite difficult working conditions and low productivity rates, was kept open because it produced premium steam and anthracite coals.⁴⁷

⁴⁵ David Greasley, 'Fifty years of coal-mining productivity: The record of the British coal industry before 1939', pp.882-5.

⁴⁶ Ibid, pp.154-5; For discussion of the impact on Scottish miners and the deskilling debate, see Alexander Renfrew, 'Mechanisation and the miner', p.40; A. Renfrew, 'Militant miners?: Strike activity and industrial relations in the Lanarkshire coalfield, 1910-1914' in William Kenefick and Arthur McIvor (eds.), *Roots of Red Clydeside 1910- 1914? Labour unrest and industrial relations in West Scotland* (Edinburgh, 1996), pp.166-170; William W. Knox, *Industrial Nation. Work, Culture and Society in Scotland, 1800- Present* (Edinburgh, 1999), pp.204-6.

⁴⁷ The Coltness Iron Company Ltd. Estimates of value, 1947, GUBA, UGD 109/3/1/3.

Figure 4: Mechanically cut output by selected areas of the British coalfield, 1914, expressed as a percentage.⁴⁸

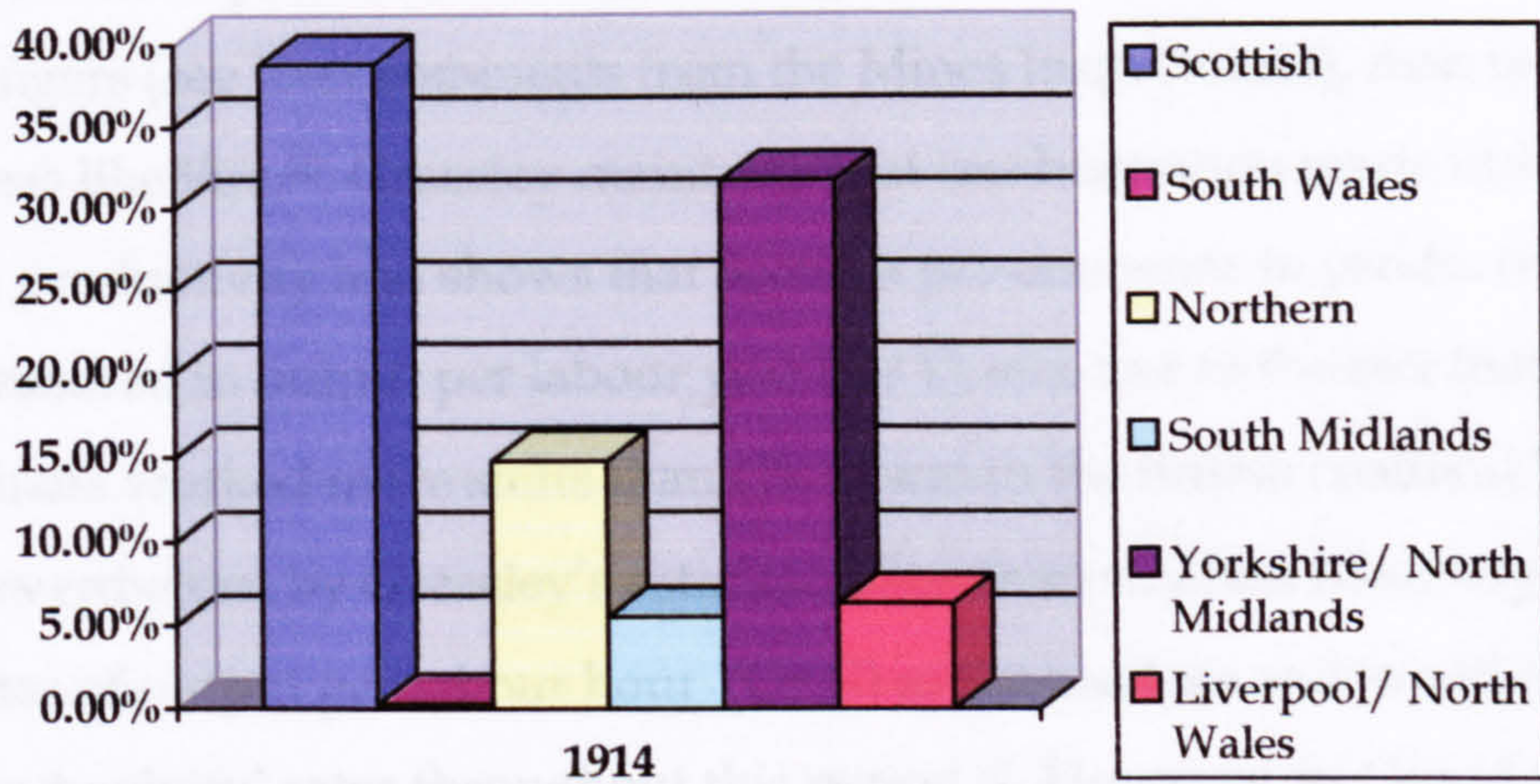


Table 1: Mechanisation and electricity usage in Scottish collieries by area, 1914, expressed as percentage of mines in area.⁴⁹

Area	Number of mines	Mechanically cut	Electricity usage
Fife	61	70.49%	80.32%
Haddington	11	63.63%	72.72%
Dumfriesshire	4	75%	100%
Clackmannanshire	6	50%	100%
Dumbartonshire	12	16.66%	58.33%
Ayrshire	104	19.23%	38.50%
Lanarkshire	222	41.89%	59.46%
Stirling	51	37.25%	52.94%
Linlithgow	51	19.60%	60.78%
Edinburgh	27	40.74%	85.19%

⁴⁸ Northern area constituted of Durham, Northumberland and Cumberland: Alexander Renfrew, 'Mechanisation and the miner: work, safety and labour relations in the Scottish coal industry, c.1890- 1939', pp. 56-62.

⁴⁹ Ibid.

In some of the older areas, where smaller more disparate units proliferated, electricity-supply to power cutting and conveying machinery was more a problem, and often the age of the cables presented increased dangers (see later comments from the Mines Inspectorate), than newer areas like Fife.⁵⁰ Greasley maintains that mechanisation made little impact on productivity and shows that Scottish pre-eminence in productivity as measured in output per labour year (O/Y) was due to the fact that Scottish miners worked more shifts than elsewhere in the British coalfield.⁵¹ Nevertheless, by Greasley's estimates, Scotland still had relatively high rates of output per labour hour (O/H) at the coalface and 'multi-factor productivity' rates throughout this period.⁵² However, as Greasley acknowledges, mechanisation at the coalface had little impact if mine layout made conveying of coal, and men and equipment, to and from the surface, and ventilation, awkward.⁵³

The importance of this observation is that it lies at the heart of struggle between the technically progressive and conservative within the industry. It is also only by measuring the opinions amongst those within the industry that an insight can be gleaned into the views and role of managers and mining engineers within this process. An example of the views of mining professionals is provided by the observations of this Ayrshire mining engineer, in a paper to the Mining Institute of Scotland in 1944, commenting on the unenviable state of underground haulage and transport in Scottish pits with an unflattering description of haulage arrangements in contrast to collieries he had visited recently in Canada:

From my perambulations over the Canadian coalfields and as a result of numerous inspections of coal-mines throughout the United

⁵⁰ HMIM, SD, 1930, pp.10-11; HMIM, SD, 1934, p.53.

⁵¹ David Greasley, 'Fifty years of Coal-mining Productivity: The record of the British Coal Industry before 1939', pp.877-885; David Greasley, 'The coal industry: images and realities on the road to nationalisation', pp. 44-45.

⁵² David Greasley, 'Fifty years of Coal-mining Productivity: The record of the British Coal Industry before 1939', pp.882-5.

⁵³ David Greasley, 'The coal industry: images and realities on the road to nationalisation', p.45.

Kingdom, I have been forced to the conclusion that our mining engineers and managers have not been sufficiently alive to the importance of this particular feature either in the original conception or the standard of maintenance of our transport facilities. While I can recall the existence of some notable exceptions I still entertain an uneasy feeling that too often here in Scotland the ultimate possibilities are seriously hampered by haulage arrangements quite out of step with the efficiency at the face.⁵⁴

A US mining mission, reporting around the same time, identified haulage as a major obstacle to the further development, and success, of integrated power-loading in British pits, remarking that, 'the almost universal use in Britain of endless rope transport with small mine cars over which we cannot pass without comment... Initially this might not be a serious matter, but as the number of power-loading machines in any given section of a mine increases, it may become serious.'⁵⁵ These remarks were reflected in the observations of another US mining engineer, seconded to the Ministry of Fuel and Power on a year's secondment during the war, having visited forty-seven pits in the British coalfields, the majority of them in Scotland.⁵⁶ British pits' inadequacy in this aspect of coal production led the Reid Report to comment that, on the basis of average tonnage of saleable coal handled by haulage workers per shift, poor and antiquated haulage meant that on average one haulage worker in Britain handled 5 tons of coal per shift for every 20-25 and 50 tons per shift handled by Dutch and US haulage workers respectively.⁵⁷

However, as earlier comments showed, the direction of criticism at colliery managers and mining engineers, in the earlier remarks of the Ayrshire mining engineer, were misplaced given that modernisation of haulage and transport would have required substantial investment and possibly a major disruption of production. Permission for both of these was reliant

⁵⁴ *Mining Institute of Scotland*, Vol. LXI, 1944-1945, p.125.

⁵⁵ Cited in W. H. B. Court, *Coal*, p.282.

⁵⁶ H. R. Wheeler, 'American mining methods', *Mining Institute of Scotland*, Vol. LX, 1943-1944, p.95.

⁵⁷ *Reid Report*, p.33.

on company investment and permission from directors or owners, and in many cases was unlikely to be granted.

Some Scottish companies had not faltered from investing in their pits, including their haulage systems, most notably the Fife Coal Company. The Fife Coal Company's early transition to a public limited company helped it grow substantially. It was first established in 1872 and was floated on the stock market in 1895.⁵⁸ It was formed with capital reserves of £360,000 in the form of 12,000 preference shares and £24,000 in ordinary shares.⁵⁹ This aided its take-over of seven rival coal companies between 1896 and 1909.⁶⁰ However, its success lay ultimately in its consolidation of this position through both business and technical advances, long-term planning and by investing in both the material and human resources (in particular, as the last chapter showed, the professional development of its employees). Between 1873 and 1913, it invested 50 per cent of its net profits back into its collieries.⁶¹ From 1930 to 1938, notwithstanding the trade depression, the Fife Coal Company Ltd. invested a further £712,900 into its collieries and machinery.⁶²

One of its most shining examples of modernisation during the 1930s was Comrie Colliery (see illustrations 1 and 2), which later featured in a government propaganda film designed to encourage ex-miners back and non-miners into the industry, where changes to mine layout, haulage and coal-getting methods (in this case adoption of stoop and room methods using shortwall cutters and duckbill conveyors) led to considerable efficiency gains, including improvements in haulage rates per manshift of

⁵⁸ A. Muir, *The Fife Coal Company. A Short History*, (Leven, 1952).

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*; Alexander Renfrew, 'Mechanisation and the miner', pp. 33-50.

⁶¹ *Ibid.*, pp.62-78.

⁶² Fife Coal Company Ltd., Private journal, 1916- 1957, NAS, CB3.

40 per cent above those recommended by the Reid Report.⁶³ Comrie was later singled out at the first NCB Summer School, in 1947, as, 'the last word in mine mechanisation'.⁶⁴ Introduction of these methods and development of underground layout to facilitate them was copied by the company at their Benarty Mine, along with Frances, Aitken and Mary collieries (at least three of these were to be mainstays of the NCB's output in Scotland in the first ten years of nationalisation).⁶⁵ The progressive outlook of the Fife Coal Company may well explain Reis' optimistic belief, in his evidence to the Rockley Commission, that colliery companies would never stand in the way of necessary colliery developments.⁶⁶ Despite retrospective criticisms of the company, largely prompted by the failure of the Rothes colliery project (see chapter 5), the Fife Coal Company did deserve Augustus Muir's eulogy of, 'the premier coal company of Fife and of Scotland'.⁶⁷

Aside from his reputation as a tyrant, Mungo Mackay's genius as a mining engineer set the pace for the Lothian Coal Company's developments at its pits. Mackay's prescient underground layout and use of electricity at the Newbattle Colliery group established them, particularly the Lady Victoria Colliery, as some of the finest examples of mine planning in the British coalfield and made them a first choice for the testing of mining machinery both before and after nationalisation.⁶⁸ Mackay's pre-eminent and

⁶³ Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', *Mining Institute of Scotland*, LXI, 1944-1945, pp.48-75; See: Scottish Home Department (film), *The New Mine* (1945); See also comments made by Mr R. L. Sharps, of the Ministry of Fuel and Power, about Comrie after a recent visit in discussion of H. R. Wheeler, 'American mining methods', *Mining Institute of Scotland*, Vol. LX, 1943-1944, p.125.

⁶⁴ Robert S. Halliday, *The Disappearing Scottish Colliery*, p.51; A. Muir, *The Fife Coal Company Limited*, pp.90-94.

⁶⁵ Of these pits, Frances operated until the late 1980s. Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', pp.48-75.

⁶⁶ For example: *Rockley Commission, minutes of evidence*, Vol. II, Reis, Q. 23,464 - 23,466.

⁶⁷ A. Muir, *The Fife Coal Company Limited*; R. S. Halliday, *The Disappearing Scottish Colliery*, p.52.

⁶⁸ *Mining Institute of Scotland*, Vol. LX, 1943-1944, pp.119-120; 'Remarkable Men of 'Nitten', *Scottish Mining Museum Bulletin*, 3, (May 1984), p.3; 'When coal was king and the large coal companies ruled supreme', *Coalface*, 20, (January 1986), pp.3-4; Alistair Moore, who worked as an apprentice and qualified surveyor at the Newbattle group after nationalisation,

widespread use of steel pit props, rather than wood, was acknowledged as leading the way for the Scottish coal industry and undoubtedly helped to save lives.⁶⁹ Sadly, many companies did not take up the advice for the widespread use of steel props and straps, (see section on safety).

Equally the Alloa Coal Company showed its commitment to the future of the coal industry by investing substantially in its pits and coal product processing plants during this period. The company's investment in extensive underground haulage systems at a number of their collieries contributed to the higher than average OMS in the company's pits, with an average rate of 38.9cwts in 1942 compared with a Scottish rate of 21.35cwts.⁷⁰ This investment in their facilities prompted Major Gwilym Lloyd George MP, Minister of Fuel and Power, 1942-1945, in his speech at the inauguration ceremony of the company's new briquetting plant, to declare:

There is a tendency in many quarters to continue in the old ways and rather to reject new methods. But here is a case of an old-established concern (the Alloa Coal Company) which constantly improved its production by the introduction of modern methods- a proof that age need not necessarily mean decay.⁷¹

Clearly, a great deal of this innovation was dependent on the foresight and determination of the Board of Directors or owners and also their belief in their mining officials. At the Fife Coal Company, despite the fact that Carlow had for years kept a very close control over the works committees, as an innovator he had invested in the qualifications and development of his mining professionals, encouraged managerial innovation and as a consequence produced an excellent cadre of mine management

commented on Mackay's impressive underground developments, Interview with Alistair Moore.

⁶⁹ See comments after George (Mungo Mackay's son who became manager of the Lady Victoria) Mackay, 'Economy in steel for mining supports', *IME*, Vol. CIV, 1944-1945, pp.145-152.

⁷⁰ John L. Carvel, *One hundred years in coal*, p.137.

⁷¹ *Ibid*, p. 138.

professionals, like Charles C. Reid, Dr. William Reid, Henry R. King and George R. Buchanan, who went on to make successful careers for themselves in the NCB.⁷² The progressive outlook of Charles Carlow and his eldest son, Charles Augustus Carlow, was not only seen in the Fife Coal Company but also on some of the later developments of the Shotts Iron Company Ltd (of which both were Directors and Chairmen at different times).⁷³ Similarly, the dedication of Alloa Directors Colonel Alexander Mitchell and Andrew H. Telfer to developments was evident not only from the introduction of modern haulage systems and cutting machinery into their older pits, like Devon Colliery (despite having started production in 1881), and newer shallow drift mines, like Zetland and Dollar mines, but also their coal by-product works.⁷⁴

At other colliery companies, this support was less evident. The frustration of Robert L. Angus, the Chairman of Bairds and Dalmellington, is tangible from this extract of a letter from Angus to the Board to gain support of the sinking of Barony Colliery in Ayrshire in 1942:

While the capital expenditure is very huge, the position as I see it is that, unless the industry itself is prepared to show its belief in private enterprise and its preparedness to undertake capital expenditure on new sinkings, State influence in one form or another is inevitable as the Nation will not consent to allow the industry to decline with the

⁷² H. R. King and G. R. Buchanan were the Fife Coal Company's District Managers for their East and West groups. After nationalisation, Buchanan became initially a Sub-Area manager for the Fife and Clackmannanshire Area and then later an Area General Manager for the Lothians. H. R. King became the Scottish Divisional Production Director within two years of nationalisation. Nevertheless, one of, if not the greatest mining development failure in the nationalised Scottish colliery development, which had a large part to pay in the Division's deficits, started out as a Fife Coal Company (FCC) development directed by a production department led by former FCC mining engineers and managers (see section on Rothes Colliery in chapter five).

⁷³ See Augustus Muir's histories of both companies. Muir notes that the planned underground development of and investment in the Shotts' Iron Company's Lothian pits were largely prompted by Charles Carlow, whilst Charles Augustus Carlow was credited with giving Bryan the support needed for new developments in the 1940s see: Augustus Muir, *The story of Shotts. A Short History of the Shotts Iron Company Limited* (Edinburgh, n.d.[after 1952]), pp.27, 59-60; Augustus Muir, *The Fife Coal Company Ltd. A short history* (Leven, 1952).

⁷⁴ J. L. Carvel, *One hundred years in coal*, pp.125-191.

consequent effect on the coal supplies of the country and the employment of those engaged in the industry as well as in such industries as are dependent on obtaining adequate supplies of coal. This consideration applies particularly in Scotland where the capacity for output is probably shrinking more rapidly than in any other important District in the country.⁷⁵

This evidence of a struggle to get Bairds and Dalmellington's Board of Directors to accept development schemes contrasts with Halliday's portrayal of the company as progressive.⁷⁶ For a further illustration of this underinvestment see illustration 5 which shows an underground roadway at Bairds and Dalmellington's Kames colliery.

However, some mining professionals, as the chapter has already shown, were becoming increasingly critical of those companies who were unwilling to invest in their concerns. The following extract from a speech by Andrew Bryan, to the Mining Institute of Scotland in June 1936, illustrates the concerns, of one very prominent mining engineer, about the limitations of managerial discretion in the arena of production and the short-sightedness of coal owners:

That ... leaves me wondering how much mining engineers have to decide the order of working seams in close proximity by the amount of profits to be made in the working of any one seam rather than by consideration of sound engineering principles, conservation of a national asset, and what is best to ensure maximum safety with maximum amount of coal from the other seams... If, as I expect it is, the working of various seams in close proximity is decided mainly by the immediate profits to be earned, and the establishment of a good reputation on the market, then I fear that it will take something more than research to convince colliery owners that it would be better to work some of the poorer before others that would yield larger immediate profits.⁷⁷

⁷⁵ Letter from Robert L. Angus Esq. to the Board of Bairds and Dalmellington Company Ltd. Bairds and Dalmellington Co. Ltd. Development schemes 1937-1942. GUBA, UGD 164/3/3/9.

⁷⁶ R. S. Halliday, *The Disappearing Scottish Colliery*, pp.118-120.

⁷⁷ Bryan's views about the importance of investing in and the careful planning of future production were reflected in his actions in his brief time as General Manager for the Shotts Iron Company Ltd. (1942-1943):: *Mining Institute of Scotland*, Vol. LVI, 1935- 1936, p.125;

This insistence of colliery companies on working collieries with an eye on short-term profit and impractical on cost margins, to the detriment of both safety and the future prospects of the pit, and the constraints this placed on colliery managers was emphasised by the Rockley Commission, along with examples of cases in which colliery managers, under-managers and officials had been dismissed or had left the employ of colliery undertakings because of pressure to put profits first.⁷⁸ This further reinforces Lawson's criticism of colliery agents and pressures on colliery managers outlined in chapter two.

On the sales and coal preparation side, the story of exception, by a minority of progressive colliery companies as opposed to the arbitrary and haphazard approach taken by the majority of companies, was little different.⁷⁹ The Fife Coal Company was quick to see the benefits of integrated management information systems and modern coal washeries for their sales. This included setting up a centralised Sales and Coal Preparation Department and sales offices in the countries of their chief export clients and regularly monitoring customer satisfaction with the quality and condition of their product whilst also developing improved means for transporting the coals to ensure they reached customers in pristine condition.⁸⁰ This policy seemed to have served the company well in securing them lucrative deals in the profitable Scandinavian markets, like that of the Swedish State Railways.⁸¹ Similarly, the Alloa Coal Company built a number of highly advanced briquetting and coking

Augustus Muir, *The story of Shotts*, pp.59-60; Similar concerns were voiced by the colliery manager in Mark Benney's study, Mark Benney, *Charity Main*, pp. 65-69.

⁷⁸ *Rockley Commission, minutes of evidence*, Vol. II, Roberts, Q. 18,995- 18,998, 19,005- 19,043, 19,176- 19,186; Reis, Q. 23,851, 23,855-23,856: See also: NACM, Vol. XXXI, 1934, p.26.

⁷⁹ This was apparently mirrored elsewhere in the British coalfield, see Dintefass' example of the progressive Ashington Coal Company: Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', pp.1-34.

⁸⁰ Augustus Muir, *The Fife Coal Company Ltd*, pp.59- 62.

⁸¹ *The Colliery Guardian*, January 5, 1934, pp.45-46; *The Colliery Guardian*, January 19, 1934, pp. 123-125; Augustus Muir, *The Fife Coal Company Ltd. A short history* (Leven, 1952), pp.57; Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947', pp.63-64.

plants throughout this period, investing considerable sums in this process.⁸²

In contrast to these responses, other large companies in the Scottish coalfield were very lax in recognising the importance of coal preparation and a coherent and well-directed central sales strategy. This was well illustrated by the Coltness Iron Company Ltd's belated installation of adequate coal washing and preparation facilities at their collieries. At the Coltness Iron Company's Woodend Colliery, for example, sunk in 1878, which produced sizeable quantities of valuable coals, the company failed to invest in a modern washery at the colliery until the late 1920s.⁸³

Similarly, other large companies in the Scottish coalfield like Bairds and Dalmellington failed to install adequate modern washeries at several of their large collieries until the 1920s and 1930s.⁸⁴

These examples of entrepreneurial failure in large Scottish concerns, rather than the small concerns which still proliferated in the Scottish coalfields, add further weight to Dintenfass' statement that, 'wide gaps existed between the leaders in the utilization of the new technology and the remainder of the firms engaged in the industry.'⁸⁵ Innovation required more than haphazard, and ultimately fruitless, investment in coal cutters, if colliery layout and haulage systems were inadequate. The preceding examples illustrate the conservatism, lack of planning and misguided pursuit of short-term profits, at the expense of employees and their business, practised by some of the largest Scottish colliery concerns. Consequently, try as they might, innovatory mining professionals who enjoyed the support of a progressive Board of Directors, many of whom

⁸² John L. Carvel, *One hundred years in coal*, p.137.

⁸³ The Coltness Iron Company Ltd. Estimates of value, 1947, GUBA, UGD 109/3/1/3; John L. Carvel, *The Coltness Iron Company. A study in private enterprise* (Edinburgh, 1948), p.138.

⁸⁴ Bairds and Dalmellington Company Ltd, Development schemes, 1937- 1942, GUBA, UGD 164/3/3/9.

⁸⁵ Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', p.14.

were keen mining engineers themselves, were unlikely to stir to action those who lagged behind. Nevertheless, it did not stop them trying, as these comments from Dr William Reid, to the Mining Institute of Scotland in 1944, illustrate:

Scottish mining engineers have sufficient flexibility of mind to adapt the new mechanization to their own conditions where possible... At the moment a few more cautious mining engineers in Scotland are disposed to wait and see how successful the initial American plant installations are going to be. There is a risk that those who are waiting to see the results of others may be left very far behind.⁸⁶

The picture which has emerged, is one of the productive capacity and energies of managers and mining professionals, limited by the conservatism and blinkered short-termism pursued by a majority of Scottish colliery companies. In contrast, a small number of Scottish colliery companies, with the Fife Coal Company at their head, developed a much more progressive outlook. The progressiveness of the Fife Coal Company, and the dominance by its mine management employees of professional circles, was due to a vanguard of prescient mining engineers and managers, led by the Carlows and Reids, who allowed colliery managers and engineers, under close control, the scope to develop the company's collieries. Equally influential and progressive engineers like Andrew Bryan augmented their number. Nevertheless, these leaders in the Scottish coal industry, as in many of the rest of the British coalfields, were few in number.

⁸⁶ See William Reid's opening, *Mining Institute of Scotland*, Vol. LX, 1943-1944, pp.117-8.

II

Health and Safety

Of all the aspects of the industry in which the mine management professions made the most impact, outside technical innovation and the organisation of mining, safety in coal mines was the other most tangible indicator of managerial performance. Indeed, mine management professionals' role in reviewing and policing health and safety perhaps give an even clearer impression of these groups between 1930-1946. The processes associated with the securing of coal (production) and the safety of those who worked in mines, both underground and at and around the pithead, were largely, both statutorily and vocationally, the responsibility (if not always, in practice, the reserve) of the colliery manager. As the preceding evidence on production shows, it could also highlight the ambiguity of the manager's position. Under the Coal Mines Act, 1911, colliery managers were responsible for the safety in the colliery and thus were frequently liable for prosecution for any breaches of the regulations. However, as the following comment from the Royal Commission on Safety in Coal Mines makes clear, managers, given the instructions they had to respond to from agents and owners, could often fall victim to the directions of the company and subsequently the force of the law:

The Act [Coal Mines Act, 1911] does not resolve the dilemma of how a manager subject to the orders of a superior can have "control, management and direction" of the mine in the full sense of the words; and, except that there may be more than one agent within this definition, the Act ignores the existence of a hierarchy of officials of a mine-owning company superior to the manager.⁸⁷

The evidence from the Mines Inspectorate to the Rockley Commission, and evidence given during both the examination of both NACM and Colliery Under-Managers of Great Britain witnesses, suggested that managers and

⁸⁷ *Rockley Commission, Report*, p.148.

under managers were sometimes put in an impossible situation because of owners' stipulation that economy come first and managers subsequent reluctance, under interview, to reveal that economies on essential materials to ensure high standards of safety were the result of directions received from higher colliery officials.⁸⁸ This also inevitably filtered down to affect the relationship between colliery managers and under managers, and junior officials, in particular colliery deputies.⁸⁹ Evidence given already has shown the precarious nature of colliery managers' and under managers' jobs. The same was true of junior officials, especially given the reserve army of 17,000- 18,000 unemployed under officials by 1936.⁹⁰

The practice of cajoling and threatening of officials by employers to attain targets and cut costs, in the process endangering mineworkers and officials alike, exposed, what Carson has referred to as, 'the class dimension of health and safety', and Melling's observation, 'that the institutional relations between employers, labour and the state were nowhere more evident than in the regulation of colliery safety and yet it was precisely such issues which formed the battleground for fundamental struggles at work.'⁹¹ It also illustrated the powerlessness and incapacity, in some

⁸⁸ *Rockley Commission, Report*, pp.149- 153; *Rockley Commission, minutes of evidence*, Roberts, Q.18,995- 18,998, 19,005- 19,043, 19,305- 19,319; Reis, Q. 23,762- 23,774, and 23,855-23,856; This view is reflected in Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', pp.145-173; An illustration of the pressure on colliery management exerted by their bosses is provided in the account of the Gresford Disaster in North Wales, see: Stanley Williamson, *Gresford. The Anatomy of a Disaster*, (Liverpool, 1999), pp.113-117.

⁸⁹ *Ibid*; Peter Ackers, 'Colliery Deputies in the British Coal Industry Before Nationalization', *International Review of Social History*, 39, 3, (December 1994), pp.383- 414; RC, evidence, Roberts, Q.18,995- 18,998 ; and Reis (specifically questions asked by William Thomas Miller, national officer for the General Federation of Firemen's, Examiner's and Deputies' Associations), Q.23,851- 23,907.

⁹⁰ *Rockley Commission, report*, p.180; *The Mining Electrical Engineer*, Vol. XXII, No. 251, August 1941, p.25; This is explained by Melling suggestion that the employers actively cut the number of deputies (who had statutory safety responsibilities), whilst increasing the number of oversmen (whose job was largely confined to get output), and that this reflects employers' commitment to put production first, Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p.168.

⁹¹ W. G. Carson, 'Hostages to history: some aspects of the occupational health and safety debate in historical perspective' cited in Charles Wolfson, John Foster and Matthias Beck,

cases, and apparent unwillingness, in others, of the Mines Inspectorate to tackle employer interference in colliery management's statutory health and safety responsibilities. This was even though the Coal Mines Act 1911 expressly forbade agents or owners who did not hold the requisite certificate of competency to comment on technical matters or from interfering in the technical running of the mine.⁹² However colliery managers within the forum of the NACM, both at a Scottish branch and a National level, increasingly complained about the interference of colliery owners and agents in the day-to-day running of mines during this period.⁹³ Further anomalies in the Coal Mines Act 1911 also held colliery managers responsible for accidents which arose as a consequence of errors made by surveyors and chief mining mechanical and electrical engineers who often reported unofficially to company agents but were not held legally accountable for any accidents which occurred as a result of their work.⁹⁴ In addition, the growth of colliery concerns through amalgamations meant that managers were stretched in their duties and were sometimes being made liable for the safety of a number of mines at the same time as mining operations were becoming more complex and needed more attention paid to them.⁹⁵ The poor attention to safety amongst some colliery companies was well illustrated by the failure in some companies to set up Safety Committees and appoint dedicated Safety Officers.⁹⁶ In the entire Scottish coalfield, only two colliery companies (The Fife Coal Company Ltd. and Fordell Colliery Company Ltd.), had

Paying For The Piper. Capital and Labour in Britain's Offshore Oil Industry, (London, 1996), p.xix; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p.147.

⁹² RC, Report, pp.149-150.

⁹³ NACM (Scottish Branch) Vol. XXX, 1933, pp.414-5; NACM (Scottish Branch), Vol. XXXI, 1934, pp.444-456; NACM, 'Presidential Address', Vol. XXXVII, 1940, pp.34-7.

⁹⁴ *Rockley Commission, report*, pp.170-179.

⁹⁵ *Ibid*, pp.147-159.

⁹⁶ This conflicts with Halliday's statement that, 'safety had been increasingly a prime concern of the industry long before nationalisation': R. S. Halliday, *The Disappearing Scottish Colliery*, p.29.

established these by the late 1930s.⁹⁷ The effectiveness of Safety Committees and Safety Officers were suggested by the noticeable decline in accidents, since the introduction of the schemes, at the Fife Coal Company collieries (see figure 5).⁹⁸ The Fife Coal Company's average injury rate of 21 per 100,000 shifts in 1940, well below the British and Scottish averages respectively of 63 and 49 per 100,00 shifts, was achieved in spite of the increase in mechanisation at Fife Coal Company pits.⁹⁹ This may well also have had something to do with the fact that the FCC opted for using stoop and room methods of coal-getting, thus reducing the risks from one of the biggest killers (that of falls of roof or sides) as the roof was supported by the pillars of coal left standing.¹⁰⁰

However, it was clearly the company's introduction of safety campaigns, safety training for all employees and monitoring to ensure safe practices (including a centralised colliery accident statistics and reports), which had the major bearing on the decline of the accident rate.¹⁰¹ Dr. William Reid, who had tried and tested safety campaigns as a group manager for the company, initially led the campaign. Reid set up a network of colliery inspectors, colliery committees and mining education provision to tackle the accident rate (see figures 6 and 7). In 1935, the company created the post of Company Safety Engineer, and recruited and appointed Dr J. N.

⁹⁷ The Fordell Colliery Company only had one colliery. *Rockley Commission, report*, pp.213-225.

⁹⁸ *Ibid*, p.213; *Mining Institute of Scotland*, Vol. LXII, 1946-1947, p.34.

⁹⁹ Dr J. N. Williamson, 'Ten years of safety work in a Scottish colliery group. The Safety Record of the Fife Coal Co., Ltd., 1936-1945', *Mining Institute of Scotland*, Vol. LXI, 1946-1947, p.34.; HMIM, SD, 1938, p.12, Table II.

¹⁰⁰ Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', *Mining Institute of Scotland*, LXI, 1944-1945, pp.48-75; Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century' in J. Melling and Alan McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), p.127; George Millar Maxwell, 'Under Rocks and Hard Masters. A Review of Mine Management in Scotland c.1860-1960', Unpublished work, 2002, pp.2-3.

¹⁰¹ Dr J. N. Williamson, 'Ten years of safety work in a Scottish colliery group. The Safety Record of the Fife Coal Co., Ltd., 1936-1945', pp.32-65; Dr William Reid, 'A modern campaign for greater safety', *Mining Institute of Scotland*, Vol. LIX, 1938-1940, pp.37-60; HMIM, SD, 1935, pp. 56-7 and 64; HMIM, SD, 1936, p.20; HMIM, SD, 1938, 40 and 74-75.

Williamson, chief lecturer at the Mining Department of Leeds University, to the post.¹⁰² In his history of the Fife Coal Company, Augustus Muir claims that when a copy of the company's mine safety schemes, drawn up by William Reid, reached the International Labour Office in the 1940s, it was remarked that, 'it was the most comprehensive thing of its kind ever compiled, and it was closely studied in many countries.'¹⁰³ Ironically, given observations amongst historians about the impact of supervision on coal miners, the one major loss of life which occurred in a Fife Coal Company pit during these years, the Valleyfield disaster in 1939, could have been avoided had the manager given more explicit safety guidance and ensured that it was followed through.¹⁰⁴ It was suggested in the accident enquiry report that the manager was overstretched, lacked sufficient numbers of adequately trained junior officials and that sub-contractors in the pit had flouted the manager's safety rules.¹⁰⁵

¹⁰² HMIM, SD, 1935, p.64..

¹⁰³ A. Muir, *The Fife Coal Company Limited*, p.81.

¹⁰⁴ Mines Department, *Report on the Causes of and Circumstances attending the Explosion which occurred at Valleyfield Colliery, Culross, Fife, on 28 October 1939*, (Cmd. 6226), pp.7 and 12; Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', pp.145-173; W. W. Knox, *Industrial Nation*, pp.203-206.

¹⁰⁵ Mines Department, *Report on the Causes of and Circumstances attending the Explosion which occurred at Valleyfield Colliery, Culross, Fife, on 28 October 1939*, pp. 7 and 12.

Figure 5: Comparative average injury rate between British Collieries and Fife Coal Co. Ltd (injury rate per 100,000 manshifts), 1930- 1945.¹⁰⁶

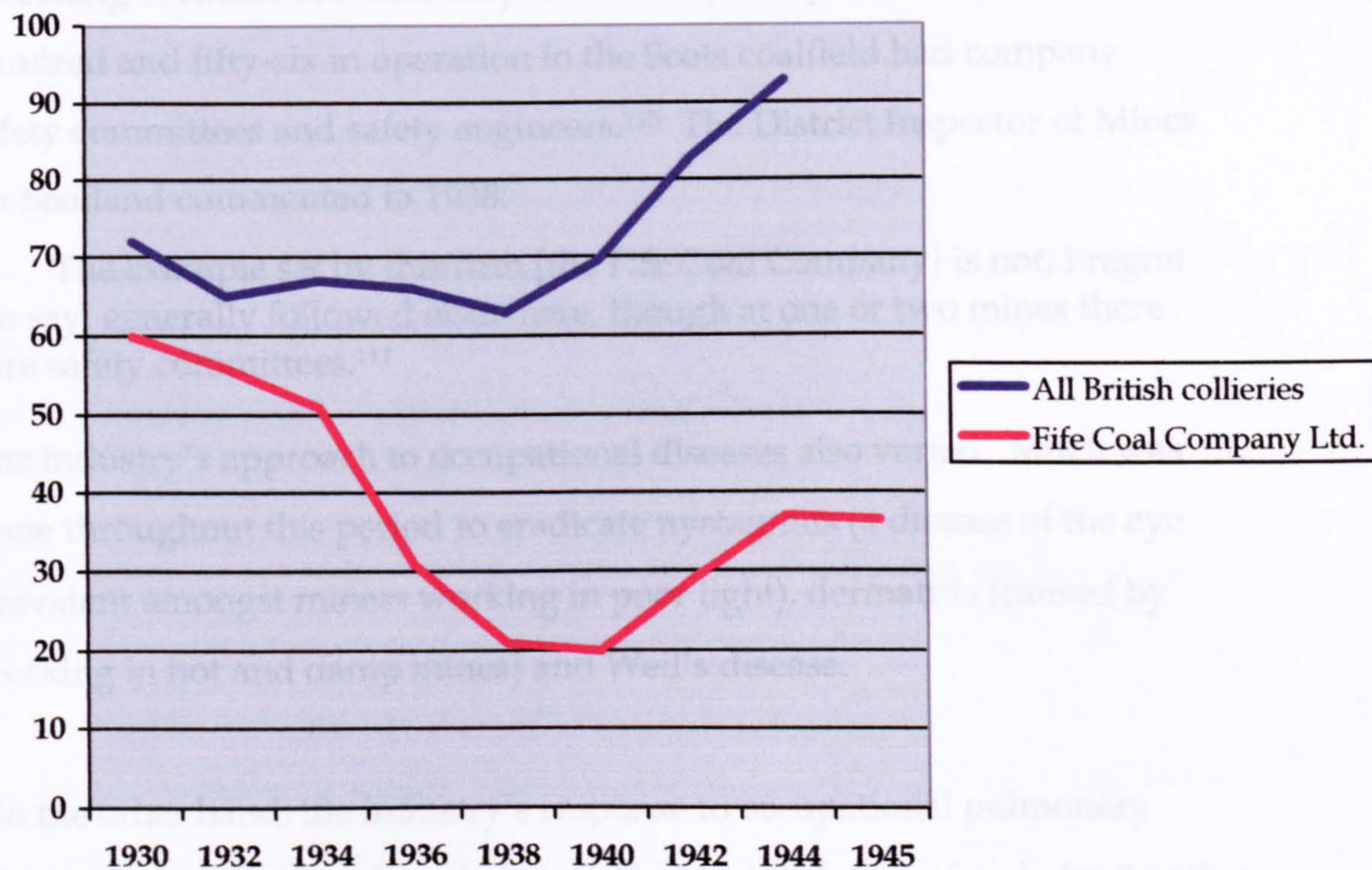
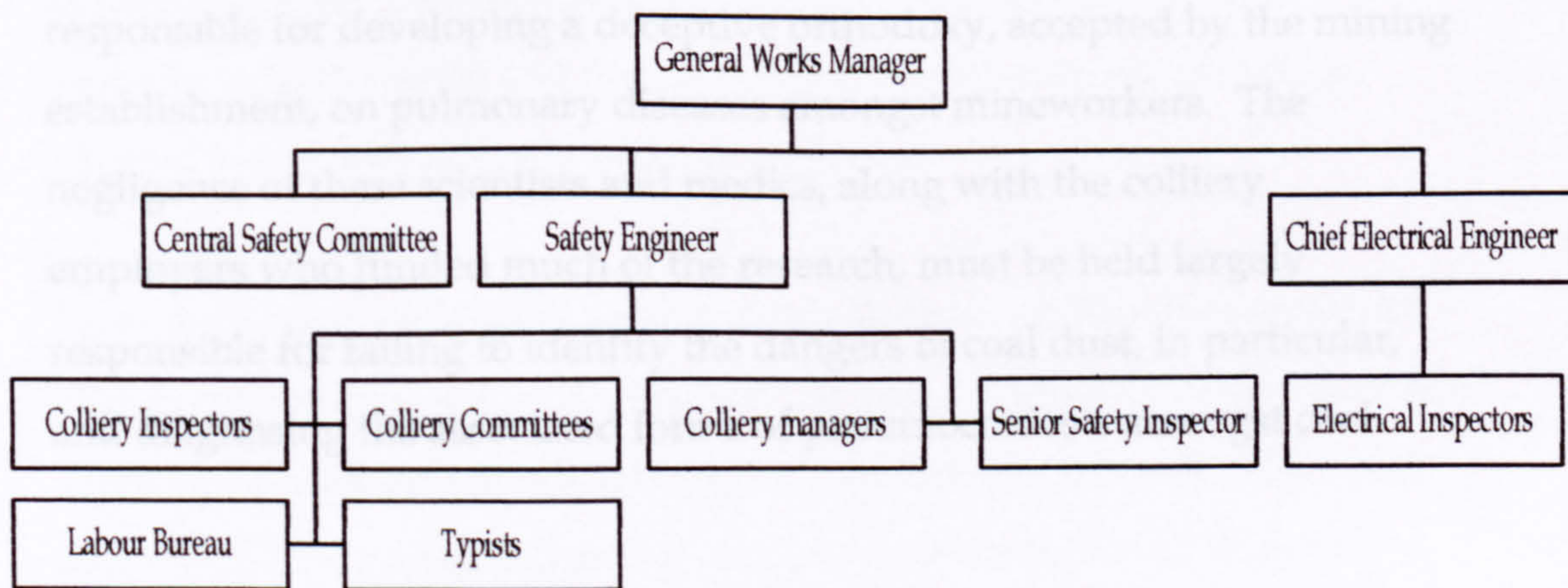


Figure 6: Fife Coal Company Safety structures, 1938.¹⁰⁷



Despite attempts at some colliery companies, the coal industry had an unenviable safety record. Between 1930 and 1939, 35 per cent of all fatal

¹⁰⁶ Dr J. N. Williamson, 'Ten years of safety work in a Scottish colliery group. The Safety Record of the Fife Coal Co., Ltd., 1936-1945', p.34.

¹⁰⁷ Dr William Reid, 'A modern campaign for greater safety', p.38.

accidents in British industry occurred in mining.¹⁰⁸ Of these, over 12 per cent of fatalities were in Scottish pits.¹⁰⁹ Yet in spite of this, as the preceding evidence showed, only two colliery companies out of the one hundred and fifty-six in operation in the Scots coalfield had company safety committees and safety engineers.¹¹⁰ The District Inspector of Mines for Scotland commented in 1938:

The example set by this firm [the Fife Coal Company] is not, I regret to say, generally followed elsewhere, though at one or two mines there are safety committees.¹¹¹

The industry's approach to occupational diseases also varied. Much was done throughout this period to eradicate nystagmus (a disease of the eye prevalent amongst miners working in poor light), dermatitis (caused by working in hot and damp mines) and Weil's disease.

On the other hand, the industry's response to occupational pulmonary diseases, in particular, silicosis (caused by the inhalation of rock dust) and coal dust induced pneumoconiosis, was woeful. However, throughout much of this period, a dominant body of scientists and doctors were responsible for developing a deceptive orthodoxy, accepted by the mining establishment, on pulmonary diseases amongst mineworkers. The negligence of these scientists and medics, along with the colliery employers who funded much of the research, must be held largely responsible for failing to identify the dangers of coal dust, in particular, and diagnosing the associated forms of pneumoconiosis amongst coal

¹⁰⁸ A. J. McIvor, *A History of Work in Britain, 1880- 1950*, (Basingstoke, 2001), Table 5.7.

¹⁰⁹ HMIM, SD, reports, 1930- 1947, pp.9-12; J. L. Carvel's description of the Alloa Coal Company's safety measures, along with the later evidence from its one-time Company Agent, John C. George, do not suggest that safety was a constant priority at the company's pits: 'From time to time the General Manager has made strong efforts to persuade underground workmen to wear safety helmets, splinter-proof goggles, knee pads, gloves and special boots, and to take other precautionary measures not enforced by law', *One hundred years in coal*, p.164.

¹¹⁰ *Rockley Commission, report*, appendix xxiv.

¹¹¹ HMIM, SD, report, 1938, p.75.

miners which these dust particles could form.¹¹² Colliery managers and other mining professionals, many of whose judgements on occupational pulmonary diseases were formed by texts which reiterated the partially informed science and demi-myth of the scientific professions, who dominated discourse on occupational health matters in the coal mining industry, were only alert to the dangers of rock dust and not the silent, but evident, growing epidemic of coal dust pneumoconiosis.¹¹³ The funding of research outputs and mining officials' education and training by the colliery employers was critical to explaining this too.

This is not to suggest that colliery management and mining professionals were without their share of the blame in failures to properly address themselves to the application of health and safety procedures. There are plenty of examples to suggest a dereliction of duties by officials. Neither is it accurate to claim that all colliery companies showed a ruthless indifference towards the health and safety of their employees. Nevertheless, by and large, the picture that emerges is of colliery management officials and mining professionals placed under direct pressure to gain results and financial and material constraints, which affected health and safety in Scottish collieries.

To examine managers', and mining professionals', part in the practice of health and safety in collieries, the ensuing pages will focus upon a number of the most prevalent accident categories and look in more detail at dust suppression measures in Scottish pits, with pneumoconioses in mind. Figure 4 shows the accident rate by type, including the most prevalent causes of fatal and non-fatal accidents over this period. This chapter will

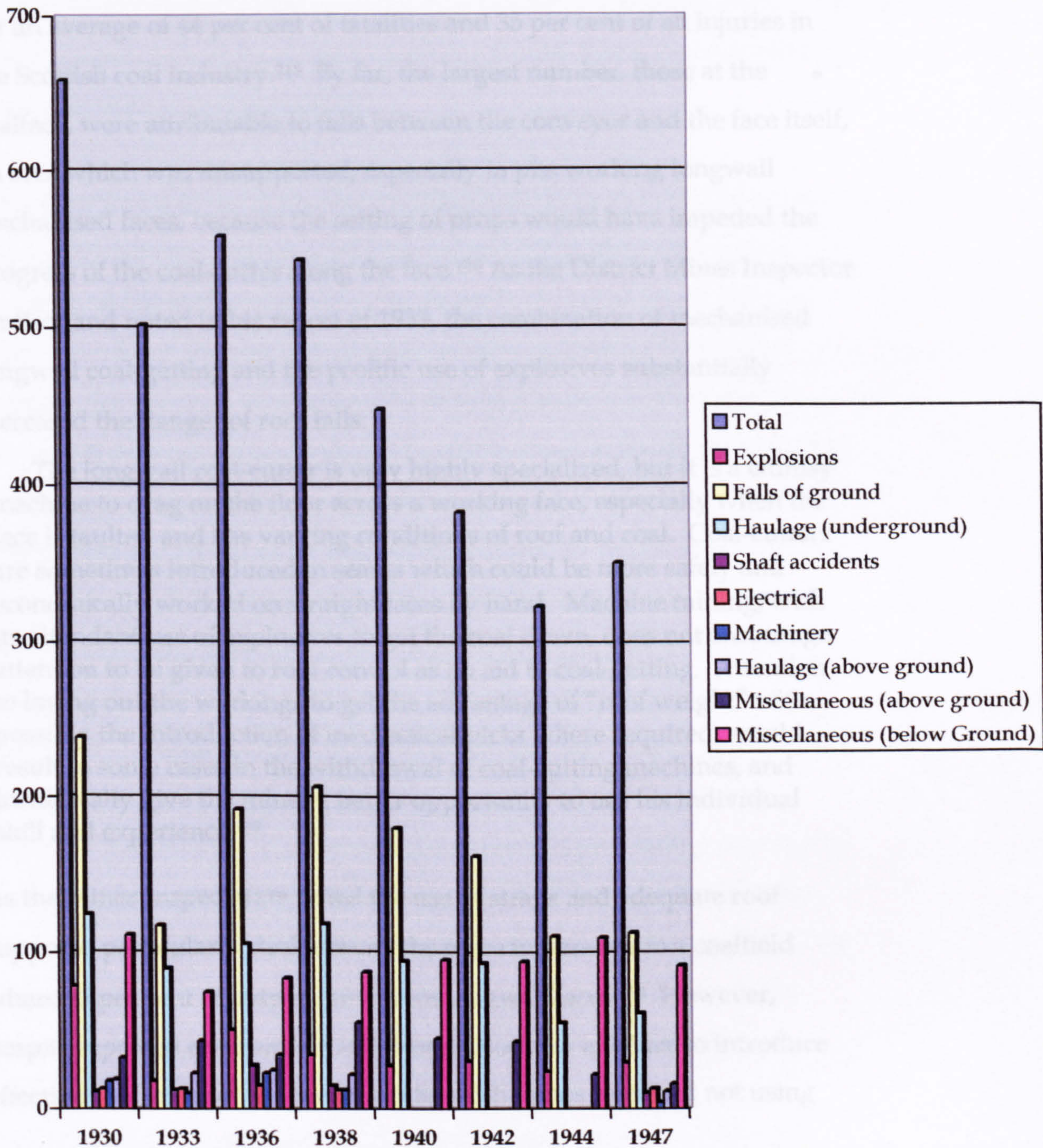
¹¹² This is explored in a forthcoming article for the journal of the Scottish Labour History Society, *Scottish Labour History*, Volume 40, (2005): Andrew Perchard, 'The Mine Management Professions and the Dust Problem in the Scottish coal mining industry, c. 1930- 1966'.

¹¹³ Ibid, p.2.

focus on those categories which accounted for the majority of accidents, as exemplars, namely, falls of ground, haulage and explosions.

Coincidentally, they also illustrate perfectly, in many cases, the very real constraints placed on managers by limited budgets, and consequently the neglect of critical developments, the legacy of short-term planning by many colliery companies and the very tangible improvements (already seen to some extent) in safety standards in collieries owned by progressive concerns. At the same time, they also show the effects of prioritising output at the expense of safety in a number of cases by officials. Whilst there are enough examples within this and the preceding chapter to suggest that some colliery officials did not simply acquiesce to employer pressure, which may have compromised safety, the fact that managers and mining professionals were wholly reliant on their employers, for their livelihood and future, meant that it could have a bearing on their behaviour.

Figure 7: Accident rate (fatalities and injuries) Scottish collieries by type, 1930-1947.¹¹⁴



¹¹⁴ HMIM, SD, 1947, pp.12-16 and 53- 59; HMIM, SD, report, 1930, pp. 12-13, Tables 5 & 6; HMIM, SD, report, 1933, pp.10- 11, Tables 5 & 6; HMIM, SD, report, 1934, p.10, Table 5; HMIM, SD, report, 1935, p.10, Table 5; HMIM, SD, report, 1936, p.10, Table 5; HMIM, SD, report, 1938, p.10, Table I.

Falls of ground

Between 1930 and 1946, falls of ground, from the roof or side, accounted for an average of 44 per cent of fatalities and 35 per cent of all injuries in the Scottish coal industry.¹¹⁵ By far, the largest number, those at the coalface, were attributable to falls between the conveyor and the face itself, an area which was unsupported, especially in pits working longwall mechanised faces, because the setting of props would have impeded the progress of the coal-cutter along the face.¹¹⁶ As the District Mines Inspector for Scotland noted in his report of 1933, the combination of mechanised longwall coal-getting and the prolific use of explosives substantially increased the danger of roof falls:

The longwall coal-cutter is very highly specialized, but it is a clumsy machine to drag on the floor across a working face, especially when the face is faulted and has varying conditions of roof and coal. Coal-cutters are sometimes introduced in seams which could be more safely and economically worked on straight faces by hand. Machine mining, with its attendant use of explosives to get the coal down, does not encourage attention to be given to roof control as an aid to coal-getting. Attention to laying out the workings to get the advantage of "roof weight" with possibly the introduction of mechanical picks where required, would result in some cases in the withdrawal of coal-cutting machines, and incidentally give the miner a better opportunity to use his individual skill and experience.¹¹⁷

As the Mines Inspectorate noted the use of straps and adequate roof supports, particularly steel, was all the more imperative in a coalfield where 65 per cent of output came from longwall faces.¹¹⁸ However, despite repeated criticisms of and prosecutions for a failure to introduce effective roof support, 65 per cent of Scottish mines were still not using

¹¹⁵ HMIM, SD, 1947, Appendix II, p.47, Table I; HMIM, SD, report, 1930, p. 12, Table 5; HMIM, SD, report, 1933, p.10, Table 5 ; HMIM, SD, report, 1934, p.10, Table 5; HMIM, SD, report, 1935, p.10, Table 5; HMIM, SD, report, 1936, p.10, Table 5; HMIM, SD, report, 1938, p.10, Table I.

¹¹⁶ HMIM, SD, 1947, pp.53-59; HMIM, SD, report, 1930, pp. 23-37; HMIM, SD, report, 1933, pp.17-28; HMIM, SD, report, 1934, pp.19-22; HMIM, SD, report, 1935, pp.18-24; HMIM, SD, report, 1936, pp.20- 25;HMIM, SD, report, 1938, pp.14-30.

¹¹⁷ HMIM, SD, 1933, p.22; *Rockley Commission, minutes of evidence*, R. Shaw, Q. 25,253.

¹¹⁸ *Ibid*, p.21.

steel supports.¹¹⁹ This was also despite counsel from professional bodies that steel roof supports were advisable to ensure the most secure roofing on longwall faces and a suggestion from the Mines Inspectorate that fatalities were around three times less likely if steel straps and supports were used than wooden straps.¹²⁰

Part of the problem lay in the fact that the Coal Mines Act (1911) deemed that many coalfaces did not need support and that support rules must therefore be left at the manager's discretion.¹²¹ A lack of resources patently was not deemed to be the sole problem by some. The District Inspector for Mines in Scotland noted in 1930 that despite the resource constraints imposed by the depression, some agents and colliery managers were experimenting with steel straps in particular.¹²² However, he emphasized the pressures on managers, imposed by budgetary constraints: '... all that prevents a great extension of in the use of this material is the lack of a settled prospect of trade with profits to enable those who are satisfied as to the superiority of steel to buy what they desire.'¹²³ It should be remembered that by this very time, a number of Scottish colliery owners and companies, particularly in the West of Scotland, had not only undermined the industry's own selling schemes by exceeding their quotas and undercutting fixed sales prices, pushing the price of coal down substantially (not only in Scotland but in the rest of the UK), but were also busying themselves attempting to water down the Labour Government's attempts to introduce statutory sales schemes.

The Mines Inspectorate's attempts to get collieries to introduce steel pit props, straps and roadway girders and arches were a major preoccupation

¹¹⁹ *Ibid*, p.49.

¹²⁰ *Mining Institute of Scotland*, Vol. XXXIII, 1932-33, p.45.

¹²¹ *Rockley Commission, report*, p.257.

¹²² HMIM, SD, 1930, p.27.

¹²³ *Ibid*.

of the Inspectorate throughout the 1930s.¹²⁴ The impact was apparently patchy. In 1936, 42.4 per cent of roadways were supported by steel archways or by girders, whilst 13.9 per cent remained unsupported.¹²⁵ By 1938, 48.2 per cent of the total length of roadways in Scottish pits was supported by steel arches and girders, in comparison to 41.1 per cent for the British coalfield as a whole, whilst 10.9 per cent of roadways were unsupported.¹²⁶ The highest proportion of roadways supported by steel was inevitably in the new coalfields of Fife and the Lothians, where steel arches respectively supported 69 and 54 per cent of roadways.¹²⁷ By contrast, 40 per cent of roadways in Ayrshire and Lanarkshire pits were supported in this way.¹²⁸ Despite this contrast, account must be taken of the physical difficulties in some Lanarkshire pits, in particular, of implementing steel arches and girders.

However, between 1936 and 1938, the number of steel props and straps used across the Scottish coalfield declined respectively by 13.4 and 9.8 per cent.¹²⁹ Despite regional differences within the Scottish coalfields, some managed to get around these problems.¹³⁰ An example of this was the adoption of a system of telescopic tube supports, admittedly at the suggestion of a junior mines inspector, at Cardowan Colliery. This is despite the increase in coal cutters in use, especially given the heightened likelihood of roof and side collapses in seams where mechanical coal-cutters were being used. Furthermore, given the identification of the working of faces in close proximity as a factor in causing these falls, the dramatically lower figures of steel support in the Lanarkshire coalfield,

¹²⁴ HMIM, SD, 1947, pp.53-59; HMIM, SD, report, 1930, pp. 23-37; HMIM, SD, report, 1933, pp.17-28; HMIM, SD, report, 1934, pp.19-22; HMIM, SD, report, 1935, pp.18-24; HMIM, SD, report, 1936, pp.20- 25;HMIM, SD, report, 1938, pp.14-30.

¹²⁵ HMIM, SD, 1936, p.53; HMIM, SD, 1938, p.30.

¹²⁶ Ibid, Table V, p.29 and p.30.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid; HMIM, SD, 1936, p.53.

¹³⁰ HMIM, SD, 1938, p.26.

where there were far more adjoining workings, suggests a greater potential for accidents of this nature.

However, supply of adequate steel and other supports aside, the increased risk from unsupported faces and hastily erected props loosened by the momentum of machines, was all too often caused by the belated setting of props:

A reduction in the number of accidents from falls of ground might be expected if more care and attention were paid both by officials and workmen to carrying out without delay the support rules and by intelligent anticipation of what may be the result of the work they are doing. Inspectors of Mines during their ordinary inspections too frequently find that buildings are not properly completed, supports along the face are set at too wide intervals and sometimes props that should have been set are missing entirely.¹³¹

The failure to introduce sufficient supports was also attributed to the pressure placed on cutting and loading teams to achieve maximum output and thus risks were taken by not introducing supports timeously.¹³² This was reflected in the Mines Inspectorate's data from 1933 which noted that the majority of roof fall accidents happened towards the end of a shift because supports had not been set systematically as work progressed (hence not only did the passage of time increase pressure on the roof but also the disturbance which the machinery was causing was further weakening it).¹³³ The delay in setting props was still attributed for a number of fatalities, from falls of ground in the late 1930s, as these comments from the District Inspector's report from 1938 suggest:

The setting of supports is far too frequently delayed until near the end of the shift. Supports, even if temporary should be set as soon as room has been made for them.¹³⁴

¹³¹ HMIM, SD, report, 1938, p.28; See comments of HM Inspectorate for 1940 in HMIM, SD, 1947, p.53, Appendix V.

¹³² HMIM, SD, 1936, p.21; *Rockley Commission, report*, p.70.

¹³³ HMIM, SD, 1933, pp.20-21.

¹³⁴ HMIM, SD, 1938, p.21.

Accidents also occurred when too many supports were removed or when they were withdrawn carelessly. In one example of a serious accident at an unnamed Scottish pit in 1935, the under manager had identified the dangers on a particular face, allocated extra men to erect supports, and told the men not to advance any faster than the rate at which new supports could be erected, the machine men disregarded the under managers' advice and knocked out supports, without replacing them or allowing them to be replaced, to leave a large area of unsupported ground.¹³⁵ In an even more serious case at Bardykes Colliery in Lanarkshire in 1936, five brushers were killed when the side they were erecting some support on collapsed.¹³⁶ The Inspectorate attributed the accident to a number of key factors: the damage to the roof caused by workings in an adjoining seam; the inadequacy of many of the supports (bar the four erected by the under manager); and the one and a half day delay in erecting supports, after the under manager had noticed defects and had insisted on extra supports being erected, allowing for two further cuts being taken from the face (causing further disturbance to the seams).¹³⁷ The role of mines surveyors, mining engineers and mining mechanical engineers comes under scrutiny here. These mining professionals who theoretically advised colliery managers but more often than not, in practice, reported directly to company agents were directly responsible for informing company policy on the technical feasibility of developments in coalfields and at collieries.

Nevertheless, in a number of cases, particularly in the Lanarkshire coalfield, falls of roof were caused by the use of machinery close to abandoned workings which disturbed the geo-structure (not to mention the occasional flooding of new workings from abandoned seams).¹³⁸ This

¹³⁵ HMIM, SD, 1935, p.23.

¹³⁶ HMIM, SD, 1936, pp.22-23.

¹³⁷ Ibid.

¹³⁸ HMIM, SD, 1930, pp.23-28; HMIM, SD, 1933, pp.17-28; HMIM, SD, report, 1934, pp.19-22; HMIM, SD, report, 1935, pp.18-24; HMIM, SD, report, 1936, pp.20-25; HMIM, SD, report, 1938, pp.14-30.

led the NACM, in its submission to the Rockley Commission, to call for anyone superior to a colliery manager who was informing the technical management of a pit to hold the first class certificate of competency and be held jointly accountable under the Coal Mines Act, and that surveyors be held responsible for keeping accurate and up-to-date plans of all workings which colliery managers could readily get hold of.¹³⁹ Unfortunately the regulations underwent little change to reflect either of these points, although agents were often prosecuted alongside colliery managers, and it took the catastrophic Knockshinnoch Castle Colliery disaster of 1950 before the amendment to regulations to reflect the latter was finally made in the Mines and Quarries Act of 1954 (which came into force in 1957, some twenty years after the NACM's submission to the Rockley Commission was made). Throughout the war, especially from 1940 onwards, fatalities and injuries attributable to falls of ground, particularly at the face, continued to rise with the Inspectorate once again blaming the failure of men and officials to adhere to support rules promptly along with geological disruption caused by the greater use of mechanical coal-cutters on longwall faces.¹⁴⁰ Whilst some of this wartime rise in accidents was undoubtedly attributable to the introduction of inexperienced workers into the pits, in the form of Bevin Boys, and the scarcity of officials, many of the Inspectorate's complaints were a continuation of pre-war concerns. R. J. Shaw, one of the NACM's representatives who gave evidence to the Rockley Commission, attributed much of the blame to officials and men:

A great many of these accidents [falls of ground] are due to a very common characteristic, amongst both managers and workmen, and that is a proneness to take a risk.¹⁴¹

An examination of falls of ground over the period 1930- 1938 reveals that the majority occurred at the coalface and because machine cutting teams

¹³⁹ *Rockley Commission, minutes of evidence*, points 16, 62 and 71, pp.892 and 895.

¹⁴⁰ HMIM, SD, 1947, pp.53-59, Appendix V.

¹⁴¹ A large number of fatalities and injuries after nationalisation from falls of ground were also attributed to recklessness (see chapter seven). *Rockley Commission, minutes of evidence*, Shaw, Q. 25,253.

had been pushing forward in unsupported ground.¹⁴² At face value, that would appear to be attributable to failings on the part of mineworkers and officials, and indeed, in some cases, it was. However it needs to be viewed against the pressure placed on and victimisation of colliery management, junior officials and mineworkers to maximise targets at the lowest possible cost.

In addition, despite warnings that added concentration was needed by teams on mechanised longwall faces, the mines inspectorate suspected that mine owners were guilty of making men work longer shifts with illegal overtime extension- with the attendant danger that fatigue and lack of attention brought, and had falsified records to disguise this.¹⁴³ The Mines Inspectorate, along with the Communist Party of Great Britain, maintained in their submission to the Royal Commission, that, 'the question of hours cannot be separated from the health and safety of the miners. The shorter the period the miners work, the fewer deaths and accidents'.¹⁴⁴ It therefore seems a final inequity that, when the Royal Commission on Safety in Coal Mines delivered its verdict on the issue, and recommended the prescribing legal distances at which supports were to be set and the need for increased supervision [initially called for by the Royal Commission on Safety in Coal Mines 1909] it also recommended that faceworkers be held legally responsible.¹⁴⁵

Whilst the avoidance of roof, side and roadway collapses were clearly, in some cases, attributable to errors on the part of mineworkers and officials, as Melling noted, this was indivisible from struggles over control of the point of production and the extraction of surplus-value from wage labour:

¹⁴² HMIM, SD, 1930, pp.23-28; HMIM, SD, 1933, pp.17-28; HMIM, SD, report, 1934, pp.19-22; HMIM, SD, report, 1935, pp.18-24; HMIM, SD, report, 1936, pp.20- 25;HMIM, SD, report, 1938, pp.14-30.

¹⁴³ HMIM, SD, 1930, pp.56-57; HMIM, SD, 1933, pp.55-56.

¹⁴⁴ *Rockley Commission, Appendices*, p.204.

¹⁴⁵ *Rockley Commission, report*, pp.245-272.

the politics of production.¹⁴⁶ Colliery management were subject to demands on production and costs, which could, at times, compromise safety. In some cases, managers succumbed to pressure. In others, as evidence from the Rockley Commission showed, colliery officials left their posts and sought employment elsewhere. Nevertheless, how easy finding alternative employment was during this period is difficult to ascertain. It is clear that in some coalfields, more advances were made to ensure the supply of the most effective materials for roof support and, in some companies, the policing of support rules was more apparent.

However, the application of more modern and effective support materials in some coalfields as opposed to the older coalfields of Lanarkshire and Ayrshire was not simply a matter of better practice but also the constraints of physical layout and size in some pits in the older coalfields.

Nevertheless, there is enough evidence (in the preceding pages) to suggest that some managers in these coalfields were employing new techniques and providing the most effective roof support possible. All the same, this was undoubtedly constrained by the demands of some colliery companies and coal owners to keep production costs to an absolute minimum and, particularly in the West, this was exacerbated by the over-proliferation of small industrial units and the suicidal competition, and abuse of various selling schemes, which took place throughout the 1930s. What is more, attempts by the NACM to reform aspects of the safety regulation, which related to this, including the strengthening of regulations on the need for regular roof supports and increased checks on roof supports, went largely unchanged until after nationalisation.¹⁴⁷

¹⁴⁶ J. Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p.147.

¹⁴⁷ *Rockley Commission, report*, paras 39- 42, p.894; The NACM's recommendations for the prompt and frequent erection of supports and straps along the face and arches on roadways, preferably made out of steel, for reasons of safety was reiterated in the Reid Report, pts. 325-373, pp.58-65; This point about the lack of reform of safety regulations is made more generally by Melling, although he overstates this when he refers to the period after nationalisation (see

Haulage

Haulage, the subject of much scrutiny in the Reid Report, reflected in equal measure the lack of widespread planning and the pursuit of short-term opportunism in the industry.¹⁴⁸ In particular, the report lamented the lack of transport available for mineworkers, the paucity of underground signalling systems and the size of roadways.¹⁴⁹ The Rockley Commission and the NACM's evidence to the commission had raised these issues, as had several reports by the Scottish District Inspectorate of Mines.¹⁵⁰ Nevertheless, the lack of man-haulage and signalling continued to either directly account for or contribute to a large number of injuries and fatalities both above and below ground in Scottish collieries. On average, over selected years between 1930- 1938, haulage accidents accounted for 27.9 per cent of all fatalities and 22 per cent of all injuries in collieries, with many of these accidents below ground being caused by illegal riding of conveyors or tubs, mineworkers being crushed when passing down a haulage road or poor signalling and safety mechanisms much of which was related to the lack of man haulage facilities and the poor layout of mines to allow for either safe access roads for mineworkers or conveyances to take them to and from the pit bottom and their place of work.¹⁵¹

Despite the Inspectorate issuing guidance on this in 1933, see the following quote, many Scottish collieries appeared to have poor haulage systems, for both men and materials, throughout this period:

It should be the aim of all colliery managers to provide separate travelling roads from every section to the pit bottom in order to

chapter seven): J. Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p. 153.

¹⁴⁸ *Reid Report*, paragraphs 374- 477, pp.65-80.

¹⁴⁹ *Ibid*, paragraphs 441-445 and 468-477, pp.75, 79-80.

¹⁵⁰ *Ibid*; *Rockley Commission, minutes of evidence*, paragraphs. 31-32, p.893; HMIM, SD, 1930, p.29-30; HMIM, SD, 1933, p.32; HMIM, SD, 1936, pp.29-30.

¹⁵¹ HMIM, SD, report, 1930, pp. 12-13, Tables 5 & 6; HMIM, SD, report, 1933, pp.10- 11, Tables 5 & 6; HMIM, SD, report, 1934, p.10, Table 5; HMIM, SD, report, 1935, p.10, Table 5; HMIM, SD, report, 1936, p.10, Table 5; HMIM, SD, report, 1938, p.10, Table I.

maintain means of ingress and egress at all times without stopping the haulage system and curtailing the output. The travelling roads should be preferably airways and have adequate height and width. They should not be too circuitous and so provide an inducement to men to use the haulage road. Ample height and width are especially necessary on men-haulage roads.¹⁵²

However, these exhortations to colliery managers seem hollow given that any changes to roadways and haulage would have required considerable investment, which only Agents or, more commonly, Directors would have been able to sanction. In some collieries, and companies, considerable resources were invested in underground layout, particularly roadways and haulage (for example, see illustrations 1 and 2). Even, the pictures offered by George Mackay of roadways at the Lady Victoria colliery (see illustrations 3 and 4), unsightly though they may appear, were a great deal better than the roadways in a large number of Scottish collieries, which were more likely to resemble the roadways in illustration 5.

¹⁵² HMIM, SD, 1933, p.32.

Illustration 1: A main roadway at Comrie Colliery, Fife, 1946¹⁵³

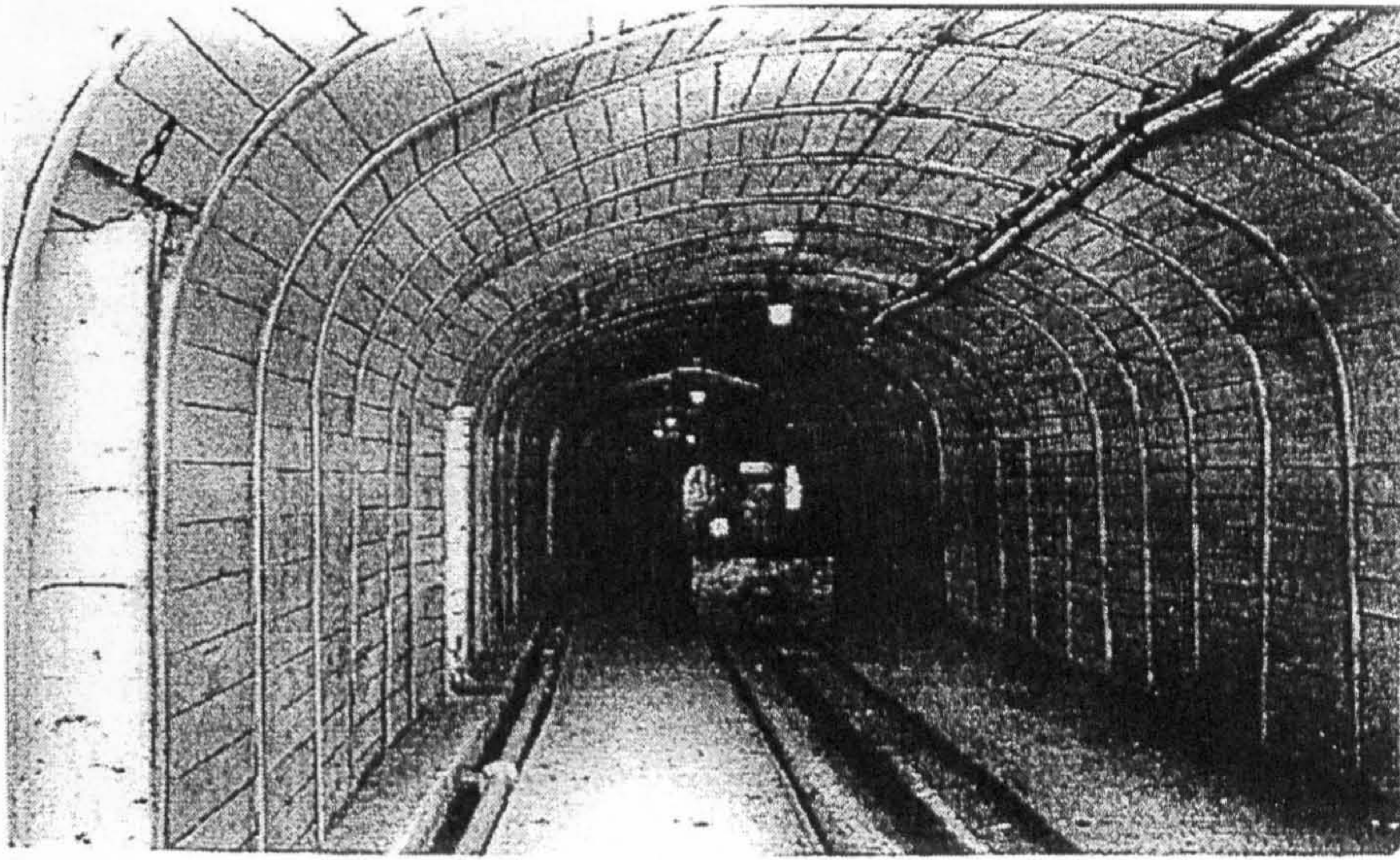
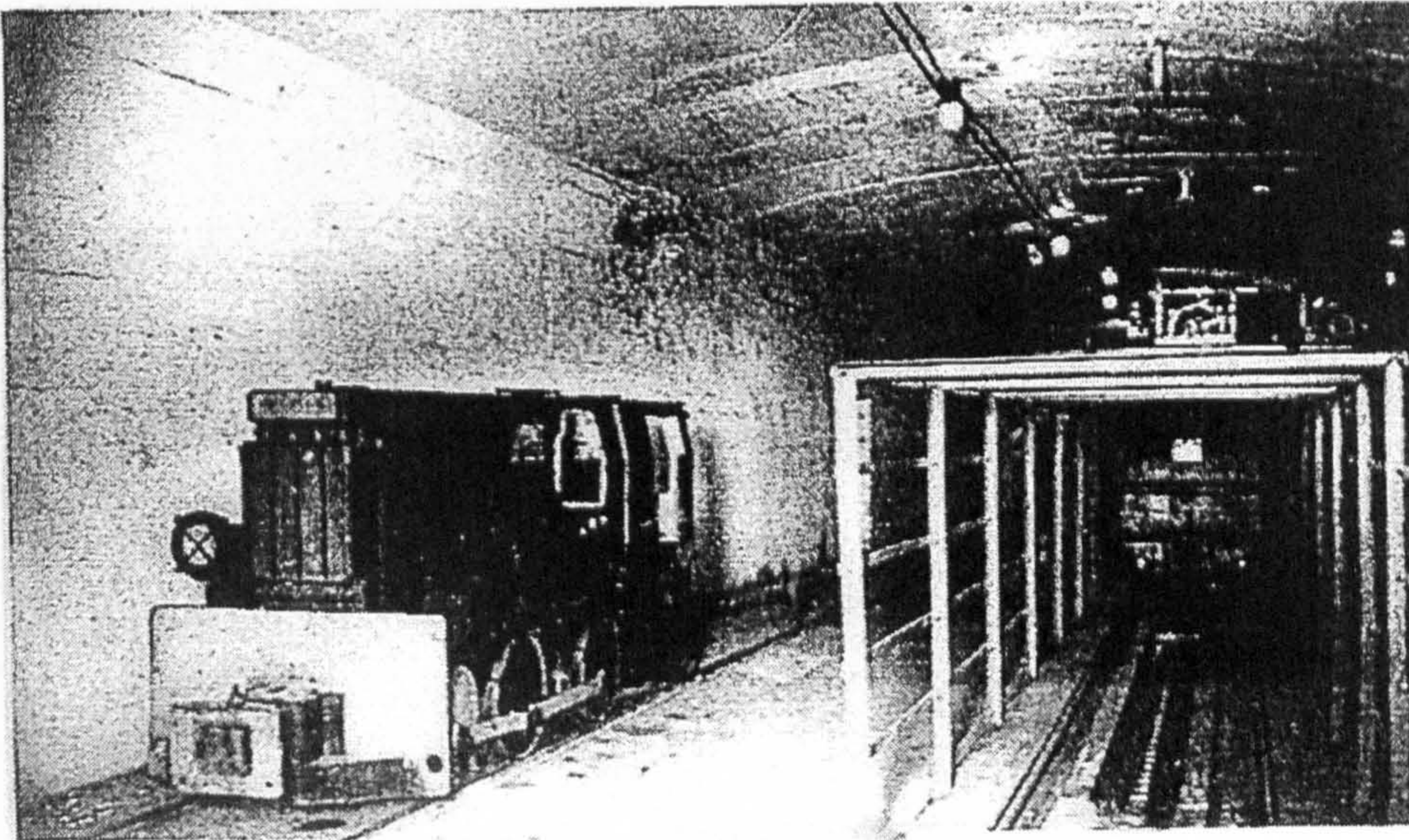


Illustration 2: Diesel locomotive underground at Comrie, 1946¹⁵⁴



¹⁵³ HMIM, SD, 1947, Figure 3.

¹⁵⁴ Ibid, Figure 4.

Illustration 3: Roadway at Lady Victoria Colliery, East Lothian, 1943¹⁵⁵

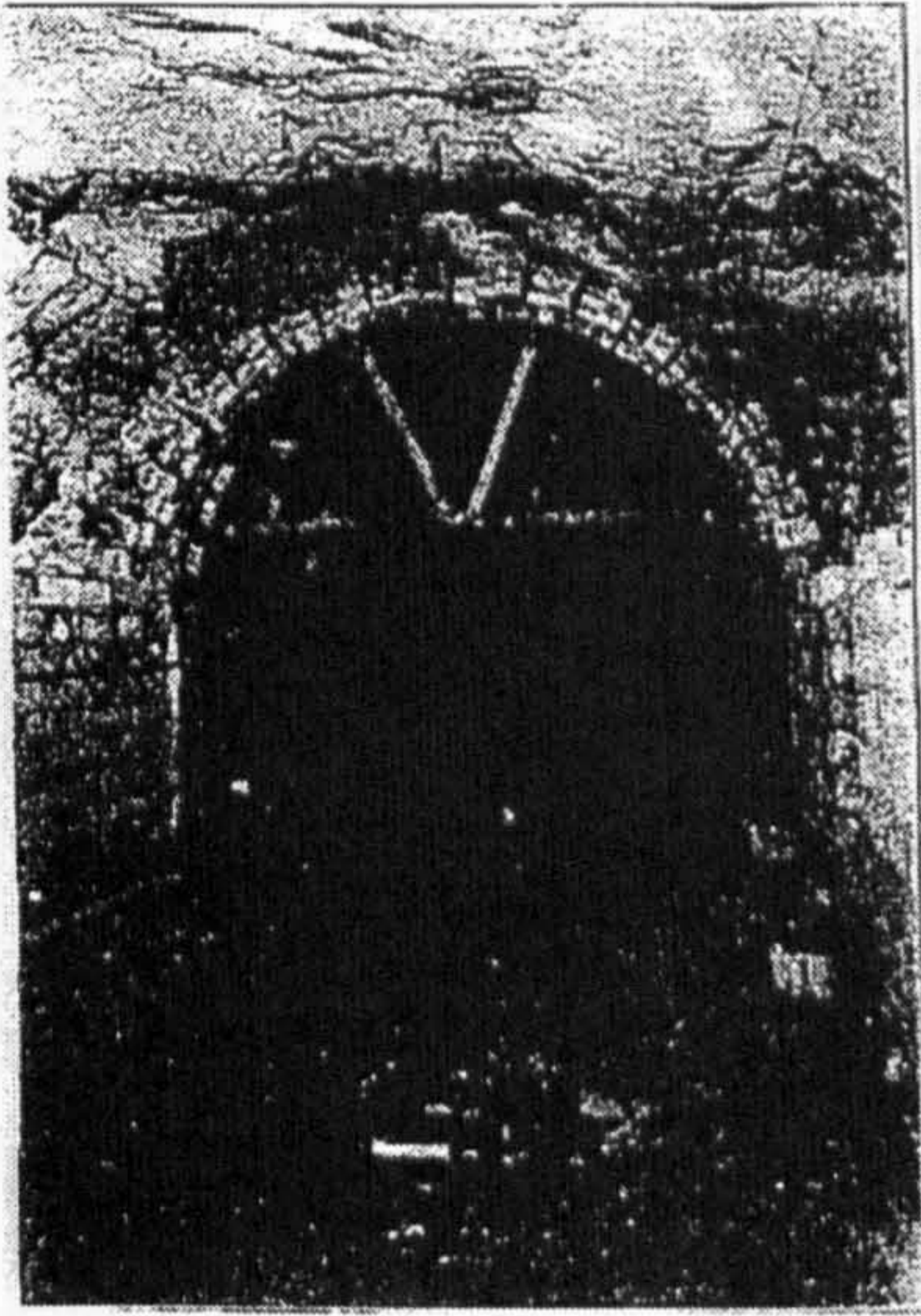
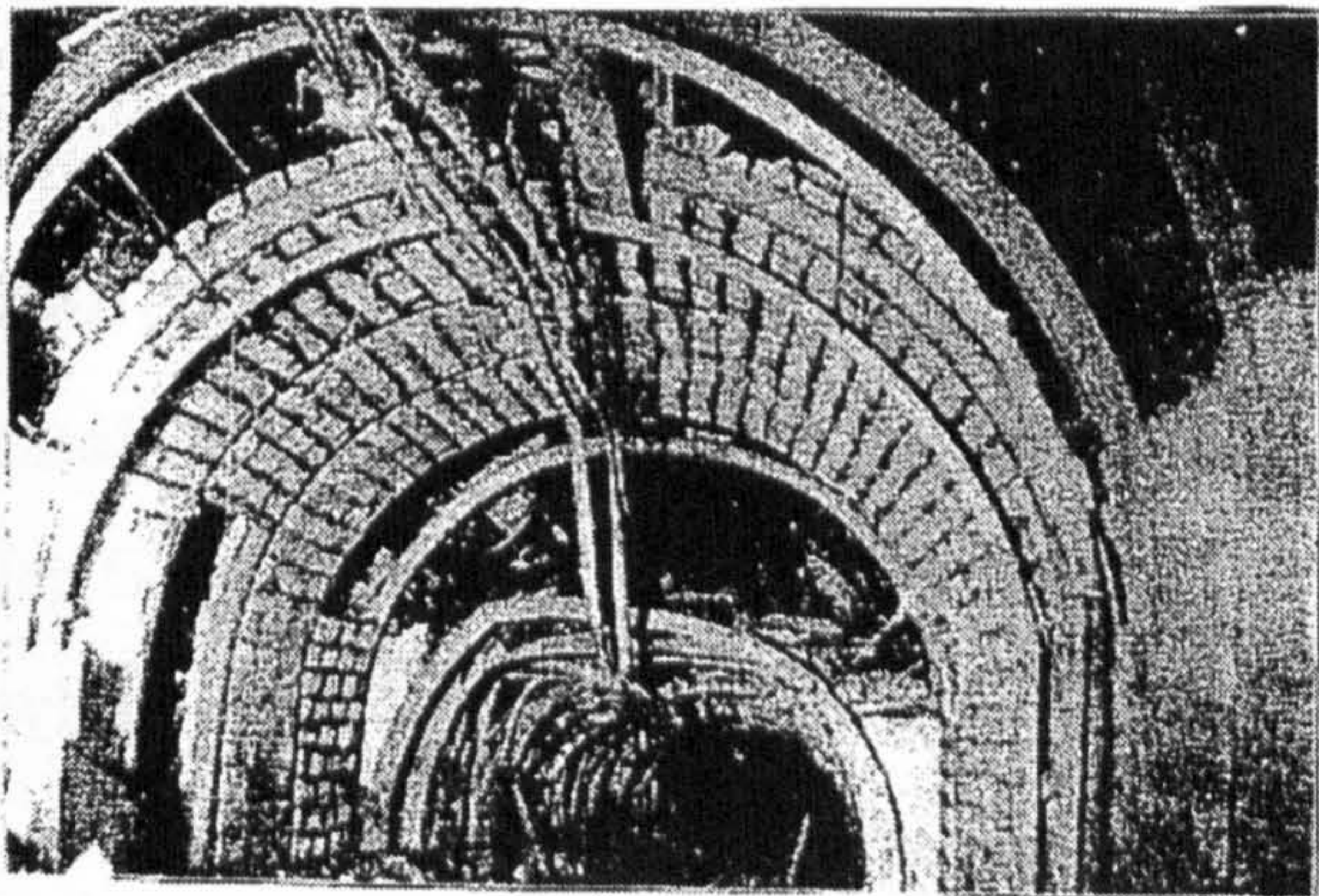


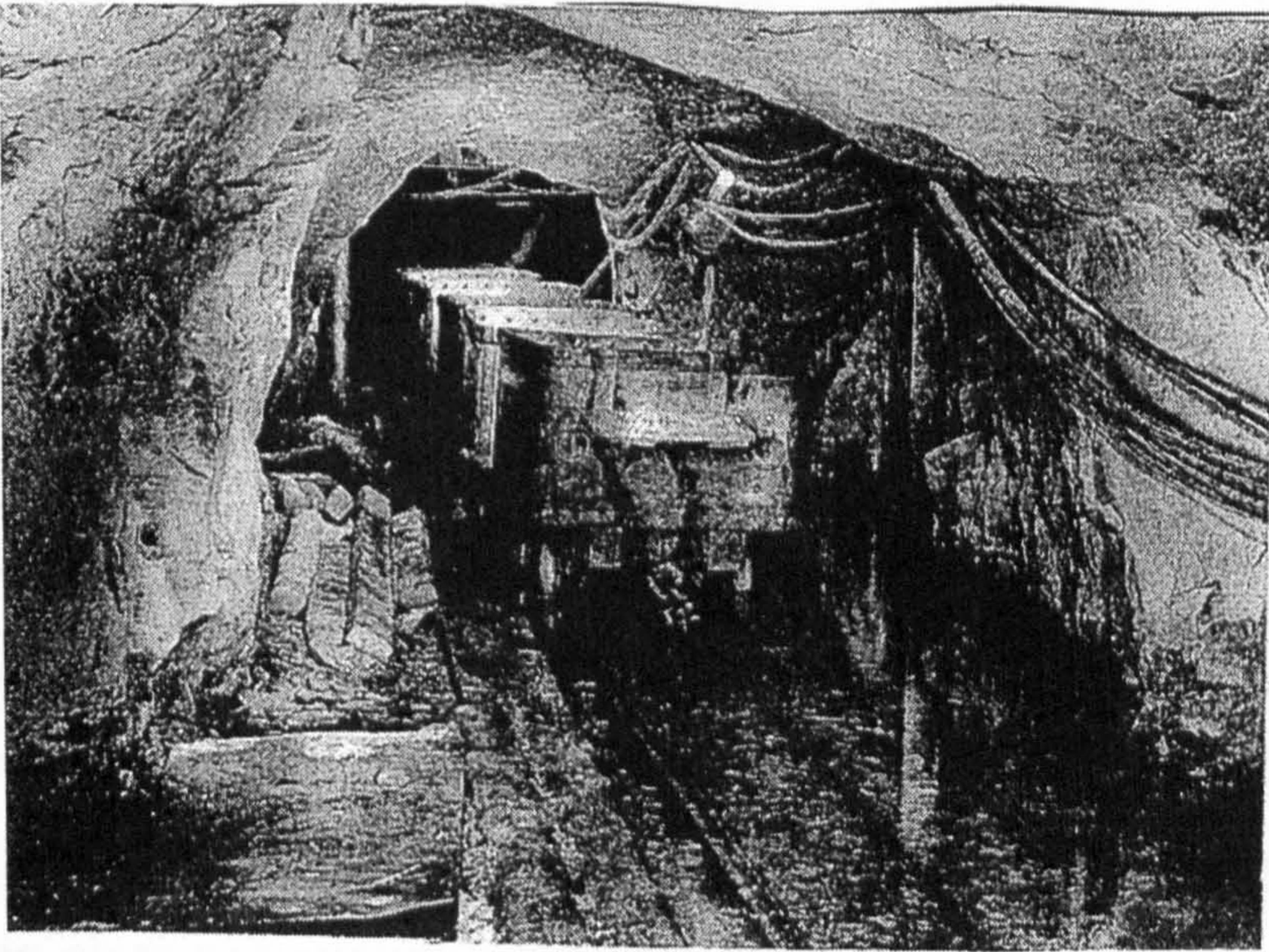
Illustration 4: Roadway (II) at Lady Victoria, 1943¹⁵⁶



¹⁵⁵ *IME*, Vol. CIII, 1943-44, pp. 546-7.

¹⁵⁶ *Ibid.*

Illustration 5: Roadway at Kames colliery, c.1945.¹⁵⁷



The continued prevalence of inadequate and dilapidated roadways and a lack of man haulage, was undoubtedly the cause of a large number of fatalities in the industry over this period. As the District Mines Inspector for Scotland noted in his report about the death of a hole-borer crushed when illegally riding on a haulage road:

This accident has been related because it appears that the condition of the roadway was a direct incentive on illegal riding... The list of preventable accidents could be extended by many pages but enough has been written to show that by the provision of proper plant, roomy roads and safe systems... there is a possibility of halving haulage accident rates.¹⁵⁸

The same year's report cited the case of a machine man, whose spine was fractured, after he 'illegally' rode some filled tubs and was caught between the roof and the filled tubs.¹⁵⁹ The District Inspector noted, of the accident, that the machine worker had just finished a 13hour shift and, 'probably he

¹⁵⁷ Guthrie Hutton, *Mining: Ayrshire's Lost Industry. An Illustrated History of the Mines and Mines of Ayrshire and Upper Nithsdale*, (Catrine, 1996), p.80.

¹⁵⁸ HMIM, SD, 1936, p.32.

¹⁵⁹ *Ibid.*

was riding out, being unable to face the gradient after such a shift'.¹⁶⁰ In yet another case, fatigue was largely responsible for a serious accident befalling an eighteen year old who fell in front of a 'haulage conveyance'.¹⁶¹ To the annoyance of the District Inspector, 'responsibility for the overtime could not be brought home to the agent and manager'.¹⁶² The examples of the latter two cases present an interesting example of where the culpability of colliery management began and ended. Namely, that despite the fact that managers could be blamed where miners worked over the statutory minimum (although again the exclusive culpability of managers, irrespective of Board level demands for commercial prerogatives, is questionable) or where safety measures were evidently not in place or communicated, clearly the provision of safe roadways and haulage required considerable capital investment and planning which often took place at Agent or, in most cases, Director level. Furthermore, in spite of more antiquated plant in some collieries, managers and mining professionals, within some colliery companies, were innovative in finding ways of making haulage safer. For example, one Fife Coal Company mine and a number of Bairds and Dalmellington's Ayrshire pits, introduced systems of brakes and effective blocks, which prevented runaway haulage tubs- the cause of a significant number of deaths in mines.¹⁶³ Other developments in haulage, such as an adapted conveyor, with blades, introduced onto a 1-in-2 face at a Fife Coal Company pit, prevented coal simply tumbling down the sharply inclined face and reduced the levels of dust created on this face (and had the additional commercial benefit for the company of keeping the coal in pristine condition).¹⁶⁴

¹⁶⁰ Ibid.

¹⁶¹ Ibid, pp.31-2.

¹⁶² Ibid.

¹⁶³ HMIM, SD, 1938, pp.40-41; For examples of similar accidents see references to incidents at Kames and Polmaise 3 and 4 collieries: HMIM, SD, 1934, pp.25-26.

¹⁶⁴ HMIM, SD, 1936, p.20.

In other cases, the culpability of managers was far more tangible, as this example from Lochore Colliery in Fife from 1934 shows:

The under-manager, not being satisfied with the progress made by the electric locomotive driver took his place and successfully drove a train of empty tubs inbye. On the return journey with full tubs his speed caused two tubs to be derailed and turn over, unfortunately when they were passing an electrician walking by the side of the road. The accident was due to the under-manager's inexperience and his rapid driving of the locomotive.¹⁶⁵

Another fatal accident attributed to this misuse of explosive charges (see next sub-section) illustrated the callous disregard and impetuosity of a Lanarkshire under manager and apparently lends weight to the argument that Oversmen, and therefore many under managers, were being drawn from young technically proficient men who lacked the requisite 'pit-sense' but were more productivity-minded.¹⁶⁶ However, cases like these are few and far between in the reports of the District Inspectorate and there are not sufficient cases to suggest that an active policy of simply recruiting men of this kind into the ranks of management prolifically across either the Scottish coalfields or certain districts. Although certain companies may well have pursued a policy of hiring hard-bitten productivity driven officials, others clearly were much more strident in their pursuit of safety. In general, a more replete explanation needs to take into account the economic constraints under which managers worked and the gaps in their technical knowledge, which have already been outlined.

Explosions

The ensuing paragraphs will examine explosions, resulting both from firedamp levels and through the practice of shotfiring. Whilst, firedamp levels existed naturally in many mines and pits, the inadequacy of ventilation systems and testing for gas, poor supervision and ignorance

¹⁶⁵ HMIM, SD, 1934, p.27.

¹⁶⁶ J. Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p.157.

about the dangers of firedamp (and thus the continued use of naked flames underground) attributed for a fair number of accidents in Scottish collieries during this period. The poor state of ventilation in some Scottish pits was glaringly exposed as greater amounts of shotfiring took place as part of longwall coal getting methods. It also reflected, like haulage systems, the paucity of capital investment, in some pits, and misplaced direction of resources to productive capacity with immediate returns, in others, which resulted from Directorial and owners' decisions. On the other hand, a number of the other factors owed much to the vigilance of the manager in enforcing statutory guidelines, where they existed, in the colliery. However, in one of the major explosions in the coalfield, during this period, it was revealed that the colliery manager was overstretched at the time. The greater proliferation of shotfiring and use of explosives in pits was inevitably riskier. However, it was often the lax practice employed in the use of these, in the haste to increase output, which was the main reason for a high accident rate, through the use of explosives.¹⁶⁷

Between 1930 and 1938, accidents arising from shotfiring or use of explosives accounted, on average, for 6.4 per cent of deaths and 15.5 per cent of underground accidents.¹⁶⁸ Over the same period, an average of 8 people were killed a year and 36 injured as a result of firedamp explosions along with accompanying fires and noxious gases.¹⁶⁹

There were few individual examples of outright displays, amongst managers, of a callous disregard for human life in Scottish pits, although

¹⁶⁷ See *Ibid*, pp. 160-1.

¹⁶⁸ Data on non-fatal injuries and fatalities between 1939 and 1946 was included in the inspectorate's report for 1947: HMIM, SD, 1930, pp.12 and 31, Tables 5, 11 and 12; HMIM, SD, 1933, pp.10 and 33, Tables 5 and 11; HMIM, SD, 1934, pp.13 and 28, Tables 6 and 10; HMIM, SD, 1935, pp.10 and 29, Tables 5 and 10; HMIM, SD, 1936, pp.10 and 33, Tables 5 and 11; HMIM, SD, 1938, pp.10 and 56, Tables 1 and VIII.

¹⁶⁹ HMIM, SD, 1930, p.15, Table 7; HMIM, SD, 1933, p.12, Table 7; HMIM, SD, 1934, p.13, Table 6; HMIM, SD, 1935, p.13, Table 6; HMIM, SD, 1936, p.12, Table 6; HMIM, SD, 1938, p.45, Table VII.

they do exist. Such a case was that which led to the death of a stripper at Tannochside Colliery, near Lanark, in 1936, when the colliery under manager, in the absence of a fireman or shotfirer, ordered the stripper, who had no experience of shotfiring, to prepare and fire a shot.¹⁷⁰ His inexperience meant he did not clear the area in time and was killed by flying debris.¹⁷¹ The under manager was subsequently prosecuted and found guilty.¹⁷² Whilst cases like this were rarely reported, concerns were repeatedly expressed about the culture of indifference to firedamp in Scottish collieries, whether that be in checking for firedamp or the continued use of naked flames (either in the form of cap lamps or from smoking), because of an inexperience with it (see repeated comments in inspectorate reports). In 1930, a brusher was killed at Arniston Colliery in Midlothian by an ignition of firedamp in an area of the pit where officials had been lax to check gas levels.¹⁷³ The Divisional Inspector was prompted to make the following remarks about the colliery management and junior officials, along with the ventilation of the underground workings and misplaced confidence by officials in a lack of gas at the colliery, after this accident:

The fireman admitted not having made inspection. He was, like the higher officials of the Colliery, depending on the freedom from gas which the colliery has enjoyed, as very little air current was passing in the place. If any perceptible current of air had been circulating gas would not have been found.¹⁷⁴

Two cases, both at Fife Coal Company pits, illustrate the lack of awareness amongst mineworkers and officials alike about the presence of firedamp in Scottish pits. An explosion at Aitken Colliery in Fife could have been avoided had general orders and instructions been laid down by colliery management to ensure areas were checked for firedamp.¹⁷⁵ And an under

¹⁷⁰ HMIM, SD, 1936, p.33.

¹⁷¹ Ibid.

¹⁷² Ibid, p.45.

¹⁷³ HMIM, SD, 1930, p.15.

¹⁷⁴ Ibid.

¹⁷⁵ HMIM, SD, 1933, pp.13-15.

manager and oversman were both burnt when they checked for firedamp with a naked flame lamp at Lumphinnans XI and XII in an incident in 1935.¹⁷⁶ Another explosion at Arniston Colliery in 1934 suggested, given the ensuing evidence and that mentioned above, gross negligence and a callous disregard for life at this pit:

The attention of the owners had been directed to previous occurrences of firedamp in this identical section of work and they had been requested to eliminate naked lights from it, with the intention of obviating an explosion, but they preferred to run the risk.¹⁷⁷

This example suggests not only a case of culpable homicide on the part of the owners and management of the colliery but also powerlessness on the part of the Mines Inspectorate to compel the colliery company to take action. The continued use of naked flames and the failure within some collieries to ensure proper checks for firedamp in Scottish collieries was a constant gripe for the Mines Inspectorate, and a concern of the NACM, throughout this period.¹⁷⁸ There was also increasing concern about the ventilation of working places and isolated underground areas.¹⁷⁹ This was illustrated by the following example. At Gartshore Colliery No.s 9 & 11, in Dumbarton, two miners were killed by an explosion, in spite of tests for gas by the manager two hours previously, because proper arrangements were not made to halt operations to make provision for adequate ventilations of new workings.¹⁸⁰ Although improvements were made over this period in ventilation for collieries, the number of fatalities from explosions, fires and fumes well into the 1950s bears testament to the inadequacy of ventilation arrangements in many Scottish pits.¹⁸¹

¹⁷⁶ HMIM, SD, 1935, p.17.

¹⁷⁷ HMIM, SD, 1934, p.17.

¹⁷⁸ HMIM, SD, 1930, pp.39-40; HMIM, SD, 1933, pp.34-35; *Rockley Commission, minutes of evidence*, NACM deposition, paragraph 37, p.894.

¹⁷⁹ HMIM, SD, 1934, p.46.

¹⁸⁰ HMIM, SD, 1936, pp.14-16.

¹⁸¹ HMIM, SD, 1933, p.46; HMIM, SD, 1934, p.46; HMIM, SD, 1935, p.47.

Similarly, the increased use of explosives (along with the quantity and type of explosives used) and careless disregard for regulations was a major concern for the NACM and Mines Inspectorate over this period.¹⁸² A typical cause of fatalities was a lack of warning being given to those working in the vicinity, or firing the shots, to take cover or care to ensure shots were properly exploded and the area was safe before approaching.¹⁸³

However, despite the instructions issued to the Mines Inspectorate insisting that colliery managements made sure that instructions for shotfiring practice were both clear and comprehensive for underground officials and mineworkers alike, along with improvements in the types of explosives used, there was no substantial reduction in the number of fatalities and injuries attributable to shotfiring between 1930 and 1938.¹⁸⁴ However, this may well have had more to do with the sheer volume of shots being fired than a total disregard for safety advice. Between 1911 and 1936, there was a 46 per cent increase in the amount of explosive used and a 104 per cent increase in the number of shots fired per person employed in the industry.¹⁸⁵ In the absence of integrated power-loading machinery, the increased use of explosives appealed to colliery companies because of the manifold increase in output that the use of shotfiring could return. However, this was not accompanied by investment in underground layout, including ventilation, so that savings could ensure the highest possible dividends for shareholders. The result of this combination was an increased risk of fatalities and injuries amongst both mineworkers and officials.

¹⁸² *Rockley Commission, minutes of evidence*, NACM deposition, paragraphs 50 and 51, p.895; HMIM, SD, 1936, pp.57-58; See also J. Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900-1960', p.157.

¹⁸³ For example: HMIM, SD, 1933, pp.35-36; HMIM, SD, 1936, p.29.

¹⁸⁴ HMIM, SD, 1933, pp.35-36; HMIM, SD, 1930, pp.12 and 31, Tables 5, 11 and 12; HMIM, SD, 1933, pp.10 and 33, Tables 5 and 11; HMIM, SD, 1934, pp.13 and 28, Tables 6 and 10; HMIM, SD, 1935, pp.10 and 29, Tables 5 and 10; HMIM, SD, 1936, pp.10 and 33, Tables 5 and 11; HMIM, SD, 1938, pp.10 and 56, Tables 1 and VIII.

¹⁸⁵ HMIM, SD, 1936, p.58.

Evidently, in quite a number of accidents cited here, as a result of explosions, colliery management was negligent. However, clearly colliery companies' lack of investment in underground layout and the pursuit of maximised, but low-cost, production, achieved through the increased use of explosives and the decrease in the number of qualified safety officials and, in some cases, their replacement with inadequately trained production officials had an equally serious effect on safety, and health.

*Pneumoconioses*¹⁸⁶

Despite the Fife Coal Company's reputation as a progressive company, in most aspects of the health and safety of their employees, and their apparent commitment to tackling safety issues through the appointment of one of their most prominent senior managers, the General Works Manager, Dr. William Reid, their commitment to 'remedy any dust nuisance where possible' was largely limited to more modern ventilation techniques, the widening of roadways and the provision of free respirators 'when necessary' for working in dusty conditions.¹⁸⁷ However, Reid inferred in his comments about the company's policy on occupational health that this was more for the comfort of workers rather than as any part of a dust suppression campaign.¹⁸⁸ If the leader of the Scottish coal industry, as far as health and safety were concerned, was not fully alive to the dust problem, then there was little hope for the rest of the industry. This emphasis on discomfort, rather than risk, was reflected in the Mines

¹⁸⁶ For more detail (particularly of the influence of orthodox epidemiological and pathological studies which refuted that coal dust was dangerous) see forthcoming article in the journal of *Scottish Labour History*, Vol. 40, (2005), A. Perchard, 'The Mine Management Professions and the Dust Problem in the Scottish coal mining industry, c.1930-1966'.

¹⁸⁷ William Reid, 'A Modern Campaign for Greater Safety', *Transactions of the Mining Institute of Scotland*, LIX, 1938-40, p. 51; Augustus Muir, *The Fife Coal Company Limited*, Appendix V.

¹⁸⁸ William Reid, 'A Modern Campaign for Greater Safety', p.51.

Inspectorate's report of 1936, which noted that, in a few mines, men working with coal-cutting machines were being:

Supplied with respirators for use on the return side of the machine, not on account of the danger of silicosis, which appears to be non-existent, but because the amount of dust made by modern high speed coal-cutters is unpleasant to breathe.¹⁸⁹

Oblivious to, or unconcerned about, the effects of coal-dust, and reassured by scientists and doctors that coal particles were harmless, colliery companies were exposing mineworkers to this damaging dust, and fuelling the epidemic of pneumoconiosis, which was crippling the men of mining communities. The flaws of the scientific professions in recognising coal-dust pneumoconiosis will be examined in due course. Aside from the untold damage that coal dust was doing, the dangers of rock silica, for which the compensation scheme was extended to coal miners in 1928, it would appear, were not being taken seriously in the Scottish coalfields because of the low number of diagnosed cases.¹⁹⁰ Between 1930 and 1938, nine cases of certified silicosis amongst coal miners were registered with no deaths from the disease.¹⁹¹ E. H. Frazer, the Inspector of Mines for Scotland between 1934 and 1938, even declared in 1934:

Scottish mines are remarkably free from silicosis, possibly because wet conditions, unfavourable to dust, prevail in a large proportion of collieries. Only one worker in a coal mine was certified in 1934 to be suffering from the disease and he was only partly incapacitated. So far as I have been able to ascertain only four persons in all are said to have contracted silicosis in Scottish mines and one is a disputed case. No man has been known to die from this industrial disease.¹⁹²

¹⁸⁹ HMIM, SD, 1936, p.69.

¹⁹⁰ For outline of the passage and progress of silicosis legislation see: Hywel Francis and Dai Smith, *The Fed. A History of the South Wales Miners in the Twentieth Century* (Cardiff, 1998), p.439; Mark W. Bufton and Joseph Melling, 'Coming Up for Air: Experts, Employers and Workers in Campaigns to Compensate Silicosis Sufferers in Britain, 1918- 1939', *Social History of Medicine*, Vol.18, No.1, (2005), pp.63-86.

¹⁹¹ HMIM, SD, 1933, p. 55; HMIM, SD, 1934, p. 63; HMIM, SD, 1935, p. 65; HMIM, SD, 1936, p. 69; HMIM, SD, 1937, p. 68; HMIM, SD, 1938, p.81.

¹⁹¹ HMIM, SD, 1934, p. 63.

¹⁹² Ibid.

This glib dismissal of the dangers posed by stone silica in Scottish coal mines can only have helped to legitimise a cavalier attitude to dust suppression. This is despite the fact that some two years later, in his evidence to the Rockley Commission, Frazer declared that dust testing in Scottish pits was inadequate.¹⁹³ Furthermore, these figures for mineworkers certified with silicosis should be viewed with caution, given Scottish coal owners' opposition to the medical examination of mineworkers, illustrated in this minute from a meeting of the Lanarkshire Coal masters' Association (LCA) in 1934:

While the Directors of the Scottish Mine Owners Insurance Association did not consider it desirable in the meantime to suggest the compulsory examination of all workmen, they had made prior arrangements for the medical examination of new applicants.¹⁹⁴

The Scottish mine owners may well have had their eye on the new Silicosis Orders, introduced in 1934, which partially strengthened the hand of claimants, and also the test case brought to the House of Lords, and subsequently lost, by the South Wales Miners' Federation against the owners of Tirbach Colliery.¹⁹⁵

The failure to implement medical examinations, and adequate testing of levels of dust, was responsible for the limited knowledge of both silicosis and coal miners' pneumoconiosis and their proliferation, but also the seriousness with which they were viewed.

The complete disregard for maintaining safe levels of dust and misplaced rationale for dust suppression are visible in the reflections of John C. George, by now the General Manager of the New Cumnock Collieries, on

¹⁹³ CG, May 22, 1936, p. 963.

¹⁹⁴ LCA, 26 November 1934, Minute book, No.18, 1934-1938, GUBA, UGD 159/1/18; The Miners Federation of Great Britain (MFGB), the Miners Industrial Union (MIU) and NACM all opposed testing of mineworkers and new entrants too: *Rockley Commission, report*, pp.468-9.

¹⁹⁵ H. Francis and D. Smith, *The Fed*, p.439.

reasons for dust suppression in driving a new heading at Knockshinnoch Castle Colliery, near Cumnock in Ayrshire:

The primary objective of wet drilling [increasingly used to suppress dust at the point of the pick or cutter] was to remove what we considered one of the most serious obstacles to the recruitment of men for stone-mining. Now we have a waiting list. On this criterion wet drilling has been completely successful. I know that other colliery companies introduced wet drilling years ago, but, for some reason, the system has made little or no progress.¹⁹⁶

It can therefore be surmised that attitudes to dust suppression at Alloa Coal Company pits during this period, given George's job as the former Company Agent, would not have been very rigorous either. However, this mining engineer's indifference did not reflect all managers and mining engineers' attitudes, if not always their power to address safety and occupational health matters (which could be more dependent on their employers and knowledge) to safety and recognised occupational health hazards in mines. For example, when Evan Williams of the Mining Association of Great Britain suggested reducing the, already, inadequate safety levels for gas in which work could continue, the Institution of Mining Engineers insisted that limits be kept, and regulated by the Inspectorate, to allow 'for the indifferent manager who is either incapable, or wilfully neglectful'.¹⁹⁷

Mine owners' greatest ally in the battle to undermine diagnosis of dust related diseases amongst coal miners, and specifically, pneumoconiosis caused by coal dust was to be the scientists and allied medical practitioners. However, the influence of coal owners on scientific research

¹⁹⁶ Three of the Alloa Coal Company's directors acquired the New Cumnock Collieries in 1937-38: J. C. George, 'Stone-mining with wet drilling and joy loader in Knockshinnoch Castle Colliery, New Cumnock', *IME, CIV*, 1944-5, p. 337; J. L. Carvel, *One hundred years in coal*, pp.130, 153 and 160.

¹⁹⁷ *Rockley Commission, report*, pp.208-9.

into occupational diseases is rarely commented on.¹⁹⁸ Apart from the influence of colliery owners and companies over mining departments (see preceding chapter), the British Colliery Owners' Research Association funded much of the scientific research into occupational diseases amongst coal miners. Given coal owners' control over both the education of managers and mining professionals and scientific research, it can hardly be said that mining capital did not have a considerable control over research about occupational diseases in mining, mining education and consequently how managers and mine management professionals viewed the issue of dust and other occupational hazards in mining.

Small wonder that orthodox scientific views like those of Professor J. S. Haldane and Edgar Collis went unchallenged. Haldane, Collis and others rejected the autopsy findings of doctors in mining areas from the nineteenth century, who had highlighted the presence of large deposits of coal dust in the lungs of miners who had died of pulmonary diseases. Haldane maintained that it was only certain dusts, those of stone and flint, for example, which were harmful and that coal dust could actually have a beneficial quality in aiding the lungs to expel other agents, and ward off tuberculosis. In a posthumous paper, published in the *Institution of Mining Engineers' journal*, Haldane and his collaborators even claimed that coal dust protected miners' lungs against silicosis, hence explaining the low rate of silicosis amongst coal miners in certain parts of the British coalfield, and attributed the higher incidence of respiratory diseases amongst South Wales miners, which they diagnosed as a pronounced form of bronchitis, to the cold drafts in some South Wales pits which made miners' body temperatures vacillate.¹⁹⁹ Significantly similar views to these were also expounded by the Medical Inspector of Mines, Dr. S. W. Fisher,

¹⁹⁸ Alan Derickson, *Black Lung. Anatomy of a public health disaster*, (Ithaca, 1998), pp.60-68.

¹⁹⁹ J. S. Haldane, F. Haynes, A. Shaw and J. Ivon Graham, 'Silicosis and its prevention. Twenty-sixth report to the Committee on "the control of atmospheric conditions in hot and deep mines', *IME*, XCVII, 1938-9, pp. 40- 82; 'John Scott Haldane', *CG*, March 20, 1936, pp.548-9.

adding further apparent legitimacy to this orthodoxy for mining professionals.²⁰⁰ The influence of Haldane and Collis, other proponent of coal dust as a beneficial agent and a prophylactic against TB, on mining professionals is clear from the 1925 edition of a seminal mining education textbook for aspiring colliery managers and mining engineers at the time, which attributed both Collis and Haldane with making the chief breakthroughs in the field of occupational health in mining.²⁰¹ Haldane's views continued to be voiced by a number of disciples and collaborators after his death.²⁰² One of these prominent collaborators, Professor J. Ivon Graham, led research into silicosis for the British Colliery Owners' Research Association in the early 1930s.²⁰³

The pervasiveness of the views of Haldane, Fisher (in particular his evidence to the Commission) and others that, *ceteris paribus*, coal dust was essentially harmless were implicit in the Rockley Commission's own conclusion that coal dust was 'innocuous'.²⁰⁴

Furthermore, were managers to contract either silicosis or pneumoconiosis, quite a real possibility given that many colliery managers (especially under managers) and mining professionals, at this stage, had

²⁰⁰ Fisher gave lectures to the West of Scotland mining students on silicosis in 1934. The deference which he was shown by an audience of mining engineers in 1936 also suggests his view were held in high esteem. For examples: S. W. Fisher, 'Observations on dust-related diseases in miners', *IME, XCIL*, 1936-7, pp.99-108; *Rockley Commission, minutes of evidence*, Fisher, Q. 22,407-22,410 and 22,677- 22,682; Similar views to those of Fisher were expounded by S. L. Cummins in 'Effects of Coal Dust upon the Silicotic Lung', *Journal of Pathology and Bacteriology*, 30, (1927), pp. 615-9; HMIM, SD, 1934, pp.63-4.

²⁰¹ H. F. Bulman and Sir R. A. S. Redmayne, *Colliery Working and Management comprising the duties of a colliery manager, the superintendence & arrangement of labour & wages and the different systems of working coal seams*, this edition (London, 1925), pp.337, 344-5; An example of Collis' work is to be found in E. L. Collis, 'The Coal Miner: his Health, Diseases and General Welfare', *Journal of Industrial Hygiene*, 7, (1925), pp.221-243; A. Derickson, *Black Lung*, p.53.

²⁰² Honorary Managing Committee of the Bureau of Hygiene and Tropical Diseases, *Pneumoconiosis abstracts, Vol. 1: 1926- 1938* (New York, 1953)..

²⁰³ J. Ivon Graham and F. Lawrence, 'The collection and analysis of air-borne dust during the driving of hard headings', *IME, XCIL*, 1936-7, pp. 1-18; S. W. Fisher, 'Observations on dust-related diseases in miners', *Ibid*, pp. 99-108.

²⁰⁴ *Rockley Commission, report*, pp.462-3; *Rockley Commission, minutes of evidence*, Fisher, Q. 22,407-22,410 and 22,677- 22,682.

spent a considerable amount of time underground, they would not have been covered by formal compensation schemes and would have had to rely on *ex-gratia* payments from their employers.²⁰⁵

The preceding pages identify an economy of priorities, which, in a great many Scottish colliery firms, subordinated health and safety considerations to economies and the realisation of profit. Colliery managers and under-managers were subject to the pressures, mentioned earlier, and constrained by their reliance on their employers, and the latter's control over their future prospects and vocational education and training. In a few cases, colliery managers and under-managers were clearly responsible for either gross negligence or recklessness. However, in the majority of cases, accidents were attributable to a lack of investment in collieries and the routine and regimented company procedures and training. Nevertheless, employers were rarely prosecuted as they should have been. On the other hand, once again, the example of the Fife Coal Company's commitment, this time to safety, stands out. Despite the climate, in many companies, of cavalier indifference to good health and safety practice, managers did endeavour at some pits to utilise innovatory methods to tackle potential risks. There remained a chronic knowledge gap, in Scottish collieries and amongst the mining professions in Scotland throughout this period, of occupational pulmonary diseases. However, clearly in the case of some colliery directors and owners, the opposition to introducing lung capacity tests were motivated by single-minded self-interest, in particular, the threat of compensation claims.

²⁰⁵ I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', p.63

III

Labour relations

The image of colliery managers, in particular, which has tended to emerge, is of the local autocrat. Whilst there were clear illustrations of this type of management style in Scotland, as in the rest of the British coalfield, such as Mungo Mackay, this broadly applied stereotype does not take account of the changes in management philosophy over this period, amongst the mine management professions.²⁰⁶ It also fails to acknowledge the relationship between colliery management and their employers, and consequently how company policy or owner direction pre-determined many aspects of colliery managers' *modus operandi* in relation to mineworkers and junior officials. Rather than rely on analysing aggregated figures for industrial action at collieries to identify whether any cases arose directly as a result of managerial behaviour (rather than decision-making), which would be very problematic given the inconsistency of the empirical evidence for Scottish colliery companies during this period, this section will focus on more qualitative examples, such as the views expounded by mining professionals on the subject of labour management in professional journals, the reflections and recollections of managers about labour relations, and a few disaggregated examples. In some localities, the evidence from National Coal Board records of labour relations, after nationalisation, and from oral testimony was indicative of the inherited past of conflict and of corporate management style. This section argues that colliery management, as a general rule, was restricted in aspects of labour relations (as with health and safety), particularly on the matter of wages and conditions, by company demands for minimal unit costs. Equally, policy on patrician welfarism, fostering links with older county union leaders and targeting of

²⁰⁶ See chapter two and see examples of Thurcroft, South Yorkshire, and Cresswell, Derbyshire, in Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889- 1966*, (Cambridge, 1998), pp.134-141.

rank and file militants was decided at company level. As the examples in the ensuing pages show, colliery managers were invariably keen to follow this policy. However, the approaches and behaviour of companies and managers alike was not uniform.

Despite mine management professionals' invocation of more conciliatory and consultative relations with labour, influenced in part by the Human Relations school, this was prompted by a pragmatism, which recognised that labour was an increasingly powerful constituency which had to be acknowledged and shown a degree of courtesy (if not always listened to), that the reorganisation of work systems in the industry could not be changed successfully by simply imposing it on labour, and consequently that a substantial rise in productivity was reliant on a harmonious velvet revolution in methods. Thus, managers' and mining engineers' suggestions for improved labour relations were essentially patrician both in content and tone (for an example, see Walton- Brown's comments on pages 35 and 36, chapter 2). This patrician approach to consultation was evident from managers' attitudes to the wartime pit production committees and contact with trade unionists. It was also accompanied in some colliery companies in Scotland, during this period, with a nurturing of the older leadership of the county unions and the harassment and blacklisting of rank and file militants. The first of the two following quotes, from a seminal mining textbook, illustrates the longer-term tradition of this more patrician style of management, whilst the second, from an address to the NACM, advocating greater consultation, augments this with strains of a human relations argument:

The object of every manager of mines should be to retain the management of his own workmen in his hands, and to trust as little as may be to the extraneous aid of joint boards or of other constitutions. By so doing I am convinced that harmony and goodwill can almost invariably be ensured between the manager and his men, especially if the golden rule he followed- viz., if a grievance exist, remove it. If a grievance which is non-existent is put forward by the worksmen, it is

quite within the bounds of possibility to prove that no such grievance as alleged exists, and to restore that harmony which should always prevail.²⁰⁷

It becomes evident on making a retrospective survey of the control of labour that the bulk of employers and officials have never thoroughly grasped the following fact, that the sympathetic handling of labour is one of the most essential contributions that can be made to the well-being of industry. The notion that any highly-technically trained man can handle workers is a huge mistake. Considerate, sympathetic and reasonable treatment will bring home to the workers that industry recognises their individuality. Consciousness of himself as an integral part of industry comes directly from the attitude of those who are in contact with him daily.²⁰⁸

Nevertheless, the first of these quotes does suggest a degree of autonomy for colliery management that was not always there. Consequently, whilst the continuation of piece rates, particularly for faceworkers, at first suggests considerable autonomy on the part of colliery management, in determining workers' wages, it will be suggested here that the same financial prerogatives issued by senior management in and owners of colliery companies were the key determinants in deciding miners' wages.

One of the most detailed studies of conflict in the British coalfields of this period has shown that determinants of labour relations at individual collieries were multifarious, and thus it is often difficult to isolate colliery managements' role in labour relations at their pits. Nevertheless, Church and Outram's study suggests that colliery managements' behaviour was very influential.²⁰⁹ Scottish and British coal owners were not alone, during this period, in using the trade depression and the weakening of mining unions, and professional associations, to seek a retraction of prior collective agreements, a return to and defence of local bargaining, and weakening of employee rights. French, German and the US coal

²⁰⁷ This text was first published in 1896 and then 1912, and again in 1925: H. F. Bulman and R. A. S. Redmayne, *Colliery Working and Management*, pp.54-55.

²⁰⁸ G. Wightman, 'The Psychology of Management', *NACM*, XXX, 1933, p.482.

²⁰⁹ R. Church and Q. Outram, *Strikes and solidarity*, pp.196-218.

employers could be equally pugnacious in using the weakness of labour in this period to advance their own prerogatives.²¹⁰ Nevertheless, wartime dual control (after 1942) did see considerable advances made and state concessions to labour to secure their part in the war effort.²¹¹

As the preceding chapter has already shown, colliery management were reliant on and constrained by their employers and in the field of labour relations, especially when it came to wages, there was little difference. Coal employers' insistence on keeping the unit costs to an absolute minimum, with profit to be extracted largely from labour costs, was a deeply entrenched principle and an expectation on colliery managers (see Benney's evidence earlier). The same expectations were clearly impressed on Scottish colliery management, as the following recollection from George Gillespie shows:

I worked with a manager in Dumbartonshire who said to me, "We'll need to see about that rate. The men are earning too much. We'll need to hold back some of their wages." And the men came to me as the junior manager and I said, "I don't know anything about it. I put in what you cut." He [colliery manager] kept it but he lost his memory of where it all went. When they made too much, they [the miners] got their rate broken because this manager, here, said, "Do you want me to get the sack?"²¹²

This also reflects descriptions of pressures exerted on colliery managers and under managers in South Wales pits (see Coombes' comments in the preceding chapter).

²¹⁰ Joël Michel, 'Industrial Relations in French Coal Mining from the Late Nineteenth Century to the 1970s', Gerald D. Feldman and Klaus Tenfelde (eds.), *Workers, Owners and Politics in Coal Mining. An International Comparison of Industrial Relations* (Oxford, 1990), pp. 271-303; Bernd Weisbrod, 'Entrepreneurial Politics and Industrial Relations in Mining in the Ruhr Region: From Managerial Absolutism to Co-determinism' in *Ibid*, pp.171, 176-177; David Brody, 'Labour Relations In American Coal Mining: An Industry Perspective', *Ibid*, pp.96-107; See also selected chapters in: P. V. Fishback, *Soft coal, hard choices. The Economic Welfare of Bituminous Coal Miners, 1890- 1930*, (Oxford, 1992); Curtis Seltzer, *Fire in the hole. Miners and Managers in the American Coal Industry*, (Lexington, 1985).

²¹¹ B. Supple, *The history of the British coal industry, Vol.4*, pp.537-590; W. H. B. Court, *Coal*, (London, 1951).

²¹² Interview with George Gillespie, Newtongrange, 14 August 1999.

As part of wider organisational changes, in particular, advances in their management and accounting information systems, and changes to work methods and organisation, the Fife Coal Company was by the later 1930s introducing day wage systems into many of their collieries, especially the newest mines and pits like Comrie, to accompany greater mechanisation of both underground and surface operations.²¹³ The Fife Coal Company's changes to work organisation and methods were allied with increased supervision, the targeting of rank and file militants (particularly members of the United Mineworkers of Scotland (UMS) and the National Minority Movement) and extensive company welfare and health and safety policies and education and training opportunities.²¹⁴ John McArthur, Fife UMS leader and Communist councillor, related how Dr William Reid, when Manager of Frances Colliery attempted to prevent the UMS holding meetings at the pit.²¹⁵ Other companies such as the Alloa Coal Company, the Lothian Coal Company and William Bairds and Company had a long tradition of social welfarism allied with strict labour management

²¹³ Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', pp.48-75; J. N. Williamson, 'Ten years of safety work in Scottish colliery group. The Safety Record of The Fife Coal Co., Ltd., 1936- 1945', pp.32- 55.

²¹⁴ Henry R. King, 'Colliery modernization, with special reference to the Fife Coal Company's collieries', pp.48-75; J. N. Williamson, 'Ten years of safety work in Scottish colliery group. The Safety Record of The Fife Coal Co., Ltd., 1936- 1945', pp.32- 55; A. Muir, *The Fife Coal Company Limited*, see various references to company welfare schemes such as the Gothenburg's; For examples of victimisation of militants, see: Willie Gallacher, *Revolt on the Clyde*, this edition, (London, 1978), pp.275-6; Ian MacDougall (ed.), *Militant Miners. Recollections of John McArthur, Buckhaven; and letters, 1924-26, of David Proudfoot, Methill, to G. Allen Hutt*, (Edinburgh, 1981), p.136; This policy was nevertheless unsuccessful as the UMS made substantial gains in union elections and their campaigns for an eight-hour day over piece rates in Fife, see *Ibid*, various references; W. Gallacher, *Revolt on the Clyde*, pp.270-287; Alan Campbell, 'Political conflict in the Scots coalfields, 1910- 1939', in Alan Campbell, Nina Fishman and David Howell (eds.), *Miners, unions and politics, 1910- 1947* (Aldershot, 1996), pp.166-168; R. Page Arnot, *A history of the Scottish Miners*, (London, 1955), pp.195-6 and 237; for examples of the wider historiography of company welfare policies, see: Joseph Melling, 'Welfare capitalism and the origins of welfare states: British industry, workplace welfare and social reform, c.1870-1914', *Social History*, Vol.17, No.3, (October 1992), pp.453-478; W. R. Garside and H. F. Gospel, 'Employers and Managers: Their Organizational Structure and Changing Industrial Strategies', in Chris J. Wrigley, (ed.), *A History of British Industrial Relations, 1875- 1914*, (Brighton, 1982), pp.99- 115.

²¹⁵ I. MacDougall, (eds.), *Militant Miners*, p.156.

strategies.²¹⁶ Similarly, the Wemyss Coal Company employed, as a rule, strong-armed tactics against trade union militants in its pits and nurturing of good relations with the Fife county miners' union, whilst its owner, the Earl of Wemyss, was the founder of the anti-socialist Liberty and Property Defence League.²¹⁷ The Wemyss Coal Company's policy is well illustrated by UMS organiser, John McArthur's recollections of his attempts to get reinstated at the Company's largest colliery, the Michael. In particular, it reveals the colliery management's concerns of upsetting their relations with the county union, the impact on productivity of rank and file activity and their need to defer to higher management to make a decision on labour relations.²¹⁸

The attitude towards militants and embracing of Labourist local union leaders, evident in this quote, was illustrated by practise in other parts of the Scots coalfield too.²¹⁹ George Gillespie pointedly stated that industrial peace at some of the pits around Hamilton that he worked in as a mineworker, before becoming an official and manager, was maintained by a collusion between the old county union leaders and that colliery management at these pits were careful to cultivate a close and friendly working relationship with these union leaders.²²⁰ Reflecting on the relationship with younger workers' representatives, Gillespie further

²¹⁶ J. L. Carvel, *One hundred years of coal*, various references; Ian MacDougall, *Mungo Mackay and the Green Table*; Robert D. Corrins, 'The Scottish Business Elite in the Nineteenth Century- The Case of William Baird & Company', in A. J. G. Cummings and T. M. Devine, *Industry, Business and Society in Scotland since 1700. Essays presented to Professor John Butt*, (Edinburgh, 1994), pp.58-83.

²¹⁷ I. MacDougall (ed.), *Militant Miners*, pp.104, 128, 143, 153-154, 165, 179; Leah Leneman, 'Workmen's compensation at the Wemyss Coal Company 1906- 1924', *Scottish Economic and Social History*, 13-14, (1993-1994), p.43; N. Soldon, 'Laissez- Faire as Dogma: The Liberty and Property Defence League, 1882- 1914' in Kenneth D. Brown (ed.), *Essays in Anti-Labour History. Responses to the Rise of Labour in Britain*, (London, 1974), pp.208- 233.

²¹⁸ I. MacDougall, *Militant Miners*, pp.165-167.

²¹⁹ I. MacDougall, (eds.), *Militant Miners*; Alan Campbell, 'Political conflict in the Scots coalfields, 1910- 1939', in Alan Campbell, Nina Fishman and David Howell (eds.), *Miners, unions and politics, 1910- 1947* (Aldershot, 1996), pp.166-180; R. Page Arnot, *A history of the Scottish Miners*, (London, 1955).

²²⁰ Interview with George Gillespie, Newtongrange, 14 August 1999.

illustrated this point and his own preference for negotiating with the older generation of miners' representatives:

... the older miners' leaders were sort of calm and collected. And younger fry came up, or not so young some of them, and they came out of the ranks somewhere along the line and got into authority. There were problems. The art of negotiation wasn't so good as the old boys. There was a brashness about these new boys.²²¹

Church and Outram's disaggregated studies of strikes at collieries throughout the British coalfield suggest that employer direction was not alone in deciding labour relations at collieries and that the behaviour of individual colliery managements could have a considerable bearing on labour relations at the colliery.²²² Certainly, the behaviour of a number of managers after nationalisation, gleaned from a variety of sources, suggests that behaviour amongst colliery managers could vary considerably and prompted a variety of reactions. This is well illustrated by examining a number of officials who worked for the Shotts Iron Company Ltd. and relations at pits formerly owned by the company. Evidence from Colliery Consultative Committees and Scottish Divisional Board records, after nationalisation, (see chapter 6) suggests some variation but recognises the parameters which also determined their behaviour.

As Hazel Heughan's post-war study shows, the Shotts area was very militant and physical and geological conditions made the politics of production much more fraught.²²³ Burghlee colliery in East Lothian, for example, was managed for the Shotts Iron Company Ltd. by Thomas M. Scrimgeour, whose behaviour later, as Area General Manager for Fife under the NCB showed him to be ruthless (see chapters five to seven), was

²²¹ Ibid.

²²² R. Church and Q. Outram, *Strikes and solidarity*, pp.134-141.

²²³ Hazel E. Heughan, *Pit closures at Shotts and the migration of miners* (Edinburgh, 1953).

plagued by poor industrial relations and high absenteeism.²²⁴ In contrast, George Hinshelwood Jnr., manager of the Shotts Iron Company's Fortissat Colliery in Lanarkshire, showed himself, as manager of Kingshill No.1 after nationalisation, to be a sympathetic and genuinely consultative manager.²²⁵ The manager of the Fife Coal Company's Wellsgreen pit, F. T. Kennedy, who was appointed, after nationalisation, to manage Kinglassie Colliery was finally dismissed by Scrimgeour for not being tough enough with labour and installing rigorous method study at the pit.²²⁶ The effects of Mungo Mackay's rule at the Newbattle colliery group are evident from George Gillespie's reflections and by Ian Macdougall's respondents.²²⁷ Similarly, the traditional patriarchal conservatism practised by Wm Baird's and company was evident, after nationalisation, at Bedlay colliery, where industrial relations were traditionally very cordial and which was notable after nationalisation for being a hot bed of virulent anti-communism and for the one attempt to form a breakaway Catholic mineworkers union.²²⁸ The strict discipline enforced by the Alloa Coal Company is evident from the views of John C. George and the heavy-handed tactics employed by colliery management at Pirnhall colliery immediately after nationalisation.²²⁹

The following evidence from George Gillespie shows the autocratic management style at the Lady Victoria pit and shows how the behaviour of one manager affected the future behaviour of another:

I know of a case at this pit [Lady Victoria Colliery, Midlothian], where a man said, "What's wrong with my wages? I earned more than that."

²²⁴ National Coal Board (NCB), Scottish Division (SD), Lothians Area, Burghlee Colliery Consultative Committee (CCC), 1960, National Archives of Scotland (NAS), CB 55/4.; Augustus Muir, *The story of Shotts*, p.77, Appendix V.

²²⁵ Ibid; NCB, SD, Central Area, Kingshill No.1 CCC, 1966, NAS, CB 55/12.

²²⁶ NCB, SD, Fife Area, Kinglassie CCC, 4 December 1961 and 26 May 1962, NAS, CB 55/13; A. Muir, *The Fife Coal Company Limited*, p.121, Appendix V.

²²⁷ See chapters three and six, pp.55-6 and 307.

²²⁸ Andrew Perchard, 'Bonnie Fighters: Class consciousness and solidarity in the Scots coalfield, 1947- 1960', *Race, Gender and Class*, 9, 2, (2002), pp.32-46; NCB, SD, Central Area, Bedlay CCC, 1964-1966, NAS, CB 55/3.

²²⁹ See chapter six, p.304.

[Book Keeper], " That's what it says in the book. Now move along like the rest."

This man, a respected mineworker, says, " I'm short."

He got no satisfaction with the clerk.

This man had to go home, get washed, put on his best suit, he only had the one, and walk back to the pit and wait in a queue in the rain to see the manager. The manager might see him, he might say, "Get him to see someone else."

In this case, the manager said, " What's your gripe today?"

[Collier], " I've been paid £1 too little."

[Manager], " Well that rate's too much. We'll need to see about that rate- it's too high."

[Collier], " Am I not getting something today? Coal to pay or something?"

The manager maybe gave him something. Now that man's son became a mine manager and higher. He once told me and vowed that if ever that man came to my door wanting help or if ever I rose above him, I would let him know what he did to my father- humiliated him.²³⁰

Despite the exhortations for greater consultation with labour, as outlined in comments cited in chapter two, the general attitude of colliery management suggested a fairly patriarchal view of management labour relations. The attitude of most colliery management of relations with labour was well illustrated by their reaction to the changes effected by the introduction of the Essential Work Order in 1941, which placed a degree of disciplinary control in the hands of National Service Officers, and the pit production committees (which operated with varying degrees of periodic success from 1940 onwards), constituted of officials and miners.²³¹ The former prompted some severe criticism, whilst the latter were viewed with mixed feelings.²³² The testimony of Benney's Durham colliery manager once again provides an invaluable insight into most managers' view of wartime pit production committee, with Steve Joyce's [the manager] more collaborative conduct contrasted against the majority of managers:

²³⁰ Interview with George Gillespie, Newtongrange, 14 August 1999.

²³¹ B. Supple, *The history of the British coal industry, Vol.4*, pp.507-525 and 560-585.

²³² CG, 7 January 1944, p.14; Roy Church, ' Employers, Trade Unions and the State, 1889- 1987: The Origins and Decline of Tripartism in the British Coal Industry.', in G. D. Feldman and K. Tenfelde, (eds.), *Workers, Owners and Politics in Coal Mining*, pp.38-39.

Few managers indeed there were who regarded the committees as anything but a waste of their time. For the most part they said readily that they found absurd the idea that a workmen could contribute anything of value to a discussion of production problems. They resented having to tell the men of their plans for future work, they resented as an infringement of their professional status the right of any Tom, Dick or Harry to criticise their doings.²³³

The sort of attitude referred to at the end of the preceding quote was evident from the views expressed by some Scottish colliery managers after nationalisation (see chapter six).

In labour relations, as in production and health and safety, colliery management operated within parameters prescribed for them by their employers. Consequently, even when negotiating for piece rates on local seams, local managers were aware that this would have to be justified to senior management in a climate where on cost expenditure was to be kept to an absolute, and often unfeasible, minimum. Failure to drive down costs and achieve targets could result in unemployment for colliery management. Similarly, colliery managers' ability to attain production targets and keep costs down, especially under difficult geological conditions and with dilapidated pits, was reliant on peaceful relations with union officials and miners. Thus, it was often in managers' interests, for their own livelihood, to discourage militants. Nevertheless, there were clearly many managers, when the opportunity arose for greater cooperation and consultation during the Second World War, who resented what they saw as a further infringement on their managerial prerogative. This was, as the subsequent chapters show, also in evidence after nationalisation. Colliery managers and under-managers were, as one President of the BACM noted, 'Conservative' in outlook (see chapter four). Thus, though managers' conception of their relations with labour was shifting over this period, their view of the ideal state of social relations at

²³³ Mark Benney, *Charity Main*, pp.143-5.

collieries was essentially one of patrician dialogue with an extension of existing welfarist measures.

IV

Conclusion

This chapter has examined the role of the mine management professions and the parameters which they operated within, through the functions of production, health and safety, and labour relations, in the sixteen years preceding nationalisation.

The preceding pages tread a path, which identifies, on the one side, organisational/ company procedures, prerogatives, failings and culpability and, on the other, mining professionals' actions (divested of direction) and personal liability and responsibility.

Chapter two gave further weight to the arguments of Zweiniger-Bargielowska and McCormick, which identified colliery officials' vulnerability and reliance on their employers. This chapter reinforces that view and shows just how far colliery officials' actions were governed by Boards of Directors and Owners of the mining companies, for which they worked. The chapter further challenges Supple's claim that managers' conservatism held the development of the industry back but reinforces his view that there was a frequent tension between mining professionals and owners/ directors over technical developments. However, it notes the progressive actions, in the fields of production and health and safety, of a few Scottish colliery companies, most notably the Fife Coal Company. It further suggests that the latter's investment in its employees' skills and its pre-eminence in the organisation of its business and industrial processes explains the high number of mining professionals from the company that

achieved positions of authority in the newly formed Scottish Division of the National Coal Board. Unsurprisingly, many of the ideas first tested in the Fife Coal Company were replicated, in one shape or another, in the Scottish Division. But the general picture of operations in the Scottish coalfield in this period was one governed by short-termism amongst the majority of colliery companies. Colliery managements in many pits were, until dual wartime control, forced to keep material and labour costs to an absolute minimum. The financial gains for the boards and owners of colliery companies was at the expense of the health, safety and welfare of their employees and the future of the Scottish coal industry. Colliery managers were often damned by association with these policies and prosecuted for the accidents which arose bearing the hallmarks of employers' failure to invest properly in the industry. Nowhere was the latter better illustrated than by accidents relating to falls of ground and haulage, where years of negligible or non-existent investment in underground layout, the working of seams in close proximity to one another (governed by temporary dividends rather than sound engineering practice) and limitations on expenditure on vital materials like steel straps, props and roadway arches were responsible for more deaths, serious injuries and the premature closure of collieries than any individual failing by colliery managers, junior officials or mineworkers.

Conversely, employers' enthusiasm, in general, for investing in expensive pieces of cutting machinery and the profligate use of explosives was pointless, dangerous and indicative of their thirst for immediate profit at the expense of any other considerations. Despite their reliance on employers, mine management professionals were becoming far more openly critical of the way the industry was being run, during this period, generally aided by the public remonstrations of prominent mining engineers like Charles Reid and Andrew Bryan.

The period also highlighted the unenviable position of colliery managers, under-managers and junior officials as far as statutory health and safety requirements were concerned. On the one hand, their hands were effectively tied by their employers, as the Rockley Commissioners were quick to note, and, on the other, they were held responsible under the law for the failings of others (including other branches of the mining professions). Furthermore, the Mines Inspectorate rarely explored the nexus between employer direction (and therefore culpability) and colliery officials' liability.

Colliery managers also operated with tight restraints as far as labour relations were concerned. They dared not offer wages, which would be viewed as overly generous by their employers or would push up their unit costs lest they fall foul of their superiors too, and they needed industrial calm to achieve targets set for them. In addition, labour relations were also attendant on company welfare schemes and company loyalties in many localities (for various reasons), and thus could not necessarily be determined by colliery managers. However, the period saw an increase in popularity for both the human relations school and scientific management methods amongst the mine management professions, although, these ideas were rarely put into practise with any commitment outside Fife Coal Company pits. Ironically their introduction into the Leven based company's pits, as part of wider modern management techniques (such as the use of MIS systems and day wages for certain categories of workers), to be rolled out under nationalisation, signalled the further disengagement of colliery management from operations. In labour relations, though, as in other aspects, colliery management were also constrained by their own limited education and training. The professionalisation and establishment of a well-trained and educated management cadre was to be one of the unsung and crowning achievements of the NCB. However, throughout

this period, most Scottish mining professionals remained deeply patrician in their outlook (both in tone and substance) on labour relations.

4

'Getting to Grips' with nationalisation: The mine management professions in the Scottish Division of the National Coal Board (NCB), 1947- 1966¹

In a 1957 article cataloguing the tasks facing the first board of the NCB, the first Assistant Secretary to the board, P. M. D. Roberts, noted the disastrous effects of underinvestment in the industry during the interwar years and stated that, 'the main task of the Board was then, and is now, to rebuild the industry and to improve technical and general management continually.'²

There were few coalfields as dilapidated, impoverished and divided as that of Scotland. The demands of the post-war period were to batter it still further and lead it to an uncertain future. Roberts' reflections were reiterated by Sir William Lawther, former President of the MFGB and NUM between 1936- 1953, who claimed that in a conversation he had had with Ernest Bevin in 1951, the latter had said, 'you were right, Bill, when you said it would take a decade's hard work to nationalise mining- after the Act was signed.'³

Divested of private ownership, the task of moulding, leading and running the industry was left largely in the hands of the emergent mine management professions, many of whom, as the preceding chapters have shown and the ensuing pages and chapters will also show, were inadequately equipped to take on this task. They were also tainted, in the eyes of many miners and members of the public, by association with their former employers.

¹ P. M. D. Roberts, 'Getting to Grips' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years. A Review of the first Decade of the Nationalised Coal Mining Industry in Great Britain*, (London, 1957), pp. 8-12.

² Ibid, p.8.

³ This appeared in the NCB's first employee magazine. *Coal*, May 1951, p.8.

This chapter will look at the changing role and status of the mine management professions within the Scottish Division of the NCB, and their reaction to their position under the first nineteen years of nationalisation.

Perceptions of management in the NCB

The general perception received by the public at the time and subsequently reinforced in histories, of the mine management professions was of Fifth Columnists, fundamentally opposed to nationalisation and therefore willing to undermine it.⁴ As veteran Fabian, G. D. H. Cole remarked one year into nationalisation, the new National Coal Board was seen by the miners as the 'old coal owner 'writ large'.⁵ This, Cole argued, was an understandable conclusion for the miners to arrive at given that, 'nationalisation has not so far made any difference, apart from earnings, to most miners in respect of their actual conditions at the pits where they work. The managers are the same managers, the overmen, deputies and other officials are the same.'⁶ This suspicion of colliery managers and mine management professionals, who were largely inherited from the private industry, was reflected in the burgeoning correspondence from local

⁴ For individual examples of miners, local Labour Party members and public perceptions see later references. The prominent Fabian, G. D. H. Cole, as later references show was convinced that managers were not obstacles to nationalisation but were assets who, in some cases, needed to be convinced of the merits of nationalisation (a common belief, as we shall see, amongst sections of the Labour Party's leadership and Attlee's Cabinet). However he recognised the deep antipathy felt towards those who filled the management ranks of the NCB: G. D. H. Cole, *The National Coal Board. Its tasks, its organisation and its prospects*, (London, 1948), pp.8, 15-17; For a hostile view of managers amongst a Labour Cabinet members, see: Aneurin Bevan, *In Place of Fear*, (London, 1952), pp.96- 103; Examples of the impression of managers as the private owners in different vestiges in the histories of the miners' unions include: Robin Page Arnot, *A history of the Scottish miners. From the earliest times*, (London, 1953), pp.278-291; Similar impressions of managers in South Wales are expounded in: Hywel Francis and Dai Smith, *The Fed: A History of the South Wales Miners in the Twentieth Century*, (Cardiff, 1980), pp.436-7; For a local example: L. Cooney and A. Maxwell (eds.), *No more bings in Benarty. An account of coal mining in the Benarty Area of Fife, and its influence on the people who lived there*, (Glenrothes, 1992), p.84.

⁵ G. D. H. Cole, *The National Coal Board*, p.8.

⁶ *Ibid.*

Labour Party and National Union of Mineworkers (NUM) branches and articles criticising the recruitment of these men.⁷ Miners in Fife, as elsewhere in the Scottish and British coalfields, remarked that management were, 'the same team in different jerseys'.⁸

Other histories have claimed that later problems in the NCB can be attributed to the loss of some the most experienced managers in the industry, particularly at strategic and tactical levels, due to their inherent distrust of nationalisation.⁹ The belief that swathes of management left in droves arose, in part, from the observations of the NCB's Advisory Committee on Organisation who commented, in their report of 1955, that:

When the industry was nationalised it lost many of its administrators. In particular, most of the Managing Directors of the larger undertakings did not choose to come into the service of the Board. Thus, the industry lost virtually a complete level of management at the moment when, because of the great size of the new undertaking, managerial and administrative talent was needed more than ever before.¹⁰

A reiteration of these comments is made in one history of the nationalised Scottish coal industry, which claims that:

It was to be expected that most of the top notchers in the Scottish coal companies would not be attracted by even a top job in the nationalised Scottish coal industry.¹¹

⁷ There are a number of good examples of these held in the Ministry of Fuel and Power records in box, POWE 37 /47, at the Public Records Office (PRO), Kew, London, a selection includes: Letter from Edwinstone and District Labour Party, nr. Mansfield, to the Rt. Hon. Emmanuel Shinwell MP, Minister for Fuel and Power, 6 June 1946; Letter from Lady Windsor Colliery Branch, NUM, South Wales Area, 4 October 1947; *Northern Echo*, 5 October 1946, all in PRO/ POWE 37/47.

⁸ L. Cooney and A. Maxwell (eds.), *No more bings in Benarty*, p.84; This was articulated by one Kelty miner, Edward Drummond, "They were the same people under nationalisation round here. Under nationalisation, it was Augustus f*cking Carlow and this crowd of b*astards from the Fife Coal Company." Interview with Edward Drummond, Kelty Miners' Welfare Club, Kelty, 25 October 1999. In fact Carlow did not take a job in the nationalised industry, although, as the chapter shows, many senior Fife Coal Company staff did.

⁹ For example: William Ashworth, *The history of the British coal industry, Vol.5. 1946- 1982: The nationalized industry*, (Oxford, 1986), pp.32-33.

¹⁰ NCB, *Report of the Advisory Committee on Organisation* [hereafter referred to as *Fleck Report*], (London, 1955), paragraph 109, p.23.

¹¹ Robert S. Halliday, *The disappearing Scottish colliery. A personal view of some aspects of Scotland's Coal Industry since Nationalisation*, (Edinburgh, 1990), p.173.

Another recurrent theme which emanated from within the ranks of the mine management professions, was that the NCB structures stifled colliery managers, in particular, and alienated them from their superiors.¹² The judgement of the official historian of the coal industry, in this period, was that, 'old structures also encouraged the retention to new amongst both managers and miners', and that managers were poorly equipped to meet the challenge of nationalisation.¹³

Chapter's aims and objectives

This chapter is divided into two sections with the preliminary section examining mine management professionals' role and status within the new NCB structures, and the second part, the adequacy of the skills (both practically learnt and theoretical) and experience of mining professionals for the tasks before it and the NCB's training, professional development and recruitment schemes for these groups.

The first section of this chapter will argue that the mine management professions in Scotland, like their counterparts in South Wales, were by and large prepared to work in cooperation with the NCB and within its new structures, even though they were not all advocates of nationalisation.¹⁴

¹² For examples see: British Association of Colliery Managers (BACM), *The National News Letter*, Vol. 1, Part I, No. 1, 21 January 1948, p.5; BACM, *The National News Letter*, Vol. 1, Part I, No.4, May 1948, p.4; See the comments of the Area General Manager (AGM) interviewed for one post-war study. This AGM concluded that many of the problems were a reflection on how the Divisional and Area structures were run: Acton Society Trust, *Management under nationalisation. Studies in decentralisation*, (London, 1953), p.21; S. K. Saxena, *Nationalisation and industrial conflict. Example of British coal-mining*, (The Hague, 1955), pp.150-160; G. D. H. Cole, *The National Coal Board*, pp.12-28.

¹³ W. Ashworth, *The history of the British coal industry*, Vol. 5, p.113.

¹⁴ See later examples from: I. M. Zweiniger- Bargielowska, 'Industrial Relationships and Nationalization in the South Wales Coalmining Industry', University of Cambridge Ph.D. Thesis, (1990), pp.356-7; I. Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', *Business History (BH)*, Vol.34, No.4, (1992), pp.59-78.

Few of the complaints from management were actually attributable to the structures put in place by the NCB, although many arose from the failure by the NCB to clarify line management and staff roles and responsibilities, and the over-reliance on some ossified ideas about the most appropriate management candidates. The latter explains the continued insistence on choosing candidates for tactical levels of management (particularly, Area General Managers [AGMs]), based purely on their aptitude as mining engineers rather than on the grounds of managerial and administrative experience. This only further perpetuated the myth that still thrived in many mining circles, and was apparently prevalent across British industry, that management skills were innate.

The failure of the NCB to clarify these roles and responsibilities until 1953, and the subsequent failure of the General Directives (issued in 1953 and rescinded in 1955) to enforce them until the late 1950s, left a large amount down to the personalities, skills, experience and understanding of AGMs. In some cases, AGMs overcame shortcomings of experience and management skills to manage Areas by fostering cooperation at lower levels of management. However, in others, AGMs, who were not clear about their role, antagonised colliery managers by interfering in operational matters (because as mining engineers, and through prior experience, their sphere of industrial experience was largely limited to the operational side), and/ or through an abrasive management style. Similarly, Areas could end up being fairly chaotic if AGMs were not able to successfully organise the collieries and systems under their control, and failed to issue clear guidance on roles and responsibilities. This also confused some colliery managers, whose management and administrative skills were not well attuned to the new procedures and realities of nationalisation, gave them a free rein to run amok or to flounder.

Conversely, on the back of the NCB's Advisory Board on Organisation [referred to hereafter as the *Fleck Report*, published in 1955], there was a restating of line management and staff responsibilities and greater direction from the National Board to all levels of management. Coinciding with this, under the chairmanships of both Sir James Bowman and Alf (later Lord) Robens, the NCB reaffirmed its commitment to widespread mechanisation and reorganisation of coalface production, and, using its, by then, well-established MIS, centrally devised uniform targets and the staggered introduction of day-wage systems.¹⁵ This also coincided with the escalation of the colliery closure programmes, the failure of some major Scottish divisional development programmes and the tightening of NCB budgets.

This both diminished colliery managers' real responsibility and put them under considerable pressure, especially given the lack of sensitivity to local conditions, the rigidity of targets, and fear of closures and (increasingly) redundancies. Furthermore, these policies were pursued ruthlessly by some AGMs, who understandably (given the directions of the NCB and the exhortations of NCB members) felt they had a mandate to drive colliery managements hard (see chapters five and six). This also created tensions between colliery managements, junior officials and miners, and could compromise health and safety. Many of these issues will be examined systematically in the later relevant chapters dealing with health and safety, production and industrial relations.

¹⁵The Scottish Power Loading Agreement (SPLA) [part of the wider Divisional Power Loading Agreements] introduced day-wages for all categories of underground and surface workers (excluding faceworkers) in 1955. A day-wage with bonuses was introduced for Scottish faceworkers in 1958. Finally, the NUM and NCB signed the National Power Loading Agreement in 1966, which abolished all bonuses and established a national day-wage scale for all grades of workers across the British coalfield. (Sir) James Bowman was NCB Deputy Chairman (1955- 1956) and Chairman (1956-1961); Alf (Lord) Robens was Parliamentary Secretary at the Ministry of Fuel and Power (1948-1950), NCB Deputy Chairman (1960) and Chairman (1961- 1971). For more biographical details of both, see: W. Ashworth, *The history of the British coal industry*, vol.5, pp.127, 129 and 240.

Nevertheless, a distinctly new breed of largely, but not exclusively, young colliery managers started to appear, who were well versed in modern management and administrative methods. These managers were in themselves a complex group, some obviously motivated by a naked ambition (alive to the greater promotion opportunities available in the NCB), whilst others (though ambitious) could see the benefits, not only of the new business procedures and technical advances, but also the opportunity for cooperation and consultation with the rest of the industry's workforce. In addition, the NCB's 'Line and Staff' principles (to be explained in due course) and the modern managerial processes employed by the NCB empowered many branches of the mining professions and may well partly explain tensions between them and colliery managers within the BACM (see chapter eight).¹⁶

This section also shows that, whilst nationalisation substantially speeded up modernisation and reorganisation of the industry (driven by the political forces and Britain's post-war economic and social imperatives), these changes should be seen as a snapshot (though a dynamic and influential one) in a longer-term evolutionary trend. This formed part of a continuum affecting the industry at all levels, which mining professionals had commented on in the thirty years preceding nationalisation (see comments in chapter 2). Thus the changes, which colliery management had undergone by the late 1960s were entirely recognisable as a product of the historical development of the industry. However, what was clear was that the mine management professions, in so many ways, were poorly equipped to respond to these forces.

The second part of this chapter examines managers' skills and experience. It acknowledges that there was mismatch between certain skills required by colliery and Area management and the experience, training and

¹⁶ NCB, *Annual report and accounts*, 1948, (Cmd.187), Chapter X, pp.102-3.

education which managers had received. In some cases, the skills gap, particularly in management and administration, was especially acute given the NCB's reliance on a partnership with labour and their attempts to modernise business processes. However, prior to nationalisation, as the preceding chapters have shown, very few managers had been expected, encouraged or supported to develop these skills.

Simultaneously, as Andrew Bryan had noted in 1941, the technical skills required to run a modern colliery were becoming far too diverse for an individual to manage. Given the limited technical education and training of some colliery managers but also the modernisation of every facet of colliery operations, it was inevitable that over time colliery managers would become more reliant on other mining professionals for advice. This made the need for managerial skills, of consultation and communication, even more pressing. By the end of this period, in many modern collieries, managers were no longer, 'captains of their ship' (see next chapter), but chief executives of a board.¹⁷

This section also explores the NCB's mixed fortunes in attempting to create a management cadre, extending the best existing practice in professional development (education, training and practical mentoring) and promotion schemes across the industry, and recruiting mine management professionals of the future.

It places these within wider campaigns, conducted as part of post-war government's attempts to stimulate the supply-side of the economy, in

¹⁷ NCB, *Annual report and accounts, 1948*, (Cmd. 187), point 400, p.106; G. W. Sanders, 'Management in a Specialist's World', *Proceedings of the NACM*, Vol. LXI, 1964, p. 275.

particular management education.¹⁸ Despite some well-placed criticisms (to be cited later), which emerged about the thoroughness of NCB training and education for colliery managers and other mining professionals, particularly in industrial relations, business and administration, the chapter argues there were some real achievements in developing some very technically proficient managerial employees.

There were, however, some setbacks in the NCB's career development programmes and mixed successes in their recruitment programmes for managerial employees. In particular, many mine management professionals- including senior figures in the industry- were sceptical about management education and continued to believe that the ability and set of skills for managing a colliery were innate, and could be honed by practice. This weakened the NCB's management education programmes and lessened their appeal.

However, other mining professionals, like Sir Andrew Bryan, encouraged a public debate on management philosophy and occupational standards. Between the late 1930s and the mid 1960s, the dominant management theories amongst the mine management professions (namely the human relations and scientific management schools) were discussed publicly. By the end of this period, this debate was crystallising into a modern management philosophy for the mining professions. This gives more context and detail to Jonathan and Ruth Winterton's description of the,

¹⁸ Anthony Carew, *Labour under the Marshall Plan. The politics of productivity and the marketing of management science*, (Manchester, 1987); Anthony Carew, 'The Anglo-American Council on Productivity (1948- 1952): The Ideological Roots of the Post-War Debate on Productivity in Britain', *Journal of Contemporary History*, Volume 26, (1991), pp.49- 65; David Edgerton, 'The 'White Heat' Revisited: The British Government and Technology in the 1960s', *Twentieth Century British History*, Vol. 7, No.1, (1996), pp.53-82; Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, (London, 1993); Nick Tiratsoo and Jim Tomlinson, *The Conservatives and industrial efficiency, 1951-64. Thirteen wasted years?*, (London, 1998); Jim Tomlinson, 'Liberty with Order': Conservative Economic Policy, 1951-1964', in Martin Francis and Ina Zweiniger Bargielowska (eds.), *The Conservatives and British Society 1880- 1990*, (Cardiff, 1996), pp.274-288.

'managerial unitary philosophy', which, 'continued with only minor modifications until the 1984-85 strike.'¹⁹ In part the failure to implement a more consultative industrial relations environment in some pits was a reflection of ingrained prejudices amongst some colliery managers. In addition, the emergence and success of some colliery management teams in all areas of their work suggests that the picture varied and that it was not always vocational education and training schemes which were to blame but conditions at particular collieries, and NCB policies and their method of enforcement by higher management.

The chapter concludes that colliery managers and senior mining engineers (who took over at Area level), were often inadequately equipped for some of the demands of their jobs under nationalisation. This occurred because of an aggregate lack of experience of managing by means other than direction, and of modern business techniques. The NCB faced a Herculean task in the reshaping and upskilling of their mine management professionals alone. In addition, it had to modernise an industry, its organisation and processes in a short space of time. Ultimately it is unsurprising that mistakes were made. Nevertheless, the NCB's initial failure to give a clear explanation of its line management responsibilities and roles, and staff functions, allowed for disarray in some Areas and diminished confidence in the organisation among some colliery managers, which the NCB would have done well to retain.

In the latter years under scrutiny in this study, the NCB's central direction and inflexibility imposed on colliery managements, officials and miners created tensions, which further alienated all groups, especially in an uncertain economic climate. The fact that these measures were forcefully imposed on, in some cases using implicit or explicit threats, colliery

¹⁹ Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century' in J. Melling and A. McKinlay, (eds.), *Management, labour and industrial politics in modern Europe*, p.131.

management was unlikely to imbue these officials with a sense of belonging. Furthermore, these pressures often antagonised relations between colliery management, miners and junior officials (although, in a number of cases, some colliery managers and under-managers' own abrasive and (sometimes) autocratic posture was to blame). However, in part, this was due to those Area managements who lacked the necessary managerial skills. The period saw a substantial shift in the roles and responsibilities of both colliery managers and the various branches of the mining professions. The latter acquired considerably greater influence, through the NCB's staff functions, the rapid pace of modernisation of industrial and business methods and, after the introduction of the Mines and Quarries Act, 1954, changes to statutory safety responsibilities. Managers at all levels had to learn to leave the military metaphors behind and adapt to modern management techniques by relying more on persuasion and agreement, rather than commands.

The NCB: origins and theoretical context

Before examining the place of management within NCB structures, it is important to first outline the ideological basis for the NCB, and other nationalised industries, and place them within a wider organisational and theoretical context.

The NCB was not created from a 'blueprint' but evolved from a variety of sources.²⁰ Foremost amongst these sources in determining at least the proposed ethos, if not always the one practised, was Herbert Morrison's model for socialised industries, published in the 1930s.²¹ Morrison argued

²⁰ Emmanuel Shinwell, the first Minister of Fuel and Power in Attlee's administration who was demoted largely because of his handling of the fuel crisis of 1947, claimed that when drawing up the nationalisation bill, he realised to his shock that 'no blue-print' existed for the industry, see: Emmanuel Shinwell, *Conflict without Malice*, (London, 1955), pp.172-3.

²¹ Herbert Morrison, *Socialisation and Transport. The Organisation of socialized industries with particular reference to the London Passenger Transport Bill*, (London, 1933).

that the public corporation, 'must be no mere capitalist business', and that the Board and officers, 'in the splendid tradition of public service, loyalty and incorruptibility in the British Civil Service', 'must regard themselves as the high custodians of the public interest.'²² The aims of these corporations, Morrison stated, must be, 'to promote the maximum of public well-being and the status, dignity, knowledge and freedom of the workers by hand and brain employed in the undertaking.'²³ He stressed that it was critical for the corporation to be an autonomous body with, 'freedom of business management', whose, 'responsibilities are well defined and fastened upon everybody concerned', and that those employed at Board and other managerial levels be chosen, 'primarily on suitable grounds of competence' with a sense of public duty and loyalty.²⁴ Furthermore, Morrison stressed that staff at all levels must be clear about the organisation's aims:

The more all ranks of the administrative and operative staff know about the whole process of the business in which they should work, even though many of them may never become "big guns" and, what is important in relation to the present discussion- it will tend to throw up people of unsuspected capacity for the occupation of the higher positions; not that we must expect or even desire that *all* the men at the top of the industry must graduate from within that industry, for it is good to bring in "new blood" of the right quality from outside; moreover some men "find themselves" by natural ability rather than elaborate education.²⁵

Yet, whilst some of Morrison's aspirations were reflected in the tone of the Coal Industry Nationalisation Act (1946), not least that of public accountability, adherence to the consumer and advancement and development opportunities for employees, the details and priorities of the organisation would be governed by far more material designs, which reflected the popularity amongst other Labour politicians of the 'rationality' of scientific management processes harnessed for the social

²² Ibid, pp.133 and 156-7.

²³ Ibid, p.145.

²⁴ Ibid, pp.157-160 and 168.

²⁵ Ibid, p.168.

good.²⁶ 'Socialism', as one Labour commentator stated, was about, 'carrying the managerial revolution to its logical conclusion.'²⁷ This, Labour figures reasoned, was aided by the evolution of modern management, in joint stock companies, who were less likely to be imbued with the 'capitalist spirit', were, 'progressive and professional' and therefore could be persuaded of the benefits of Labour's aims.²⁸ Key Labour thinkers argued that the best business practise, modern management techniques (systematic cost accounting and other scientific management methods) and a professional management would, free from the influence of vested capitalist interest, create the productivity needed to support the social and economic transformation of Britain. They recognised that this would have to be underpinned by a managerial renaissance and invested heavily in management education and training within the nationalised industries (see section II of this chapter) and campaigned to advance this across British industry, with limited success.²⁹ They were convinced that with the socialisation of production, partnership with the trade unions and permanent machinery and procedures for dialogue between unions (the NCB, staff, officials and miners) that modern management methods could be employed to raise productivity in coal mining (which was central to Britain's economic recovery and thus to support Labour's social agenda).

Labour Ministers and party thinkers had been convinced that managers could be won over to nationalisation, as this reply from Emmanuel Shinwell, to a criticism of the NCB's retention of managers from the private industry from Edwinstowe and District Labour Party, shows:

²⁶ Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, (London, 1993), p.57.

²⁷ Licinus in the Labour Party's 1945 election pamphlet, *Vote Labour? Why?*, quoted in *Ibid*, p.49.

²⁸ *Ibid*, pp.48-49.

²⁹ See the summary of the findings of the Opinion Research Centre survey of 1977 quoted in Judith A. Merkle, *Management and Ideology. The Legacy of the International Scientific Management Movement*, (Berkeley, 1980), p.239.

I think you should remember that, in spite of the immense growth in public support for the Labour Movement and the Socialist ideas for which it stands, there is still much ground to be won among the higher technical personnel of industry and commerce whose knowledge and experience can bring great benefits to socialised industries. I do not believe that, fundamentally, such people are really convinced that it is possible to carry on with a system of private enterprise which is neither enterprising nor independent of public money. I do believe more and more of them will come to realize that service in a socialised industry can not only afford them better and broader opportunities for the exercise of their gifts but also contribute to the well-being of the country, and that they will abandon the conventions and habits of mind which have led them into the Tory camp in the past as a matter of course.³⁰

Shinwell's remarks, and the following charm offensive to the NACM conference in 1946, were no doubt also driven by the need for management's support, particularly in the 'economic Dunkirk' that Attlee's Government faced after the war³¹:

I recognise, as indeed, I have always recognised since I was first brought into association with the mining industry way back in 1924, the importance of the mine manager and the mine technician in the economic life of the mining industry of this country.³²

Early appraisals of management's role in the nationalised industries, such as this one by G. D. H. Cole, seemed to support this confidence in managers and reinforce the view that managers could be co-opted into

³⁰ Letter from Rt. Hon. Emmanuel Shinwell MP to Edwinstowe and District Labour Party, 25 June 1946, PRO/POWE 37/4; See also: Austen Albu and Linicus' comments cited in N. Tiratsoo and J. Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, pp.48-9; and G. D. H. Cole, *The National Coal Board*, p.16.

³¹ This comment has been attributed to John Maynard Keynes quoted in Kenneth O. Morgan, *Britain since 1945. The People's Peace*, (Oxford, 1992), p.65; Morgan Phillips, the Labour Party's General Secretary, stated bluntly before the 1945 election that Britain 'must modernise or perish'. And Herbert Morrison declared to Labour Party supporters in the *Daily Herald* in May 1945 that, 'Social security and social reform and a permanent advance in the life of people can only proceed with greater efficiency in industry, greater production and greater directive to national economic ends.' Both quoted in Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, (London, 1993), pp.44-45; Attlee's government had to contend with an alarming balance of trade deficits, had just had to accept a humiliating bridging loan from the US Government and its chancellor was plagued with the ghosts of Lloyd-George's administration's failure to deliver Asquith's pledge of a 'land fit for heroes'. Britain's imperial and international commitments were also financially crippling: Ben Pimlott, *Hugh Dalton*, (London, 1985), pp.220-1; Armand Van Dormael, *Bretton Woods. Birth of a Monetary System*, (London, 1978), pp.1-28; Peter Hennessy, *Never Again. Britain 1945- 1951*, (London, 1992), pp.89-101.

³² NACM, XLIV, 1946-47, p.17.

supporting the transformation of British industry into a highly productive industrial democracy:

The very keenness of most managers on doing a good job and on being respected by the teams they lead provides a strong inducement to a change of attitude where it has become sheerly impossible to manage successfully in the old way. Many managers have responded by turning themselves into democratic team-leaders instead of autocrats... Most managers are capable of rising to the new conception of democratic leadership and of transmitting the new spirit to most of their subordinate executives.³³

The commitment to the bureaucratic path to socialism continued to be popular amongst leading members of the Labour Party throughout the period of this study.³⁴

Little was done under the Conservative administrations of Churchill, Eden, Home and Macmillan to change the staff ethos of the NCB. A number of explanations can be offered for this. Firstly the NCB conformed with corporate models of public service, practised in some large private sector conglomerates, like ICI and Unilever, and the Civil Service, and thus was not seen as alien.³⁵ Secondly, Conservative governments between 1951- 1964, with a few exceptions, did not want to substantially alter the structure of the nationalised industries. However, as recent histories have argued persuasively, many leading Conservatives remained convinced of the view that, as a general rule, managerial ability was a reflection of natural ability and thus were not convinced of the need for a reappraisal of management education.³⁶

³³ G. D. H. Cole, *The National Coal Board*, p.16.

³⁴ Anthony Crosland, *Socialism Now and other essays*, (London, 1974), p.69; See also Harold Wilson, *Labour and the Scientific Revolution*, (London, 1963); Harold Wilson, *Labour's Plan for Science*, (London, 1963); Ben Pimlott, *Harold Wilson*, (London, 1992), pp.275-7.

³⁵ W. J. Reader, *Fifty Years of Unilever 1930- 1980*, (London, 1980), pp.22-3 and 52; W. J. Reader, *Imperial Chemical Industries: A History. Volume II*, p.23.

³⁶ Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951- 64. Thirteen wasted years?*, (London, 1998), pp.70-81; Jim Tomlinson, 'Liberty with Order': Conservative Economic Policy, 1951-1964', in Martin Francis and Ina Zweiniger-Bargielowska (eds.), *The Conservatives and British Society, 1880-1990*, (Cardiff, 1996), p.284; Nigel Harris,

Furthermore, the major review of NCB structures and management published in 1955 and chaired by the then ICI Chairman, Dr. Alexander Fleck, reinforced the rationale for the structure of the NCB and at the same time criticised the National Coal Board for not reinforcing the NCB's line and staff principles strongly enough.³⁷ However, significantly, the Fleck report was also critical indirectly of another influence on recruitment choices at Area levels of management, the Reid Report (see later comments). In particular, the Fleck Committee challenged the received wisdom of appointing managers on the basis of their prowess as mining engineers.³⁸

An equally critical influence on the NCB's structures and managerial ethos, was the National Coal Board's first Deputy Chairman, and former Civil Servant, Sir Arthur Street, who transposed a number of features from the Civil Service onto the NCB (for example, managers and staff pay structures and the Staff Superannuation Scheme - see chapter eight).³⁹

What is clearly identifiable in the NCB's structures and the inadvertent intentions of those involved in delivering and casting it, are the distinctively Hegelian and Weberian features and principles.⁴⁰ Both

Competition & the Corporate Society. British Conservatives, the State and Industry 1948-1964, (London, 1972), pp.118-120.

³⁷ NCB, *Report of the Advisory Committee on Organisation* [hereafter *Fleck Report*], (London, 1955), p.11.

³⁸ The first secretary to the NCB confirmed that the Reid Report was a major influence on the structure of the NCB, particularly at Area level, see: P. M. D. Roberts, 'Getting to Grips' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.8.

³⁹ Ashworth notes of Street, 'his was the greatest single personal influence in making the NCB a stable and orderly institution, organized on basic principles which survived throughout the period of this history.' in W. Ashworth, *The history of the British coal industry, Vol.5*, p.122.

⁴⁰ One example of a contemporary identification of the parallels between Hegelian and Weberian structures and the NCB, amongst industry insiders, is: H. Saul, 'The Mining Engineer as an Administrator', *CG*, 24 October 1957, pp.505-508; Joel Krieger provides a detailed critique of the inherent failures of the NCB's structures and systems, and an examination of its Weberian credentials, see: Joel Krieger, *Undermining Capitalism. State Ownership and the Dialectic of Control in the British Coal Industry*, (London, 1983).

resonate throughout Labour's vision of the bureaucratic path to socialism. Friedrich Hegel's belief that state bureaucracy represented an, 'objectified reason', as an, 'antithesis', to, 'private property' is evident in the earlier comments of senior Labour figures.⁴¹ Similarly, Herbert Morrison's aspirations for 'high custodians of the public interest', bear a close resemblance to the composition of Hegel's officialdom.⁴²

Max Weber's observation that the bureaucratisation of society, the leitmotif of modern society, would, 'engender the rationalisation of human conduct', leading initially to a, 'systemised and hierarchical division of labour which is not directly dependent on the capitalist structure', and from thence to the transition from, 'capitalism to socialism', is most apparent in some of the preceding Labour thinkers.⁴³ Equally the popularity amongst senior Labour politicians and senior figures in the NCB for unit costing, time and motion and uniform measurable productivity targets seems to reflect Weber's suggestion that this 'rationality', through the bureaucratic harnessing of modern capitalism, would be achieved using, 'systemised cost accounting', to achieve a, 'stable and continuous level of operation', and Taylorist systems, which, Weber noted, produced, 'rational conditioning and training of work performances'.⁴⁴ The ultimate embodiment of this 'rationality' was apparently achieved by 1966, with the introduction of the National Power Loading Agreement (NPLA), finally bringing the concept of a uniform

⁴¹ E. F. Carr, *Morals and politics. Theories of their relation from Hobbes to Spinoza to Marx and Bosanquet*, (Oxford, 1935), p.107; Karl Marx, 'Critique of Hegel's doctrine of the state', *Early writings*, (London, 1992), pp.106-7.

⁴² Quoted in *Ibid*, p.103; H. Morrison, *Socialisation and Transport*, pp.156-7.

⁴³ Max Weber, 'Legitimate Authority and Bureaucracy' in Derek S. Pugh (ed.), *Organization Theory. Selected Theory*, Fourth edition, (London, 1997), pp.9 and 14.

⁴⁴ H. H. Gerth and C. W. Mills (eds.), *From Max Weber. Essays in Sociology*, this edition, (London, 1991), p.261; See quote from Sir Stafford Cripps, Labour first post-war chancellor and doyenne of management theory, in Anthony Carew, 'The Anglo-American Council of Productivity (1948-52): The Ideological Roots of the Post-War Debate on Productivity', p.50; Tony Benn recollected Harold Wilson telling him that, 'he [Wilson] had invented the concept of productivity which had been a theoretical concept before he had got it extended over all industry. A terrible thing to have on his conscience.' in T. Benn, *Against The Tide. Diaries 1973-76*, (London, 1989), p.506.

national wages system into line with the NCB data returns and MIS systems- the final task in achieving managerial processes. Critical to this process were the very information systems which the NCB busied themselves with developing in the first twenty years of its formation.

MIS data is, as Ian Benson and John Lloyd have pointed out more generally, 'not merely concerned with the transmission of neutral data, but also,' embodies, 'lines of economic and social control'.⁴⁵ Within this process, management was conducted at four different levels (three of which are referred to here as they are directly relevant for this study): 'Operational Level' (colliery, group and Sub- Area management); 'Tactical Level' (Area and Divisional management); and, 'Strategic Level' (National Coal Board).⁴⁶ The impact of this on management of the labour process, for example, was, as Michael Burawoy observed, to impose, 'constraints on managerial discretion'.⁴⁷

Whilst this had been practised to a limited degree by some colliery companies before 1947, nationalisation and the incorporation of trade unionism meant the rolling out of these principles in the NCB's structures and procedures. It led to the '*progressive alienation of the process of production from the worker*' and the increasing functionalism of management within a series of processes.⁴⁸

Ultimately, whether the NCB only succeeded in transforming the coal industry into a modern public sector capitalist concern is outside the scope

⁴⁵ Benson and Lloyd provide the following definitions of these levels of management: operational (control of the labour process with minimal planning input); tactical (a mixture of planning and production control activities); and strategic (setting organisational objectives and policy development, planning and measuring organisations effectiveness) :Ian Benson and John Lloyd, *New Technology and Industrial Change. The Impact of the Scientific- Technical Revolution on Labour and Industry*, (London, 1983), p.44.

⁴⁶ Ibid, pp.44-45.

⁴⁷ Michael Burawoy, *Manufacturing Consent*, (Chicago, 1979), p.110.

⁴⁸ Harry Braverman, *Labor and Monopoly Capital. The Degradation of Work in the Twentieth Century*, (New York, 1974), p.58.

of this study. However, as the ensuing pages show the NCB's part was one act in the long-term transformation of the industry, with Labour's post-war legacy (of both their supply-side reforms and nationalisation programme), like Roosevelt's inter-war Democrats in the USA, as a reforming force for, if not a saviour of, British capitalism. The transformation of management in both the coal industry and across British industry was patchy, although this may well have had something to do with the lack of sustained interest in management education under consecutive Conservative administrations and opposition to it in industrial circles.

It is argued in this, see earlier references in this chapter, and ensuing chapters that the mixed success of reforming management was in part caused by an inherent distrust of management education and training, amongst mining professionals, which was only to be equalled by their unqualified faith in the innate qualities of leadership. However senior levels of NCB management also failed to communicate change to operational and tactical management (particularly at colliery level) and to discuss reform effectively, which undermined the development of an *esprit de corps*. For an organisation which invested so heavily in its managerial employees in other ways, it is a surprising shortcoming that it did not anticipate some of the scepticism amongst managers and failed to build a 'social ethic'.⁴⁹

Nevertheless, the NCB's professional development schemes and recruitment drives, and their line management and staff principles were far from a wholesale failure. The NCB managed in Scotland, against considerable odds, to nurture a highly qualified mining technocracy,

⁴⁹ William Whyte described this as follows: 'The organization man seeks a redefinition of his place on earth- a faith that will satisfy him that what he must endure has a deeper meaning than appears on the surface... I am going to call it a Social Ethic.' in W. H. Whyte, *The Organization Man*, (London, 1965), pp.10-11.

which was to have some notable successes in achieving at least some of its ends. Nevertheless, the bureaucratic remedy for social ills did not create a 'post-capitalist' world, it simply accelerated the growth of modern British capitalism.⁵⁰ Equally the emergent cohort of NCB trained managers were not primarily 'high custodians of the public interest'. Some managers at colliery, but mostly at Area and Divisional, level, emerged as a technocratic breed of production official, who embraced the 'currently dominant variant of bourgeois ideology', 'in its form of 'economic rationality', 'efficiency of returns' and 'expansion'.⁵¹ And the principles of management at operational and tactical level were simply redefined to reflect the scale of the industry, the change in methods and pace of change (which accompanied and coincided with it), and the incorporation of management functions in processes.

I

Andrew Bryan in his Presidential address to the NACM, after Labour's election victory and just weeks before the passing of the Coal Industry Nationalisation Act (CINA), 1946, declared to his audience:

Now that it is practically decided that the coal mining industry of this country is to be nationalized... let me say at once that the N.A.C.M. will place unhesitatingly its knowledge and experience at the disposal of the Board [NCB] and will give it all the help it can.⁵²

A similar pledge had already been offered by Bryan's predecessor to the NACM conference, prior to the 1945 election, and by the President of the

⁵⁰ Anthony Crosland, *Socialism Now and other essays*, (London, 1974).

⁵¹ Nicos Poulantzas, *Classes in Contemporary Capitalism*, (London, 1975), pp.180-1.

⁵² Bryan's statement is also poignant as he acted as the transitory chairman for the newly born British Association of Colliery Managers (BACM) [the managers' union formed in 1947] between May and September 1947, particularly given the approach and outlook of his immediate successor, Major Stanley Walton-Brown: *Proceedings of the NACM* [hereafter NACM], XLIV, 1946-1947, p.12; For details of Bryan's interim chairmanship: BACM, National Executive, minutes, 5 March 1947- 20 September 1947, BACM-TEAM House, Doncaster; CINA was passed on 12 July 1946, see W. Ashworth, *The history of the British coal industry*, Vol.5, p.21; See also, I. M. Zweiniger-Bargielowska, 'Industrial relationships and nationalisation in the South Wales coalmining industry', pp.356-7.

Institution of Mining Engineers (IME), in a letter to Emmanuel Shinwell in May 1945.⁵³ In his address to the 1947 annual general meeting of the Association of Mining Electrical and Mechanical Engineers (AMEME), the President, A. V. Heyes, offered the commitment of, 'all our members... [to] pull our weight [behind the NCB]'.⁵⁴ This support was to be reiterated by the mine management professions over the fledging years of the NCB.⁵⁵ Despite this the mine management professions have been seen as opponents and saboteurs of the nationalisation process. Furthermore, it is claimed that they left the industry in their droves rather than participate in a nationalised industry.⁵⁶

It is argued, in the ensuing paragraphs, that whilst nationalisation might not have been universally popular amongst the mine management professions, by and large, they cooperated fully and made significant contributions to the nationalised industry.⁵⁷ That colliery managers, in particular, did not embrace nationalisation with open hands came as no surprise, but it did not mean that they disrupted it or were not prepared to give of their best, as the BACM's President, Jim Bullock, declared in an article in the union's newsletter of June 1961:

I would say to the new Chairman [of the NCB] that, although this Union is largely Conservative in outlook, this does not alter the fact that its members love this Industry and feel that nationalisation should be taken outside the 'cockpit' of political strife. We readily admit that many members of management, particularly at higher levels, resented

⁵³ NACM, XLIII, 1945-1946, p.2; George R. Strong, *A History of the Institution of Mining Engineers 1889-1989*, (Doncaster, 1988), p.89.

⁵⁴ *The Mining Electrical and Mechanical Engineer*, July 1947, p.4.

⁵⁵ *Transactions of the Institution of Mining Engineers (IME)*, Vol. 107, 1947-1948, pp.203-4; *The Mining Electrical and Mechanical Engineer*, July 1952, pp.11-18; *Transactions of the Mining Institute of Scotland*, Vol.113, 1953-1954, pp.243-251.

⁵⁶ See p.148 of this chapter.

⁵⁷ This supports Zweiniger -Bargielowska's contention that, 'colliery managers collectively and individually, if they did not welcome nationalisation, were at least prepared to co-operate with the new order. There is no evidence to deep-rooted disaffection with the new regime such as a large-scale exodus from the industry or attempts by management to undermine nationalisation.' in I. Zweiniger-Bargielowska, 'Colliery managers and Nationalisation', p.76; Also, I. M. Zweiniger-Bargielowska, 'Industrial relationships and nationalisation in the South Wales coalmining industry', p.356.

nationalisation at its outset. It is true that they did not believe in it; Conservatives do not believe in Nationalisation as a general rule; but when it was an accomplished fact, they really tried to make it a success.⁵⁸

Despite the fact that some managers did support nationalisation, including Jim Bullock and the BACM's second Secretary, George Tyler, there were many other managers who evidently disapproved of nationalisation and voiced their misgivings with the way that the industry was being run.⁵⁹ A few of these complaints, like those voiced by members of the BACM's National Executive (in particular, the comments of the union's first President, Major Stanley Walton-Brown) need to be balanced against the fact that they emanated from those who had voiced criticisms of the amalgamation of colliery companies in the 1930s and held directorships of colliery companies prior to nationalisation (see comments in chapters two and eight).⁶⁰ Furthermore, it is fair to assume, given the complaints from colliery managers and other mining professionals of the way that the industry was being run prior to nationalisation (and their own treatment by their employers) that a fair proportion of managers could accept the benefits of nationalisation without agreeing with the ideology of nationalisation. Many of the initial complaints about nationalisation

⁵⁸ BACM, *The National News Letter*, Vol.1, Part II, No.55, June 1961, p.3.

⁵⁹ George Tyler, like Jim Bullock, had started out as a miner and was a Labour Party member. He won a scholarship to Oxford and then became a full time union official for the BACM's predecessors and then the BACM after nationalisation. He became the BACM General Secretary in 1957. None of the mining professionals interviewed for this research were opposed to nationalisation, although most had their criticisms of aspects of it (only one, George Gillespie, had actually worked as a manager in the industry prior to nationalisation); A number of Zweiniger-Bargielowska's respondents were supportive largely on economic, technical and organisational grounds: I. M. Zweiniger-Bargielowska, Ph.D. Thesis, pp.345-356; I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', pp.69-71; the Area General Manager interviewed for the Acton Society Trust's pamphlet, *Management under nationalisation*, was also supportive on economic grounds, see p.11; Jim Bullock, *Them and US*, (London, 1972, p.150; For examples of complaints, view: BACM, *The National News Letter*, Vol.1, Pt. I, No.4, May 1948, p.1; BACM, *The National News Letter*, Vol.1, Pt. I, No.8, December 1948, p.4; BACM, *The National News Letter*, Vol.1, Pt. II, No.26, February 1954, p.11.

⁶⁰ For examples of their criticisms, see: BACM, 'Presidential Christmas address', *The National Newsletter*, Vol.1, Pt. I, No.8, December 1948, p.4; BACM, *The National News Letter*, Vol.1, Pt. II, No. 31, p.1.

actually related to other matters, of these a large number subsided as nationalisation bedded down.

It would appear that many managers, despite their complaints about aspects of the NCB's operations could see the benefits that nationalisation had brought to them, and that some of their concerns need to be attributed to other factors (to be discussed in due course).

Miners', and others', complaints that management were 'the same team in different jerseys' were perfectly understandable given that large numbers of managers employed at all levels in the industry, prior to nationalisation, chose to remain. Conversely, this refutes those claims that managers left in their droves. For example, in Scotland, many members of the senior management team of the Fife Coal Company, including, Dr William Reid, W. H. Craig, H. R. King, G. R. Buchanan, and J. W. Pirie, went on to hold senior positions in the Scottish Division.⁶¹ By April 1950, half of the members of the Scottish Divisional Board were ex-Fife Coal Company men.⁶² Across the Scottish coalfield, many existing managers were

⁶¹ Dr William Reid was the Fife Coal Company's General Works Manager and a board member who became Production Director and then Deputy Chairman of the Scottish Divisional Board; W. H. Craig was the company's Sales Manager and was another board member who became the Scottish Division's marketing director; H. R. King and G. R. Buchanan were the Fife Coal Company's District Managers for their East and West colliery groups who went onto to become respectively the Scottish Division's Production Director (after William Reid became Deputy Chairman) in 1949, and Sub-Area Manager for the Fife and Clackmannanshire Area and then Area General Manager for the Lothians Area; J. W. Pirie was the company's Assistant Works Manager who went onto to become the Fife and Clackmannanshire Area Chief Mechanical Engineer and from there to become the Scottish Divisional Chief Mechanical Engineer: Ashworth acknowledges that the Fife Coal Company was, 'generally accounted one of the strongest firms in the industry' in W. Ashworth, *The history of the British coal industry, Vol.5*, pp.6-7; A. Muir, *The Fife Coal Company Limited. A Short History*, (Leven, 1953), pp.89, 99 and Appendix V (a) & (b); NCB, Scottish Division (SD), Executive Committee (EC), minutes, 8 March 1949, National Archives of Scotland (NAS), CB42/1; *The Mining Electrical and Mechanical Engineer*, July 1961, p.33; *Colliery Guardian, Guide to the Coalfields 1957*, (London, 1957), p.29.

⁶² The six members of the Executive Committee of the Scottish Divisional Board were: [chairman] Lord Balfour (former wartime controller for the coal industry in Scotland); [Deputy Chairman] Dr Wm. Reid; [Labour Director] Mr James Barbour (Formerly, President of the National Union of Scottish Mineworkers, Deputy joint coal controller for Scotland

retained, with Area and Group managements being dominated by those from the larger colliery concerns. This is perhaps unsurprising given that only four colliery companies in Scotland, on the eve of the Second World War, had more than five thousand employees.⁶³ In Fife and Clackmannanshire, for example, out of the eight sub-areas, five of the agents were ex-Fife Coal Company managers or Agents; one, covering Clackmannanshire, was previously employed by the Alloa Coal Company as an Agent; and another was a former Shotts Iron Company Agent.⁶⁴ In Ayrshire, one (out of three) of the Sub-Area General Managers, the sole Sub-Area Assistant General Manager and no less than four (of the nine) Agents were formerly employed by Bairds and Dalmellington.⁶⁵ Similarly, many colliery managers, previously employed in the private industry, stayed in the industry after nationalisation.⁶⁶

Clearly, the nationalisation of the coal industry in Scotland did not prompt a mass haemorrhage of mining professionals.

NCB 'Line and Staff' structures and its critics

(1942-) and member of the Scottish Coalfields Commission (1942-1944); [Production Director] H. R. King (formerly District Manager (East), Fife Coal Company); [Finance Director] Mr R. W. Parker; [Marketing Director] Mr. W. H. Craig: NCB, SD, EC, minutes, 3 April 1950, NAS/CB42/2; W. Ashworth, *The history of the British coal industry, Vol.5*, p.140; Robin Page Arnot, *A history of the Scottish miners*, pp.137, 236, 244-261.

⁶³ Barry Supple, *The history of the British coal industry, Vol.4. 1913-1946: The Political Economy of Decline*, (Oxford, 1987), Table 9.4, pp.370-1.

⁶⁴ NCB, SD, Policy Board, minutes, 26 November 1946, NAS, CB45; A. Muir, *The Fife Coal Company Limited*, Appendix V; J. L. Carvel, *One hundred years in coal. The history of the Alloa Coal Company*, (Edinburgh, 1944), p.160; *The Colliery Year Book & Coal Trades Directory (CYB & CTD)*, (London, 1930), p.312.

⁶⁵ NCB, SD, Policy Board (PB), minutes, 26 November 1946, NAS, CB45; *CYB & CTD*, (1935), p.46.

⁶⁶ For examples: NCB, SD, Lothians Area, Burghlee Colliery Consultative Committee (CCC), 1960, NAS, CB55/4; NCB, SD, Fife Area, Kinglassie CCC, 1961-1963, NAS, CB 55/13; NCB, SD, Central Area, Kingshill No.1 CCC, NAS, CB55/12; A. Muir, *The Story of Shotts. A Short History of the Shotts Iron Company Limited*, (Edinburgh, n.d.), Appendix V; A. Muir, *The Fife Coal Company Limited*, Appendix V; For other British coalfields, see: The Area General Manager, interviewed for the Acton Society Trust's 1953 report, *Management under Nationalisation*, stated that nearly all bar one of the managers under him had managed the same pits prior to nationalisation, see: Acton Society Trust, *Management under Nationalisation*, p.12; I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', pp.69-71.

Complaints about the new NCB structure of management abounded, some of them emanating from the mine management professions, who claimed that it was leading to a diminution of managerial control.⁶⁷ The ensuing paragraphs will explore public concerns about the NCB hierarchy and probe managerial complaints about the NCB's structures in more detail. They suggest that managers' perceptions of the dissipation of control out of their hands and resulting concerns arose from a number of factors. Some of these resulted directly from nationalisation and the NCB's structures and procedures. Only the roles and shape of the National Coal Board and colliery managers were defined by law, by Vesting Day (under CINA, 1946, and the Coal Mines Act, 1911).⁶⁸ In particular, the failure of the NCB to clarify line management roles and responsibilities, and staff functions until 1953 left a vacuum in which confusion and a duplication of tasks coexisted in some Areas.⁶⁹ However, when more guidance was given, through the General Directive of the second NCB Chairman, Sir Hubert Houldsworth, in 1953, this was too vague and failed to enforce the

⁶⁷ Conservative backbencher for the Fylde Division of Lancashire and former coal owner, Colonel C. G. Lancaster produced the following pamphlet in 1948 outlining an alternative structure for the industry: *The organization of the coal board*, (London, 1948); However opponents were particularly boosted by the resignation of Sir Charles C. Reid from the NCB on the grounds of differences with the rest of the Board over organisation. He subsequently wrote a series of articles for *The Times* outlining his views on the subject: 'The Problem of Coal. I- twofold task facing the industry', *The Times*, 22 November 1948; 'The Problem of Coal. II- An analysis of the present organization', *The Times*, 23 November 1948; 'The Problem of Coal', *The Times*, 24 November 1948; W. Ashworth gives a detailed account of Reid's resignation and the events leading up to it, which suggest that more lay behind his decision to resign, in: *The history of the British coal industry*, Vol.5, pp.182-185; *The Colliery Guardian* (CG), 'The Engineer and the Board', 30 January 1948, pp.157-8; CG, 'Functional Disorder', 21 May 1948, p.695; *Hansard*, 25 May 1948, Vol.451, Columns 25-27; These views were also propounded in more recent evaluations of nationalisation by ideological opponents of nationalisation, see: Robin Kelf-Cohen, *British Nationalisation 1945-1973*, (London, 1973), pp.29-30.

⁶⁸ C. A. Roberts, 'The Development of the Organisation', in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.12.

⁶⁹ *Ibid*, p.15; The NCB had issued a vague overview of the rationale behind its structure on the back of their first committee into the organisation of the industry [the Burrows Committee] (which was ineffective) and Sir Charles Reid's resignation (see later): NCB, *Annual Report and Accounts*, 1948, (Cmd. 187), pp.100-105.

Board's 'line and staff' principles.⁷⁰ The General Directive of 1953 was subsequently rescinded, in light of the Fleck Committee's criticisms and a new directive issued (which adopted almost wholesale the Fleck Committee's recommendations).⁷¹

The Fleck Report and subsequent NCB production and staff policy (underpinned by the NCB's business processes and organisational procedures), from the late 1950s onwards was to tangibly dilute the powers of colliery managers in particular. The lack of direction was exacerbated because of the lack of prerequisite experience and the skills at tactical management level, particularly amongst AGMs (see later references). There was also a prevailing tendency, amongst some AGMs, to interfere with operational management procedures as they had been used to doing prior to nationalisation. This was undoubtedly, in part, due to their background as mining engineers, and consequently, stemmed from the NCB's insistence on continuing to recruit AGMs from amongst the ranks of mining engineers (which should not have been necessary given the AGMs support from functional departments), as the Fleck Report and leading mining professionals noted (see later references).

Yet, the dissipation of power away from colliery managers, as individuals, was part of a continuum of change (even if nationalisation speeded the process up) driven by the imperative for the modernisation of the industry, and the need for management at operational, as well as tactical, level to be informed by an infrastructure of technical specialists. And thus, modern mine management was to be by collective agreement, if not always by consent.

⁷⁰ *Fleck Report*, paragraph 307, p.58; Ashworth also blames Houldsworth's Presidential style of management by direction, see: W. Ashworth, *The history of the British coal industry, Vol.5*, pp.192-3.

⁷¹ NCB, *Annual Report and Accounts, Vol I: Report, 1955*, (Cmd. 263-I), Appendix I, pp.54-58.

The Fleck Committee's constructive and illuminating review of the structure of the NCB, commented:

The public is only now beginning to grasp the facts about the industry, much of the criticism of the Board and their organisation has been ill informed. We ourselves think that, on the whole, it is remarkable how much has been done since the Board was set up in 1946. In particular, the new organisation for managing a thousand pits, previously run by eight hundred companies, was planned and brought into being in a matter of months. Those who performed this task did a remarkable job in the face of difficulties that could have been overwhelming.⁷²

As the Chairman of Imperial Chemical Industries, one of the largest British industrial amalgamations (prior to 1945), which had been formed in 1927 and continued to suffer growing pains into the 1960s, Fleck was well placed to comment.⁷³

The Committee's reflections on the achievements of the NCB were reiterated by the BBC's Governor and Managing Director of two engineering firms, Lord Simon of Wythenshawe, in a 1957 book examining the nationalised industries.⁷⁴ In his book, Lord Simon drew a helpful comparison between the tasks facing the NCB and those that faced ICI (during its formation). ICI was created out of the amalgamation of four well-organised and modern chemical giants with a well-qualified staff of one hundred thousand.⁷⁵ In contrast, the NCB faced the task of organising, under one structure, 1,400 mines and 695,000 employees from over 800 different companies.⁷⁶ This, it did, into nine Divisions and forty-

⁷² NCB, *Report of the Advisory Committee on Organisation*, (London, 1955), p.2.

⁷³ W. J. Reader, *Imperial Chemical Industries: A history, Volume II: The First Quarter-Century 1926-1952*, (Oxford, 1975), p.17; Andrew Pettigrew, *Awakening Giant. Continuity and Change in ICI*, (Oxford, 1985), pp.128-9.

⁷⁴ Lord Simon of Wythenshawe, *The Boards of Nationalized Industries*, (London, 1957), p.10.

⁷⁵ Ibid; W. J. Reader, *Imperial Chemical Industries*, pp. 3-31.

⁷⁶ Of these 1,400, 480 were small mines worked under licence from the NCB: Lord Simon of Wythenshawe, *The Boards of Nationalized Industries*, p.10; In fact Lord Simon's recollection of the number of companies which the NCB took over was about 200 short of the mark, see: W. Ashworth, *The history of the British coal industry, Vol.5*, pp.121-5.

eight Areas, which were then broken down into sub-areas, groups and collieries (see figures 1 and 2).⁷⁷ The Scottish Division had 275 collieries and 81,000 employees from one hundred and twenty companies to mould into five areas (see figure 3 and 4).⁷⁸

Whilst the merger of the four concerns, which formed ICI, occurred over the space of four years, the 'Organising Committee' (the nine man National Coal Board as it was called pre-vesting day) was given from 17 April 1946 to 1 January 1947 to arrive at a structure for the Board, by a Government keen to hurry the process through with a fuel crisis looming.⁷⁹ Furthermore, only three sections of the Coal Industry Nationalisation Act (1946) had dealt with organisation and these references were scant.⁸⁰ Likewise, the Scottish Divisional Board only had a few embryonic ideas to draw on. Sir Charles Reid had suggested a coal corporation before the war whilst the idea of a, 'Scottish Coal Board', had been mooted by the Scottish Coalfields Commission in their 1944 report.⁸¹

The guiding principle behind the NCB structures, that of 'Line and Staff', was that direction came down the 'line' from the National Coal Board, through the Divisional Boards and the Area General Managers, to the colliery managers. Concurrently, specialised staff in the functional departments at National, Divisional and Area levels were to provide

⁷⁷ Ibid, p.141.

⁷⁸ NCB, SD, *Scotland's Coal Plan*, (Edinburgh, 1955), p.5.

⁷⁹ W. Ashworth, *The history of the British coal industry*, Vol.5, pp.121-154; Mark Tookey, 'Three's a Crowd? Government, Owners, and Workers during the Nationalization of the British Coalmining Industry 1945-47', *Twentieth Century British History*, Vol.12, No.4, (2001), pp.502 and 508.

⁸⁰ Ibid, p.502; Emmanuel Shinwell's claim that 'no blue-print' existed is partly accurate as there was no precise plan. However, all of the nationalised industries were modelled on Herbert Morrison's model of socialised industries, see: Herbert Morrison, *Socialisation and Transport. The Organisation of socialized industries with particular reference to the London Passenger Transport Bill*, (London, 1933).; For Shinwell's recollections, see: Emmanuel Shinwell, *Conflict Without Malice*, (London, 1955), pp.172-3.

⁸¹ Both Charles C. Reid and James Barbour were members of the Scottish Coalfields Commission, which reported on the future of the Scottish industry. For Charles Reid's suggestions in the 1930s, see chapter two; Scottish Home Department, *The Report of the Scottish Coalfields Committee*, (Cmd. 6575), 1944, p.107.

guidance to their opposite numbers at the different board levels, and specialised Area staff, where applicable, could act as technical consultants to colliery managers.⁸² In essence, the most dramatic changes were required at Area and Divisional levels.

The NCB declared that Area managements were to be, 'the main units of business management' in the industry.⁸³ The role of Area General Managers was to be like that of 'the General Manager or Managing Director of a colliery company', operating a business concern with an average annual turnover of £10 million and employing, on average, 16,000 men.⁸⁴ Most of these Areas were also considerably larger, in terms of number of pits and output, than their predecessors (for number of pits and output by Area for Scotland at nationalisation see Table 2). Thus, even the most senior managers from the largest private companies did not have the experience, by and large, of managing concerns of the size of the new areas. For example, George R. Buchanan, who had served as the Fife Coal Company's District Manager East and oversaw developments at nine of the Fife Coal Company's eighteen pits, took over an Area with nineteen pits, whilst the company's other District Manager, H. R. King, was appointed as the Production Director of the Scottish Division, within two years of nationalisation, contributing to the collective determination of divisional policy for one hundred and eighty seven pits.⁸⁵ And yet, these two managers were drawn from the second largest and by far the most advanced Scottish colliery company in terms of its organisation, business and industrial processes.⁸⁶

⁸² Initially, the departments were Labour, Production, Marketing, Welfare, Finance, Secretariat and Scientific. After 1957, the Labour department was replaced by the Industrial Relations and Staff departments: NCB, *Annual Report and Accounts, 1948*, (Cmd.187), Chapter X, pp.102-3; W. Ashworth, *The history of the British coal industry, vol.5*, pp.195-7.

⁸³ NCB, *Annual Report and Accounts, 1948*, p.100.

⁸⁴ *Ibid*, p.108.

⁸⁵ NCB, *Annual report and accounts, 1948*, Appendix III, p.230; A. Muir, *The Fife Coal Company Limited*, Appendix V.

⁸⁶ The three largest colliery companies in the Scottish coalfields prior to nationalisation were in order: Bairds & Dalmellington (20 pits); the Fife Coal Company Limited (18 pits); Bairds &

Table 2: Size and output of Scottish Areas, 1948.⁸⁷

Area	No. of Collieries	Output
1: Fife and Clackmannan	42	7m tons
2: Lothians	19	3.6m tons
3: Central West	51	4.6m tons
4: Central East	33	3.8m tons
5: Ayr and Dumfries	42	4.2m tons

As the NCB acknowledged in their 1948 report, few AGMs were experienced enough to take on this role:

In a big business which is well established the man promoted to a position of higher responsibility is called upon to play a part he has understudied for many years. Not so with many officials appointed on nationalisation to fill directing positions at the Area headquarters. They were called upon to play an entirely new part and one which was unrehearsed.⁸⁸

This was a point, which was reiterated by the Fleck Report in 1955:

At every level of the Board's organisation there is a serious shortage of able people equipped with the right qualifications and experience. No Division is wholly satisfied with the quality of senior staff at Area.⁸⁹

The inadequacy of some Area managements was also commented upon by one AGM, from the North Eastern Division:

The Area General Manager thinks that the complaints frequently heard in other parts of the country arise more from the inefficiency on the part of Area staffs than from excessive interference by the Divisions. He has had a number of opportunities to examine schemes of other Areas and has found some of them badly prepared, with inadequate technical information.⁹⁰

As the next chapter shows, it was also partly a serious lack of experienced staff at Divisional level which led to some development failures going

Co. Ltd (12 pits): see *CYB & CTD*, 1935, p.45-46 and 148; A. Muir, *The Fife Coal Company Limited*, Appendices V and IX, pp.121 and 128-9.

⁸⁷ NCB, *Annual report and accounts*, 1948, Appendix III and Schedule X, pp.197 and 230.

⁸⁸ *Ibid*, p.109.

⁸⁹ *Fleck Report*, paragraphs 109, 226-228 and 242, pp.23, 43 and 45.

⁹⁰ Acton Society Trust, *Management under Nationalisation*, pp.17-18.

unnoticed earlier on. The *Reid Report* had suggested in 1945 that the dearth of adequately qualified mining engineers would hinder the major reorganisation necessary in the British coal industry:

Unfortunately, there is a serious dearth of mining engineers who possess the knowledge and experience necessary to undertake the far-reaching schemes of reorganisation which are essential⁹¹

Ironically the NCB's willingness to assume, led by both opinion in professional mining circles and the Reid Report, that mining engineers were best suited to run the Areas may well explain a large number of the problems initially between colliery management and other levels of NCB management, and the successful implementation of Board policy. This obsession with appointing mining engineers with little or no training or experience for tactical level management, was obviously foremost in the Fleck Committee's thoughts when they penned the following recommendation:

Although it is the Board's policy that an Area General Manager may be drawn from any of the senior management levels in the industry, the Board have so far confined their choice to mining engineers. One consequence is that many Area General Managers do not yet appreciate that their job is to administer and not to act as high level mining engineers.⁹²

The final point made in the quote above was certainly borne out by evidence of AGMs interaction with colliery management well into the 1960s (see ensuing chapters).

The effects of this lack of experience, the Fleck Committee noted, were seen in the general level of understanding and knowledge, amongst some AGMs, of their role and that of the National and Divisional Boards:

Some Area General Managers misunderstand the purpose and function of National Headquarters. Whereas we found them very ready to criticise National Headquarters and even to suggest that it was an

⁹¹ *Reid Report*, paras. 758, p.138.

⁹² *Fleck Report*, paras. 226 and 227, p.43.

unnecessary imposition, it soon became clear to us that they had no idea how National Headquarters fitted into the Board's organisation. Least of all did they understand the ramifications of the coal industry. Thus, some Area General Managers thought that one of tasks of the Division was to protect them from having to implement policy decisions and instructions emanating from National Headquarters. In the main, the complaints about the Board's organisation came from men who before nationalisation had been employed in small undertakings. Those who had been brought up in large companies seemed to feel at home in the new conditions and understood the needs of a large organisation.⁹³

In contrast to the changes at National, Area and Divisional level, the NCB claimed that:

The discretion exercised by Colliery Managers and the responsibility they carry for safety and for day-to-day operations remain large. They are not much more and certainly not less than they were before the advent of the National Coal Board.⁹⁴

It is true that colliery managers still exercised considerable power in the negotiating of wage rates prior to the introduction of the Scottish (Divisional) Power Loading Agreement in 1955, and, subject to the availability of materials and Area and Divisional approval up until the late 1950s at any rate, were able to get much needed development work done at the collieries.⁹⁵ Whilst the completion of returns prompted periodic complaints at both Area and colliery level, in the Scottish Division, until the mid 1950s, little happened to change the role and responsibilities of colliery management.⁹⁶ However there were clear cases, such as the Knockshinnoch Castle disaster, where the lack of clarity both of the NCB's staff advisory role, line management responsibilities and the statutory safety prescriptions failed colliery management by holding them

⁹³ Ibid, para. 312, p.59.

⁹⁴ NCB, *Annual report and accounts*, 1948, para.. 403, p.107.

⁹⁵ See chapters five and six, various pages.

⁹⁶ For example: NCB, SD, EC, minutes, 28 February 1950, NAS/CB42/2; NCB, SD, EC, minutes, 3 April 1950, NAS/CB42/2; NCB, SD, EC, minutes, 6 January 1953, NAS/CB42/5; NCB, SD, EC, minutes, 7 July 1953, NAS/CB42/5; NCB, SD, EC, minutes, 7 January 1958, NAS/CB42/10.

responsible for failings at Group, Sub-Area or Area level (see chapter seven).

By the late 1950s, as the economic position of the Scottish Division, and the industry as a whole, became more desperate (with the contraction of older coalfields, budgetary constraints and the failure of some of the largest development schemes) and more emphasis was placed on the apparent potential to be gained from mechanisation and other MIS supported mechanisms to increase productivity, Area and Divisional level management were required to impose some wholly unrealistic productivity targets (conceived of at national level and using modelling based on MIS returns) on colliery management (see chapters five to seven). This made a mockery of the NCB's earlier claims that, 'if his [a colliery manager's] responsibility is heavy, the amount of independence he enjoys is correspondingly.'⁹⁷ Concurrently, with the imposition of the SPLA and eventually DPLA, colliery management complained that they had lost the means to incentivise greater productivity (see ensuing chapters). These developments resurrected some of the tensions, which had existed between the wars, between some colliery managers and agents. In part, this diminution of responsibility reflected the greater use of processes and the technical modernisation of the industry. It was also a reflection of the Fleck Report's suggestion for a strengthening of the line management principle and the view that colliery managers were poorly trained in administrative and managerial methods, lacked sufficient administrative support and that colliery office blocks lacked all the equipment necessary for running a colliery in a modern corporation.⁹⁸

Some of the Parliamentary criticisms levelled at the NCB and its structures, especially in the early years, were clearly ideologically

⁹⁷ NCB, *Annual report and accounts*, 1948, para. 393, p.104.

⁹⁸ *Fleck Report*, paras. 275-297, pp.53-56.

motivated and tactically intended to stall the nationalisation of steel.⁹⁹ These have been addressed in existing work and will not be examined in detail here. However, those comments, which originated from within the industry itself do need to be considered. The most damaging of these criticisms, especially given his support of nationalisation on the grounds of technical reorganisation, were those levelled by the most eminent of Scottish mining engineers, Sir Charles Reid, who resigned from his position on the National Coal Board on 13 May 1948.¹⁰⁰ In his letter of resignation to Lord Hyndley, the NCB Chairman, Reid stated:

I have now come to the conclusion that without the most radical alteration from the Coal Board downwards, both in regard to type of control and personnel, the nationalisation of the mines will prove a disastrous failure. I do not believe that the present cumbersome and uninspired organisation will produce for the country the coal it needs for home and export purposes, and at a satisfactory price; it cannot deal with the indiscipline so rampant in the mines to-day; it cannot keep an effective check on production costs; nor will it, in my judgement, accomplish the vital technical reorganisation of the collieries on which the Government have decided and which the country expects to have carried out. Moreover, it cannot give confident and effective leadership to management and men.¹⁰¹

Reid subsequently gave more detailed criticisms in his second article to *The Times* on 23 November 1948, in which he suggested that; many of his fellow board members were unfamiliar with the industry; there was an absence of detailed guidance given on how to set up the industry; and that

⁹⁹ An example of this is the debate of 25 May 1948, in which Tory backbenchers used Sir Charles Reid's criticisms to attack the Steel Bill. However, Hugh Gaitskell skilfully managed to expose their intentions, see: *Hansard*, 25 May 1948, Vol.451, Columns 25-27; Ruggero Ranieri, 'Partners and enemies: the government's decision to nationalise steel 1944-8' in Robert Millward and John Singleton (eds.), *The political economy of nationalisation in Britain 1920-1950*, (Cambridge, 1995), pp.275-305; Colonel C. G. Lancaster *The organization of the coal board*, (London, 1948); CG, 'The Ministry and the Board', 2 July 1948, p.15; See W. Ashworth, *The history of the British coal industry*, Vol.5.

¹⁰⁰ For biographical details of Lord Hyndley, the NCB's first Chairman (1947- 1951). Reid declared in his press statement of 21 May 1948, 'I desire to make it clear that I now believe that State ownership of the industry is necessary to achieve full technical reconstruction. But the organisation which translates this into practice must be founded on sound business principles', CG, 21 May 1948, p.691; W. Ashworth, *The history of the British coal industry*, Vol.5, pp.183-5.

¹⁰¹ Quoted in CG, 'The National Coal Board. Sir Charles Reid's Resignation', 21 May 1948, p.691.

Divisional boards and Areas were not given sufficient power to take decisions.¹⁰² In his final article, in the series, Reid suggested that the existing NCB structure be replaced by twenty-six autonomous corporations, led by a general manager, with control for production and expenditure in their area, and a national board, which controlled and determined wages and prices.¹⁰³ Reid's comments caused a political furore, not least because he was both a supporter of nationalisation and a highly respected mining engineer. In the months and year following his resignation and various public statements, there was intense pressure within the Attlee Government to get Lord Hyndley to issue a public statement rebutting Reid's claims or change the structure of the NCB.¹⁰⁴ Similarly, as Ashworth has shown, opposition politicians and other opponents of nationalisation used the opportunity to round on the NCB, the Labour Government and its nationalisation programme. And many of Reid's comments were largely unfair and unrealistic.¹⁰⁵ In particular, his suggestion that the coalfield should be split up into corporations was simply unrealistic given the dearth of adequately trained and experienced managers capable of directing at a tactical, let alone a strategic level (and highlighted in the report of the committee, which he chaired only three years before). His suggestion that these corporations could be left with responsibility for all capital development projects would have been disastrous, particularly in Scotland, given the inexperience of the existing departments at Divisional level in managing new development projects.¹⁰⁶ Furthermore, Reid had been party to many of the decisions made in the

¹⁰² Sir Charles Reid, 'The Problem of Coal. II- An analysis of the present organisation', *The Times*, 23 November 1948.

¹⁰³ Sir Charles Reid, 'The Problem of Coal', *The Times*, 24 November 1948.

¹⁰⁴ Letter from Herbert Morrison to Hugh Gaitskell, 4 August 1949; Hugh Gaitskell, who took over from Shinwell as Minister of Fuel and Power in 1948 after the fuel crisis of 1947, pointed out that the NCB had already responded to Reid's criticisms in chapter X of their annual report for 1948 and that in light of that, Reid's continued public reiteration of the same criticisms (for example, to the Liberal Summer School of 1949) were not winning him any friends or drawing the crowds: Letter from Hugh Gaitskell to Hugh Morrison, 19 August 1948; Minute to Lord President, 20 December 1950. All held in PRO/ CAB21/4083.

¹⁰⁵ W. Ashworth, *The history of the British coal industry*, Vol.5, pp.183-5.

¹⁰⁶ See examples of Rothes and Glenochil in the next chapter, pp.266-273.

structuring of the NCB and the Reid Report was one of the most influential documents in forging the NCB.¹⁰⁷ Nevertheless, Reid was right in identifying the lack of clear guidance given to the NCB.

Some of Reid's complaints were mirrored, both before and after his resignation, by other mine management professionals. In a letter to *The Manchester Guardian* of 8 January 1948, an anonymous Mining Agent wrote in claiming that the few pit officials who 'are enthusiastic under the new regime', were confined to, 'national and divisional officers, who seem almost infinitely remote from the pits, who, judging by results, show tremendous enthusiasm in directing a torrent of questionnaires, forms and circulars to the pits.'¹⁰⁸ The complainant continued by stating that this was preventing colliery officials from getting on with, 'the day to day running and organisation of the mines.'¹⁰⁹

The BACM, drawing on the findings of the NCB's first investigation into organisation, chaired by Board member Sir Robert Burrows, identified a number of similar criticisms, which struck a chord with mine management professionals, such as: 'the alarming lack of authority now left with colliery managers'; 'the flood of returns and forms which flowed from unknown sources above, and which overwhelmed the production side, and prevented the manager from attending properly to coal production underground'; and 'the feeling of unsettlement caused by any clear and equitable system of promotion, and the absence of any concise definition of responsibility in many instances'.¹¹⁰ Further criticisms of the structure

¹⁰⁷ Ashworth also points out that there were inconsistency in Reid's arguments for resigning, that he was a member of the committee selected to oversee the Burrow's Committee and that his reasons for leaving the Board were not transparent.. Ibid, pp.182-3.

¹⁰⁸ The letter was reprinted in CG, 'The Engineer and the Board', 30 January 1948, pp.157-8.

¹⁰⁹ Ibid

¹¹⁰ BACM, *The National News Letter*, Vol. 1, Pt. I, No.6, August 1948, pp.2-3; Only parts of the report by the NCB's Committee on Organisation were published as it was too ill-informed and damaging. Ashworth is critical of the report's suggestion that Divisional Chairman have a place of the National Board and Area General Managers on the Divisional Boards, which, he

of the NCB were later voiced by the BACM's President, Stanley Walton-Brown, in his Christmas address in the union's *National News Letter* of December 1948:

The existing system of the National Coal Board is terribly cumbersome, and causes great irritation to those who have been accustomed to have their complaints dealt with rapidly, but, until one experiences the network, one does not realise how restrictive it is. Committee procedure governs most of the work, and individuals who could so easily deal with many of the problems are not trusted to do so. Hobart House [the NCB's headquarters in London] is a long way from, and practically unknown to personnel at the collieries. Personal contact, which gives great satisfaction both to employers and employees, has been ruthlessly eradicated. The Board's system lacks humanity, and persons with difficulties are left to "stew in their own juice".¹¹¹

Aside from Walton-Brown's own aversion to nationalisation, commented upon elsewhere in this chapter and in chapter eight, his criticisms mirror remarks made by him and other mining professionals in the 1930s of amalgamations. Other senior mining professionals, as the following comments from T. E. B. Young, one of the Production Members to the Board, and Sir Andrew Bryan respectively show, were at great pains to explain that the concentration of the organisation in industry was part of longer-term trends to modernise it, not simply a feature of nationalisation:

In the meantime he asked them [mine management professionals] not to be impatient or allow their enthusiasm for their job to diminish. He [T. E. B. Young] believed that after all that had happened during the past 20 years, the general body of mining engineers recognised that nothing short of revolutionary change could place the coal-mining industry in its proper place in the national economy. They might not all have thought that nationalisation was the best way, but after all,

argues, would have made the Boards even more cumbersome and unworkable. He also maintains that the committee's reflections on managerial responsibility were muddled. However, the committee did make a few constructive recommendations, a number of which were accepted, namely that Board members with functional departments leave the functions to their chief officials and that the National Coal Board be enlarged by adding an extra Deputy Chairman and up to three part-time board members. The commission was set up prior to the departure of Sir Charles Reid, who was aware of it. This sheds additional light on the complexity of Reid's reasons for resigning: NCB, *Coal Mining Industry. Committee on Organisation. Statement by the National Coal Board*, (London, 1948); W. Ashworth, *The history of the British coal industry*, Vol.5, pp.183-7.

¹¹¹ BACM, *The National News Letter*, Vol. 1, Pt. I, No. 8, December 1948, p.4; For similar comments, see: BACM, *The National News Letter*, Vol.1, Pt. I, No.5, June 1948, p.3.

nationalisation was only a name. What really mattered was how it worked, and how effective it could be made.¹¹²

Sixty years ago, it was mostly the case that each colliery was an independent concern run as a "one man show" by an individual who was qualified to manage it. But the increasing depth and size of mines demanded greater capital resources which could only be provided by limited liability companies- a form of ownership which tended to bring mines together in groups. This tendency was reflected in a substantial amount of grouping even by 1911. From that time the organisation of colliery undertakings was increasingly in the direction of still larger groupings, until, at last, on January 1, 1947, the whole industry became one under nationalisation.¹¹³

Young's comments to the Mining Institute of Scotland encouraged mining professionals to give time to the new structures, stressed the importance of them to the industry and placed them in their context. Similarly, Bryan speaking in his milieu, of the development of mine management, explained nationalisation and its structures as part of historical developments in the industry. Bryan's comments in this and subsequent addresses were an extension of his comments made before nationalisation about the changing role of colliery management and the organisation in the industry by someone well placed and informed to comment on changes in the industry.¹¹⁴ Young and Bryan's remarks were reiterated by the Board's third chairman, Sir James Bowman, to the NCB Summer School of 1957, in which he outlined the NCB's role in promoting good practice and introducing structure (where it did not exist) as part of the progressive evolution of management in the industry:

¹¹² It is interesting to note that T. E. B. Young campaigned for the Conservative Party in the 1945 election: T. E. B. Young, 'The Mining Engineer in a Nationalised Industry', *NACM*, XLVI, 1949-1950, p.197; For references to Young, see W. Ashworth, *The history of the British coal industry*, Vol.5, pp.123, 146, 151, 159, 188, 190 and 226.

¹¹³ Sir Andrew Bryan, 'Sixty Years of Colliery Management', *NACM*, XLIX, 1952-1953, p.81.

¹¹⁴ See also: Sir Andrew Bryan, 'The Manager of Yesterday and Tomorrow', *CG*, 19 September 1957, pp.346-349; Sir Andrew Bryan, 'The Renaissance of Management', in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, pp.23-27; Sir Andrew Bryan, 'Reflection on Matters Affecting Recruitment, Education, and Training for Colliery Management', *NACM*, LXI, 1964, pp.237-242; Refer to Bryan's comments in chapter three, p.71.

It would be erroneous to assume that these changes were a direct product of nationalisation for the big upheaval of the industry started with mechanisation and has developed in intensity over the past 20 years. However, prior to nationalisation, very few private undertakings gave any attention to changes in the management structure and the improvement achieved was relatively small. Since 1947 the Board have been fully alive to these managerial problems and have gone about strengthening the organisation and, in short, establishing a higher standard of management.¹¹⁵

Whilst nationalisation did not *per se*, prior to the late 1950s, greatly limit the powers of the colliery manager, the pace of change by the mid 1950s broadened considerably the requirements of their knowledge and skills. A review of colliery managers at forty collieries in the early 1950s, revealed that thirty-eight had more than ten staff reporting to them, where they might have expected five, twenty years previously (see figures 8 and 9).¹¹⁶ The ensuing chapter will show that increasingly the new conditions in the industry required the colliery manager to be the chief executive of a highly qualified team, as Bryan noted in his own address to the 1957 NCB

Summer School:

The new industry calls for new methods and new machines; it calls for new men to operate and control them; and it calls for new managers and management teams to bring that success which the industry and the people who work in it so richly deserve.¹¹⁷

Consequently, the growth of the colliery management team and the lateral expansion of the colliery managers' role reflected the modernisation of the industry as part of a historical continuum.

Similarly complaints about the number of returns and directives coming from National and Divisional management, whilst indubitably accurate, were also part of formalising managerial processes by instituting the practice of management reports and data returns (at all levels) to build up

¹¹⁵ Sir James Bowman, 'The Colliery Management Team', CG, 19 September 1957, p.353.

¹¹⁶ E. H. Browne, 'The Management of Collieries', *IME*, Vol.113, 1953-1954, p.11.

¹¹⁷ Sir Andrew Bryan, 'The Manager of Yesterday and Tomorrow', CG, 19 September 1957, p.349.

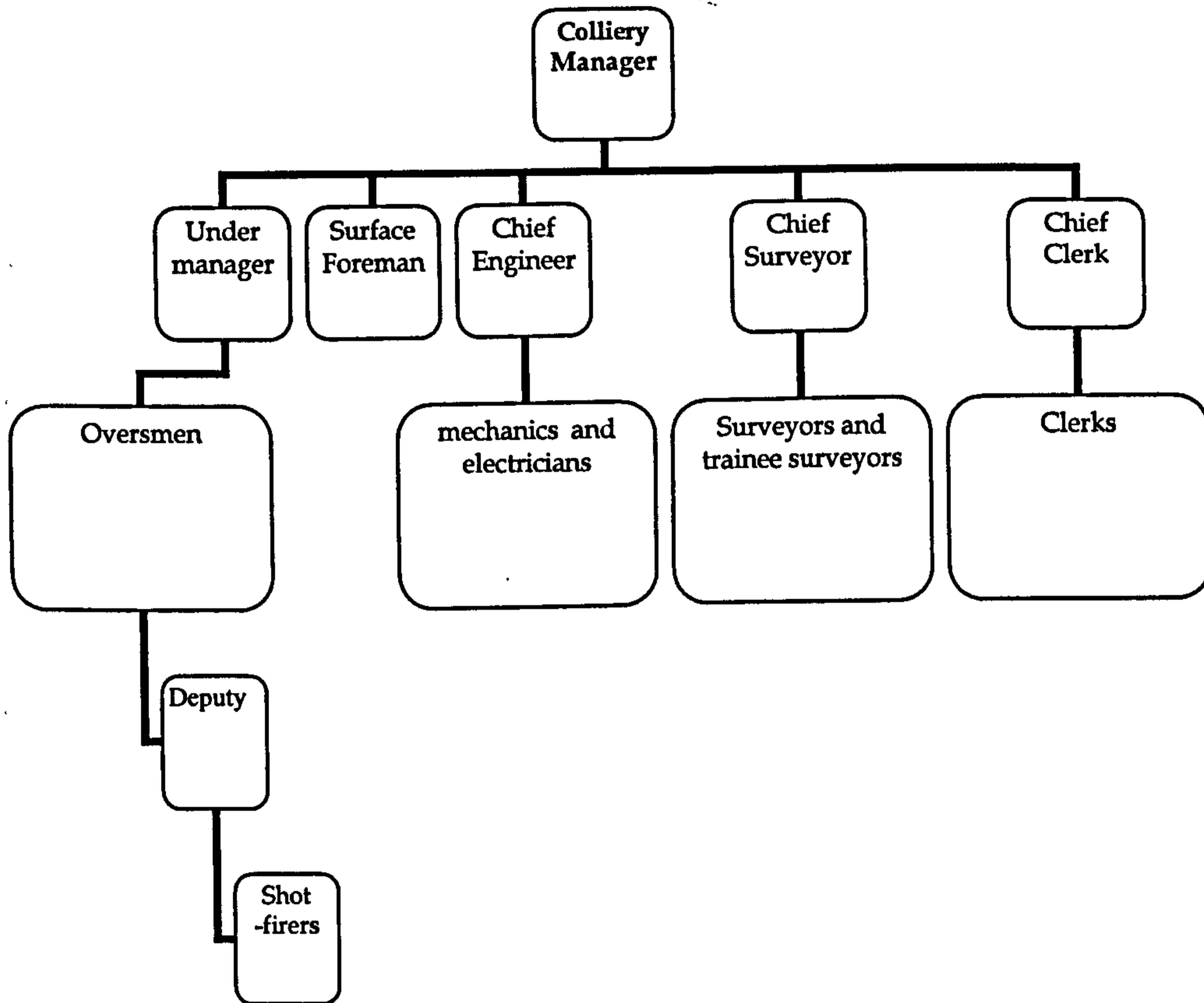
comprehensive management information and accounting data, and ensuring a national standard of practice across the organisation.¹¹⁸

However, it is worth noting that when the Scottish Divisional Board asked Area General Managers whether they would advocate financial information being passed back to collieries, only one out of three supported the idea.¹¹⁹ The eventual use of this data to impose uniform production targets across the Scottish (and British) coalfields and the harsh manner in which these were sometimes implemented, could, as the

¹¹⁸ The following entries into the minutes show the Scottish Division's campaign for regular MIS reports from Area and colliery management and their frustration with operational management for not returning reports promptly: NCB, SD, EC, minutes, 5 February 1952, NAS/CB42/4; NCB, SD, EC, papers, 'Technical Directives from Headquarters', 19 February 1952, NAS/CB41/14; There was also evidence of complaints about the imposition of large numbers of returns too: NCB, SD, EC, minutes, 6 December 1949, NAS/CB42/1; NCB, SD, EC, minutes, 7 November 1950, NAS/CB42/2; NCB, SD, EC, minutes, 19 February 1952, NAS/CB42/4.

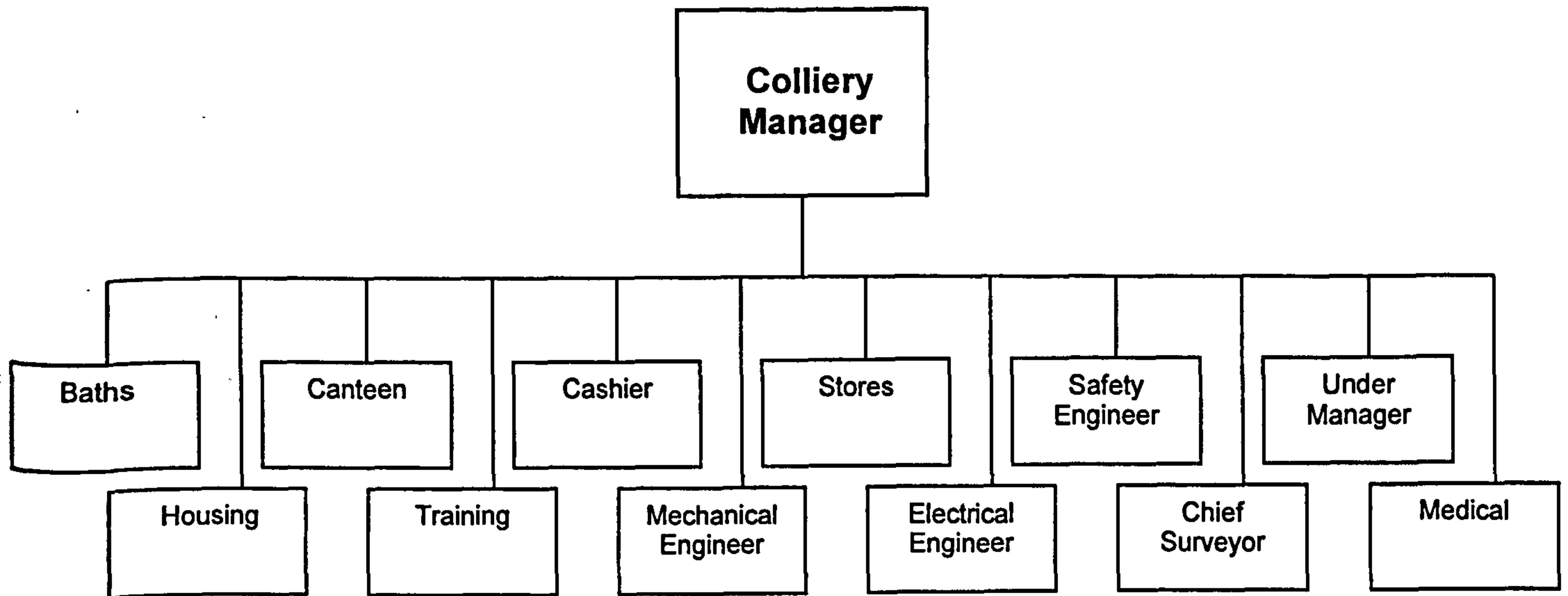
¹¹⁹ NCB, SD, EC, minutes, 8 November 1949, NAS/CB42/1.

Figure 8: Colliery organisation, 1946.¹²⁰



¹²⁰ Peter Ackers, 'Colliery Deputies in the British Coal Industry Before Nationalization', *IRSH*, 39, 3, (December 1994), pp.383-414.

Figure 9: Colliery organisation, 1954.¹²¹



¹²¹ NACM, LII, 1954-1955, p.174.

- ensuing chapters show, create hostility and compromise safety (not least because of the lack of dialogue with colliery management, junior officials and miners).¹²² In some cases, this would seem to be a recurrence of tensions, prior to nationalisation, between Agents and Colliery management, with the former pushing for greater, and unattainable, productivity and savings.¹²³

However, in other cases, Area and Divisional management were trying to instigate organisational change or encourage the use of the NCB's industrial relations machinery for consultation and arbitration. The emergence of a younger generation of managers, brought up under nationalisation, saw a greater familiarity with modern business methods and, to a greater degree, a recognition of the need for formal machinery for consultation with the NUM and individual miners. Ultimately, the long term modernisation of the industry's business and production processes and industrial relations procedures, for which nationalisation served as a catalyst, would bring about a reduction in the power of individual managers at colliery level.

However the Fleck Committee saw the need to control and clarify the powers of Area management as the most urgent factor, given the aggregate lack of skills of AGMs, for the NCB.¹²⁴ The Fleck Committee's observation that the NCB's hierarchy of management needed to exercise much greater control over proceedings at the levels immediately below them and communicate the changes clearly and explicitly is both affirmed by experience and requires some clarification itself. Evidence provided later on in this chapter will further confirm the continuing concerns of the industry about the insufficiency of adequately trained managerial staff within the industry and, despite NCB education and training schemes, the

¹²² See examples of Blairhall, Woodend and Glenochil in chapter six, pp.311-314.

¹²³ See Lawson's comments in chapter two, pp.51-52.

¹²⁴ *Fleck Report*, para. 98, p.22.

inability of the industry to both attract and produce numbers of adequately qualified staff of the sort needed at a tactical level, particularly in the Areas.¹²⁵ Concern about the proficiency of Area and colliery management to carry out NCB policy was evident from the Scottish Divisional Board minutes, throughout the 1940s and 1950s.¹²⁶ Ironically, as the next chapter shows, the responsibility for many of the disastrous schemes and failures within the Scottish Division over this period were the results of poor decisions and the inadequacies of planning staff at Divisional and Area level, along with the tendency to impose changes on operational management without discussing them first and considering the most practicable course of action.¹²⁷ However, Divisional and Area management were frequently subject, throughout this period, to NCB policy direction, which lacked the flexibility to adapt to local conditions. Furthermore, there was, as the Fleck Report and the Burrows Committee had noted, a lack of clarity from strategic and tactical levels of management (National and Divisional Boards), particularly in the first decade of nationalisation, in defining responsibilities and issuing directions to other more operational levels. There was also, as the mine management professions had noted, a tendency to meddle overly in operational matters. This was a problem which both the third and fourth chairmen claimed to be keen to address themselves to, as Alf Robens in his address to the BACM, when he took over as NCB Chairman in 1961, suggests:

If a job can be done at the pit, let it be done at the pit, but do not let it be done at Area and the pit. If the job can be done at Area, do it at Area, but do not do it at Area and Division. If a job needs doing and can be done at Division, do it at Division, but do not do it at the Division and at

¹²⁵ For an example see *Ibid*, para. 108, p.23.

¹²⁶ Examples include: NCB, SD, EC, minutes, 28 February 1950, NAS/CB42/2; NCB, SD, EC, minutes, 3 April 1950, NAS/CB42/2; NCB, SD, EC, minutes, 6 January 1953, NAS/CB42/5; NCB, SD, EC, minutes, 7 July 1953, NAS/CB42/5; NCB, SD, EC, minutes, 7 January 1958, NAS/CB42/10.

¹²⁷ See chapter five, pp.236-256.

National level, but worse than ever, don't let us be doing the same job at the pit, the Area, the Division and at National level.¹²⁸

However, not only had Robens been Parliamentary Secretary at the Ministry of Fuel and Power, between 1948- 1951, and thus been party to many of the earlier directions to the NCB, but the programme of unrealistic centrally devised productivity targets, based on national modelling, (which greatly increased tensions between Divisional, Area and colliery managements in the Scottish Division) was greatly escalated under Robens' Chairmanship.

Some of the responsibility must be borne by the Attlee administration for failing to allow enough time for the setting up of the NCB, subsequent Conservative administrations for failing in their duty to give clear direction to the industry (and develop a national fuel and power policy) and for sending conflicting signals to the industry about its status and *modus operandi*; and some parliamentarians who criticised the industry and proposed conflicting models of operation (with very little knowledge of the industry and driven by political considerations of currying favour with the consumer).¹²⁹ As the 1958 Select Committee on Nationalised Industries noted in its report:

¹²⁸ BACM, *The National News Letter*, Vol.1, Pt. II, No.55, June 1961, p.3.

¹²⁹ For the NCB's statutory financial and pricing obligations, see: CINA, S.4 (5) and S.28 & 29; This has been explored in detail in: W. Ashworth, *The history of the British coal industry*, Vol.5, pp.39-49 and 275-6; G. L. Reid, K. Allen and D. J. Harris, *The Nationalised Fuel Industries*, (London, 1973), pp.235-259; Martin Chick, *Industrial policy in Britain 1945-1951. Economic planning, nationalization and the Labour governments*, (Cambridge, 1998), p.6; Leslie Hannah, *Engineers, Managers and Politicians. The First fifteen years of nationalized electricity supply in Britain*, (London, 1982), pp.161-2; For examples of the mistakes of Parliamentary and Government Committees and Ministers and Officials, see: Ministry of Fuel and Power, *Annual Reports for the Industrial Coal Consumers' Council and the Domestic Coal Consumers' Council*, 1953, (Cmd.36), pp.3, 4 and 10; *Report of the Committee on National Policy for the use of Fuel and Power Resources*, 1952, (Cmd. 8647); Ministry of Power, *White Paper on the financial and economic obligations of the nationalised industries*, 1961, (Cmd.1337); For examples of internal memos on fuel and power prices, statutory powers for prices and tariffs for nationalised industries, and directions to the Board, see: Internal memo [weeded and under retention order DR1], Ministry of Fuel and Power, 26 March 1952, PRO/POWE37/70; Ministerial brief on statutory powers, prices and tariffs of nationalised industries, 25 March 1952, PRO/POWE/£&/70; Letter from G. H. de Peyer, Ministry of Fuel and Power, to G. A. Roberts, NCB, 8 April 1952, PRO/POWE/37/70; Memo from H. S. Kent, Legal Branch,

The Board have found themselves in "a kind of half world" in which they are neither a public service, nor wholly a commercial undertaking. It follows to criticize them for not always behaving like a commercial firm would be unjust, and might not be relevant to their function under existing legislation.¹³⁰

This view was reiterated by Robens who stated: 'if the government gives a direction that goes right against our commercial interest, I'm bound to protect myself: if they want us to be commercial they must say so openly.'¹³¹

Throughout this period, senior NCB figures repeatedly expressed their frustrations with the inconsistent and ill-informed interference from outside the organisation. The NCB's first Deputy-Chairman declared in his address to the third NCB Summer School at Oxford:

You often hear people talking as if by some magic formula, to which they alone have the key, the industry could be transformed overnight and everyone in it could get plenty more money without doing more work. We are told, for instance, that you have only got to recast the organisation and everything will come right. We are also told that uneconomic pits should be kept indefinitely. All this may lead people to suppose that there is a shortcut to plenty, or that nationalisation will by itself insulate the industry from economic forces.¹³²

Ministry of Fuel and Power, to A. T. K. Grant, HM Treasury, 18 May 1956, PRO/POWE/37/71; Samuel Brittan, *The Treasury under the Tories, 1951-1964*, (London, 1964), pp.95-99; The following outline changes in the Labour Party's views on nationalised industries under Gaitskell's leadership: Leslie Hunter, *The Road to Brighton Pier*, (London, 1959); Brian Brivati, *Hugh Gaitskell*, (London, 1996), pp.301-303; For criticisms of the stop-go of policies in this period see: Andrew Schonfeld, *Modern Capitalism. The changing Balance of Public and Private Power*, (Oxford, 1969), pp.90-91; Jim Tomlinson, *Public Policy and the Economy since 1900*, (Oxford, 1990), pp.213-232.

¹³⁰ *Report of the Select Committee on Nationalised Industries*, 1958, (Cmd.187), p.6.

¹³¹ Alf Robens quoted in Anthony Sampson, *Anatomy of Britain*, (London, 1962), p.541.

¹³² NCB, *The Economics of the Coal Industry. Address by Sir Arthur Street at the NCB Summer School, Cambridge, 28 June 1949*, (London, 1949), p.4; While Lord Heyworth, the Chairman of Unilever, offered the following the observation (apparently aimed at MPs), in his evidence to the 1953 Select Committee on Nationalised Industries, on the continual stream of criticisms of the NCB structures, 'if you keep pulling up the plant to see how the roots are getting on, it does not grow well', *Report of the Select Committee on Nationalised Industries*, 1953, (Cmd. 335), p.87; Similar comments were made by Lord Hurcomb, the Chairman of the British Transport Commission, to the Committee, pp.64-74; See also later comments of Dr Beeching, Chairman of the British Railways Board, cited in Sir Ronald Edwards, *Nationalised Industries: A commentary. Stamp Memorial Lecture*, (London, 1967), p.8.

The lack of constructive direction, from the outset, led to an overly-optimistic appraisal of both the capacity of the industry to supply and the continued demand for coal, reflected in the NCB's three major national strategic plans for this period (*Plan for Coal* (1950), *Investing in Coal* (1956) and *Revised Plan for Coal* (1959) and in the Scottish Divisional reconstruction and development plans (*Scotland's Coal Plan* (1955)).¹³³

It is evident that mining professionals did not leave the industry in their droves after nationalisation and, with a few exceptions, cooperated fully with nationalisation. Some even became convinced of the rationale for nationalisation and some mining professionals worked to change the outlook of colliery management.

Objections to the NCB organisation were not as widespread amongst the mine management professions as some opponents of nationalisation claimed, and when investigated were less to do with public ownership and a great deal more to do with modernising the way the coal industry operated. This change to managerial processes did not initially diminish the powers of colliery managers and indeed extended them at first. However, from the late 1950s onwards, the pace of modernisation (both in mining operations and business processes) and the implementation of the power-loading agreements markedly limited the powers of the colliery manager. On the other hand, mining professionals and managers at Area and Divisional levels achieved a great deal more power than they had previously enjoyed. All levels of management, certainly in the first ten years of nationalisation, did see an improvement in promotion

¹³³ For more detail see next chapter: NCB, *Plan for Coal*, (London, 1950); NCB, *Investing in Coal: Progress and Prospects under the Plan for Coal*, (London, 1956); NCB, *Revised Plan for Coal*, (London, 1959); NCB, SD, *Scotland's Coal Plan*, (Edinburgh, 1955).; Further examples of over-optimistic views include: Professor M. E. Oliphant, 'Atomic Energy will never oust coal', *Coal*, June 1947, pp.5-6 (atomic energy never did but the nuclear programme did not aid the planning process); E. F. Schumacher (Economic Advisor to the NCB), 'Plan for Coal' in NCB, *The first ten years. A Review of the first Decade of the Nationalised Coal Mining Industry in Great Britain*, (London, 1957), pp.61-4.

opportunities (along with those of pay, superannuation, and subsidised vocational education and training opportunities) and the means to improve the collieries.

The NCB failed to manage its programme of organisational change, with its operational management staff (as well as junior officials and miners) effectively. It almost certainly lost some goodwill amongst all grades of operational employees by failing to prepare, communicate and consult with them over changes in the organisation and other NCB policies. On the other hand, the NCB was subject to inconsistent and fickle political demands which made long-term planning and thus, in an industry reliant on the forward projections, security difficult.

II

The preceding section in this chapter has outlined the central place of managers in the nationalised coal industry and the changing role of colliery managers, other branches of the mining professions and senior managers after 1947. It has also explained the colossal organisational task, both in terms of infrastructure and procedures which the NCB took on and for which they were reliant upon competent line management and staff to administer. This section will explore the skills crisis amongst mine management professionals in the industry after nationalisation and will outline the NCB's attempts to address this through their professional development schemes and strategy (the Ladder Plan) and through external recruitment. The ensuing chapters (in particular, chapters five to seven inclusive) will outline the magnitude of policy changes across production, industrial relations and health and safety that managers were also expected to implement.

As the preceding comments in this chapter and chapters two and three have illustrated, the experience and proficiency of many mining professionals was lacking in a number of areas. John C. George, in his vitriolic, 'parting shot', to the industry declared that, 'our industry is, therefore, managed by men largely lacking the finer and wider views engendered by cultural education.'¹³⁴ Apparently constructive remarks, such as the Reid Report's criticisms of the dearth of senior mining engineers able to take on the task of reconstructing the industry, were mirrored more generally.¹³⁵ Professor J. A. Ritson, President of the IME 1947-1948, warned in his presidential address of the poverty of technical mining skills and experience amongst British mining engineers.¹³⁶ And Noel Webster, the Institution's President between 1953 and 1954, lamented the fact that, despite the NCB's best efforts in training and recruitment, the coal industry was still 'woefully', lacking in, 'the percentage of highly trained men'.¹³⁷ Comparing mining professionals with professionals in other heavy industries, Webster noted that whereas sixteen, thirteen, ten and eight per cent of employees in the aircraft production, chemicals, general engineering, and quarrying and other forms of mining respectively had undergone vocationally related higher education or training, in the coal industry only two per cent of employees fitted into that category.¹³⁸ Parallels with aircraft production were not meaningful given that it was a very new industry, whose, 'engineers', came, 'mainly from middle class backgrounds', (who would have had a better opportunity of access to higher education or training of some sort) and was still very attractive to university graduates.¹³⁹ Certainly in the large chemical concerns, like ICI and Unilever, all of which operated using the most modern methods, there was never a problem for them recruiting their pick of university

¹³⁴ *Coal*, June 1947, p.8.

¹³⁵ *Reid Report*, para .758, p.138.

¹³⁶ *IME*, Vol. 107, 1947-1948, p.205.

¹³⁷ *IME*, Vol.113, 1953-1954, p.654.

¹³⁸ *Ibid.*

¹³⁹ Peter J. Lyth, 'The changing role of government in British civil air transport 1919-49', in R. Millward and J. Singleton (eds.), *The political economy of nationalisation in Britain 1920- 50*, p.65.

graduates.¹⁴⁰ Nevertheless, the examples of other engineering sectors and other mining sectors further illustrated the lack of investment by the private colliery companies in their human capital prior to nationalisation. Similar concerns to those of Ritson and Webster were registered by the President of AMEME in his 1951 address to the Association, in which he stated that the industry lacked the numbers of mining electrical and mechanical engineers necessary to modernise the industry at the pace that the NCB's National Plan envisaged.¹⁴¹

Growing concern was also expressed at the perceived inadequacies of Area and colliery managements' administrative and managerial skills.¹⁴² And, despite the fair protestations of some mining professionals that colliery managers, in particular, were disadvantaged by the growth of lateral tasks and therefore needed greater support, observations about colliery managers' shortcomings, as far as managerial and administrative skills were concerned, were apparently well placed.¹⁴³

For example, Sir Andrew Bryan offered the following critical overview of management education in the industry in 1957, by which time he had worked in the industry for some forty years (many of them in the higher echelons of the mine management professions, the Mines Inspectorate and mining education):

There was a time not so long ago when some people believed that managers were "born and not made" and when most regarded it only as

¹⁴⁰ W. J. Reader, *Fifty Years of Unilever 1930- 1980*, (London, 1980); W. J. Reader, *Imperial Chemical Industries: A History. Volume II*; A. Pettigrew, *Awakening Giant. Continuity and Change in ICI*, (Oxford, 1985).

¹⁴¹ *The Mining Electrical and Mechanical Engineer*, Vol. XXXI, No. 370, July 1951, pp.3-11.

¹⁴² See earlier remarks from the Fleck Report; H. Saul, 'The Mining Engineer as an Administrator', *CG*, 24 October 1947, pp.505-8; E. H. Browne, 'The Development of Colliery Management', *CG*, 19 September 1957, pp.366-369; Sir Andrew Bryan, 'The Renaissance of Colliery Management' in Sir Guy Nott-Bower and R. H. Walkerdine, (eds.), *National Coal Board: The First Ten Years*, pp.23-27.

¹⁴³ Mining professionals' claims that colliery managers, in particular, had more demands on their time and needed administrative support were subsequently repeated by the Fleck Committee: E. H. Browne, 'Management of Collieries', *NACM*, Vol. LII, 1953-54, pp.10-18; BACM, *The National News Letter*, Vol.1, Pt. II, No.32, August 1955, p.11.

an art to be picked up on the job. At any rate, there was a general belief that there was nothing scientific or professional about it. To believe otherwise was utter foolishness and certainly to be unrealistic. There was little one could do about it except to pick your man and let him have "experience"; in other words, "to throw him into the water and let him swim!" ... legislation [The Coal Mines Act 1911] also required a man to possess a statutory qualification by examination- the certificate of competency in mine management- before he could manage a colliery. And yet, to pass this examination, the candidate need know little or nothing of the basic principles or of techniques of management as distinct from those of mining engineering. When a man did secure a post as a manager, he was often kept so busy in attending to the daily round, that he found little time to study the fundamentals of his job as manager... It is a matter for regret that they [colliery managers] have neglected this very important and vital aspect of their professions. The fact is that the nature of colliery management, apart from its technical aspects, has too often been as obscure to aspirants to the higher positions in the coal-mining industry as are the workings of a coal mine to those not actually engaged in mining.¹⁴⁴

These comments, which mirrored those of the Fleck Report, were due to large extent to a legacy of, as one review of managerial views across British industry in the 1960s noted, the belief that, 'Managerial qualities are often regarded as "inborn" or conferred by "right" rather than by the most relevant kind of education.'¹⁴⁵ Alan Fox, one of the most prominent academicians of industrial relations in post-war Britain, offered the following insightful observation about British management's mentors, which certainly pervade many of the preceding and ensuing comments of mining professionals (including a number of Scottish mining professionals) on management style both explicitly and unconsciously:

Your self-styled 'practical' man is apt to deride theory. This usually means simply that he has never been required to examine the curious jackdaw's nest of unrelated assumptions, generalizations and hypotheses (i.e. theory) upon which his behaviour is based. Keynes, the economist, made a characteristically waspish comment on the subject. 'Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist.' Managers are often in bondage, however to many more

¹⁴⁴ Sir Andrew Bryan, 'The Renaissance of Management', pp.23 and 26.

¹⁴⁵ Findings of the Opinion Research Centre survey quoted in J. A. Merkle, *Management and Ideology*, p.239.

influences than this. The diverse sources from which these ideas derive, and the manner in which the ideas themselves have become popularized and simplified to the level of 'plain-man's folklore', would themselves constitute a fascinating subject of study. It is certainly out of no desire to neglect these complex issues that concentration will be focused here on two schools of management theory- the 'scientific management' or 'classical' school and the 'human relations' or 'naturalistic' school. Both have furnished ideas which, along with diverse fragments of so-called 'commonsense' and cultural beliefs, supply the theoretical underpinning of many managerial attitudes in the labour relations field.¹⁴⁶

Some mining professionals paid homage to their ideological influence. However, others, as Andrew Bryan noted, still maintained that managerial attributes were part and parcel of the 'practical man'. Nevertheless, the period saw Bryan and other leading mining professionals open up an intense debate on the future of management practice and outlook in the professional associations. This coincided with the NCB's attempts to arrive at uniform occupational standards to reflect the changing demands of modern mine management.¹⁴⁷ Both of these debates culminated in the amelioration of scientific and HR methods into NCB management methods, matching developments in the NCB's industrial and business processes. However, the belief that it was the natural qualities of a man that made him a good manager continued to pervade the views of mining professionals. Of the two colliery grade managers, interviewed for this study, who spanned the spectrum (for example, one started out as a manager in the private industry, whilst the other received his training under the NCB), both in different ways reiterated the belief that the ability to manage was innate.¹⁴⁸ Intrinsic to their understanding was a virile

¹⁴⁶ Alan Fox, 'Managerial ideology and labour relations', *British Journal of Industrial Relations*, IV, 1-3, (1966), pp. 366-7; For example: NACM, XXXVII, 1940, pp.26 and 33; H. F. Bulman and R.A. S. Redmayne, *Colliery Working and Management*, pp.54-55; William Steele, 'Human Element in Coal Mining', NACM, XLV, 1948, pp.90-1; 'Presidential Address', NACM, XLX, 1953, p.7; W. Clarke, 'Progressive Reconstruction at Lady Victoria Colliery', NACM, LXI, 1964, pp.92-9; R. H. Tucker, 'Colliery Management in the Sixties', *The Mining Engineer*, February 1965, p.309.

¹⁴⁷ NCB, *Annual Report and Accounts for 30th December 1962- 28th March 1964, Vol. I: Report*, (Cmd. 317), pp.27-8.

¹⁴⁸ Interviews with George Gillespie, Newtongrange, 14 August 1999, and Bill Marshall, Kirkcaldy, 29 May 2004.

masculinity.¹⁴⁹ The survival of these views was quite clear from the Opinion Research Centre's study of British management in the 1960s (see above). This was reflected in Tony Benn's recollections on British management after leaving office as Minister of Technology between 1966 and 1970. Benn was to comment that, 'In Mintech [the Ministry of Technology] it was quickly recognised that it was not technology that Britain lacked but a strong industrial organization, good management...' ¹⁵⁰

The belief in instinctive management skills was illustrated by the belief that good mining engineers equated to proficient managers (see the Fleck Report's aforementioned criticisms). In part this arose because of the absence in most colliery companies, prior to nationalisation, of modern business structures and procedures, and, as Andrew Bryan noted, the dearth of literature on management techniques.¹⁵¹ Thus outmoded beliefs were perpetuated and managerial education smothered prior to nationalisation.

NCB management recruitment and development schemes, 1947-1966.

Criticisms of the NCB's professional development schemes and attempts to recruit engineers and other specialists from outside the industry were evident up until the end of this period, as this damning indictment from the NACM's President for 1966, S. W. Potts, shows:

Looking to the future to which our industry is undoubtedly progressing we must ask ourselves: Are we attracting the high calibre people for all levels of and positions in management that the growing complexities of that management require? The answer must be that we are not, and believing as we do that we have a long and successful

¹⁴⁹ See chapter six , pp.307, 321 and 324.

¹⁵⁰ Incidentally one of Mintech responsibilities was the NCB: Anthony Wedgewood Benn MP, 'Yesterday's Men at Mintech', *New Statesman*, (24 July 1970), p.76 quoted in David Edgerton, 'The 'White Heat' Revisited: The British Government and Technology in the 1960s', *Twentieth Century British History*, Vol. 7, No. 1, (1996), p.55.

¹⁵¹ Sir Andrew Bryan, 'The Manager of Yesterday and Tomorrow', pp.346-9.

future we must encourage the necessary action to correct the existing state of affairs.¹⁵²

The following pages outline the NCB's management recruitment (both internal and external) and training and education schemes. These are also placed within post-war political attempts to reform management education.

The NCB did implement an array of ambitious workforce development schemes in these years and faced an uphill task in compensating for the lack of formal advanced general schooling, certainly amongst many of its colliery managers, the legacy of underinvestment by the private coal owners and companies in both technical and management skills (particularly the latter), an ingrained suspicion of management education and conversely a firm belief in natural leadership skills amongst some mine management professionals (see earlier comments).

After nationalisation, the NCB implemented a number of workforce development schemes, under the umbrella of the 'Ladder Plan', which had been recommended previously by the IME, Rockley Commission and the Holland Committee on mining qualifications.¹⁵³ The main schemes involved in the plan were the Engineering Craftsmen Apprenticeship Scheme (ECAS); the Directed Practical Training (DPT) Scheme; the Administrative Assistant Scheme; and latterly, the Industrial Relations Training Scheme.¹⁵⁴ The latter two mostly covered clerical and non-

¹⁵² Potts attributed the difficulties in attracting recruits to the industry's 'exaggerated...outer image of decline': S. W. Potts, 'Towards the Future', *NACM*, LXIII, 1966, p.43.

¹⁵³ *The Mining Electrical and Mechanical Engineer*, February 1951, pp.263-5; J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.69; W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.172-3.

¹⁵⁴ NCB, SD, EC, policy papers, 16 August 1949, CB 44/9; NCB, SD, EC, policy papers, letter from the NCB to the Scottish Divisional Board, 26 July 1949, CB 449; *The Mining Electrical and Mechanical Engineer*, February 1951, pp.263-5; W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.172-3.

managerial positions. Of the technical routes, ECAS offered school leavers to the industry the opportunity to follow a career path, which took them through a general course in mining, followed by a specialised ordinary national certificate in either mining engineering, mechanical engineering, electrical engineering or mines surveying (qualifying apprentices for careers in underground mining jobs, as well as mechanics, electricians and surveyors' clerks or, if they passed the practical and oral tests, as a colliery deputy).¹⁵⁵ ECAS apprentices could then progress on to Higher National Certificates and Diplomas in these subjects. Without the requisite examinations of the professional associations or the First or Second Class Certificate of competency, this qualified HN graduands for a job as a Unit Engineer (responsible for the management of all electricians and mechanics underground) or as an assistant surveyor.¹⁵⁶ If they sat and passed the examinations of the professional associations, they could also become a certificated mining, mechanical or electrical engineer, colliery manager or undermanager (depending on whether they held the First or Second Class Certificate of Competency) or a mining surveyor.¹⁵⁷ Apprentices on ECAS had all course fees covered and attended mining colleges on a day-release basis.¹⁵⁸

By 1957, there were 12,500 apprentices on ECAS schemes.¹⁵⁹ This continued to increase substantially in the 1960s, with 20,769 apprentices on ECAS programmes by 1966.¹⁶⁰ The numbers of apprentices on mechanical

¹⁵⁵ *The Mining Electrical and Mechanical Engineer*, February 1951, pp.263-5; J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.69-72.

¹⁵⁶ *Ibid.*

¹⁵⁷ *Ibid.*

¹⁵⁸ *Ibid.*

¹⁵⁹ *Ibid.*, p.70.

¹⁶⁰ NCB, *Annual Report and Accounts, Vol. I: Report, 1960*, (Cmd. 195), p.38; NCB, *Annual Report and Accounts for year ending 30th December 1961, Vol. I: Report*, (Cmd. 189), p.33; NCB, *Annual Report and Accounts for year ending 29 December 1962, Vol. I: Report*, (Cmd. 213), p.32; NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), p.37; NCB, *Annual Report and Accounts for 28 March 1965- 26 March 1966, Vol. I: Report*, (Cmd. 243), pp.40-41.

and electrical engineering courses, under ECAS, in Scotland more than doubled between 1954 and 1956 alone, from 214 to 505 apprentices, whilst in the two Ayrshire Areas (East and West Ayr), the number of ECAS apprentices leapt from 18 in 1952-53 to 334 in 1956-57.¹⁶¹ On average, between 1960 and 1966, 15 per cent of those studying under the ECAS programme were on advanced programmes.¹⁶²

Initially, concerns were expressed about the high failure rate of apprentices at the higher levels of the ECAS scheme. Eric H. Browne, the NCB's Director-General of Production, 1948-1954, was to tell the 1952 AMEME conference that only ten per cent of entrants onto the higher levels of the ECAS scheme were passing the HNCs necessary for them to take up posts as Unit Engineers or Surveyors.¹⁶³ AMEME's President for 1956, J. D. Morton, expressed his disquiet, to the 1956 AMEME conference, at the news that, 'the recent Mining Qualifications Board Examination results already indicate percentage passes that are disappointingly low.'¹⁶⁴ A presentation made to an AMEME audience in 1958 suggested that only between 30 and 50 per cent of ECAS candidates at ONC level were successful.¹⁶⁵ Given Browne and Jeffreys' aforementioned remarks about the attainment rates amongst candidates, at HNC and ONC levels respectively, and given that ECAS was meant to provide two hundred graduates through the former and three thousand through the latter route nationally and annually, the NCB would have failed to meet its targets on

¹⁶¹ F. H. Baker, 'Background to the Coal Mines (Mechanics and Electricians) General Regulations, 1954', *The Mining Electrical and Mechanical Engineers*, May 1957, Tables I and II, pp.307-308.

¹⁶² *Ibid*; NCB, *Annual Report and Accounts, Vol. I: Report, 1960*, (Cmd. 195), p.38; NCB, *Annual Report and Accounts for year ending 30th December 1961, Vol. I: Report*, (Cmd. 189), p.33; NCB, *Annual Report and Accounts for year ending 29 December 1962, Vol. I: Report*, (Cmd. 213), p.32; NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), p.37

¹⁶³ *The Mining Electrical and Mechanical Engineer*, July 1952, p.17; See also: *IME*, Vol. 113, 1953-1954, p.306.

¹⁶⁴ J. D. Morton, 'Presidential Address: Youth and the Mining Electrical and Mechanical Engineer', *The Mining Electrical and Mechanical Engineer*, July 1956, p.6.

¹⁶⁵ J. Jeffrey, 'Training of the Engineer in the Coalmining Industry', *The Mining Electrical and Mechanical Engineer*, October 1958, p.132.

graduate numbers for Unit Engineers and Surveyors (HNC level) until 1960 but would have managed to keep to its targets on the latter well before then.¹⁶⁶ However, at the same time, the growth of mechanisation meant that between 1950 and 1964, Unit Engineers' responsibility soared from being in charge of the activities of 200 men to 400 men.¹⁶⁷ In November 1961, the Executive Committee of the Scottish Divisional Board, in response to a paper from headquarters on the organisation of engineering services at collieries, noted the, 'low supervision in the Engineering Services at collieries compared with other Divisions and the substantial increases that would be necessary to achieve the standards proposed in the report but doubt was expressed about the possibility of obtaining suitable men.'¹⁶⁸ However, the increase in recruitment onto the ECAS schemes seems to have improved the supply of recruits for all levels of electrical engineers in the Scottish Division.¹⁶⁹ And the NCB's Director-General of Production in his address to the 1956 NACM conference suggested that the quality of the engineering graduates that the NCB was producing through its schemes was first rate:

Some engineering feats on reconstruction work which were carried out in the early months ... at some collieries- collieries which still kept turning out coal despite the fact that they were literally being turned inside out- were quite incredible.¹⁷⁰

Another major source of recruits for mine management professionals was the NCB's Directed Practical Training Scheme, which took university engineering graduates and those mining engineers who had worked their way up through the industry and studied through the ladder scheme or another vocational route, with the aptitude, and gave them practical training and experience of operations at the colliery and of the

¹⁶⁶ NCB, SD, EC, policy papers, 16 August 1949, CB 44/9; NCB, SD, EC, policy papers, letter from the NCB to the Scottish Divisional Board, 26 July 1949, CB 44/9.

¹⁶⁷ *The Mining Electrical Engineer*, July 1951, p.6; NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), pp.13-14.

¹⁶⁸ NCB, SD, EC, minutes, 21 November 1961, CB42/13.

¹⁶⁹ NCB, SD, Electrical Engineering Committee, minutes, 7 December 1960, CB53/5.

¹⁷⁰ Cited in R. Lomas, 'The Engineer and the Mining Industry', *The Mining Electrical and Mechanical Engineer*, September 1957, p.78.

departmental and staff functions at Area and Division level.¹⁷¹ For university graduates, with little experience of the industry, three years were served as a DPT, for those coming through the industry it was shorter.¹⁷² The NCB's original intention was that the scheme would recruit 200 people a year and produce the future colliery managers and under-managers (and senior managers) for the industry.¹⁷³ In 1949, the NCB managed to recruit 30 DPTs.¹⁷⁴ The target was subsequently increased and by 1955, there were 303 entrants on to the DPT programme, with a further 360 registered on the scheme in 1956.¹⁷⁵ However, numbers of recruits had more than halved by 1960, partly as a result of the apparently depressing picture in the industry and, in part, because the NCB was trying to limit recruitment to ensure that redundancies did not have to be made.¹⁷⁶

Aside from the Ladder Plan, the Board also offered 100 Technical Scholarships annually to both employees and school leavers from 1948.¹⁷⁷ The successful candidate was funded through their engineering or fuel technology course with fees and a living allowance paid.¹⁷⁸ However, the number recruited never exceeded 80.¹⁷⁹ Nevertheless, by 1955, 253 of these scholars had graduated, with more than half taking first or second-class honours.¹⁸⁰

¹⁷¹ J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.69.

¹⁷² Ibid.

¹⁷³ W. Ashworth, *The history of the British coal industry*, Vol. 5, p.173.

¹⁷⁴ Ibid.

¹⁷⁵ Ibid; NCB, *Annual Report and Accounts*, Vol. I: Report, 1955, (Cmd. 243-I), p.49.

¹⁷⁶ NCB, *Annual Report and Accounts*, Vol. I: Report, 1960, (Cmd. 195), p.39; For evidence of the change to the NCB's recruitment policy by the 1960s, see: NCB, *Annual Report and Accounts for year ending 30th December 1961*, Vol. I: Report, (Cmd. 189), p.31.

¹⁷⁷ J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.70.

¹⁷⁸ Ibid.

¹⁷⁹ Ibid; NCB, *Annual Report and Accounts*, Vol. I: Report, 1955, (Cmd. 243-I), p.49; W. Ashworth, *The history of the British coal industry*, Vol. 5, p.173.

¹⁸⁰ J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.70.

In addition to these formal courses, the NCB also offered funding for a host of general education, vocational, business and administrative courses (outside the Administrative Assistant and Industrial Relations Training schemes).¹⁸¹ Management courses will be examined below. Divisional Boards also made additional arrangements for training and education. Between 1949 and 1951, the Scottish Divisional Board, in conjunction with the mining departments of the Royal Technical College, Glasgow, and Herriot-Watt College, Edinburgh, organised ten-week intensive courses on mining engineering for cohorts of 42 students every summer.¹⁸² Between 1947-1949, 207 managers and junior officials attended or were attending part-time mining and surveying courses, subsidised by the Scottish Divisional Board, at Heriot-Watt alone.¹⁸³

Clearly, at both National and Scottish Divisional level, the NCB was committed to investing in its human capital to produce the mostly highly qualified miners, craftsmen, officials, mining professionals and managers. However, it faced a huge task in an industry whose employees' training and education needs had been neglected by and large before 1947. As chapter two illustrated, most mine management professionals achieved their education through a mixture of part-time unsupported study and practical experience. Furthermore, the general education of many colliery managers, in particular, was limited, as many had left school prior to taking a leaving certificate.

The NCB's recruitment schemes outside of the industry were also damaged by the visible decline of the industry, particularly in Scotland.

¹⁸¹ For examples: NCB, *Annual Report and Accounts, Vol. I: Report, 1955*, (Cmd. 243-I), p.49; NCB, *Annual Report and Accounts, Vol. I: Report, 1960*, (Cmd. 195), p.38; NCB, *Annual Report and Accounts for year ending 30th December 1961, Vol. I: Report*, (Cmd. 189), p.33; NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), p.37.

¹⁸² NCB, SD, EC, minutes, 8 March 1949, CB42/1; NCB, SD, EC, minutes, 10 January 1950, CB42/2.

¹⁸³ NCB, SD, EC, policy papers, 8 February 1949, CB44/8.

If technical education, as part of mine managements' professional development, was accepted as being necessary amongst the professions themselves, NCB and government schemes and campaigns for management education faced, at best, indifference in some quarters.

Management Education

One presentation to an NACM meeting in 1953 noted that, 'the human relations aspect of management is still in its infancy as far the mining industry is concerned.'¹⁸⁴ As earlier comments showed, there was a prevalent belief amongst mining professionals that management skills were innate, and that natural leadership ability and an aptitude for mining engineering were the only pre-requisites that a colliery manager or under manager needed. The chapter has also shown how this attitude was perpetuated by the Reid Report and that the NCB's recruitment policy for AGM's positions, in particular, for the first eight years of nationalisation was predicated upon the belief that mining engineers were best placed to manage at tactical, as well as operational level. The NCB's early policy of almost exclusive selection of mining engineers for AGM posts contradicted their exhortations of and support for management education programmes. In essence, the intractable problem for the NCB of selling management education and training to the mine management professions arose from suspicion of the former amongst the latter. Concurrently, due to progressive technological change and the NCB's 'Line and Staff' principles, operational and tactical management relied more and more on being able to work in a collegiate manner and manage, by committee and persuasion. As Sir Arthur Street, the NCB's first Deputy-Chairman, noted in his speech to the 1950 NACM conference in Edinburgh:

Managers need the co-operation of all the men, all the time, not just some of the men, some of the time, if pits are to run at full efficiency... We mean persuasive leadership, which is the art of getting the best out of people without coercing them. It has nothing to do with smooth talk

¹⁸⁴ E. L. Chiverton, 'Personnel Management in Mining', NACM, XLX, 1953, p.92.

or the courting of popularity for its own sake. Loyalty is a principle ingredient- loyalty downwards and upwards- loyalty to the men under you, loyalty to the higher management. It means self-discipline, precept by example, ability to make awkward decisions resolutely and promptly; keenness which becomes infectious; broad human sympathy and understanding which only come from an interest and liking for one's fellow-man; knowledge of the job and its importance; willingness to shoulder almost any burden and a reluctance to ask others for anything you could not, or would not, do yourself. Credit given readily where it is due and blame not withheld, the leader must be quick to recognise and admit when he himself is at fault.¹⁸⁵

However, as chapters six and eight show, these attitudes were far from widespread across Scottish Divisional, Area and Colliery management throughout this period, in their dealings with miners, officials, other mining professionals and each other. One of the main reasons being the continued suspicion of taught managerial skills and a belief in natural leadership qualities, outlined already in this chapter.

In a speech to the NACM's annual conference in 1964, reiterating his comments over the years (see those earlier in this chapter and chapter two), Sir Andrew Bryan was keen to illustrate this failing:

Seven-and-a-half years ago, I was invited to address a management course at the NCB Staff College, on the qualities I should expect in our future managers- qualities it should be a major aim and object of education and training to develop. In preparation for my talk, I asked some of my mining friends for their views. I soon heard frequent mention of such words as: character, guts, initiative, judgement, integrity, sense of humour, self-discipline, tact, ability to get on with people, leadership, intelligence, capacity for hard work, aptitude for engineering, love of mining, and so forth, almost *ad infinitum*. I am prepared at once to agree- and so, I am sure, are you- that these are all very desirable qualities and that, if we can find the men, all future managers should have such qualities. Nevertheless, I somehow felt that these words were not particularly helpful. *There was general agreement, however, that it was first of all essential that the up-and- coming colliery manager should be keenly interested in mining, should be intelligent and should be well-trained as a mining engineer. Provided he had the root of the matter in him, his practical training, properly directed, ought to develop in him many of*

¹⁸⁵ Sir Arthur Street, 'Human Relations in Coal Mining', NACM, XLVIII, 1951, pp.20-21.

*the qualities listed above, and when he eventually became a manager, ought also to ensure that he would do his best to provide his workmen with the right conditions and resources to enable them to get on with their work. Men appreciate the manager who is a good mining man and, while that is by no means the whole of colliery management, it makes a very good starting point [my emphasis].*¹⁸⁶

Bryan continued his presentation by reiterating the Fleck Report's observation that the colliery manager, 'has been taught to mine but not to manage', and suggesting that the industry needed to dispense with the concept of the, 'practical man', as the only, 'effective manager'.¹⁸⁷ He further suggested that managers should, 'redress this balance by taking an appropriate course of management study'.¹⁸⁸ Bryan, who had long been an advocate of management studies for mining professionals, including the study of Human Relations, was supported by other senior mining professionals.¹⁸⁹ Nevertheless, the frustrated comments of other mining professionals and the interaction between all levels of management and the continued 'Cold-War between miners and management', reflected, as the ensuing chapters show, the failure of management to adapt in many cases to these new realities.

The NCB had attempted to address the management problem from the outset, with the enthusiastic support of Labour Ministers and (later a few Conservative Ministers), as part of broader Government attempts to modernise British management. In particular, senior Ministers in the Attlee Administration, Sir Stafford Cripps and Hugh Dalton were convinced, on the basis of their wartime attempts to implement the 1944

¹⁸⁶ Sir Andrew Bryan, 'Reflections on Matters Affecting Recruitment, Education, and Training for Colliery Management', *NACM*, LXI, 1964, p.237.

¹⁸⁷ *Ibid*, p. 242.

¹⁸⁸ *Ibid*.

¹⁸⁹ Bryan, in an address to an NACM audience in 1954, encouraged managers to familiarise themselves with the Hawthorne Experiment., for reference to this and support from Dr. William Reid see: D. Hindson, 'Presidential Address: The Human Factor', *IME*, 115, 1955-1956, pp.33-49 (in particular, see page 39).

Weir Committee's recommendation that there needed to be a national professional body for management.¹⁹⁰ Labour's first step, in developing management practice and informing education, was to set up the Committees on Industrial Productivity (later replaced by the Anglo-American Councils on Productivity and subsequently the British Productivity Councils) and the National Joint Advisory Council (which oversaw industrial relations).¹⁹¹ In 1948, Sir Stafford Cripps (by now, Chancellor of the Exchequer) also set up a Committee on Management Education in 1948, which he invited the famous doyen of modern management methods (incorporating scientific management with the human relations school), Lyndall F. Urwick, to chair.¹⁹² In the same year, Cripps, with support from President of the Board of Trade (Harold Wilson), the Federation of British Industry and the Trades Union Congress, set up the British Institute of Management (BIM) with considerable material help from the Government.¹⁹³ The BIM was established with two guiding principles in building, 'progressive management thinking', the first being to adhere to the principles of Human Relations, and the second to foster consent and industrial democracy.¹⁹⁴ However, in a work, which generally commends Labour's supply-side reforms of the British economy, Tiratsoo and Tomlinson argue that, 'Labour never really got to grips with management in the public

¹⁹⁰ Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, (London, 1993), p.57; Anthony Carew, 'The Anglo-American Council of Productivity (1948-52): The Ideological Roots of the Post-War Debate on Productivity', pp.50-51 and 64.

¹⁹¹ Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, p.93.

¹⁹² *Ibid*, pp.56, 111-8 and 143; Lyndall F. Urwick and E. F. L. Breck, *The Making of Scientific Management, Volume I: Thirteen Pioneers*, originally published in 1945, this edition, (Bristol, 2002); L. F. Urwick and E. F. L. Breck, *The Making of Scientific Management, Volume II: Management in British Industry*, first published in 1946, this edition, (Bristol, 2002); L. F. Urwick and E. F. L. Breck, *The Making of Scientific Management, Volume II: The Hawthorne Investigations*, first published in 1948, this edition, (Bristol, 2002); For a brief history of scientific management in Britain, see: J. A. Merkle, *Management and Ideology*, pp.230-7.

¹⁹³ Nick Tiratsoo and Jim Tomlinson, *Industrial efficiency and state intervention: Labour 1939-51*, pp.111-2.

¹⁹⁴ *Ibid*.

sector in this period.¹⁹⁵ How much blame can be apportioned to the Labour governments of 1945-1951, given consecutive Conservative governments failure, between 1951 and 1964, to fully support the modernisation of British management, and the opposition of managers and industry themselves to change, is questionable. The Conservatives' commitment to management education, training and reform, with a few notable exceptions, came nowhere close to Labour. Despite the commitment of a number of Conservative Ministers, namely Lord Chandos (Minister for Education, 1959-1963) and Sir Keith Joseph, to management education and training, many Conservatives blamed productivity problems in British industry firmly and squarely on, 'a working class made 'uppity' by full employment.'¹⁹⁶ Furthermore, there was support in influential quarters of the party for the view prevalent in industry that managerial ability was innate. In fact, under Churchill's final administration, funding to the BIM was cut.¹⁹⁷ Nevertheless, Lord Chandos and Sir Keith Joseph, as Ministers in Macmillan's administration, secured £100,000 of government sponsorship for the Foundation of Management Education, which set up British business schools, along the lines of the Harvard Business School and the Business School at Massachusetts Institute of Technology.¹⁹⁸ Out of this emerged, the London Business School, run jointly by the London School of Economics and Imperial College, London, and the Manchester Business School, run by Manchester University.¹⁹⁹

¹⁹⁵ Ibid, pp.122-3.

¹⁹⁶ Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951-64. Thirteen Wasted Years?*, (London, 1998), pp.21, 60-62, and 78-81; Nigel Harris, *Competition & The Corporate Society. British Conservatives, the State and Industry 1945-1964*, (London, 1972), pp.118-120; Jim Tomlinson, 'Liberty with Order': Conservative Economic Policy, 1951-1964', in M. Francis and I. Zweiniger-Bargielowska, (eds.), *The Conservatives and British Society, 1880-1990*, (Cardiff, 1996), p.284; For discussion of Keith Joseph's support for management education reform, see: Andrew Denham and Mark Garnett, *Keith Joseph*, (Chesham, 2001), pp.78-79.

¹⁹⁷ Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951-64*, pp.78-81.

¹⁹⁸ Ibid, pp.60-62.

¹⁹⁹ Ibid, p.145.

Clearly, greater support for management education, training and reform by Conservative governments might well have aided the transformation of British management. However, as Tony Benn's 1970 observations and the operational review of British management carried out in the 1960s suggested, British management itself was not willing to embrace change wholeheartedly.

As preceding pages have shown, there was a commitment amongst some senior members of the NCB and the mining professions to reform the system of management education and training in the industry. At first, this was through public exhortations at the NCB Summer School events and keynote speeches at the conference of the professional associations.

At the same time, the Scottish Divisional Board, worried about the managerial skills of its managers and the delicate state of industrial relations in the Scottish coalfields, was also making efforts to provide management education for its managers, DPTs and junior officials.²⁰⁰ An example of these, were the courses run at Glasgow University by Professor John Mack from 1948 onwards, the content and aims of which, were outlined by Professor Mack in a letter to the Scottish Divisional Board in 1948:

The general approach will be liberal and the matter will be the human problems of political and industrial organisation, with particular reference to the relations between management at all levels and workers in factories, collieries and industrial undertakings generally. We hope to apply some of the general lessons of general thought and philosophy, no less than psychology, to the practical problems of management in the belief that these problems thrown against the general background will be clarified.²⁰¹

²⁰⁰ NCB, SD, EC, minutes, 28 February 1950, CB42/2; NCB, SD, EC, minutes, 5 February 1952, CB 42/4; See also chapter six, p.304.

²⁰¹ NCB, SD, EC, policy papers, 18 May 1948, CB 44/4..

However, by the late 1950s, the Scottish Division's Area Industrial Relations Officers complained about the lack of uniformity in the teaching of industrial relations on management courses, across Scottish institutions.²⁰² Both managers interviewed for this study saw natural leadership qualities as being the most important attributes of an aspirant manager.²⁰³ Intrinsic to both men's appraisal of a good manager was a 'cult of toughness'.²⁰⁴ In the case of one of the managers, this was reflected in a story about the forceful direction of labour, whilst the other's was situated in his own physicality and ability to lead by example (see chapter six).²⁰⁵

By the mid 1950s, the NCB had set up an additional staff college at Chalfont St Giles, to complement the Administrative College at Henley (Scottish Divisional and Area managers were sent, from 1948, on courses in public administration at both).²⁰⁶ Chalfont St. Giles was set up, in discussions with the BIM and informed by BIM standards.²⁰⁷ The NCB's Director- General of Staff, J. O. Blair- Cunynghame stated, in 1957, the NCB's intention was that within five years, 'a substantial proportion of managers between the ages of 30 and 45', would have received a management course at one of the staff colleges.²⁰⁸ Between 1960 and 1961 alone, 10 courses for 407 line managers and functional staff from colliery to

²⁰² NCB, SD, Industrial Relations Department, Area Industrial Relations Officers' Committee, paper, 29 May 1957, CB 53/21.

²⁰³ Interviews with George Gillespie, Newtongrange, 14th August 1999, and Bill Marshall, Kirkcaldy, 21 April 2004.

²⁰⁴ Michael Roper, *Masculinity and the British Organization Man since 1945*, this edition, (Oxford, 2003), pp.9-10, 105-7, 120-8.

²⁰⁵ In particular, Gillespie's incident is very reminiscent of the attitude of Roper's respondent, Mr Wright, see: M. Roper, *Masculinity and the British Organization Man since 1945*, p.123.

²⁰⁶ J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.71; NCB, SD, EC, policy papers, 24 March 1948, CB 44/4.

²⁰⁷ See interview with Norman Fisher, Principal of Chalfont St. Giles, BACM, *The National Newsletter*, Vol. 1, Pt. II, No.33, November 1955, p. 4.

²⁰⁸ J. O. Blair-Cunynghame, 'Careers in the Coal Industry' in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, p.71.

Divisional level were run at Chalfont St. Giles alone.²⁰⁹ These courses were interrupted (and then resumed) during 1962, to run short courses for colliery, Group and Area management, across the coalfields, setting out the Board's priorities on concentration, mechanisation, profitability and the role of management.²¹⁰ These events were addressed by the NCB Chairman and Deputy-Chairman and were attended by 1,250 management personnel.²¹¹ Later that year, when courses were resumed at Chalfont St. Giles, a series of seven-week courses on colliery management were run for colliery managers and Area production staff.²¹² That year, the NCB also held a conference for NCB and Divisional Board members, Director-Generals of the functional departments at National Headquarters and AGMs to discuss the future of management in the industry.²¹³ A further five conferences were held at Chalfont St. Giles between December 1962 and March 1964, addressed by both the Chairman and Deputy Chairman, with the aim of developing, 'a common concept of management in the industry.'²¹⁴ Between 1965 and 1966, Chalfont St. Giles took over full responsibility for management education and training in the industry and a further staff college was set up, with the explicit purpose of running management courses, at Graham House in Newcastle-on-Tyne.²¹⁵ The NCB also arranged to contribute £10,000 per annum to the establishment and running costs of the London and Manchester Business Schools, which senior mining figures encouraged colliery managers, wishing to become

²⁰⁹ NCB, *Annual Report and Accounts, Volume I: Report, 1960*, (Cmd. 195), p.39; NCB, *Annual Report and Accounts for year ending 30th December 1961, Volume I: Report*, (Cmd. 189), p.33.

²¹⁰ NCB, *Annual Report and Accounts fir year ending 29th December 1962, Volume I: Report*, (Cmd. 213), p.33; *Coal News*, Vol. 2, No.9, March 1962, p.4.

²¹¹ *Ibid.*

²¹² NCB, *Annual Report and Accounts fir year ending 29th December 1962, Volume I: Report*, pp.33 and 37.

²¹³ *Ibid.*, p.37.

²¹⁴ NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), pp.27-28.

²¹⁵ NCB, *Annual Report and Accounts for 28th March 1965- 26th March 1966, Vol. I: Report*, (Cmd. 243), p.34.

senior line managers or staff, to attend.²¹⁶ In the early 1960s, the Board also launched a periodical as a means of communicating exclusively with managers, called, 'Management News', which, they claimed, was meeting with such approval that they decided to launch one for junior officials called 'inbye'.²¹⁷ The growth in sociological and industrial relations studies of coal mining, through this period, along with more general public administration and management studies undoubtedly also improved the knowledge base of management literature, which Andrew Bryan had previously criticised.²¹⁸

Clearly, despite the comments of leading members of the mining professions and senior NCB staff, cited in this and ensuing chapters, about a lack of attendance on management courses, substantial numbers of managers did not have the time to join management courses and were not indifferent to the changes.²¹⁹ Armed with the Fleck Report's recommendations, and in the knowledge that improving both tactical and operational management's managerial skills were crucial to overcoming the poor industrial relations record in parts of the coalfield and to attaining productivity gains, the NCB considerably increased the scope of their management programmes by bringing the staff college's courses out to the coalfields and running national conferences for tactical management.

Evidence in later chapters suggests that some of this did have an impact on

²¹⁶ Ibid; Sir Andrew Bryan, 'Reflections on Matters Affecting Recruitment, Education, and Training for Colliery Management', *NACM*, LXI, 1964, pp.240-241.

²¹⁷ I have not been able to locate copies of *Management News*. The NCB had started by issuing a paper for all grades of employees in 1947 called *Coal*, which met with mixed success but did publish some letters from managers. The Scottish Division had issued a divisional paper, *Coal News*, by the early 1960s. In Scotland, these publications were boycotted by the NUM: NCB, *Annual Report and Accounts, Volume I: Report, 1960*, (Cmd. 195), p.39; NCB, *Annual Report and Accounts for 30th December 1962- 28 March 1964, Vol. I: Report*, (Cmd. 317), p.28.

²¹⁸ For examples: W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries* (Liverpool, 1963); S. K. Saxena, *Nationalisation and Industrial Conflict. Example of British coal-mining* (The Hague, 1955); Hazel E. Heughan, *Pit closures at Shotts and the migration of miners* (Edinburgh, 1953); T. T. Paterson and F. J. Willett, 'Unofficial strike', *The Sociological Review*, X, 4, (1951), pp. 57-94.

²¹⁹ For other examples, see: C. F. Palmer, 'Presidential Address', *NACM*, LXI, 1964, pp.230-233.

the younger generation of managers.²²⁰ From the late 1950s, the content of NCB management education courses was changed to reflect the changing productivity and efficiency priorities of the Board, with the short coalfield run in 1962 placing a higher premium on scientific methods, to the detriment of more human elements.

The NCB was evidently faced with a monumental task in setting up its workforce development schemes, not least for management. This was due to under investment in managers skills before nationalisation, resistance in particular to management education and training, and the time necessary for improving on and developing new occupational standards (in technical, managerial and administrative areas), and setting up provision. It was also impeded by the fact that few colliery and Area managers could afford time away from their jobs. Recruitment into the industry was never likely to be that successful and this was not aided by contraction in the industry from the late 1950s onwards, particularly in Scotland. Nevertheless, most of the managers, mining professionals, and craftsmen, interviewed for this study, who underwent NCB apprenticeships or continuous professional development training or education, were either intensely proud of the fact that they were, 'NCB trained men', or acknowledged that NCB training was held in high esteem for its standards across industry.²²¹ On balance, it is fair to say that the NCB invested heavily, supported by the professional associations and the Mining Qualifications' Board, in education and training, with some good results over time, although the quality and consistency of management education, in particular, was variable. However, managers faced a sharp learning curve and had, like the rest of the workforce, to adapt to an ever-faster pace of change. The prime examples of some of the NCB's new

²²⁰ See evidence of R. H. Tucker, W. Clarke, G. McAlpine and W. Rowell.

²²¹ Interviews with Jim Bowden, Bridge of Allan, 9 August 2003; Bill Marshall, Kirkcaldy, 21 April 2004; Jim Dickson, Kirkintilloch, 14 August 2003; Frank Gibb, Cowdenbeath, 24 August 2003; Alistair Moore, Bo'ness, 12 March 2004; Jim Goudie, Glasgow, 18 June 2004.

management cadre could be seen amongst its younger managers at both tactical and operational level.²²²

III

Conclusion

Scottish mining professionals, in particular those managers at Area level and below, saw dramatic changes to their roles and responsibilities over this period. While nationalisation did both revolutionise the way that the industry operated and management's role in these processes, these changes were an inevitable continuum in the industry's development. In particular, colliery managers initially saw a metamorphosis in their role and latterly a considerable diminution in their powers. The last vestiges of the parochial pit autocrat either retired from the industry or were largely weeded out. The new colliery manager had to become a subtle chairman of a management team, for whom management and administrative skills had to become as much as a priority as the various disciplines of engineering involved in coal mining. Equally, Area General Managers, most of whom lacked the experience, if not always the skills, to fulfil this role, had to learn how to act as tactical managers, foster good relations with those levels of management below and above them, and not interfere, as some were inclined to, in operational management. Much of this was apparently retarded by the absence of clear guidance and the enforcement of the roles and responsibilities integral to the NCB's 'line and staff' principles. It was also hindered by the approach of some Area managements and perpetuated by the continued tendency to recruit mining engineers to AGM posts.

²²² See numerous references in the ensuing chapters.

This failure to develop better lines of communication between the various levels of management early on and subsequently the way, and approach of some tactical managers, in which the productivity drives of the 1960s were introduced lost the NCB some goodwill amongst the mine management professions (and other employees). Furthermore, as the ensuing chapters will show, the NCB's productivity plans and targets in themselves had much to do with the progressive alienation, and comprising, of operational management.

Nevertheless, the NCB's ambitious professional development schemes were reasonably successful, over time, in producing some first-class mine management professionals, and transforming the management structure and outlook of management. However, the management education programmes met with less success than their technical schemes. This was due to a number of factors, but chiefly the continued misgivings amongst mining professionals to management education and adherence to the belief in innate leadership skills. Integral to this, as the comments of those mining professionals cited by Sir Andrew Bryan and the comments of those managers interviewed for this research illustrate, was a masculine physicality based on the managers' ability to show his dominance through physical feats as well as mental direction. However, this, 'cult of toughness', was not restricted to management but was reiterated in the language of all who worked in the industry.²²³ Some aspects of the psychology of mine management professions, and indeed miners, remained unchanged and firmly wedded to the uniqueness of their work environment.

²²³ See Mick McGahey quote in Suzanne Najam, 'A radical past. The legacy of the Fife miners', unpublished University of Edinburgh Ph.D. thesis, 1988, p.101.

5

Toward 'managerial labour processes': mine management professionals and production in the Scottish Division of the NCB, 1947- 1966.¹

It will be appreciated that it is no longer possible to view any one aspect of this system of mining [power-loading] in isolation as every part of it must be reconciled one with the other in the mechanical, electrical and mining sense. If success is to attend the installation of a system such as this then attention to detail from the inception is imperative.²

We have heard much talk in this industry of colliery managers being "captains of their ship", by implication the supreme directing intelligence, all knowing, all wise. I would suggest that this is becoming a rapidly outdated concept. The manager of today is surely becoming the leader of a team, and must accept that, in many cases, the members' combined knowledge greatly exceeds his own. As production relies increasingly on the application of scientific and engineering methods so will the problems lie increasingly in these fields, and their solution depend on the application of scientific and engineering logic.³

These two extracts taken from papers to NACM audiences, the first given by a colliery manager in the Scottish Division and the latter from a General Manager from the West Midlands Division, reinforce the transition which colliery management had undergone by the mid 1960s, and also the change in outlook of some colliery managers. Similarly, B. I. Metcalf, the NCB's Chief Engineer, reviewing the first ten years of the nationalisation of the coal

¹ The development of 'Managerial Labour Processes' will be discussed, and the concept of the consequent diminution of power amongst individual managers will be explored, in more detail in this chapter. The term is used by Ad. W. M. Teulings, 'Managerial Labour Processes in Organised Capitalism; the Power of Corporate Management and the Powerlessness of the manager' in D. Knights and H. Willmott (eds.), *Managing the Labour Process* (Aldershot, 1986), p.142; Teulings' essay is prompted by the concept of 'management apparatus' in H. Braverman, *Labor and Monopoly Capital* (New York, 1974), p. 267.

² William Chalmers, 'Advanced Shearing Techniques at Bogside Mine', *NACM*, Vol. LXI, 1964, p.144. Chalmers was the Manager of Bogside Mine, Alloa Area.

³ G. W. Sanders, 'Management in a Specialist's World', *NACM*, Vol. LXI, 1964, p. 275.

industry, talked of building, 'a community of engineers with a common ideal of service to the industry.'⁴

As the preceding chapter explained, many of the changes to managers' and other mining professionals' roles and responsibilities were a reflection of long-term developments in the industry, not least, as this chapter shows, the modernisation of production methods. As a consequence, colliery management became invested in a management team rather than an individual. As the last chapter showed, the job of the colliery manager increasingly relied on administrative and managerial skills, as well as knowledge of mining engineering. Nevertheless, as preceding and ensuing examples show, colliery managers were not always content with these changes. This process of modernisation was accelerated considerably from the late 1950s onwards, particularly with the extension of multi-shift power-loaded production and pursuant NCB productivity drives. And the introduction of uniform targets, and Divisional and National day-wage systems, informed by more advanced MIS systems, considerably reduced the powers of the colliery manager, and conversely increased the powers of tactical and strategic management. Furthermore, the ways in which these targets were implemented by some AGMs, responding to National Directives, created tensions between colliery and tactical management.

Historical review of mine management's role in production after nationalisation

Ashworth asserts that managers', 'retention of old ideas and practices, and resistance to new', was pointedly illustrated by the actions of Area and

⁴ B. I. Metcalf, 'The Place of the Engineer in Coal Mining' in Sir Guy Nott-Bower and R. H. Walkerdine, (eds.), *National Coal Board: The First Ten Years. A Review of the first Decline of the Nationalised Coal Mining Industry in Great Britain* (London, 1957), p.60.

colliery levels in the industry.⁵ However, one sociological study has offered a more systemic appraisal of the relationship between different levels of NCB management, centering on power conflicts within the NCB's organisational structures, which arose in response to procedural change.⁶ This is underpinned by a literature which roots organisational conflict in progressive functional change and the subsequent emergence of a bureaucracy in which management functions were enshrined in processes.⁷ The embodiment of this system was the Divisional (Scottish) and National Power Loading Agreements, which, the Wintertons argue, gave greater control at the point of production to mineworkers.⁸ After the NPLA, in particular, management control over the production process was pursued, not through piece rates, but through the incorporation of unions into collective bargaining, conciliation and arbitration, and consultation.⁹ Increasingly, it was also exercised through method study and extended supervision, supported by the NCB's MIS.¹⁰

⁵ W. Ashworth, *The history of the British coal industry, Vol. 5*, pp.620-1.

⁶ David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Willmott (eds), *Managing the Labour Process* (Aldershot, 1986), pp. 109-141.

⁷ Ad W. M. Teulings, 'Managerial Labour Processes in Organised Capitalism; the Power of Corporate Management and the Powerlessness of the Manager', in D. Knights and H. Willmott, pp. 142-165; Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century', in J. Melling and A. McKinlay, (eds.), *Management, labour and industrial politics in modern Europe*, p.131.

⁸ *Ibid*, p.133.

⁹ *Ibid*; Roy Church, 'Employers, Trade Unions and the State, 1889- 1987: The Origins and Decline of Tripartism in the British Coal Industry', in G. D. Feldman and K. Tenfelde, (eds.), *Workers, Owners and Politics in Coal Mining*, p.55.

¹⁰ *Ibid*; J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry, 1900- 1960', in J. Melling and A. McKinlay, (eds.), *Management, labour and industrial politics in modern Europe*, p. 165.

Chapter aims and objectives

This chapter illustrates the changing roles and responsibilities of Scottish mine management professionals throughout the period, at both an operational and tactical level, in relation to production. It also examines how these groups responded to changes in those functions.

The ensuing pages identify the components which culminated in the gradual diminution of operational management over production. However, they note that the centralisation and bureaucratisation of these processes was not fully achieved until the implementation of the NPLA, by which time, the structure and decision-making procedures at collieries had shifted from the individual colliery manager to the colliery management team, with the manager as the *primus inter pares*.

The gap in managerial skills, identified in the last chapter, was illustrated by the inability of some colliery managers to adjust to these changes. This, along with the growth in influence of the other branches of the mine management professions (through staff roles within the organisation), particularly in various production matters, and, in a few cases, the prosecution of managers as a result of faults by production staff at other levels of the organisation, probably contributed to the rifts between colliery managers and other mining professionals evident within the BACM.

The chapter also suggests that the most pronounced management failures and weaknesses in the Scottish Division of the NCB were evident at tactical levels, namely Division and Area level, and arose largely because of a dearth of adequately qualified staff. This was well illustrated by gross errors perpetrated by planners, AGMs and Divisional Directors (and ultimately, the

NCB's Headquarters Production staff), in the course of the planning of a number of new projects and the implementation of mechanisation schemes.

This work acknowledges that whilst NCB operational procedures and policy, in theory, aspired to production planned, delivered and controlled by teams of specialist personnel, the practice could be somewhat different. In attempting to implement a system of scientific management, in all its forms, as part of a modern management programme, the NCB failed to recognise that the geological, physical and human conditions of the industry would militate against the organisational and procedural uniformity, which they tried to transpose onto the industry from other commercial and public administration bureaucracies.¹¹ Furthermore, the coalface technology, and in particular, Anderton Shearer-loaders (see Appendix 5), necessary for successfully exploiting a large number of thin coal seams on faces with heavy faulting and steep gradients common in the Scottish coalfields was not to be available in sufficient numbers until the late 1950s. This was compounded by the damaging failures of a number of prominent new colliery sinkings and reconstructions, and as a consequence, the continued dependence on the older coalfields of Lanarkshire and West Fife with their short-life faces, thinner seams, problems of flooding and steep gradients as opposed to the slightly misplaced early optimism amongst senior managers of the ascendancy of East Fife (in particular).¹²

The difficulties which colliery managers and under-managers, in particular, faced in trying to maintain morale, with the ongoing colliery closure

¹¹ A point which was mirrored by one of the former colliery managers from the South Wales Area that Ina Zweiniger-Bargielowska interviewed see I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', pp.70-1.

¹² New schemes in the Lothians and the South and Central Ayr coalfields, also identified by the NCB as new development areas, proved more successful. However, it was the Alloa Area, including the coalfields of Stirlingshire, which was to prove the most productive area.

programme and poor conditions, in some divisions and individual pits, with increased pressure to maximise productive capacity was recognised by some Area General Managers and even Divisional production staff. Other AGMs used the threat of pit closures and redundancy, and sacked managers, to achieve productivity targets. Nevertheless, some colliery managers resisted exhortations to put added strain on their teams at the face or cut back manpower, not least for fear of the breakdown of dialogue and outbreaks of industrial strife (see also evidence in the next chapter). Other pits with better conditions and thicker seams and in some, though by no means all, better industrial relations were able to implement the new changes and achieve huge productivity gains. However, the rules of the Scottish Power Loading Agreement (SPLA), but particularly the National Power Loading Agreement (NPLA), precluded colliery managers from the same amount of exclusive influence over the labour process than had hitherto been theirs. On the other hand with mining operations and mine development becoming much more complex colliery managers were able to draw on the range of expertise offered by the other branches of the mine management professions. As the examples in this and ensuing chapters show, some managers embraced the new changes.¹³ For their part, as the last chapter explained, the various branches of the mining professions accumulated far greater influence after 1947 than they ever had previously.

'Managerial labour processes' in a technocracy

NCB procedures and technological advances clearly required significant changes in approach and a shift from operational management, as enshrined in the individual, towards processes and procedures. To that end, what

¹³ For examples of managers' enthusiasm for nationalisation and support for NCB methods, see: I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', pp. 64, 68-9.

follows is a brief discussion of the literature exploring the bureaucratisation of management processes.

Though Harry Braverman focused on modern management from the point of view of the Marxist dialectic of the labour process, he, like Lyndall F. Urwick and E. F. L. Brech, the pre-eminent historians of scientific management and Director of the International Institute of Management and management consultant respectively, all recognised scientific management as the inevitable development of management practice which evolved in line with capitalist evolution.¹⁴ Where they differed, apart from their obvious differences about the benefits of its application, was that Braverman associated modern management methods with Taylorism whereas Urwick and Brech viewed scientific management simply as the culmination of a number of converging managerial practices.¹⁵

As the preceding chapter showed, Urwick exerted a great deal of influence in the post-war period over the development of management theory and practice in Britain, as the Chair of the committee on management education. These, in turn, influenced (as we have seen already) the principles and materials of the NCB's management college. Many of these principles were clearly identifiable amongst the NCB's processes and procedures.

Harry Braverman pointed out that, there was nothing scientific about modern management, which he argued was still interested in the exploitation of

¹⁴ H. Braverman, *Labor and Monopoly Capital*, p.63 and 85- 103; Lyndall F. Urwick and E. F. L. Brech published a three volume work between 1945 and 1948 entitled the 'Making of Scientific Management' drawing a line back to Charles Babbage (1792- 1871); See L. F. Urwick and E. F. L. Brech, *Making of Scientific Management, Vol. 2. Management in British Industry* (Bristol, 1946), pp.1-14; See also L. F. Urwick and E. F. L. Brech, *Making of Scientific Management, Vol.1. Thirteen Pioneers* (Bristol, 1945), pp.7-19.

¹⁵ Ibid; H. Braverman, *Labor and Monopoly Capital*, p.103.

labour.¹⁶ However, he acknowledged that the management functions formerly residing with one individual had 'become part of the management apparatus itself'.¹⁷

Braverman argued that the 'vast engineering and record-keeping divisions of modern corporations have their origins in the planning, estimating and layout departments, which grew in the wake of the scientific management movement.'¹⁸ David Solomons' history of accounting systems, noted the simultaneous growth of standard costing systems with scientific management methods.¹⁹ This, he points out was first used by engineers such as American Percy Longmuir alongside job evaluation.²⁰ Hopper et al. explain the use of standard costing in relation to the labour process as follows:

Standard costing systems create conceptions of an ideal worker and by comparing actual performance with the ideal or standard performance, it is possible to assess individuals and individual standard production performance.²¹

This was particularly evident in the NCB's system of method study and uniform productivity targets from the 1950s.²² Indeed, there was nothing arbitrary about the fact that, by the late 1950s, the NCB's Production Departments, at National, Divisional and Area levels were divided into Planning and Operations, and that the Method Study Branch was housed in

¹⁶ Ibid, pp. 85-123.

¹⁷ Ibid, p. 237.

¹⁸ Ibid, p.126.

¹⁹ David Solomons, ' The Historical Development of Costing' in David Solomons (ed.), *Studies in Cost Analysis* (London, 1968), p. 37.

²⁰ Ibid, pp. 38-9

²¹ T. Hopper et al., ' Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process', p. 114.

²² Ibid.

the former. This development was also apparently vindicated by the Anglo-American Council on Productivity's report on coal-mining.²³

The team consequently recommended that the British coal mining industry adopt these 'modern techniques' and extend 'experiments we know to be taking place in the continuous analysis of operations and in the use of budgets, standards, daily cost statements.'²⁴ The use of standard costing and method study in the NCB, referred to later on in this chapter, became particularly prolific from the mid 1950s on. Standard costing was eventually used to review the financial performance of individual coalface and set targets (see later references to 'coal-face potential') and could be used to exert pressure on the manager, through the threat of closure, and faceworkers to increase supervision on the face and carry out job evaluation observations.²⁵ From the late 1950s onwards, this was applied more and more stringently by the NCB and comprehensive management information systems were developed, with the data initially held on punch cards and then, by the early-mid 1960s, on computer systems, which catalogued the financial and output performance of every face in the British coalfield.²⁶ Hopper et al. claim that ultimately the system of standard costing would be confounded. In their annual report for 1958, the NCB blamed insufficient data returns from 'underground personnel who resisted control' and the difficulty in applying standard measures to the unpredictability of the coalfield.²⁷

²³ Anglo-American Council on Productivity, *Coal. Report of a Productivity Team representing the British Coal Mining Industry which visited the United States of America in 1951* (London, 1951), p. 9.

²⁴ *Ibid*, p.13.

²⁵ T. Hopper et al., 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process', pp.114-5; See further references in the chapter.

²⁶ J. England and H. Stimpson, 'Electronic Data Processing', *The Mining Engineer*, November 1964, pp. 128- 142; E. W. Dear and D. J. Kay, 'Management and the Computer', *The Mining Engineer*, December 1965, pp. 183- 197.

²⁷ T. Hopper et al., 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process', p.115.

The evidence collated from Scottish Divisional sources, which will be referred to later on in the chapter, suggests that the NCB continued to be dogged in their attempts to apply standard costing in the Division long after 1958 and also faced some resistance to attempts to apply these methods from colliery managers for a variety of reasons, including the impracticality of applying these in the context of certain coal mines and also to avoid putting extra strain on over-burdened mineworkers. However, over time, the younger generation of managers, particularly those trained through NCB schemes and immersed in modern management methods (including standard cost analysis and method study) and departmental consultation, would embrace these methods.²⁸ This, Hopper et al. argue, was to show their technical competence rather than for informing the decision-making process.²⁹ Some of the examples, amongst the younger generation of managers, in this chapter refute the claim that these processes were wholeheartedly embraced. Indeed, despite the fact that from 1948 colliery managers' wages in Scotland were linked to output (not the size of the pit), some managers realised the importance of recognising what was achievable without losing the confidence of the workforce and compromising health and safety (although others did not).³⁰ To some degree, the geological and physical nature of the industry would confound the NCB's new industrial processes.

The chapter will also examine Teulings' suggestion that, 'management as a labour process', resulted in, 'feelings of incapacity', amongst, 'the individual manager, who is trained to function in a decomposed and hierarchically

²⁸ See examples of: W. Chalmers, 'Advanced Shearing Techniques at Bogside Mine', *Proceedings of the NACM*, Vol. LXI, 1964,, pp.139-145; W. Clarke, 'Progressive Reconstruction at Lady Victoria Colliery', *NACM*, Vol. LXI, 1964, pp.92-99; and G. McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, Vol. LX, 1963, pp.29-37.

²⁹ T. Hopper et al., 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process', p. 123-4.

³⁰ See following chapters: BACM, *The National News Letter*, Volume 1, Part I, Number 10, April 1949, p.3.

structured sub-system', which was expressed in a growing, 'politicisation of the relations between levels of management'.³¹ Elements of conflict, power and socialisation, caused by organisational and procedural change, but also the inadequacies of higher levels of management, were evident in the response of all tiers of management in the Scottish Division, namely Divisional (tactical), Area (tactical) and colliery management (operational). Whether this can be interpreted, using Beverly Burris' model of the transitory stages from bureaucracy to technocratic management, as inevitable conflict arising from reciprocity amongst technical, professional and bureaucratic elements as they converged into a technocracy is questionable.³²

The aspiration to reach this state of post-ideological sanitised productivity, or technocracy, so popular amongst some senior figures in the industry and certain politicians lacks currency in so far as it assumes a baseline of bureaucratisation, technical expertise and progress, which could simply not be found in such discernible and conscious forms in the coal industry at this time. What does become evident, through the panacea of production, is the unwitting inadequacies of the NCB's adoption and prescription of uniformity of practice and standardisation of procedures, and *ergo* some modern business processes, which helped to explain the constraints and pressures imposed on managers at the lower levels.

³¹ Ad M. Teulings, 'Managerial Labour Processes in Organised Capitalism; the Power of Corporate Management and the Powerlessness of the Manager', p.164.

³² Beverly H. Burris, 'Technocratic Management: Social and Political Implications' in D. Knights and H. Willmott, *Managing the Labour Process*, pp.166-185.

I

NCB Production Policy in the Scottish Division, 1947- 1966

As key histories of the British coal industry in this period have outlined, NCB production policy can be neatly divided into two periods of distinct aims.³³ The first, between 1947- 1958, saw the NCB, through a variety of methods, maximizing output at any cost and by whatever means. In the later years of contraction from 1958 onwards, the emphasis was very much on concentrating production and at the same time improving productive capacity with efficiency gains. In effect this meant limiting production to fewer highly mechanised coalfaces operated by small selected teams of mineworkers within tight financial constraints.

Underlying this was a much more detailed sub-set of operational aims, which can be broadly grouped into: *Developments* (the sinking of new collieries [pits/ deep mines and surface/ drift mines], major and minor reconstructions of existing collieries and districts within mines); *Technology*; and *Methods*. Whilst the ensuing deliberations will focus on production in the Scottish Division, it is worth briefly presenting a picture at national level to set the context.

³³ W.Ashworth, *The history of the British coal industry, vol.5*, pp. 155-328; Ben Fine, Kathy O' Donnell and Martha Prevezer, 'Coal After Nationalisation' in Ben Fine and Laurence Harris, *The Peculiarities of the British Economy* (London, 1985), pp. 167- 200.

NCB Production Plans

In the long term, the NCB envisaged, and adjusted their plans of action accordingly, moving the production of coal from the older coalfields of Lanarkshire, West Fife, West Durham, Northumberland and Cumberland to the newer coalfields of the East Midlands, East Fife, Lothians and Yorkshire.³⁴ South Wales, East Durham and Kent, despite being high cost coalfields, were excluded from the former list because of abundant deposits of valuable coals.³⁵ The NCB's first *Plan for Coal*, which outlined the NCB's aims up until 1965, budgeted for expenditure of £520 million on collieries and £115 million for other works (mainly carbonization plants), at 1949 prices, to pay for: 67 major and 192 minor reconstructions, 22 constructions of new collieries, and the development of 53 new drift mines.³⁶ Of these, 30 per cent of future output was expected to come from major reconstructions, 40 per cent from minor reconstructions, 20 per cent from collieries with little change and 10 per cent from the new collieries and drift mines.³⁷

In terms of methods and technology, the NCB's aim was to change from the general practice of semi-mechanised production, in which coal was extracted in one out of three shifts (the other two being preparatory), to a system of continuous mining with coal being extracted in two or more shifts and with much of the preparatory work being eliminated.³⁸ Much of this was to be strongly influenced by the Reid Report and its 108 recommendations and 18

³⁴ W. Ashworth, *The history of the British coal industry*, Vol.5, p.201.

³⁵ Ibid.

³⁶ Ibid, p.200.

³⁷ Ibid.

³⁸ B. Fine et al., 'Coal After Nationalisation', p.167; J. and R. Winterton, 'Production, politics and technological development: British coal mining in the twentieth century', pp.122- 144; J. H. Goldthorpe, 'Technical Organisation as a factor in supervisor-worker conflict. Some preliminary observations on a study made in the mining industry', *British Journal of Sociology*, X, 3, (1959), pp.221-226.

conditions for success.³⁹ This was to be aided by a number of technological developments both at the pitface and elsewhere under and above ground, such as enhanced cutting-loading and conveying machinery (which will be explored subsequently), improved roof and roadway supports (culminating in hydraulic, self-advancing pit props), increased power capacity at collieries and in the plant machinery itself, increased haulage capacity (both of men and equipment) both underground and at the surface (such as the increased power of new winding engines, the tensile capacity of new cables, the development of new cages and mine cars and the use of locomotives in some pits underground).⁴⁰ This was to be underpinned by a change in methods, including the replacement, where possible, of the stoop and room method of coal extraction by longwall horizon mining methods, and other management methods to raise morale and productivity.⁴¹ The plans for continuous mining were aided in particular by the use of armoured flexible conveyors (AFCs) which allowed for cutter-loader machines to be mounted onto these AFCs thereby eliminating the need for hand-shovelling, packing and hewing on coalfaces.⁴² The development of hydraulic roof supports and, eventually, self-advancing roof-supports gradually overcame roof strata problems associated with the operation of power-loaded faces and led to a considerable reduction in allocation of shifts to setting supports and maintaining them than had hitherto been the case.⁴³ In addition to the technological advances, the NCB

³⁹ Ministry of Fuel and Power, *Coal Mining. Report of the Technical Advisory Committee [Reid Report]*, 1945, [Cmd. 6610], pp. 126-140; R. F. Lansdown, 'Coalface Machinery Developments' in Sir Guy Nott-Bower and R. H. Walkerdine, (eds.), *National Coal Board: The First Ten Years*, pp.39-44; NCB, *Plan for Coal*, p. 4; W. Ashworth, *The history of the British coal industry*, Vol. 5, p.221.

⁴⁰ *Ibid*, pp. 61-118.

⁴¹ B. Fine et al., 'Coal After Nationalisation', pp.177-8; NCB, *Plan for Coal. The National Coal Board's Proposals* (London, 1950), pp.2 and 63.

⁴² W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.77-81.

⁴³ *Ibid*, pp.80-3.

also placed increasing emphasis on integrated mechanical cutting and loading in its plans.⁴⁴

Underpinning all of these policies was also a massive cost-saving exercise, of which the most fundamental tenet was reducing the NCB's wage bill. The long-term effect of this would be to reduce manpower considerably over time and replace it by labour saving devices both at the coalface and elsewhere underground.⁴⁵ The attainment of this, through the progressive stages of job reevaluation, the appropriation of production out of the hands of mineworkers, their selection and application as a tool, though initially absorbed by transfers to other collieries and through 'natural wastage' (retirement and emigration from the industry), resonates with Marx's descriptions of the appropriation of the worker and eventually increased the number of 'distinguished idlers'.⁴⁶ This was alluded to by the manager of Blairhall Colliery in the Alloa Area of the Scottish Division in explaining the gradual homogenisation of wage differentials across the British coalfield culminating in the NPLA:

Most modern coal-getting systems are semi-continuous in nature, but they tend to make nonsense of piecework because output depends on the speed of the machine, not the man. The obvious logic of continuous mining is the introduction of universal time rates.⁴⁷

The policy of concentration on highly mechanised faces from the late 1950s onwards and the resulting link between machine running time, productivity and efficiency gains or financial losses increased the emphasis on supervision

⁴⁴ NCB, *Investing in Coal. Progress and Prospects under the Plan for Coal* (London, 1956), p. 5; NCB, *Revised Plan for Coal. Progress of Reconstruction and Revised estimates of Demand and Output* (London, 1959), p.10.

⁴⁵B. Fine et al., 'Coal After Nationalisation', p.183.

⁴⁶ See Marx, *Capital*, Vol. 1, p.492-5.

⁴⁷ R. H. Tucker, 'Colliery Management in the Sixties', *The Mining Engineer*, February 1965, pp.303-313.

and method-study.⁴⁸ The NCB's ultimate expression of the appropriation of the worker from the process of production, in this period, would be through the development of the remotely operated longwall face (ROLF) system.

Despite the seemingly positive exhortations of the NCB's Chief Engineer in 1957 and other senior NCB figures, the NCB's systems and machinery were reliant on another consideration. The NCB's Chairman, Sir Hubert Houldsworth, outlined this in a minute to all Divisional Boards and Production Directors in January 1953, (outlining the case for power-loading and method-study and summarising the importance of a system of production and accounting uniformity):

For effective control by higher levels of management, we need to develop common basic standards- a common "scale" and a common terminology, which would enable work studies carried out at different collieries and even in different parts of the country to be directly compared.⁴⁹

Houldsworth followed this by directing the Divisional Boards to package this, to unions, as a means of exacting greater efficiency from managers and, to managers, as a way of gaining greater control over the labour process.⁵⁰ In reality, Houldsworth was trying to draw power to the centre.

Production in the Scottish Division

By 1955, 67 of the Scottish Division's 275 remaining collieries which had been found to be nearing exhaustion, had been closed and a further 67 collieries, including 26 of the new and reconstructed drift mines, were planned for

⁴⁸ This will be discussed in more detail later, see: G. McAlpine (Manager, Dollar Mine, Alloa Area), 'Three-shift Working at Dollar Mine', *Proceedings of the NACM*, Vol. LX, 1963, p.37.

⁴⁹ Memo from Sir Hubert Houldsworth to all Divisional Production Directors, 'Production efficiency and work study', 6 January 1953, NCB, SD, EC, policy papers, CB 41/7.

⁵⁰ *Ibid.*

closure by 1965.⁵¹ Broadly the shift in production was, as anticipated by the Scottish Coalfields report of 1944, from the declining coalfields of the central coalfields to East Fife, Lothians and parts of Ayrshire.⁵² To replace the lost output, the Scottish Division planned to find the capacity deficit, and increase output, through a programme of large sinkings, new drift mines and reconstructions which they anticipated would account for 50 per cent of NCB developments between 1947- 65.⁵³ Of these, 15 were new colliery sinkings, 39 involved the reconstruction of existing pits and a further 60 new drift mines were planned.⁵⁴ Of the 15 new collieries, the majority were situated in East Fife, Lothians and South Ayrshire, as envisaged in the National Plan.⁵⁵ The Scottish Division envisaged that, by 1965, these new collieries would provide 29 per cent of Scottish output, more than off-setting the estimated losses from the closure of older collieries and faces.⁵⁶ And like the rest of the British coalfield, great productivity gains were anticipated from changes in mine layout and mining methods, in particular and at the recommendation of the Reid Report, the adoption of horizon mining and power-loading.⁵⁷ The NCB declared confidently in the *Plan for Coal* of 1950 that, 'for the Scottish Coalfields taken as a whole, the future is a good one'.⁵⁸ Nevertheless, this would require a massive financial commitment of £64.3 million to be spent between 1950-65, the upheaval of 144 closures and the reduction of manpower, over the same period, by 7 per cent or 6,100 mineworkers.⁵⁹ The

⁵¹ NCB, SD, *Scotland's Coal Plan. A synopsis of the technical reorganisation and welfare programmes undertaken by the Scottish Division of the National Coal Board*, (Edinburgh, 1955), p.5.

⁵² Ibid, p. 7; Scottish Home Department, *Report of the Scottish coalfields commission, 1944*, (Cmd. 6575).

⁵³ NCB, SD, *Scotland's Coal Plan*, pp.6-7.

⁵⁴ Ibid.

⁵⁵ Ibid, p.12.

⁵⁶ 39 per cent was to come from reconstructed collieries, 23 per cent from routine changes to existing pits and 9 per cent from new and reconstructed surface drift mines. Ibid, p.6.

⁵⁷ NCB, *Plan for Coal*, pp. 60-1

⁵⁸ Ibid, pp.26-7.

⁵⁹ Ibid, Tables II & III, p. 11-2.

distribution of capital investment and manpower adjustments by area can be found in tables 3 and 4.

However, the NCB's optimism for the future of the Scottish coalfields was to be at least partly misplaced, although there were some successes.⁶⁰ Furthermore, the Scottish Division has been criticised for being too cavalier in its expenditure and the schemes it invested in.⁶¹ However it is difficult to apportion blame exclusively to one party when there were so many other contributory factors. Nevertheless, the Scottish Division was to run into considerable problems both with some of their development schemes and their attempts to increase efficiency and productivity through a change in methods and machinery. In both cases, the NCB, headquarters staff, and, at times, the Divisional Board's, dogmatic application of standard practice and their failure to consult colliery management would meet with criticism from Area and Colliery management. It is also clear that tactical management were largely responsible for the failure of a number of the new sinkings.

⁶⁰ What makes the following account particularly valuable is the fact that Halliday worked in the Scottish Division's Production Department for fourteen years: Robert S. Halliday, *The Disappearing Scottish Colliery. A personal View of some aspects of Scotland's Coal Industry since Nationalisation*, (Edinburgh, 1990).

⁶¹ W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 660.

Table 3: Planned investment and schemes in the Scottish Division, under the National Plan, 1950-65.⁶²

Area	Capital expenditure 1950-65 (£m)	New collieries (deep mines)	Major reconstructions	New surface drift mines	Minor reconstructions
Fife and Clacks*	21.0	3	1	7	10
Lothians	13.0	2	-	4	12
Central West*	10.0	1	1	4	2
Central East	3.3	1	-	2	2
Ayr and Dumfries*	17.0	2	2	21	6
Scottish (total)*	64.3	9	4	38	32

* Fife and Clackmannanshire became East and West Fife and, then, in January 1961, Fife and Alloa Areas. After January 1962, the Central East and West Areas were amalgamated into one Central Area. Ayr and Dumfries became East and West Ayr and were, subsequently, amalgamated in January 1963 to create the Ayr Area. From April 1967, the Scottish Division was dissolved and formed into two Areas: Scottish (North) & (South) Areas.

Table 4: Planned manpower changes in the Scottish Division, under the National Plan, 1950-1965.⁶³

Areas/ Division	Mid 1950s	Estimate 1961-5	Increase/ decrease (%)
Fife and Clacks.	23,300	24,800	+ 6
Lothians	12,500	14,000	+ 12
Central West	17,300	10,900	- 37
Central East	13,200	8,100	- 39
Ayr and Dumfries	15,600	18,000	+ 16
Scottish (total)	81,900	75,800	- 7

⁶² *Plan for Coal*, p.11; NCB, *Annual Report and Accounts, Vol. I: Report, 1960*, (Cmd.195), pp.17-18; NCB, *Annual Report and Accounts for year ending 20th December 1961, Vol. I: Report*, (Cmd. 189), p.26; NCB, *Annual Report and Accounts for year ending 29th December 1962, Vol. I: Report*, (Cmd. 213), p.12; NCB, *Annual Report and Accounts for 28th March 1965- 26 March 1966, Vol. I: Report*, (Cmd. 243), p.31.

⁶³ *Ibid.*, p.12.

II

Technology and mining methods

Intrinsic to the problems of realising both new developments and the implementation of new mining techniques and machinery was the geological formation of the Scottish coalfields. Scotland's coal districts were made up of two coalfields contained in a valley separated by 2,000 feet of strata and many of the problems experienced in working the coal were caused by the disturbances which created these coalfields.⁶⁴ Both of these coalfields had also been subject to unusual levels of geological disruption, due to volcanic activity, during the Carboniferous period.⁶⁵ This manifested itself in steep gradients, heavy watering (and consequently flooding) and faulting which broke up coalfaces.⁶⁶ In addition to these factors, the Division was plagued by a preponderance of thin seams, sometimes threatened by old workings especially in Lanarkshire and West Fife, and, as result of this and the faulting, coalfaces often had a short life.⁶⁷ Yet the problems of faulting, thin seams, steep gradients and heavy watering plagued many parts of the Scottish coalfield.⁶⁸ A paper presented to the Mining Institute of Scotland in the mid-1950s, revealed that at the end of 1955, 40 per cent of output was being extracted from seams which were less than 3 feet thick, 20 per cent from faces with gradients higher than 1 in 4, and in five out of the (by then) eight

⁶⁴ R. B. Dunn, 'Problems of the Scottish Coalfield and their Treatment', *IME*, Vol. 119, 1959-60, pp. 599- 600.

⁶⁵ *Ibid.*

⁶⁶ *Ibid.*

⁶⁷ NCB, SD, EC, minutes, 4 march 1955, CB 42/7; H. H. Wilson and J. H. Paterson, 'Problems of coal-face mechanization in the Scottish coalfield', *IME*, Vol. 116, 1956-7, p. 280; Similar problems were also very pronounced in the Northern Ayrshire coalfield, A. B. Macdonald and J. Davie, 'The Ayrshire Coalfield', *NACM*, Vol. XLIX, 1952, pp.232-9.

⁶⁸ *Ibid.*; W. I. Finnie and J. C. Parker, 'The South Ayrshire Coalfield', *NACM*, Vol. XLIX, 1952, pp. 240- 251; E. Kipsey, 'Rank Variations in the Coal Seams of North-East Stirlingshire', *Transactions of the IME*, Vol. 119, 1959-60, pp.23- 33; See numerous ensuing references to Lothians and East Fife as well.

Scottish Areas, the average face life was less than one year.⁶⁹ By 1960, a survey of 65 faces in operation across the division revealed that around half of the faces had an average life of six months.⁷⁰ Given that the conservative cost of installing a cutter-loader machine alone was around £40,000, it is easy to see why colliery managers and their superiors at Area level could be a little wary of expending sums on a face which might be extinct after 6 months.⁷¹ The problems of operating machinery under difficult conditions were further compounded by the absence of a cutter-loader, which could adequately cut coal in thin seams with heavy faulting and on steep gradients until the late 1950s, as this observation from the Scottish Division's Production Director, H. R. King, in 1955 shows:

No material advance has yet taken place in the development for wide application of a machine or machines capable of cutting and loading the coal off the coalface under Scottish mining conditions- where thin seams, hard coals, and fairly steep gradients have to be expected.⁷²

Despite this, the use of semi-mechanised faces was pushed as a priority, often with little thought for the consequences, particularly at some of the Division's largest collieries, as Alistair Moore notes:

In about 1953, there was a mechanisation explosion right across the Board, whether the pits were ready for it or not, I have to say. And there was a gentleman... sent up from England somewhere, name of R. B. Dunn, and I've got to say, in terms of his remit that he had from his superiors

⁶⁹ H. H. Wilson and J. H. Paterson, 'Problems of coal-face mechanization in the Scottish coalfield', p.280.

⁷⁰ R. B. Dunn, 'Problems of the Scottish Coalfield and their Treatment', p.606.

⁷¹ For examples of the cost of installing cutter-loaders see: NCB, SD, EC, policy papers, Production Department, Mechanisation Branch, 'Power-loading/ mechanisation', May 1959, CB 44/32; The authors of the following paper confirmed that the cost of installing power-loading machinery and the likelihood of seeing much in the way of a return from thin-seamed faces did dissuade colliery managers and Area production officials from fully mechanising some faces see H. H. Wilson and J. H. Paterson, 'Problems of coal-face mechanization in the Scottish coalfield', p.283.

⁷² *Scotland's Coal Plan*, p.15; Earlier concerns were raised in Divisional Board discussions of various cutter-loader trials see NCB, SD, EB, minutes for 1 and 15 December 1953, CB42/ 5; NCB, SD, PD, Mechanisation Branch, Minute from Mr. H. H. Wilson to Production Director, 26 November 1953, CB41/ 19.

down in London, presumably, he was fairly ruthless. And old ideas were shoved to the side... and these cutters came in quickly... They were introduced virtually overnight to a workforce that didn't know them and wasn't accustomed to them and there was quite a bit of bad blood generated at that time about this ramrod style of management. They're going in whether you like it or not. Now I've got to say that the mineworker was not averse to change but I think that if top management had taken them along with them instead of forcing it on them, I am fairly certain they would have got better results.⁷³

This brought colliery management into conflict with tactical managers, both directly and indirectly, with some colliery managers being replaced for their apparent failure to extend semi-mechanised faces throughout the colliery. At the Division's largest pit, Michael Colliery in East Fife, the AGM, T. D. M. Scrimgeour, replaced the existing colliery manager with a new manager, partly for a failure to meet mechanisation targets.⁷⁴ Nevertheless, the incumbent manager did manage to achieve the transition to more mechanised methods to the extent that, by the mid-1960s, output per manshift had risen from one of the lowest in the Division to above the Divisional average.⁷⁵ The industrial relations problems that arose because of semi-mechanised faces, even after the introduction of the Scottish Power-Loading Agreement (SPLA), were also well illustrated by the problems experienced at another of the Division's largest producers, Polkemmet Colliery in Whitburn, when flight-loaders were introduced.⁷⁶

⁷³ Interview with Alistair Moore, Bo'ness, 14th March 2004; It is interesting to note Dunn's later reservations about the feasibility of full power-loaded production, see: R. B. Dunn, 'Problems of the Scottish Coalfield and their Treatment', *IME*, Vol. 119, 1959-60, pp. 599- 600.

⁷⁴ NCB, SD, EC, policy papers, 24 August 1957 and 17 December 1957, CB 44/28.

⁷⁵ NCB, SD, EC, policy papers, Minute from East Fife Area on performance at Michael Colliery, 24 December 1957, CB 44/28; NCB, SD, EC, policy papers, 31 August 1965, CB 44/40; Michael Colliery's future looked rosy but it was closed after an underground fire in 1967, which killed nine miners, see: Michael Tajasque, 'The Michael Colliery Disaster. The end of an era', *Coalface*, No.19, (September 1985), pp.3-4.

⁷⁶ See chapter six, pp.316-318.

The growth of integrated cutting and loading, and productivity, was greatly improved by the introduction from the mid-late 1950s onwards of the Anderton-Shearer loader.⁷⁷ This was developed in the Lancashire coalfield as part of pilots to identify cutter-loaders which could work on steep gradients.⁷⁸ Despite the decision to increase the proportion of Anderton shearer loaders, amongst pilots of cutter-loaders in the Scottish Division in the late 1950s, early trials in the Lothians were continuously hampered by geological conditions.⁷⁹

However, between the late 1950s and the early 1960s, the increase in the number of power-loaded faces, including those using Anderton-Shearer loaders, meant that power-loaded output (expressed as a percentage of Scottish output) increased from 27.8 per cent in January 1960 to 62.4 per cent in May 1964.⁸⁰ Nevertheless, given the thin seams and short-life faces, particularly in the Central coalfields, and the manpower necessary for preparing faces for power-loading, Production Department officials in the Scottish Division, by the 1960s, were contesting the logic of installing power-loading machinery on some faces.⁸¹ A number of experiments with variations on the AB cutter-loader adapted for thin seams did have some success at Whitrigg, Cardowan, Kingshill No.3 and Bedlay collieries (all in the Central

⁷⁷ They were first introduced into Scottish pits in late 1955. H. H. Wilson and J. H. Paterson, 'Problems of coal-face mechanization in the Scottish coalfield', p.282; Ashworth, pp. 82-6.

⁷⁸ G. W. Sanders and P. Whincup, 'Power loading from the dip on heavy gradients', *IME*, Vol. 116, 1956-7, pp. 870-1.

⁷⁹ NCB, SD, EC, policy papers, Report from Mechanisation Branch, Production Department, 19 December 1957, CB 44/28.

⁸⁰ NCB, SD, EC, policy papers, 2 January 1960, CB 44/35; NCB, SD, EC, policy papers, 26 May 1964, CB 44/39; NCB, SD, EC, policy papers, 22 November 1958, CB44/ 32; T. R. Samson and J. H. Paterson, 'Safety in Relationship to Mechanization', *The Mining Engineer*, March 1961, p.416; Lord Robens gives a brief but good description of how faulting hampered a face at Bilston Glen in the Lothians when he was visiting the pit see: Lord Robens, *Ten Year Stint* (London, 1972), p. 101.

⁸¹ NCB, SD, Production Department, Minutes of the Area Mechanisation Engineers' Committee, 1 August 1964, CB 53/6.

Area) between 1962 and 1966.⁸² Between 1957- 1961, the number of Anderton-Shearer loaders at use in the Scottish Division increased from eighteen to fifty.⁸³ By 1961, they formed nearly half of all the cutter-loaders in Scotland.⁸⁴ Nevertheless, there were still a relatively high number of flight-loaders operating which, though used to some effect in some thin-seamed coalfaces which would otherwise not have been mechanised, saved little in the way of manpower (a concern of senior managers), could not be used on seams any thinner than 26 inches, and thus did not drastically increase output.⁸⁵ Indeed, the pilots run with most other types of cutter-loaders, other than the Anderton-Shearer loader, were very varied and, in the long term, largely unsuccessful.⁸⁶ The conditions in the Scottish coalfield also took a heavy toll on machinery in terms of wear and tear and considerable delays were experienced as backlogs of machinery, due for repair, mounted at central workshops around Scotland.⁸⁷ Added to this was a shortage of Unit Engineers, mechanics and electricians at collieries employed to overhaul machinery who were critical to keeping mechanised faces running.⁸⁸

⁸² John Pettigrew, 'Improving Efficiency Elsewhere Underground at Whitrigg Colliery', *NACM*, Vol. LXII, 1965, pp. 211-234; J. S. Wilson and W. Duncan, 'Development of Thin Seam Mechanization in the Central Area', *NACM*, Vol. LXIII, 1966, pp. 260-266.

⁸³ NCB, SD, EC, policy papers, 22 November 1958, CB 44/32; T. R. Samson and J. H. Paterson, 'Safety in Relationship to Mechanization', *The Mining Engineer*, March 1961, p.416.

⁸⁴ Ibid.

⁸⁵ Ibid; H. H. Wilson, 'Problems of coal-face mechanization in the Scottish coalfield', pp.290-1.

⁸⁶ Ibid, pp.278- 305; A. Bond, 'Recent Developments in the Design and Application of the A. B. Meco-Moore Cutter-Loader', *The Mining Electrical and Mechanical Engineer*, June 1949, pp. 407-422; Duncan C. McGill, 'Working the Bannockburn Main Coal seam at Plean Colliery with the Haarman Scraper-Peeler', *IME*, Vol. 113, 1953-1954, pp. 715-734; Forrest S. Anderson, 'Progress in Longwall Face Mechanization', *The Mining Engineer*, August 1963, pp. 797-803.

⁸⁷ NCB, SD, Production Department (PD), Area Mechanisation Engineers' Committee, 1 August 1964, CB 53/6; NCB, SD, PD, Area Mechanisation Engineers' Committee, 21 November 1966, CB 53/6; NCB, SD, PD, Area Electrical Engineers' Committee, 11 May 1960 and 5 October 1960, CB 53/5.

⁸⁸ Ibid; NCB, SD, EC, minutes, 21 November 1961, CB 42/13; NCB, SD, EC, minutes, 15 June 1965, CB 42/16.

Ultimately the Scottish Divisional Board was under pressure from headquarters to increase the proportion of output from power-loading faces. This, and the expectation that power-loading over time would get the results that were wanted, prompted them waive their concerns about the initial cost of its implementation.⁸⁹ However, the practicalities of operating a day-wage system on the basis of power-loaded faces, across the Scottish coalfield, were being called into question again by the early 1960s. In a memo presented to the Scottish Divisional Board in May 1961, questions were asked about the logic of applying payment, 'for the completion of a normal shift,' on the basis of a, 'continuous process', under the geological conditions prevalent in much of the Scottish coalfield.⁹⁰ The hesitancy of the Scottish Divisional Board should also be seen within the context of the heavy losses which could be suffered as a consequence of delays on faces operating continuous mining, as the manager of Dollar Mine, George McAlpine, pointed out:

Summing up, I would say that in concentration we are gambling very heavily, and therefore when we are winning we are winning heavily, and equally so when we losing we are losing heavily. Management must therefore, readjust its thinking- management at all levels- that a loss of coal will no longer be of the order of 50 to 100 tons. It will be very much higher.⁹¹

Dollar's own performance illustrated pointedly the quandary faced by the Scottish managers at both operational and tactical levels. By 1963, overall output per manshift at Dollar had reached 60.3 cwts per manshift compared with 28.1 cwts for the Division as a whole and 33.4 cwts as the British

⁸⁹ NCB, SD, EC, minutes, 29 January 1958, CB42/10.

⁹⁰ NCB, SD, EC, policy papers, memo from the Production Department to the Board, 'Power-loading agreement', 14 May 1963, CB41/ 61.

⁹¹ George McAlpine was the manager of Dollar Mine who went onto to become the Scottish Area Director (see remarks in chapter six): G. McAlpine, 'Three-shift Working at Dollar Mine', NACM, Vol. LX, 1963, p.37.

average.⁹² However, as McAlpine outlined in the same paper, a delay of a shift and a half, whether caused by conditions or the need for a major repair, could mean, on a continuous mining face, like those at Dollar, the potential loss of 1,000 tons of coal.⁹³ To avoid damaging delays, caused by conditions or the breakdown of machinery, some mines which operated power-loaded faces and had the capacity (usually those which had undergone reconstruction or new collieries) prepared spare faces and kept spare Anderton-Shearer loaders both underground and in the colliery workshops.⁹⁴

Increased productivity, as the Division's Assistant Production Director (Planning), Bill Rowell, noted in the mid-1950s was equally dependent on vastly improved layout, both below and above ground, and transport systems.⁹⁵ Thus a considerable amount of capital and revenue, as part of reconstruction programmes, was directed towards improving haulage and transport systems.⁹⁶ Changes to haulage and transport were also prompted by the Reid Committee's assertion that the inadequacy of transport in British mines was largely responsible for the productivity lag between Britain and its

⁹² Cwt represent hundredweight or 1/20th of a ton; NCB, SD, EC, policy papers, 26 November 1963; NCB, *Annual report and accounts. Volume I: Report*, 30 December 1962- 28 March 1964, [Cmd. 317], p.13.

⁹³ G. McAlpine, 'Three-shift Working at Dollar Mine', p. 37.

⁹⁴ Ibid; T. Smith and A. Fleming, 'Manor Powis Surface Mine and Power Loading', *IME*, Vol. 118, 1958-1959, pp. 141-155.

⁹⁵ William Rowell was AGM for the Alloa Area until he was appointed as Asst. Production Director (Planning) in the mid 1950s. He was largely responsible for planning the Longannet complex: W. Rowell, 'Modern Mining Methods', *The Mining Electrical and Mechanical Engineer*, March 1954, pp. 324-6; W. Rowell, 'Surface Layout and Transport Systems at New Collieries', *The Mining Electrical and Mechanical Engineer*, July 1955, pp.21-29; See also: T. E. Thomas, 'Mechanization and Concentration- The Need for Operational Planning', *NACM*, Vol. LIX, 1962, pp. 57-64.

⁹⁶ W. Ashworth, *The history of the British coal industry*, Vol. 5, pp. 88-98; G. Cuttle and G. H. Boden, 'Colliery Reorganization', *The Mining Electrical and Mechanical Engineer*, April 1949, pp. 327-342; W. Rowell, 'Modern Mining Methods', *The Mining Electrical and Mechanical Engineer*, March 1954, pp.324-6; J. Hutchison, 'Special features associated with the reorganization and development of Valleyfield Colliery and Torry Mine', *IME*, Vol. 116, 1956-1957, pp. 1024- 1043.

continental European competitors.⁹⁷ The manager of the Lady Victoria Colliery attributed a 48 per cent increase in OMS in a five-year period (1958-63) entirely down to their reorganisation of haulage systems both above and below ground.⁹⁸ The greatest achievement of underground layout was the development of the Longannet complex linking Dollar, Solsgirth, Castlehill and Bogside mines, of an 8.85 kilometer conveyor designed to carry about 20,000 tonnes (19,685 tons) of coal.⁹⁹

Measuring coalface productivity

Aside from reconstructions and new colliery sinkings, the most dramatic and most controversial change to occur between 1947- 1966 was the gradual attempt to reorganise working methods. This was to be supported by the introduction of a national day-wage system and uniform productivity targets using the NCB's newly developed national MIS, method study and increased supervision of operations from pitface to colliery workshops. As the ensuing pages show the NCB's policy on productivity and method study, and management's role in both, was strongly influenced by Lyndall Urwick's model of modern management, combining human relations and scientific management methods. They were also largely responsible for the dramatic diminution of colliery manager's influence.

⁹⁷ *Reid Report*, pp.65-80 and pp. 128-9; W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.93-98.

⁹⁸ W. Clarke, 'Progressive Reconstruction at Lady Victoria Colliery', *NACM*, Vol. LXI, 1964, pp.92-9.

⁹⁹ At the time Longannet had the longest conveyor system in the world. Longannet entered into full production in 1970: W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 97; NCB, SD, Alloa Area, minutes, 25 June 1965, CB54/ 7; NCB, SD, Alloa Area, Longannet Project: the application of electronic control and monitoring, 10 October 1966, CB54/ 8; Interview with Jim Bowden, Bridge of Allan, 9 August 2003; Lord Robens, *Ten Year Stint*, pp. 99-100.

Sir Hubert Houldsworth in his directive of January 1953, outlined his plans for improving productivity and efficiency, through the introduction of work-study.¹⁰⁰ In the directive, Houldsworth instructed the divisions to create a cadre of engineers, trained by efficiency consultants, (who would form the nucleus of the Method Study Branch) who would be dispatched into the divisions to spread the message, and stressed the importance of enlisting colliery managers' support for this policy.¹⁰¹ The following extract shows the premium that Houldsworth placed on getting managers' support for the use of method study:

If work study is to be generally accepted in the industry, colliery management- which may in some areas be sceptical, or even critical- must be persuaded of its usefulness. I think that this can be done most convincingly by practical demonstration, and our programme has been designed with this in mind. Management at all levels must be enthusiastic of this important development is to succeed.¹⁰²

Houldsworth suggested that divisional headquarters, in selling the idea to different parties, play one off against the other by suggesting, on the one hand, that it would strengthen colliery management's hand in controlling the labour process whilst on the other telling the miners that it would be used 'to increase the technical efficiency of management'.¹⁰³ However, in early 1954, the Deputy Chairman of the National Board, Sir Eric Coates, suggested, given the state of labour relations, that implementation of these new experiments in management methods be delayed so that they could be introduced at new collieries when they were ready.¹⁰⁴

¹⁰⁰ Sir Hubert Houldsworth was the East Midlands Divisional Chairman (1947- 1951) and NCB Chairman (1951- 1956) NCB, SD, EC, policy papers, memo from Sir Hubert Houldsworth to all Divisional Boards and Production Directors, 'Production efficiency and work study', 6 January 1953, CB 41/7; W. Ashworth, *The history of the British coal industry, vol. 5*, pp.140, 191-193, and Appendix 2.

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Eric Coates was NCB Deputy Chairman (1951- 1955): NCB, SD, EC, minutes, 9 February 1954, CB42/6; W. Ashworth, *The history of the British coal industry, vol. 5*, p.191 and Appendix 2.

The Scottish Division had been attempting the use of proxy task studies, in the early 1950s, but a combination of the physical conditions in most pits, prior to reorganisation, the lack of requisite technology, and the determination at Divisional Board level that wage determination should rest with colliery managers, meant that the project was never really likely to work. A report from the East Fife Area in 1952 dismissed standard tasking and productivity testing as flawed as it was relying for its data on wage returns, overtime allowances and bonuses without ever venturing underground to acknowledge the conditions the management and workforce were working under.¹⁰⁵ There was also some disagreement about standard costing at Scottish Divisional level around the same time between the Production Director, who stressed the limitations of standard costing given the geological and physical limitations of applying this to collieries, and the Divisional Finance Director.¹⁰⁶ However, the Finance Director's views were shared by the Scottish Division's Deputy Chairman, Dr William Reid, who suggested, in 1951, that wages policy in the industry needed to be governed by nationally agreed standards and that momentum needed to be maintained on mechanisation and productivity gains to be attained from mechanisation.¹⁰⁷

The Scottish Divisional Board agreed, in response to the National Board's recommended acceptance of the NUM's second wage claim in 1951, that if the wage claim, which they opposed, was proposed, that it would be an excellent opportunity to embark upon further task studies with the intention of bringing a greater uniformity of rates without consulting the NUM.¹⁰⁸ The introduction of a degree of uniformity into the wage system did eliminate a

¹⁰⁵NCB, SD, EC, papers, report from East Fife Area to EC, 1 December 1953, CB41/16.

¹⁰⁶ NCB, SD, EC, minutes, 5 February 1952, CB 42/4.

¹⁰⁷ NCB, SD, EC, minutes, 6 February 1951, CB 42/3.

¹⁰⁸ NCB, SD, EC, minutes, 6 November 1951, CB42/3.

large number of the unofficial strikes in Scotland.¹⁰⁹ However, an attempt by the Divisional Board to introduce these studies, without the support of the NUM and in the face of probable opposition from some Area and colliery staff, would have been very inflammatory. The choice of task studies linked to men's performance would almost certainly have inflamed NUM opinion at Scottish Area level as they were thoroughly opposed to the exclusive application of scientific management on men.¹¹⁰ Equally, given the methods, machinery and layout of many mines in the Scottish Division at the time, it was clearly unsuitable.¹¹¹

As time wore on, the Scottish Divisional Board arrived at the same conclusion. This was illustrated by the ambiguity, which the system of Flight Loading presented, as it was not a fully mechanised system but still eliminated a number of jobs present in the hand-got system. For example, tests with flight-loading, and other mechanised face equipment, at Polkemmet Colliery, one of Scotland's largest collieries, since the early 1950s had relied on an understanding with the local NUM branch that those faceworkers displaced by the changes, particularly strippers, would have their prior rate preserved as part of the deal.¹¹² This continued well into the late 1950s.¹¹³ Consequently, the cost of continuing the practice of compensating displaced faceworkers more than negated any savings.¹¹⁴ The strikes, stoppages and

¹⁰⁹ See next chapter, p.302.

¹¹⁰ See report of Abe Moffat's comments at the Joint National Consultative Council of 9 January 1951 in NUM, *Annual Report and Proceedings*, 1951, pp.87-95.

¹¹¹ See comments on the effects of semi-mechanised production in British pits at the time: John H. Goldthorpe, 'Technical organization as a factor in supervisor-worker conflict. Some Preliminary Observations on a Study made in the mining industry', *British Journal of Sociology*, 10, 1959, p.220; see also: Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century', in J. Melling and A. McKinlay, (eds.), *Management, labour and industrial politics in modern Europe*, pp.130-4.

¹¹² NCB, SD, EC, minutes, 1 April 1952, CB 42/4.

¹¹³ NCB, SD, EC, policy papers, 6 May 1959, CB 44/33

¹¹⁴ Ibid.

bad publicity, which these semi-mechanised schemes and the tasking studies prompted, like the one at Polkemmet and other large collieries, such as that at Michael Colliery in Fife, thwarted attempts to extend and eventually persuaded the Scottish Divisional Board of the need for pursuing full mechanisation as an imperative.¹¹⁵

By 1953, agreement had been reached at a Scottish Divisional level to develop the 'work study units' outlined in National Coal Board's 1953 Directive.¹¹⁶

The Fleck Report's recommendations and James Bowman's ascendancy to the Chairmanship of the NCB signaled an increasingly interventionist approach to operations, which was continued under Alf Robens, by the Board and Headquarters staff. This was particularly noticeable in the Board's policy on productivity and mechanisation, as Sir James Bowman declared in a 1957 speech to NCB staff:

In launching the power-loading drive in 1955, the Board were determined that development should proceed apace to improve and expand those resources. The drive must continue and accelerate. Nothing must be allowed to hinder this, and we must take in our stride every possible improvement.¹¹⁷

The pressure which mounted, over Bowman and Robens' chairmanship, on Divisional, Area and, particularly, colliery management is clear from the barrage of correspondence from NCB members and HQ staff to divisions, and the face-to-face cajoling of Scottish Divisional Production officials by HQ staff. This worsened with Bowman and Robens' successive drives for increasing coalface mechanisation and their exhortations for a rise in productivity and

¹¹⁵ Ibid; NCB, SD, EC, policy papers, 24 December 1957, CB 44/28.

¹¹⁶ NCB, SD, EC, minutes, 6 January 1953, CB 42/5.

¹¹⁷ Sir James Bowman, 'Management and Administration in the N.C.B.', CG, 12 September 1957, pp.331-332.

efficiency gains, accompanied by the bonus schemes of the divisional power-loading agreements and the speeding-up of the closure programme.¹¹⁸

Robens enforced this message by dispatching E. F. Schumacher, the NCB's Economic Adviser from 1950-1970, and H. E. Collins, NCB Board member for Production from 1957 onwards, to the Divisions to convey his idea of 'coal face potential'. At Schumacher and Collins' meeting with the Scottish Divisional Advisory Committee on Production and Area Production Managers on 29 June 1965, the notion of realistic targets based on conditions in pits was dismissed by Robens' attachés, who stated:

Lord Robens was concerned that, in many quarters, the standards so established were considered by management to be the face potential, whereas such standards must be considered as a starting point to attack the inefficiencies of the unit.¹¹⁹

Instead Schumacher and Collins instructed Divisional staff present that they should start using national productivity formulae based on uniform machine availability times, maximum shift time (a national standard of 7 ¼ hours + 1 hour winding – 2 hours for travelling and food) and actual machine running time.¹²⁰ This, they recognised, would take greater investment on roadways, man-riding facilities, powered self-advancing supports and faster power-loading turn-around times.¹²¹ This, Schumacher and Collins suggested, needed to be supported by the deployment of greater numbers of junior

¹¹⁸ NCB, SD, EC, Letter from Sir James Bowman to Scottish Divisional Board, 22 December 1958, CB 44/32; NCB, SD, EC, Letter from Alf Robens to Scottish Divisional Board, 17 April 1962, CB 44/37.

¹¹⁹ NCB, SD, EC, Note of meeting between E.F. Schumacher, H.E. Collins and the Divisional Advisory Committee on Production and APMs, 6 July 1965, CB 41/68; Schumacher's misgivings with this policy are implicit in a book by him published three years after leaving his post at the NCB, see: E. F. Schumacher, *Small is Beautiful. A Study of Economics as if People Mattered*, first published in 1973. This edition, (London, 1993), pp.9, 20 and 108.

¹²⁰ NCB, SD, EC, Note of meeting between E.F. Schumacher, H.E. Collins and the Divisional Advisory Committee on Production and APMs, 6 July 1965, CB 41/68.

¹²¹ NCB, SD, EC, Note of meeting between E. F. Schumacher, H. E. Collins, the Scottish Divisional Advisory Committee on Production and Area Production Managers, 6 July 1965, CB41/68.

officials as they felt that 'supervision is not sufficiently intense'.¹²² Ultimately, Schumacher and Collins counselled, effectiveness was to be measured as follows:

It was considered that the introduction of manshifts might usefully be brought into this "time balance sheet" as an added help in appreciating the position, in a similar way that tonnage was introduced. Mr. Schumacher emphasized that this was a National form and its aim was to indicate the effectiveness of planning in terms of utilising the time available. Time was a constant factor, and higher management could compare the effectiveness of its utilisation wherever it was.¹²³

Thus, not only were colliery units to be judged on output, in terms of tonnage, but also on the basis of a standardised rate of advance, determined by national formulae (rather than ones which reflected the specific conditions at individual collieries), measured in machine running time and advance. The effects of this and changes to the bonus system (linking it to the continuous running of face machinery), along with the constant pressure on colliery management, in some areas, by some area managers, to keep machinery running created a context in which industrial relations were inflamed and safety was compromised.¹²⁴ The drive had been supported in 1962, by the staff colleges' short courses on mechanisation, method study, costing, concentration of workings and maintenance for colliery managers across the coalfield.¹²⁵

Concurrently, the completion, by the late 1950s, of a number of large reorganisations and the fruition of a number of new collieries and drift mines, coinciding with the emergence of proved face technology to allow for full

¹²² NCB, SD, EC, Note of meeting between E. F. Schumacher, H. E. Collins, the Scottish Divisional Advisory Committee on Production and Area Production Managers, 6 July 1965.

¹²³ NCB, SD, EC, Note of meeting between E. F. Schumacher, H. E. Collins, the Scottish Divisional Advisory Committee on Production and Area Production Managers, 6 July 1965.

¹²⁴ For effects on industrial relations and health and safety, see chapters six and seven, various references.

¹²⁵ *Coal News*, Vol. 2, No.9, March 1962, p.4.

power-loading production (and eventually continuous mining) and an established Method Study Branch, allowed for a greater push on power-loaded production. Many of the biggest breakthroughs were made, not as envisaged in East Fife and the Lothians, but in the Alloa Area.¹²⁶ By June 1963 the Alloa Area, was one of only a handful of Areas, across the British coalfields, in which the proportion of output, which was power-loaded, exceeded 90 per cent.¹²⁷ In contrast, the proportion of output in the Scottish Division, which was power-loaded stood at 59.3 per cent in April 1964.¹²⁸ The apparent success of individual reorganisations, in the Alloa Area in particular, was considerable. By 1963, for example, Manor Powis and Polmaise 3/ 4 (both situated near Stirling) had achieved daily coalface OMS rates of 120.4 cwts and 162.3 cwts respectively against Divisional and National rates of 81.1 and 99.1.¹²⁹ On the other hand, these pits were relatively modern. In addition, the Alloa had a reasonably progressive and dynamic Area management, labour relations were generally accorded as being good and they could look forward to a reasonably positive future.

The implementation of a day-wage system for all grades of workers above and below ground, except faceworkers, was achieved between 1955- 1963.¹³⁰ A day-wage for faceworkers had been piloted, as the Scottish Power-Loading Agreement, from the mid- 1950s on but was hindered as we have seen by the practicalities of technology and conditions. This was illustrated by the fact that, between 1 August 1959 and 6 February 1960, there were 1,600 separate

¹²⁶ For example: W. Chalmers, 'Advanced Shearing Techniques at Bogside Mine', *NACM*, Vol. LXIII, 1965, pp. 139- 145; G. McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, Vol. LX, 1963, pp. 33- 40.

¹²⁷ W. L. Miron, 'Where do we go from here?', *NACM*, Vol. LX, 1963, pp. 185-190.

¹²⁸ NCB, SD, EC, production report, 3 April 1964, CB44/ 39.

¹²⁹ NCB, SD, EC, policy papers, 30 December 1962, CB44/ 38; NCB, *Annual Report*, 1962-64, [Cmd. 317], p. 13.

¹³⁰ B. Fine et al, 'Coal After Nationalisation', pp.167-200.

seam agreements in operation in Scotland.¹³¹ In theory at least, the SPLA was intended to operate a day-wage augmented by overtime and supplements.¹³² Minutes of the Scottish Divisional Committee for Area Industrial Relations Officers between 1957-66 reveal that there was considerable confusion at colliery level about how seam agreements, based on a special rate negotiated at local level to take account of conditions on the particular face, fitted in with the SPLA's day-wage.¹³³ There was also initially disagreement between Scottish Divisional Board members, supported by production staff, on the one hand, who encouraged the continuation of seam agreements as a means of incentivisation and IR officers who wanted greater uniformity.¹³⁴ However, after a NCB memo in 1958 calling for concentration, the reduction of output and the elimination of 'uneconomic production', there was a far greater drive to cut down costs and achieve greater uniformity.¹³⁵ This included far greater enforcement of the right, agreed under the SPLA, to increase the use of Method Study Operators and intensify supervision.¹³⁶ The increase in supervision prompted miners to complain of supervisors 'breathing down their necks'.¹³⁷ Nevertheless, there was a considerable decline in the number of disputes and days lost after the introduction of the SPLA in Scotland, largely because by far and away the biggest cause of disputes was wage rates.¹³⁸ Scottish Divisional Industrial Relations officers continued to

¹³¹ Of these, 157 were in West Fife alone: NCB, SD, Area Industrial Relations Officers' Committee, minutes, 24 February 1960, CB53/ 21.

¹³² NCB, SD, EC, papers, Memo from Industrial Relations Director to Scottish Divisional Board, 14 May 1963, CB41/ 61.

¹³³ NCB, SD, Area IR Officers' Committee, minutes, 26 June 1957 - 2 February 1961 CB53/ 21- 22.

¹³⁴ Ibid.

¹³⁵ NCB, SD, EC, papers, Memo from James Bowman to R. W. Parker, 22 December 1958, CB44/ 32.

¹³⁶ NCB, SD, EC, papers, Memo from Production Director to Board, 10 June 1965, CB41/ 68.

¹³⁷ A. Perchard, 'Bonnie fighters', p.44.; Interviews with Alec Mills, former faceworker and NUM Agent, Auchenleck, Ayrshire, 13 September 1999 and Eddie Henrey, former faceworker and NUM branch committee member, 15 November 1999.

¹³⁸ See chapter six: NCB, *Annual report, Vol. I*, 1958, [Cmd. 158], p.41; NCB, *Annual report, Vol. I*, 1962, [Cmd. 213], p. 9; NCB, *Annual report, Vol. I*, 30 December 1962- 28 March 1964, [Cmd. 317], pp.18-9.

complain about colliery managers and union agents who ignored calls for wage uniformity, negotiated locally and revised divisional agreements (chapter six). Both the DPLA and the NPLA avoided the contentious issue of managerial direction of team constitution, which left this, to a limited degree, at the hands of managerial discretion:

The present-day rota systems make it difficult for management to select power-loading teams, but the agreement does allow for some selections and for consultation all the way through. It also allows for some action where unsatisfactory work is being performed by certain members of the power-loading team. Where limitations are placed on management for personal selection of the team, management must equate this by skilful selection and maneuvering of supervisory staff.¹³⁹

The National Agreement states (Clause 5) that "the selection of men who are to comprise the power loading team shall be made by management after consultation with the Union." It has been the practice in Scotland for management to determine the complement, i.e. the number of men required, in consultation with the Union but to accept the selection of men as indicated by the rota at the pit. Presumably, if management wish there is no reason why the rota system should not continue.¹⁴⁰

Despite the fact that this still allowed colliery managers discretion on matters of control at the point of production, it was nevertheless on the understanding, under both the SPLA and the NPLA, that this decision should be arrived at on the basis of reports from Method Study Operators, cost clerks and junior officials in consultation with the NUM.¹⁴¹ Furthermore, as the preceding pages have showed, the parameters had already been set in the form of nationally devised targets for, 'coal-face potential'. Ironically the NACM, Scottish Branch, in a letter to the Scottish Divisional Board in December 1952, had called for more formalised procedures for wage

¹³⁹ G. McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, Vol. LX, 1963, p. 33.

¹⁴⁰ NCB, SD, EC, policy papers, Paper by the Production Director and Acting Industrial Relations Director for the Board on the subject of the National Power Loading Agreement, 3 June 1966, CB 41/71.

¹⁴¹ NCB, SD, EC, policy papers, Paper from Production Director to Scottish Divisional Board entitled 'management of mechanized longwall faces', 10 June 1965, CB 41/68.

agreements, including pilots of day-wage systems, and increased support at colliery level to carry out Board policy (including more officials of a under-manager status to oversee shifts and the appointment of IR officers, of NUM Agent rank, to represent managers at wage dispute committees).¹⁴²

Along with gradually introducing a more uniform wage structure and increasing productivity to all aspects of operations across some collieries, changes in production methods and technology considerably reduced manpower levels in the Scottish Division. Whilst this was initially offset by transfers to Scottish pits and then to other parts of the British coalfield, retirement and the exit of some miners from the industry, by the early 1960s, the effects of the increased closure programme and concentration of production was reflected in increasing numbers of redundancies.

This is illustrated by a number of disaggregated examples, the manager of the Lady Victoria colliery, in the course of its reorganisation over five years, reduced the workforce at the pit by 250 mineworkers.¹⁴³ Developments at Whitrigg Colliery reduced the workforce there by 249 mineworkers in just over three years.¹⁴⁴ By February 1965, there were 1,593 miners in Fife alone being paid under the NCB Redundancy Compensation Agreement.¹⁴⁵ By

¹⁴² NCB, SD, EC, policy papers, Letter from Honorary Secretary of NACM (Scottish Branch) to Scottish Divisional Board, 16 December 1952, CB 44/17.

¹⁴³ W. Clarke, 'Progressive Reconstruction at Lady Victoria Colliery', *NACM*, Vol. XLI, 1964, pp. 92-99.

¹⁴⁴ J. Pettigrew, 'Improving Efficiency Elsewhere Underground at Whitrigg Colliery', *NACM*, Vol. XLIII, 1966, pp. 211-234.

¹⁴⁵ To the Scottish Division's credit, most mineworkers were found other jobs within the division despite considerable pressure from headquarters to transfer men to English and Welsh Areas having been earmarked as an 'export division' (the pressure from National Board level to transfer men from Scotland to English areas when parts of Scotland were in the middle of a manpower crisis caused considerable resentment amongst Scottish divisional IR staff); NCB, SD, Area Industrial Relations Officers' Committee, 7 March 1962, 13 June 1962 and 1 August 1962, CB53/22; James P. Savage, 'Redundancy- its Problems and its Treatment', *The Mining Engineer*, June 1965, pp.504-510.

March 1964, in marked contrast to NCB projections in the National Plan, manpower in the Scottish Division had fallen by 36.7 per cent since the mid-1950s (rather than 7 per cent as projected by the National Plan)- a loss of nearly 31,000 mineworkers.¹⁴⁶

Managers undoubtedly did see a change in operational procedures, the management of the labour process and production planning between 1947-1966. There was an apparent change in culture amongst some managers who viewed themselves as the leader of a team and felt that the way forward for the industry involved consultation and delegation.¹⁴⁷ Whilst, these examples could be dismissed as simply window dressing, evidence from Colliery Consultative Committees shows examples of other managers who led by consulting their workforce and colleagues, providing team leadership and instilling morale back into the pit. Possibly the best illustration are those of the replacement manager at Kingshill No.1 in 1966, Sandy Hinshelwood, and George McAlpine, manager at Dollar mine.¹⁴⁸ Differences in managerial approaches to consultation and labour management will also be examined in the next chapter.

¹⁴⁶ Whilst some of this was attributable to unavoidable closures (due to exhaustion) and the unforeseeable disappointments like the Rothes and Glenochil collieries, many more redundancies were the effect of the concentration and mechanization of production both in plant and human terms. In fact the National Plan's estimates underestimated the number of mineworkers who would be employed by the mid-1950s (81,900 compared to the real figure of 83,700) and were optimistic in their estimates for figures in the mid-1960s (75,800 in contrast to the actual figure of 52,946): NCB, *Plan for Coal*, p.12; NCB, *Annual report and accounts, Vol. I: Report, 1955* [Cmd. 263-I], p.5; NCB, *Annual report and Accounts for 30th December 1962- 28th March 1964, Vol.I: Report*, [Cmd. 317], p.31.

¹⁴⁷ See chapter six, particularly George McAlpine.

¹⁴⁸ Mr. Hinshelwood took over the pit in April 1966 and made a good impression in the months he was manager. Unfortunately, he died suddenly in September 1966: NCB, SD, Central Area, Kingshill No.1 Colliery Consultative Committee (CCC), 19 April 1966- 8 August 1966, CB 55/12.

On the other hand, there is evidence that some managers very much felt that, as statutory and output responsibilities lay with them, they were going to retain managerial autonomy and their right to exercise as much managerial discretion as they possibly could.¹⁴⁹ Yet, according to the following address given in 1964, by the then President of the NACM to the NACM's annual general meeting, some managers were still not prepared to consult:

Far too often one section of management fails to seek the views of a lower section, concerning future policy, and even occasionally fails to keep such sections as well informed as they do local or area branches of trade unions. This is itself an affront to human dignity and is bound to lead to frustration.¹⁵⁰

In addition, the Divisional Board complained, initially, about the limited data they were receiving from Area level about colliery performance.¹⁵¹ However, and whilst Scottish Colliery Company records are limited, those records that do exist, even for the large colliery companies like the Fife Coal Company Ltd. or Bairds & Dalmellington Ltd., suggest that management information systems were, like much of the rest of the British coalfield prior to nationalisation, limited.¹⁵² This was confirmed by a former Area Chief Accountant for the Scottish coalfields.¹⁵³ It was also clear that staff at Division, Area and colliery level could not cope with the administrative

¹⁴⁹ An example of this is the following article by an Ayrshire mining mechanical engineer explaining frustratedly about the need for team work between the mine management professions and for them to be properly recognized see: F. Graddon, 'The Engineering Function in our Modern Mining Industry', *The Mining Electrical and Mechanical Engineer*, November 1953, pp. 180-3.

¹⁵⁰ C. F. Palmer, 'Presidential Address', *NACM*, Vol.LXI, 1964, p. 231; See also another paper from the same conference on the same theme: G. W. Sanders, 'Management in a Specialist's World', pp. 274-9.

¹⁵¹ NCB, SD, EC, minutes, 3 April 1950, CB 42/2; NCB, SD, EC, minutes, 2 February 1952, CB 42/4.

¹⁵² Trevor Boyns and Judith Wale, 'The Development of Management Information Systems in the British Coal Industry, c.1880-1947', *Business History*, Volume 38, 2, (1995), pp.55-80; Michael Dintenfass, 'Entrepreneurial Failure Reconsidered: The Case of the Interwar British Coal Industry', *Business History*, 62, (1988), pp.1-34.

¹⁵³ Apparently considerable work was needed in the early years to develop accounting and management information systems. Interview with Jim Bowden, Bridge of Allan, 9 August 2003.

burdens being placed on them.¹⁵⁴ Consequently, it is fair to conclude that the paucity of returns had rather less to do, than imagined, with obstructive retention of information and control at lower levels of management than a sheer lack of capacity, training and experience in producing regular MIS returns. Although, the Scottish Divisional Board were not keen on the other hand to take labour relations out of the hands of colliery management and Area production staff who they clearly felt should have greater jurisdiction than the NCB's Labour Officers.¹⁵⁵ It is clear from the actions and views of some more senior managers, as well as colliery managers, that delegation and consultation were not always practiced as they were preached. However, there was a discernible change in approach over the course of the first nineteen years in the Scottish Division.

This section has illustrated the mixed experiences of mine management professionals, at both tactical and operational levels in the Scottish Division, of implementing new production methods. Whilst, there were apparently more resources available to managers to develop their pits, the introduction of face machinery into some collieries was ill-conceived and misjudged, with little success and a great deal more resentment. In other pits, conditions allowed for the relatively smooth and successful implementation of coalface technology, as illustrated by collieries like Dollar, Manor Powis and Polmaise 3/ 4.

Even at the most successful collieries, as the next chapter shows, the effects of Bowman and Robens' productivity and efficiency campaigns, in particular, the combination of nationally devised and increasingly unrealistic coal-face targets, the rescinding of local bonuses, and the increased use of method-

¹⁵⁴ NCB, SD, EC, minutes, 7 November 1950, 1 May 1951 and 5 February 1952, CB42/ 2-4.

¹⁵⁵ NCB, SD, EC, minutes, 2 October 1951 and 8 January 1952, CB42/ 3-4.

study and supervision, disincentivised mineworkers and created tensions both at the colliery and between colliery and Area management. The section showed that some colliery managers chose to ignore directions on local agreement. This will be explored in more detail in the next chapter. Conversely, as preceding examples showed, other colliery managers used these new processes with alacrity to reorganise colliery functions, concentrate production and reduce the colliery workforce. Ultimately, NCB direction, from the late 1950s onwards, increased mechanisation in a bullish way and ruthlessly drove productivity and efficiency gains. Further evidence of how this was enacted in different Areas of the Scottish coalfield and the impact on industrial relations and health and safety, and in particular managers' part in this, is provided in the next two chapters.

III

New developments and reconstructions

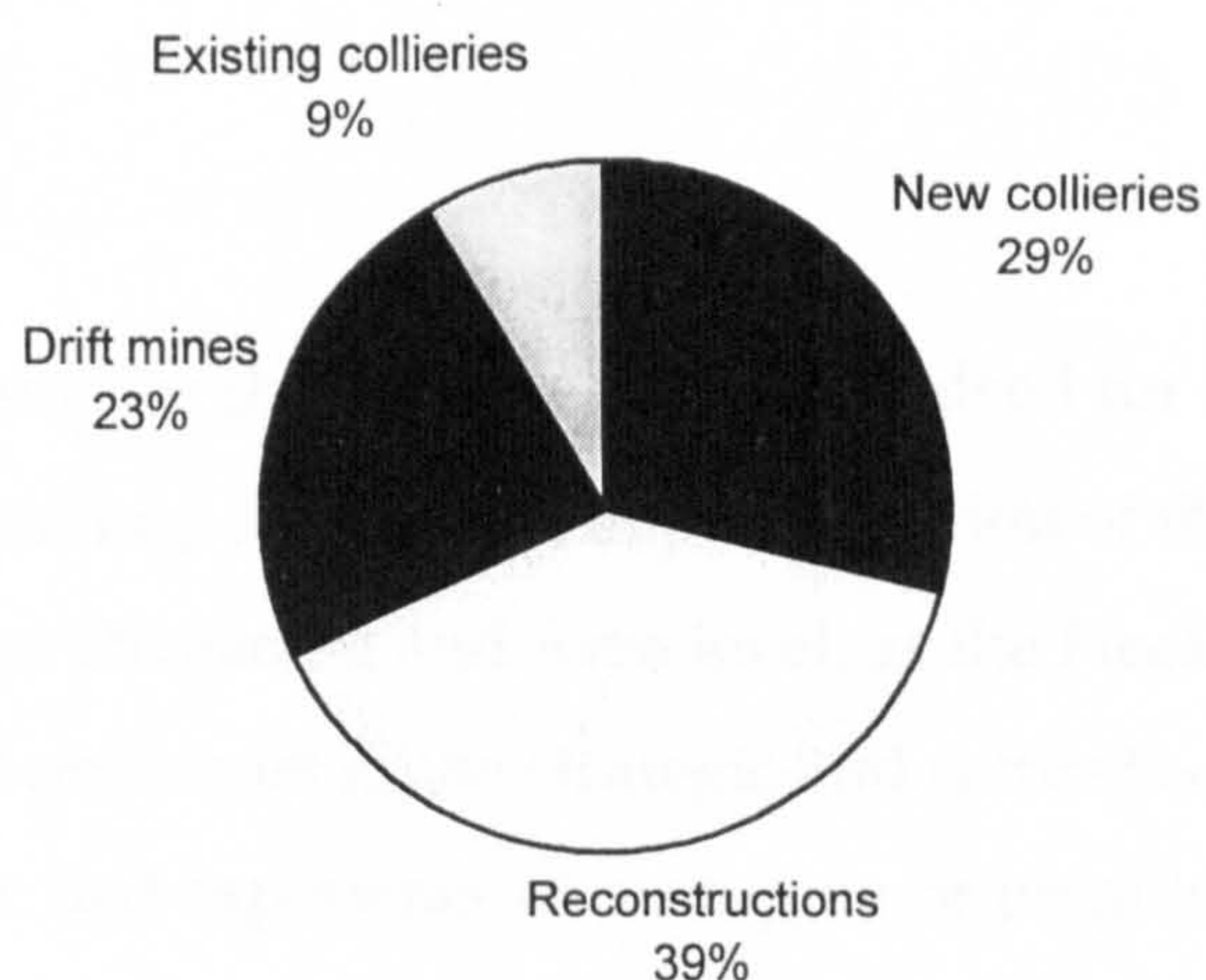
The Scottish Division's development activities can be broken up into three distinct strands: the development of new collieries; major reconstructions of existing collieries; and the development of new and reconstruction of existing drift mines. Of all of these activities, the one which was given the most publicity, for a couple of high profile failures, was the development of new collieries.¹⁵⁶ Whilst, it is perhaps understandable, given the financial and social impact on the division and on the NCB, that these were the subject of considerable public scrutiny, it is the intention here to place these within the

¹⁵⁶ Rothes Colliery at Thornton in Fife and Glenochil Mine at Alva in Clackmannan- see: *Coal News*, Vol. 1, No. 6, December 1961, pp. 1, 4-5; *Coal News*, Vol. 2, No. 10, April 1962, p. 5; *The Fife Free Press*, 30 June 1956, p.1; *The Bulletin*, 30 June 1956, p.1; NCB, SD, Rothes publicity, CB52/ 8; Abe Moffat, *My life with the miners* (London, 1965), p. 186; R. S. Halliday, *The Disappearing Scottish Colliery*, pp.49-107; Lord Robens, *Ten Year Stint*, pp. 145-6; W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.199, 257-8.

context of wider developments. That said, the examples of two new colliery developments, the Rothes and the Longannet projects, for which more detailed records are held in the National Archives of Scotland along with (in the case of the former) a few surviving records from the Fife Coal Company's own plans for the colliery, do provide some useful empirical evidence from which to judge 'operational', 'tactical' and 'strategic' level managerial functions in terms of the planning, control and execution of these projects. However, the latter of these functions, and operational staffs' involvement, should be judged taking into account the limitations, which geological and physical constraints placed on all stages of the process. Some of the blame for the failure of two of the largest new developments in the Scottish Division will be levelled at private companies, suggesting irregularities and even impropriety about the way the plans for these new sinkings was presented. However, new collieries were only one strand, albeit an important one, of the Scottish Division's plans for future coal production. For the NCB's proposed changes to the source of Scottish and British coal output (see figures 10 and 11). Clearly, as the two diagrams show, new collieries were proposed to make a much larger contribution to the Scottish Division's output than to British output as a whole. The loss of output from two large new collieries to the division was easier to bear than the expenditure and loss in terms of manpower and manshifts in the long term after concentration and contraction. As the examples of the many reconstructions, and the Longannet complex in the Alloa Area showed, there were clearly some considerable successes- in mining engineering and planning terms- in the face of very adverse conditions for the Division in this period as well.

At both National and Scottish Divisional levels, it does become apparent that expectations of the capacity and future of both the Lothians and, in particular, East Fife, coalfields were overly enthusiastic whilst the surprise and, on the whole, great success story of the Scottish Division was the Alloa Area.¹⁵⁷ Ultimately, as Ashworth noted, much of the capacity would end up coming from older collieries, albeit ones that had undergone extensive reconstruction, some of which were over a hundred years old.¹⁵⁸

Figure 10: source of coal output anticipated for 1965, Scottish Division (%).¹⁵⁹

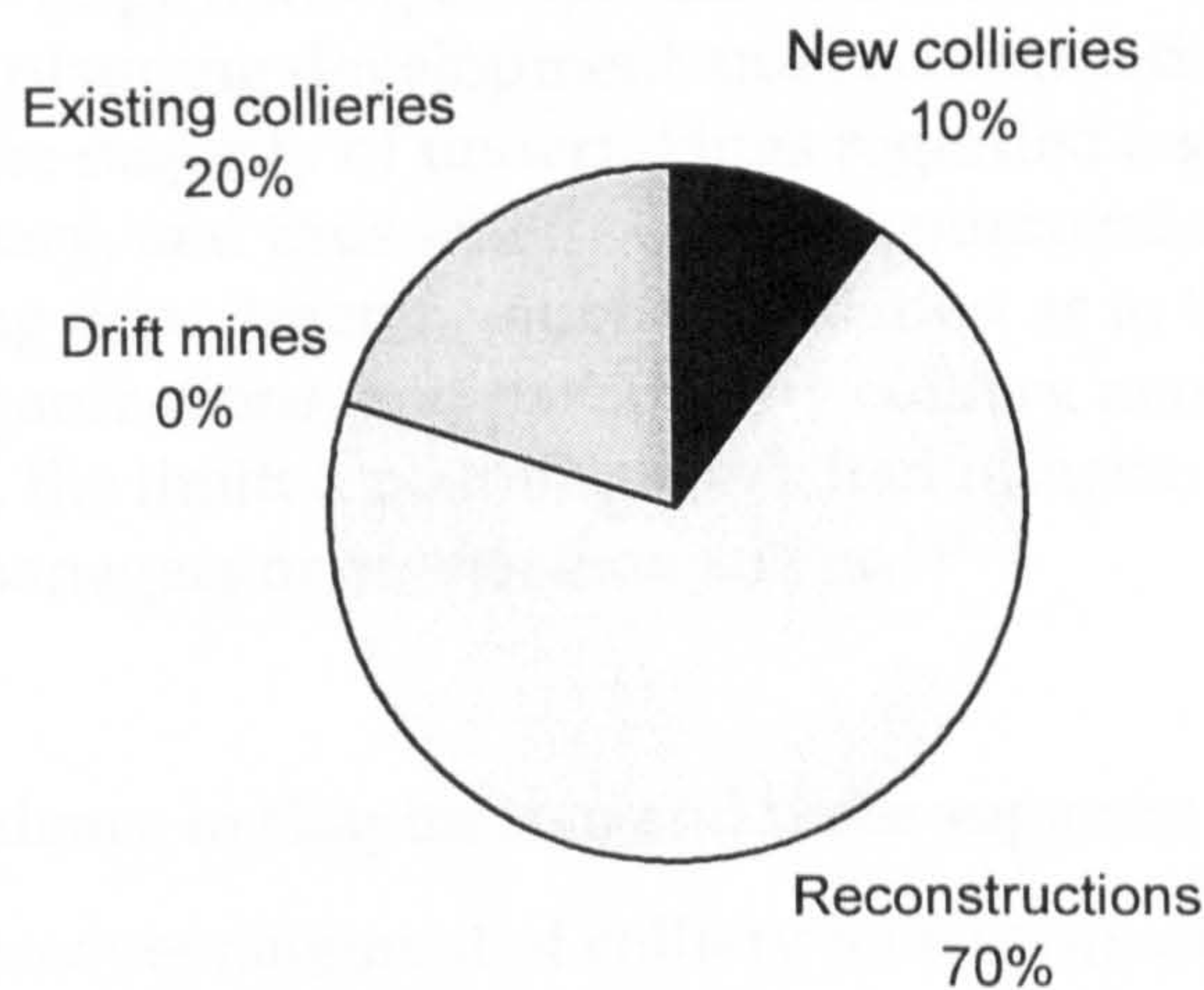


¹⁵⁷ See references earlier in the chapter to NCB and Scottish Divisional aspirations for both the Lothians and East Fife. By 1967/8, the Scottish Division anticipated, with the further closure of Randolph and Lochhead Collieries, that East Fife would be left with three collieries, Michael, Frances (sunk in 1923) and Seafield, of eleven in 1955. Of the remaining collieries, the Seafield, at which sinking had started in 1954, was not to operate at full capacity until 1968. NCB, SD, PC, papers, Memo from the Reconstruction Division, 26 November 1963, CB44/ 38; Jane Denholm, 'The Scottish coalfield; Seafield Colliery', *Coalface. The Bulletin of the Scottish Mining Museum*, No. 24, April 1987, pp. 5-6; For references about Lothians Area see, NCB, SD, PC, papers, 31 August 1965, CB44/ 41.

¹⁵⁸ W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 111.

¹⁵⁹ NCB, SD, *Scotland's Coal Plan*, p.6

Figure 11: source of coal output anticipated for 1965, NCB (%).¹⁶⁰



One of the problems for the Scottish Division, indeed for the NCB as a whole given that the planning, control and implementation of these projects was largely executed at Divisional and Area level, as the Fleck Committee noted, was the dearth of personnel in the strategic and tactical echelons of management who had experience of managing or planning some of the larger reconstruction and sinking projects, especially bearing in mind technological developments either in terms of the scale or volume required.¹⁶¹ As the historiography of inter-war colliery companies management structures shows (see figure 8), few collieries had the means to pursue large capital projects in the inter-war period.¹⁶² Furthermore, as Boyns and Wale have suggested, few colliery companies had any form of planning department.¹⁶³ This certainly chimes with the evidence provided in a paper by one mine management

¹⁶⁰ NCB, *Plan for Coal*, p. 3.

¹⁶¹ See references to skills gaps and shortages in chapter four; *Fleck Report*, p.23; J. A. S. Ritson, 'Presidential address', *Transactions of the IME*, Vol. 107, 1947-8, p. 205.

¹⁶² T. Boyns and J. Wale, 'The Development of Management Information Systems in the British Coal Industry', pp. 55-80.

¹⁶³ *Ibid*, pp. 68-9.

professional in 1950, which stated that colliery managers, prior to nationalisation, played a far more significant role:

While several large mining companies had formed separate departments for planning development and reconstruction work just prior to the last war, the majority of undertakings regarded a special planning staff as unnecessary, and thus when official recommendations were made to set up planning departments, much speculation as to the effect on management organizations, and particularly colliery managers resulted, since, in general, the limited planning work had hitherto been undertaken by the colliery managers or agents themselves.¹⁶⁴

However, the evidence in chapter two and three suggests that this view is almost certainly an overstatement of colliery managements' role in the planning process prior to nationalisation. As the evidence from the early stages of the Rothes Colliery project, cited in the ensuing pages shows, conducted under the Fife Coal Company Ltd., most elements of the project were overseen by the Deputy Chairman and General Manager, with much of the rest of the project coordinated and managed by an outside contractor.¹⁶⁵ The development of planning departments at all levels of the NCB's organisation but with particular emphasis placed at planning at Area or Sub-Area level reflected not only the complexity but also the broad scale of developments. The growth and importance of this as a separate function was reflected in a speech, given by the then NCB production member, Eric H. Browne, to the NACM conference in 1951:

There has been, I know, much suspicion about the development of a planning department; and there is some fear that the status of the management will be affected. This fear is groundless. The status of the manager is not impaired; he is captain of the ship. But he should no longer try to do everything himself. Planning is, or should be, a full-time high level

¹⁶⁴ D. J. Skidmore, 'Mine Planning and the Colliery Managers', *NACM*, Vol. XLVII, 1950, p. 133.

¹⁶⁵ See examination of Rothes project.

job, not one for odd moments snatched between the many and onerous jobs of agents and managers.¹⁶⁶

Thus, planning of major reconstructions was formulated by teams of mining, civil, mechanical and electrical engineers, in conjunction with industrial relations staff and surveyors, who were led by a planning or reconstruction engineer (see figure 12).¹⁶⁷ Evidently, in the case of reconstructions, colliery managers given their statutory responsibilities, retained a say in developments.¹⁶⁸ However the lack of consultation, in many cases, of managers, miners and junior officials, who knew a coal seam, face or district well, about new developments was criticised in some quarters.¹⁶⁹ Another problem facing both reconstructions and new developments was the delay in getting the capital investment needed and promised to the projects.¹⁷⁰

Whether there should have been so much confidence in the planning departments at both Area and Divisional level is disputable, given the observations of the Fleck Committee about the dearth of adequately qualified staff at Area level and the concerns of leading members of the professional associations about the skills shortages and gaps in the industry. The dire situation, as far as planning expertise was concerned, in the Scottish Division is illustrated by the following entry to the minutes of the Scottish Divisional Board meeting of January 1955, by which time the Division had already

¹⁶⁶ Sir Humphrey Browne, formerly a senior mining engineer with Manchester Collieries, was Production Director, North Western Division (1947-1948), then Director-General of Production at national level (1948-1953), Chairman of West Midlands Division and Deputy Chairman of NCB (1960-1967): E. H. Browne, 'Coal-mining in the Years to Come', *NACM*, Vol. XLIX, 1952, p. 87.

¹⁶⁷ B. I. Metcalf, 'The Place of the Engineer in Coal Mining', in Sir Guy Nott-Bower and R. H. Walkerdine (eds.), *National Coal Board: The First Ten Years*, pp. 53-60; G. Mullin and L. R. Milligan, 'Problems in Planning a New Colliery', *NACM*, Vol. XLV, 1948, p. 208.

¹⁶⁸ D. J. Skidmore, 'Mine Planning and the Colliery Managers', pp. 134-5.

¹⁶⁹ This was certainly a complaint leveled about the planning of the Rothes, Glenochil and Seafield. Interviews with Archie Campbell (Kelty Miners' Welfare Club, Fife, 25 October 1999) and Eddie Henrey (Moodiesburn, Lanarkshire, 15 November 1999); J. Bullock, *Them and US*, pp. 140-1.

¹⁷⁰ F. Marsh, 'Some Problems of Reconstruction', *IME*, Vol. 118, 1958-9, p. 658.

embarked upon the large majority of its new colliery sinkings and a large number of major reconstructions:

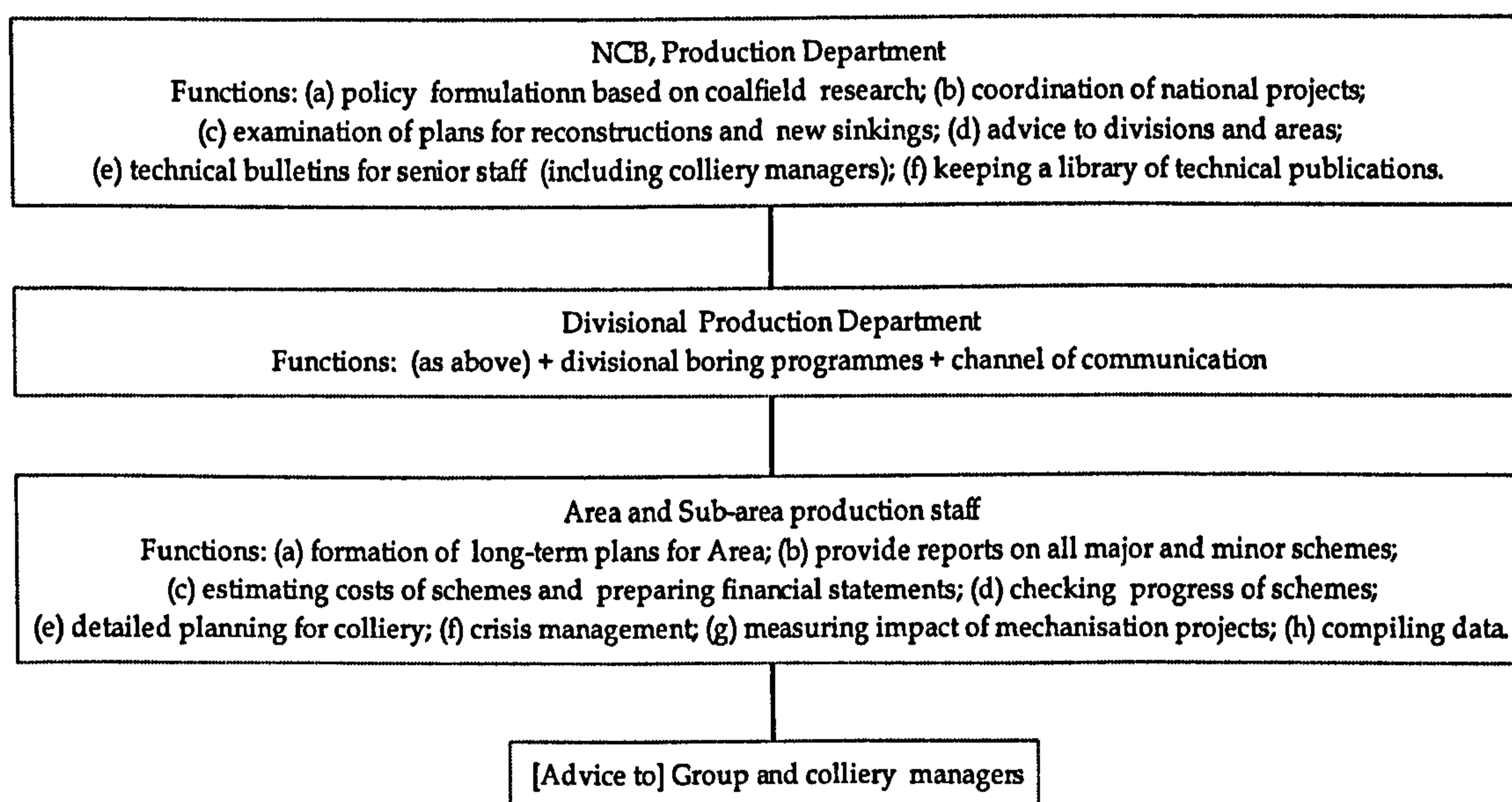
The Production Director said he had attempted to create an organisation in the Production Department to be able to deal with new sinkings and major reconstructions and until adequate staff had been built up in the Areas with the knowledge to deal with these matters it would be necessary to undertake a considerable amount of the fundamental design at Division. There were so many problems to be dealt with at Divisional level that the staff had to be used to the fullest advantage.¹⁷¹

This concern about the management of reconstruction and new colliery development schemes at Area level, particularly in East Fife, had led the Scottish Divisional Chairman to bring all schemes under the direct responsibility of the Divisional Production Director, to reorganise the Divisional Costs Committee so that more direct responsibility was attributed to individuals for budgets, forecasts and results and finally to stipulate that all AGMs should have to meet with the costs committee at least bi-monthly.¹⁷²

¹⁷¹ NCB, SD, EC, minutes, 11 January 1955, CB 42/7.

¹⁷² NCB, SD, EC, minutes, 16 November 1954, CB42/6.

Figure 12: Organogram of NCB 'staff' planning structures.¹⁷³



Whilst, the powers of delegation for capital investment projects were initially limited to authorisation levels of £100,000 for Divisional Boards, £5,000 for Areas and discretionary funds of up to £10,000 which could be allocated by the Divisional Production Directors, the NCB Headquarters' Production Department relied heavily on Divisional and Area officials to inform their decisions on major capital investment projects.¹⁷⁴ And it will be made clear that, geological constraints aside, there were some grave, expensive and damaging planning and project management errors made.

¹⁷³ B. I. Metcalf, 'The Place of the Engineer in Coal Mining', pp. 53-60; D. J. Skidmore, 'Mine Planning and the Colliery Managers', pp. 134-5.

¹⁷⁴ NCB, SD, EC, minutes, 10 May 1949, CB 42/ 1; NCB, SD, EC, policy papers, June 1947, CB 44/ 1.

New developments

Fifteen new colliery developments were initially planned in Scotland (see table 5).¹⁷⁵ Of these, a number were inherited from the private coal companies and, where possible, the private colliery companies' plans for schemes have been examined.¹⁷⁶ By examining the records which refer to a number of schemes, most particularly the Rothes and the Longannet complex, it will be possible to compare and contrast the procedures and processes used in the development projects- two of which were unmitigated disasters, some which had their difficulties but endured none the less and one which was to continue as the last, and highly successful remnant, of the Scottish industry left in the late twentieth century. Whilst the approach taken by the division in these two colliery projects, Rothes and Barony No.3, are not wholly representative of the planning, project management and results of the new colliery development schemes, they do illustrate a few of the common obstacles which affected new colliery sinkings.

¹⁷⁵ NCB, SD, *Scotland's Coal Plan*, p. 12.

¹⁷⁶ In fact it was only possible to get limited private colliery company records for three of the new colliery developments: Rothes, Killoch and Barony. The Rothes was initially a Fife Coal Company venture see, Fife Coal Company Ltd., Letter from Charles Carlow Reid [Sir Charles Reid] to Charles Augustus Carlow, 27 June 1938 in CB 3/203; Killoch and Barony were planned by Bairds & Dalmellington Ltd. see Bairds & Dalmellington Co. Ltd., Killoch Colliery- Development Scheme, 1937-42, UGD 164/3/3/14 and Bairds & Dalmellington Co. Ltd., Barony Colliery, 1947, UGD 164/3/3/9. The Fife Coal Company records on the Rothes are held under NCB files in the National Archives of Scotland and the Bairds' records are held by Glasgow University Business Archives.

Table 5: new colliery developments in the Scottish Division, 1946-65.¹⁷⁷

Name of colliery	Area	Planned daily output (tons)	Estimated Overall OMS (cwt.)		Final Depth of shaft (yards)	Date Started	Est. Reserves (M tons)
Bowhill No. 3	W. Fife	3,200	33		920	6.8.52	50
Valleyfield No. 3	W. Fife	3,600	37		790	11.8.54	100
Roths	E. Fife	5,000-6,000	45	Closed February 1962	940	21.12.46	150
Seafield	E. Fife	4,000-5,000	42	22.6	610	12.5.54	350
Bilston Glen	Lothians	5,000	40	39.6	850	19.5.52	90
Dalkeith 11/12	"	1,500	40		316	Planning stage (1955)	15
Monktonhall	"	4,000-5,000	45	47.0	1,000	16. 12.53	140
Airth	Alloa	4,000	40		1,080	Planning stage (1955)	95
Glenochil	Alloa	3,000	45	Closed February 1962	300	3.1.52	50
Kinneil	Alloa	3,000	40		950	25.6.51	80
Cardowan No. 3	Central (West)	2,000	28	23.3	660	Planning stage (1955)	70
Kingshill No. 3	Central (West)	1,200	28		256	5.8.46	11
Barony No. 3	E. Ayr	4,000	36	1.3	684	7.2.47	120
Killoch	W. Ayr	6,000	35	47.1	770	22.12.52	170
Littlemill No.5	W. Ayr	1,000	35	25.4	370	6.11.52	9

As the examples of many of the collieries examined here will show, geological conditions, as with daily coal production, could either seriously hamper or fatally undermine any development. Furthermore, despite extensive geological surveys, including 1,998 bores carried out between 1948- 1954 not to mention those surveys carried out prior to nationalisation, conditions underground were often likely to come as a complete shock.¹⁷⁸ Among other factors, out of the hands of planning engineers, was the struggle, especially between 1946 and 1952 when these pits were being sunk, to get hold of valuable materials (such as steel, wood, cement) of the right quality, which

¹⁷⁷ NCB, SD, *Scotland's Coal Plan*, p.8; NCB, SD, EC, policy papers, 31 August 1965, CB44/ 41.

¹⁷⁸ NCB, SD, *Scotland's Coal Plan*, p. 8.

the Ministry of Housing and, after the beginning of the Korean War, the Ministry of War had priority for.¹⁷⁹ As the Scottish Division's Finance Officer noted in 1951, delays in obtaining materials and planning permission were proving costly, and were setting projects back considerably.¹⁸⁰ Equally, delays caused by inconsistencies in plans and missed deadlines were particularly costly as contractors- who were needed to carry out much of the civil engineering work which the NCB did not have experienced staff for- were being paid for stand down time, see below.

Rothes colliery

As table 5 shows, the grandest new development in Scotland, which the NCB initially floated as one of its new super-pits, was the Rothes Colliery at Thornton in Fife. The scheme had started off as a Fife Coal Company project in the late 1930s, which planned to exploit Lochgelly Splint coals, which were already worked by an existing pit, Balgonie, and leave the Rothes as the Fife Coal Company's main producer in the East of Fife.¹⁸¹ The scheme would have required the company to lease mineral rights in the Balgonie and Wemyss areas providing the company with reserves of an estimated 152m tons, an estimated daily output of 4,000 tons working on double shifts and ultimately a large part of the company's future output in East Fife (with the estimated exhaustion of Balgonie and Randolph collieries in 20 years).¹⁸² Based on bore samples carried out in September 1938, the General Manager and Deputy Chairman of the Fife Coal Company declared in their report:

¹⁷⁹ Martin Chick, *Industrial policy in Britain 1945-1951. Economic planning, nationalization and the Labour governments* (Cambridge, 1998), pp. 25, 42-3.

¹⁸⁰ NCB, SD, EC, minutes, 18 September 1951, CB 42/3.

¹⁸¹ Fife Coal Company Ltd., Letter from Charles Reid to C. A. Carlow, 27 June 1938, CB 3/203.

¹⁸² Fife Coal Company Ltd., Proposed new colliery at Rothes, Preliminary report by C. A. Carlow and C. C. Reid, 26 October 1938, CB 3/203; R. S. Halliday, *The Disappearing Scottish Colliery*, pp.49-77.

It is difficult to estimate what profit per ton may be expected from this proposed new venture. The workings, being free from faults, should be worked at a reasonably good cost per ton. The seams are only of moderate thickness, and vary considerably from place to place, but continuity is a great asset... On the whole, it is believed that the venture should prove a reasonable commercial success and do a great deal to secure the future of this Company in the Eastern area.¹⁸³

The Company envisaged that the pit could be worked by 1,000 men drawn from various pits in the area which were either ready to or about to close in the foreseeable future and would cost an estimated £614,000.¹⁸⁴ The project was managed for the Company by Metropolitan-Vickers Electrical Company Ltd. and was started in late December 1946.¹⁸⁵ From the outset, there were delays caused by difficulties in obtaining materials and inconsistency in plans.¹⁸⁶ However, the real problems for the project began when the sinking of the two mine shafts began. Shaft work in No.1 had to stop as water flooded in, despite the use of powerful water pumps, at the rate of 470 gallons per minute, whilst in No. 2 shaft water had risen over the same February weekend by 308 feet.¹⁸⁷ Over the course of the next few years, thousands of tons of cement had to be injected into the shafts to the pitbottom, to stem the flow of water, and special additional insets had to be built at two of the five horizons (levels) where mining was to take place.¹⁸⁸ Concurrently, just under half of the planning activities were delayed by anywhere up to fifteen months

¹⁸³ Fife Coal Company Ltd., Proposed new colliery at Rothes, Preliminary report by C. A. Carlow and C. C. Reid, 26 October 1938, CB 3/203.

¹⁸⁴ Ibid; Fife Coal Company Ltd., letter, 27 June 1938, CB 3/ 203.

¹⁸⁵ Metropolitan Vickers retained a central role even when the project was taken over by the NCB. The records are held in NCB files: NCB, SD, Rothes colliery, minutes of meetings with contractors, 20 December 1946. CB 52/3.

¹⁸⁶ See, for example, NCB, SD, Rothes colliery, minutes of meetings between 20 December 1946-29 January 1947.

¹⁸⁷ NCB, SD, Rothes sinking reports, 25 February 1950, CB 52/6.

¹⁸⁸ NCB, SD, Rothes sinking reports, 28 April 1951 and 2 August 1952, CB 52/6; N. S. Lansdale, 'Water Problems at Rothes colliery Sinking', *NACM*, Vol. LIII, 1955, pp. 240-251.

largely because of delays in decisions being taken by the NCB.¹⁸⁹ A further 35 per cent of the drawing and design work was considerably delayed and a number of key installation projects were behind schedule (mostly the fault of the NCB rather than outside contractors).¹⁹⁰ By March 1956, practically 75 per cent of No.2 shaft bottom was waterlogged.¹⁹¹ Despite this, the Area General Manager, T. D. M. Scrimgeour declared in an interview to the Fife Free Press one month later:

We do not anticipate any undue problems because of water in the working of coal seams, and we have every confidence Rothes Colliery will be a good colliery.¹⁹²

In the end, sixteen coalfaces opened on one horizon but fourteen of these had to be abandoned due to faulting and watering.¹⁹³ Consequently, there was a massive shortfall in output and by 1957 the pit was operating losses of £3.7 million.¹⁹⁴ As this continued not only was this affecting the colliery's performance but also that of the Area and, to a lesser degree, the Division as well.¹⁹⁵ After admitting the inevitable, that the Rothes suffered from, 'very serious geological problems', and after deliberations between the Board and the Division, it was decided that the colliery should close in March 1962.¹⁹⁶

The cost of the loss of the Rothes should not only be measured in the costs of sinking the pit, £9 million, and the operating losses but also the devastating resourcing and psychological effects on the Area and the Division, in terms of valuable equipment which had to be left in the pit and experienced

¹⁸⁹ NCB, SD, Rothes Colliery situation reports, 3 January 1953- 31 March 1953

¹⁹⁰ NCB, SD, Rothes Colliery situation reports, 3 January 1953- 31 March 1953, CB 52/4.

¹⁹¹ NCB, SD, Rothes publicity, Cementation Co. Ltd. report, 1 May 1956, CB 52/8.

¹⁹² NCB, SD, Rothes publicity, The Fife Free Press, 30 June 1956, CB 52/8.

¹⁹³ NCB, SD, EC, policy papers, 29 December 1959, CB 44/32; *Coal News*, Vol. 1, No. 6, pp.4-5; Lord Robens, *Ten Year Stint*, p.146.

¹⁹⁴ Ibid.

¹⁹⁵ NCB, SD, EC, policy papers, 29 December 1959, CB 44/32.

¹⁹⁶ NCB, SD, EC, policy papers, 2 January 1960- 30 December 1961, CB 44/35-6.

manpower transferred to other Divisions.¹⁹⁷ It also affected the local Fife economy, as the new town of Glenrothes had been depending on the wages of the original estimates of 2,670 miners.¹⁹⁸ The closure of the Rothes was compounded by the failure of another new sinking, Glenochil Mine in the Alloa Area, which had to be closed due to severe faulting and flooding in March 1962 as well.¹⁹⁹

Robert Halliday, who worked in the Scottish Division's Planning Department at the time, has, on reflection, attributed the disaster to the inexact science of planning collieries, in particular, foreseeing geological problems, whilst also acknowledging that the enthusiasm, both amongst Fife Coal Company and NCB staff (supported by the *Reid Report*), for using horizon mining in the Rothes did not help.²⁰⁰ However, this version of events is a little sanitised. Alistair Moore, in his capacity as a BACM officer and as a surveyor, inspected the plans for the Rothes, on behalf of the BACM, before the BACM (like the other unions) agreed to support the closure of the colliery. His evidence is in itself most illuminating:

When I looked at the Rothes plan, and if I say to you that the workings were always shown on a plan. The workings are generally shown in red, either red outline or red stippled, and the faults are shown in brown. And if I say to you that at the Rothes, there was more brown than red-faults, washouts, rawls, igneous intrusions, and a whole raft of geological hurdles to cross. There was hardly a decent slab of coal that you could say, "right, we'll work that."²⁰¹

Alistair Moore attributed much of the blame for the commencement and continuance of this project to two factors; the dishonesty of the Fife Coal

¹⁹⁷ NCB, SD, EC, policy papers, 29 December 1959, CB 44/32.

¹⁹⁸ Lord Robens, *Ten Year Stint*, p. 146; Interview with Willie McLean, 25 October 1999, Kelty Miners' Welfare Club; Roger Smith, 'New Towns for Scottish Miners: the Rise and Fall of a Social Ideal (1945-1948)', *Scottish Economic & Social History*, Volume 9, (1989), pp. 71-80.

¹⁹⁹ *Coal News*, Vol. 1, No. 6, December 1961, pp.4-5.

²⁰⁰ R. S. Halliday, *The Disappearing Scottish Colliery*, pp.73-77.

²⁰¹ Interview with Alistair Moore, Bo'ness, 12 March 2004.

Company in valuing the potential scheme (in order to claim more compensation) and the unwillingness of senior mining engineers and planners in the Division to question the logic behind investing in such a disastrous scheme because most of them had a vested interest in obscuring the weaknesses of the scheme. This may well have been due to the proliferation of ex-Fife Coal Company staff in the upper echelons of Divisional and Fife Area management.²⁰²

When Alistair Moore's observations are examined more closely against other evidence, it is reasonable to arrive at the conclusion that there was a measure of impropriety on the part of prominent mining engineers and complicity (albeit explicable, given promotion opportunities), through silence, of mining professionals. The main project sponsors, initially, for the Rothes project were the Fife Coal Company Board and the General Works Manager. After nationalisation, Dr. William Reid, the Fife Coal Company's General Works Manager, became the Scottish Division's Production Director and then Deputy Chairman.²⁰³ Sir Charles Reid, an FCC Board member and their most prominent and senior mining engineer (before leaving the Board in 1942), became one of the NCB's Production members until 1948. Two of the Fife Coal Company's four-man valuation team, who presented the company's assets to the district valuation board for compensation, including the Rothes in its very early stages, were none other than Henry R. King and William H. Craig, who joined William Reid on the Scottish Divisional Board, respectively as Production and Marketing Directors.²⁰⁴ On top of this, R. W. Pirie, the Fife Coal Company's Works Manager, and G. R. Buchanan, the Company's District Manager (West), became respectively the Scottish Division's Chief Engineer and Sub-Area Manager for East Fife immediately after

²⁰² Ibid.

²⁰³ See chapter 4, p.168.

²⁰⁴ A. Muir, *The Fife Coal Company Limited*, pp.104-5.

nationalisation.²⁰⁵ Consequently, it is reasonable to surmise that the intention to question the sagacity of the Rothes project in the early years of nationalisation, had it existed, would neither have been in the best career interests of the person concerned nor have got far in the Division's mechanisms.

Glenochil Mine

However, whereas at the time the failure of the Rothes was publicly attributed to the risky nature of mining as 'a venture', there were harsh words from the NCB Chairman about the Glenochil sinking, with Robens turning roundly on Scottish Divisional officials, stating, 'Glenochil was a mining failure. I am not going to make any pretence about this, nor am I defending anyone'.²⁰⁶ Lord Robens blamed the disaster on planning staff for failing to recognise the fact that all the best seams in the area had been worked prior to nationalisation, full planning permission by the county council had not been sanctioned because of subsidence and that the seams left were too thin to be worked alone.²⁰⁷ Whilst it is clear that Alloa Coal Company officials were aware of the problems in the area and misled the district valuation board and the county council (see evidence below), NCB Area and Divisional planning staff failed in their duty to carry out adequate investigations early on in the Glenochil project when it could have been halted. Glenochil mine was intended to produce 3,000 tons and to have 50 million tons of reserves.²⁰⁸ The pit was to suffer from serious faulting, heavy watering, very thin seams and

²⁰⁵ See chapter four, p.168.

²⁰⁶ *Coal News*, Vol. 1, No. 6, December 1961,, pp.1-5.

²⁰⁷ *Ibid*, p. 1.

²⁰⁸ NCB, SD, *Scotland's Coal Plan*, p. 12.

eventually- as a result of the poor conditions and rapid decline in morale- vandalism, a high accident rate and absenteeism.²⁰⁹

However, the Scottish Divisional Board and Production Department had been warned, in evidence provided by the Ministry of Fuel and Power, the Department of Health and the Department of Agriculture over two years before sinking was commenced, that there would be serious flooding problems in the proposed mine both above and below ground and that an initial drainage programme alone would cost between £300,000- £400,000.²¹⁰ Furthermore, it became apparent that John C. George, the Alloa Coal Company's Mining Agent, was fully aware of the geological faulting around Glenochil, but chose not to divulge this at the time of nationalisation, thereby ensuring that the Company got the full compensation from the valuation boards for the colliery.²¹¹ However sinking went ahead in January 1952 and by mid-December 1957 output, though still 30,000 tons short of its projections, had reached 55,544 tons.²¹² However a joint paper from the Division's Reconstruction and Finance departments around the same time acknowledged the difficulties being experienced in obtaining the faceroom in the pit and bid for an extra £620,108, including an extra £110,000 for 'Subsidence Remedial Action... to prevent flooding'.²¹³ In May 1958, the Finance Department at Hobart House, the NCB's HQ, stated that the project gave 'cause for concern' and criticised the continued optimism of Divisional forecasts.²¹⁴

²⁰⁹ NCB, SD, Glenochil Colliery Consultative Committee, minutes, 9 October 1957- 18 July 1960, CB 55/11; See also, chapters six and seven, pp.313-4 and 369.

²¹⁰ NCB, SD, EC, minutes, 22 November 1949, CB 42/1.

²¹¹ R. S. Halliday, *The Disappearing Scottish Colliery*, pp.92-93 and 102.

²¹² NCB, SD, EC, Production Department report on new sinkings, 18 December 1957, CB 44/28.

²¹³ NCB, SD, EC, Joint paper by Reconstruction and Finance Departments. Supplementary stage III submission Glenochil project, 24 December 1957, CB 44/28.

²¹⁴ NCB, SD, EC, Finance Department, headquarters approval with qualifications attached, 14 May 1958, CB 44/33.

By July 1960, with conditions proving increasingly difficult in the pit's remaining seams, the fate of the pit was left in the hands of the Division and headquarters, who decided, in December 1961, that the pit would close.²¹⁵ As with the loss of the Rothes, the demise of Glenochil Mine was not only financially but also psychologically damaging. The effect of this was to demoralise Glenochil's relatively young workforce, some of whom went to English and Welsh pits whilst others left the industry.²¹⁶ Clearly, Area and Divisional planning staff ignored crucial advice, at a stage when the project could have been abandoned, and chose instead to waste finances, time and men on a project that was cursed from the start. Halliday claims that one of the main problems was a lack of knowledge of the coalfield due to the lack of any staff remaining from the Alloa Coal Company.²¹⁷ In fact, as the preceding chapter has shown, the Sub-Area Manager for the Sub-Area, which Glenochil came under for the first five years of nationalisation (by which time the project had been approved), was an ex-Alloa Coal Company Agent. Here also, it is clear that the project could have been avoided at an early stage had the company been honest about the prospects for the colliery at nationalisation. However, they were clearly more concerned with securing the full valuation price.

Barony No.3 and Killoch Colliery.

Though sinking started at these two collieries over five years apart, it is worth grouping the two together as they were originally planned at the same time

²¹⁵ NCB, SD, EC, policy papers, 2 July 1960- 30 December 1961, CB 44/36-7.

²¹⁶ Although many of these men returned to Scotland very quickly. NCB, SD, Area IR Officers' Committee, minutes, 13 June 1962 and 1 August 1962, CB53/ 23.

²¹⁷ R. S. Halliday, *The Disappearing Scottish Colliery*, p.87.

by Bairds & Dalmellington and were situated close to one another.²¹⁸ Bairds & Dalmellington planned both Killoch and Barony No. 3 to exploit the coalfield to the west of Auchinleck in South Ayrshire. Some of this area had been worked already from Highhouse Colliery, sunk between 1895-6, and Barony No.3's older siblings, Barony Nos 1 & 2, sunk between 1906-12.²¹⁹ Much of the surface layout, and part of the sinking, at Barony No.3 had been achieved prior to nationalisation.²²⁰ Bairds & Dalmellington anticipated initially that the total cost of Barony No.3 would be in the region of £479,279 and that the pit, upon completion, would produce 2,650 tons a day with reserves for another 130 years.²²¹ Killoch was to be Bairds & Dalmellington major new development project planned to produce 4,000 tons daily using a combination of longwall and stoop and room methods extracted by the most advanced mechanised plant with the most modern conveying, haulage and cleaning systems both above and below ground.²²² Upon nationalisation, the NCB and the Scottish Divisional Board envisaged that both Barony No.3, which would work some of the richest seams in Ayrshire in the middle depths of the Mauchline basin, and the Killoch would replace lost output in the rest of the Ayrshire coalfields and employ men transferred from other Ayrshire pits which closed.²²³ Barony was also one of only two pits in Scotland (and one in only three in Britain) to be built connected to power stations in the post-war

²¹⁸ *Scotland's Coal Plan*, p. 12; Bairds & Dalmellington Ltd., Killoch Colliery- Development Scheme, 1937- 1942, UGD164/3/3/14; Bairds & Dalmellington Ltd., Barony Colliery, 1947, UGD 164/3/3/9.

²¹⁹ Bairds & Dalmellington, Killoch and Barony collieries' development schemes, UGD 164/3/3/9 and 14.

²²⁰ Bairds & Dalmellington, Killoch Colliery, UGD 164/3/3/14.

²²¹ Bairds & Dalmellington, Barony Colliery, UGD 164/3/3/9.

²²² Bairds & Dalmellington, Killoch Colliery, UGD 164/3/3/14.

²²³ A. B. Macdonald and J. Davie, 'The Ayrshire Coalfield', *NACM*, Vol. XLIX, 1952, pp. 235-6; The following article on colliery housing in Ayrshire after 1946 indicates the impact through housing developments: Neil Earnshaw, 'The Relocation of South Ayrshire Mining Communities after 1946: A Consequence of Coal Nationalisation?', *Scottish Industrial History*, Volume 17, (1994), pp.44- 56.

period.²²⁴ Despite flooding, at Barony No. 2, and heavy faulting in Barony No. 3, which made power-loading very difficult, the Barony continued to be one of the Scottish Division's biggest and most valuable producers.²²⁵ Killoch proved to be one of the most successful new collieries in Scotland producing large quantities of good quality coal, very efficiently.²²⁶

Longannet Mine Complex

Longannet was, perhaps, one of the Scottish Division's, the NCB's and Europe's, most ambitious mining engineering projects linking the production of four collieries together to supply the SSEB's Longannet Power Station on the banks of the Firth of Forth.²²⁷ Although the complex, strictly speaking, did not start production properly as a complex until 1970, it is worth referring to the project as much of it was started within the catchment of this research.²²⁸ At its height in 1981/2, the complex employed 3,000 miners and produced 1.96 million tonnes (1.92m tons).²²⁹ And, though Bogside Mine closed in January 1985, the rest of a complex stayed successfully in operation until a flood caused its premature closure in March 2002, and with it the long

²²⁴ The other Scottish mine complex was Longannet (both Longannet and Barony power stations were built and owned by the South of Scotland Electricity Board (SSEB), whilst Grime Thorpe in Yorkshire also had a power station attached. W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 99; NCB, SD, *Scotland's Coal Plan*, p. 31.

²²⁵ The additional cost of opening a new shaft at Barony was estimated at £1,972,500. Area staff in a report of August 1957 doubted whether, given the faulting in the pit, 40 per cent power loading could be achieved consistently. However Barony was able to supply quantities of coking coal to the SSEB: NCB, SD, EB, Minutes, 16 July 1963, CB42/ 15; NCB, SD, PC, Largest producers, December 1962, CB44/38; NCB, SD, PC, papers, 14 August 1957, CB44/ 33.

²²⁶ NCB, SD, PC, papers, December 1962, CB44/ 35; NCB, SD, PC, papers, 31 August 1965, CB44/ 40; *Coal News*, Vol. 5, No. 46, April 1965, pp. 1-5.

²²⁷ W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 97; Lord Robens, *Ten Year Stint*, pp. 99-100 and 146.

²²⁸ The Longannet project initially included Dollar, Solsgirth, Castlehill and Bogside Mines that were all sunk before 1966. Eventually the project was changed, excluding Dollar, and adding another mine, Longannet, where sinking started in 1965, and Castle bridge, where sinking started in 1979. NCB, SD, Alloa Area, Longannet Project, The application of electronic control and monitoring, 10 October 1966, CB54/ 8; NCB, SD, Alloa Area, Longannet Project, minutes, 25 June 1965 and 21 December 1965, CB54/ 7; <http://www.scottishcoal.co.uk/deep%20mining.htm>.

²²⁹ Ibid.

tradition of the deep-mining of coal in Scotland.²³⁰ Thus despite initial problems with faulting at Bogside, the complex, due in part to the ingenuity of Bill Rowell became a mining success.²³¹

Seen across the board, the Scottish Division's new colliery development programme was never quite the failure which certain accounts claim.²³² However, there were two particularly bitter and costly disappointments, both of which could have been avoided and were, in part, due to the deception of key mining professionals involved in the valuation process. This was further compounded by a conspiracy of silence, in the case of the Rothes, by Divisional and Area planners and members of the Scottish Divisional Board, and, as far as Glenochil was concerned, by the Alloa Coal Company's former Mining Agent. Furthermore, there was clear evidence that projects were not properly managed or risk assessed, that consultation with staff in adjoining collieries did not take place, and in the case of some of the early projects, that the Scottish Divisional Board's Chief Geologist, Dr. Murray Macgregor, was not consulted.²³³ Much of this should be ascribed to the limited experience and expertise of planning departments at all levels. However many problems and partial closures in faces and districts in the pits and mines mentioned, as well as collieries like Seafield, in East Fife, and Bilston Glen, in Midlothian, were not great disasters but partial failures due to, what the Scottish Division's Chairman in the 1960s declared to be 'the strong degree of venture about every mining development'.²³⁴

²³⁰ Ibid.

²³¹ Ibid; W. Chalmers, 'Advanced Shearing Techniques at Bogside Mine', *NACM*, Vol. LXII, 1965, pp.139- 146.

²³² A. Moffat, *My Life with the Miners.*, p.187.

²³³ R. S. Halliday, *The Disappearing Scottish Colliery*, pp.102-3.

²³⁴ For brief accounts of delays and problems, and of the successes too, of Seafield and Bilston Glen see: J. Denham, 'The Scottish Coalfield: Seafield Colliery', *Coalface*, No. 24, April 1987, pp.5-6; J. Denham, 'The Scottish Coalfield: Bilston Glen Colliery', *Coalface*, No. 25, August 1987, pp. 5-6; *Coal News*, Vol. 1, No. 6, December 1961, pp. 4-5.

Reconstructions and surface drift mine developments

Reconstructions were as susceptible as new colliery developments to the geological problems inherent in mining. However, by December 1962, 20 per cent of the Scottish Division's output came from seven reconstructed collieries.²³⁵ The success of reorganisations and drift mine sinking, in the Alloa Area, was particularly noticeable, where largely as a result of reorganisations like those at Manor Powis, Polmaise 3/ 4, Valleyfield and the new Dollar drift mine, the Area had an overall OMS well above that of the rest of the Scottish Division (and above much of the rest of the British coalfield), a face output per manshift, which considerably exceeded the national average, and had substantially reduced their operating deficit from 20s 3d/ ton to 3s 1d/ton.²³⁶

However, it became immediately apparent, even after reorganisations in some large older collieries, which, had it not been for their substantial contribution to Scottish output and the size of their workforces, might have been closed prematurely for economic reasons (like Michael Colliery at East Wemyss in East Fife and Polkemmet Colliery at Whitburn in Midlothian), that the degree of mechanisation which Divisional and Area planning staff had envisaged was neither being fulfilled nor was it realistic.²³⁷ On balance, the reconstruction and drift mine programme produced some excellent results. And whilst this came at a high financial cost with not a lot to show for it initially, that was indicative of capital investment projects.

²³⁵ NCB, SD, EC, policy papers, December 1962, CB44/ 38; NCB, *Annual report and Accounts, vol. II: Accts and Statistical tables for year ending 29 December 1962*, (Cmd. 214), pp. 106-7.

²³⁶ *Ibid*, pp. 78, 106-7.

²³⁷ NCB, SD, EC, Report by East Fife AGM, 24 December 1957, CB 44/28; NCB, SD, EC, policy papers, 19 December 1957, CB 44/28.

IV

Conclusion

It is clear, from the empirical evidence provided in this chapter, that there was a gradual change in managerial culture, and in policy and operational direction, between 1947-66, particularly at colliery level, from power enshrined in the managers' office, though never as much as both miners and managers suggested, to control by procedure and technical division. The colliery manager had become more of a *primus inter pares* and the management of a colliery by the late 1960s had become more like the local boardroom of a complex industrial unit. Colliery management did see a significant diminution of their powers with the introduction of standardised targets and daywage agreements. However, standardisation of approach, whether in terms of accounting systems or production methods, was often hampered by the specific difficulties experienced in coal-mining. This disparity of conditions and relations at each mining locality would eventually, at least partially, confound the NPLA.

There is some evidence, for example, Michael and Polkemmet collieries, to support the assertion that conservatism amongst managers at colliery and Area level, and miners, obstructed NCB plans to introduce continuous mining methods. However, this ignores both the ill-conceived basis for introducing mechanisation into many pits, given conditions, and the hasty and bullish way in which it was done. Furthermore, the chapter illustrates the ruthless way in which the NCB pursued productivity and efficiency gains, from the late 1950s onwards, through ill judged and misleading nationally devised productivity targets, which were increasingly unachievable. This, and

sanctions against local agreements, placed considerable pressure on colliery managers, junior officials and mineworkers, and understandably was the cause of much resentment not only at colliery level but also between colliery and Area managements. In some cases, as the next chapter illustrates, Area managers (with the support of the NCB and Scottish Divisional Board) used the threat of closures to achieve gains. In others, colliery managers, who did not (or could not) comply were replaced with managers who would at any cost. Inevitably, as the ensuing chapters show, both industrial relations and health and safety suffered from the priorities of production.

All the key aspects of production, examined in this chapter, technology, methods and new developments, illustrate the weakness of some Area managements. This supports preceding observations made about the inadequacy of staff at Area level, in particular, in the formative years of nationalisation. Furthermore, in one new development (the Rothes), there is evidence to suggest that some managers at Scottish Divisional and Fife Area level, including some of the most senior officials in the Division, conspired to cover up the inadequacy of the project and in so doing, dealt the Division a serious blow. Equally, and despite some undoubted gains which the new NCB 'line and staff' principles and MIS processes achieved, the same inflexibility combined with a sense of technical superiority exhibited by some NCB Production officials, removed from the realities of production and often lacking experience, especially in the first ten years of nationalisation, resulted in grave errors which could have been avoided had production departments in some Areas and at Divisional level consulted properly with local management. This was compounded by the fact that, as chapter four pointed out, there were initially skills shortages and gaps amongst the mine management professions. Despite this, the culmination of NCB training programmes, including the ECAS and DPT schemes, had, by the mid 1960s, improved technical and managerial skills, and, in some Areas, contributed to

some successful collaborative projects between Area and colliery management (see Alloa Area).

Ultimately, as the productive side of the coal industry illustrated so well, the aspirations of NCB bureaucracy for technocratic status were limited by the practical constraints placed on some of the standardised procedures envisaged for the industry. Against this backdrop, a new generation of colliery managers did emerge, schooled in these methods, although scientific and technical knowledge could never totally displace intuition and the feel for the coalface, born of experience. Nevertheless, even amongst these managers, as the next chapter shows, there was a clear distinction between their approaches to labour.

'The same team in different jerseys'? Managers and industrial relations in the Scottish Division, 1947- 1966.³⁵⁸

The problem of securing full cooperation between the employers and the workmen is the most difficult and urgent task the industry has to face. Unless this problem is solved the value of our technical recommendations will be greatly reduced.³⁵⁹

We are compelled to point out that at the centre of the problem of increased production is the bad feeling and antagonism which pervades the industry and which manifests itself in low morale, non co-operation and indifference.³⁶⁰

These two observations, the first by the Reid Committee and the second by a US Coal Commission to Britain, who reached their conclusions in the later stages of the Second World War, give some indication of the state of relations between labour and employers (and management) in the industry, prior to nationalisation.

In a speech to Dalmellington Miners' Club in April 1962, the Scottish Division's Deputy Chairman, L. R. Milligan appealed for, 'an end', to the, 'cold war', between management and miners in Scotland, urging a:

Return to peaceful partnership between the two sides without which I can see no real prospect of making a success of the industry. In the intensely competitive and highly scientific age we are now living in, any other policy is doomed to fail, and in failing must bring misery to many of our own folks. Unless we can start at once to create a new spirit, striving together peacefully to make the collieries efficient, friendly places to work in, I am seriously apprehensive that we stand in peril of losing more valuable business. We may see the morale of the industry drop down to a point where we might lose even the will and pride to make any sort of success of our industry at all. If that happened- though I don't think it will- the skills and services of many miners would be lost.³⁶¹

³⁵⁸ L. Cooney and A. Maxwell (eds.), *No more bings in Benarty. An account of coal mining in the Benarty area of Fife, and its influence on the people who lived there* (Glenrothes, 1992), p. 84.

³⁵⁹ *Reid Report*, recommendation p (i), p. 136 (see also chapter XXI, paras. 675-677).

³⁶⁰ Report of the American Coal Commission to Britain, 1944 cf. W. H. B. Court, *Coal*, p. 220.

³⁶¹ *Coal News*, 'End Cold War Call', Vol. 2, No. 10, (April 1962), p. 5.

Ashworth's observation of the Scottish coal industry post-nationalisation was that it suffered from 'notoriously difficult labour relations', whilst a number of recent histories of industrial relations in the British coal industry, supported by sociological studies of labour relations at collieries in South Wales, Lancashire, Nottinghamshire and Durham from the 1950s through to the 1970s, have stressed the importance both of social relations at pit level and of the part played by local management.³⁶² Ashworth's appraisal is apparently illustrated by the high aggregated strike rates for Scotland, although, at the same time, rates for absenteeism for the division (another measure of discontent) remained comparatively low.³⁶³ In contrast, and as an illustration of the variability of industrial relations across the coalfield, one article, published in the January 1962 edition of *Coal News*, and reiterated in a 1963 paper to the Scottish Branch of the NACM, focusing on the success of Dollar Mine, featured an interview with the colliery's young manager, George McAlpine, who attributed achievements at the colliery to, 'making full use of the latest mining techniques, and with complete cooperation between management and unions.'³⁶⁴ Whilst, the preceding two examples of Milligan's speech and the interview with McAlpine were clearly NCB propaganda, evidence provided, both in this and the preceding chapter, suggests that Dollar was a success story and, to some degree, this was the result of McAlpine's management style. Indeed McAlpine, who went on to become the Scottish Area Director (as the senior post in Scotland became after this period), was

³⁶² W. Ashworth, *The history of the British coal industry*, Vol.5, p. 233; Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889- 1966*, (Cambridge, 1998); Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering the Colliery Consultation Minutes of the Nationalised British Coal Industry, 1947-74', *Labour History Review*, Vol.65, No.1, (Spring 2000), pp.59-89; W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries* (Liverpool, 1963); S. K. Saxena, *Nationalisation and Industrial Conflict. Example of British coal-mining* (The Hague, 1955); Joel Krieger, *Undermining Capitalism: State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983).

³⁶³ See p. 303.

³⁶⁴ *Coal News*, Vol.2, No.7, (January 1962), p.4; George McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, LX, 1963, p.37.

apparently held in some regard by mineworkers as well, as this extract from an interview with Mick McGahey in 1987, former President of the NUM Scottish Area, shows:

But I do belie distinction between those that have a compassion, a feel for the industry and those that don't.... Take the Director of the Scottish Area [NCB], George McAlpine, I've known him since he was quite young. I negotiated with his father in the early days before nationalisation. He's part of the industry, he came through the industry. He knows mining communities- he was a miner- and he's got the feel.³⁶⁵

However, the examples from *Coal News* are used as a means of illustrating the limitations of applying generalities to industrial relations in the coal industry.

Chapter aims and objectives

This chapter examines the part played by the mine management professions in industrial relations in the Scottish coal industry between 1947 and 1966. It also charts their changing outlook on the conduct of social relations at collieries and how this was affected by various emerging managerial philosophies.

The ensuing pages show that the role of management, in particular, that of colliery managers, in industrial relations in the Scottish Division over this period was a great deal more diffuse and complex than can be gleaned from aggregate strike or absentee figures, mirroring similar diversities in other parts of the British coalfield.³⁶⁶ It argues that, whilst there were

³⁶⁵ Jane Denholm, 'Mick McGahey', *Coalface, The Bulletin of the Scottish Mining Museum*, No. 25, (August 1987), pp. 3-4.

³⁶⁶ Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering the Colliery Consultation Minutes of the Nationalised British Coal Industry, 1947- 74', pp. 59- 89; Joel Krieger, *Undermining Capitalism: State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983); W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries* (Liverpool, 1963); S. K. Saxena, *Nationalisation and Industrial Conflict. Example of British coal-mining* (The Hague, 1955); I. M.

examples of the village autocrat, as a general rule, this is too simplistic and often an inaccurate stereotype. It acknowledges that many managers inherited from the private industry, as evidence from Benney's Durham colliery manager suggested, were initially either antagonistic or patrician in their approach towards labour. Equally, many managers, in the early days of nationalisation, as chapters three and four showed, believed that the ability to manage the workforce was innate, had an inherent distrust of management education and were not enthusiastic about consultation. Nevertheless, as the evidence in the preceding chapters and this one shows, many managers adapted to these new realities. On the other hand, evidence in this and ensuing chapters illustrates the machismo which could pervade relations at the pit, and the masculine-physicality which was felt by many mine management professionals to be a pre-requisite quality necessary amongst all those aspiring to become colliery managers.

The chapter is divided into three parts. The first explores Scottish mining professionals' response to the NCB's formal industrial relations machinery. The second section examines managements' pursuit of informal social relations, specifically at colliery level. And the final section examines the change in managerial outlook and attitudes to labour over the period.

Section one starts by giving a brief overview and explanation of the NCB's formal industrial relations' machinery (for consultation, conciliation and arbitration). It then examines how management responded to these changes. It highlights the lack of experience and training in differing management methods amongst most colliery managers and AGMs in the formative years of the Scottish Division. The chapter illustrates the initial

problems and tensions between different levels of management and management and labour, attending the implementation of formal procedures for conciliation, consultation and arbitration, including the introduction of day-wage system and productivity targets. In part, this arose because of a lack of training and familiarity with formal industrial relations machinery amongst Area and colliery managements but also as a result of the politicisation arising from struggles over control of the labour process. This was compounded by a dearth of industrial relations and personnel staff in the Scottish Division.

It contrasts the apparent decline in tensions in the industry, with the introduction of the SPLA and NPLA, according to aggregate strike data, with the tensions that were resurrected with the gradual withdrawal of bonuses on coalfaces and increasingly unattainable production targets in some pits. It further illustrates how some colliery managers were put under pressure, in this climate, by some Area managements, and the impact on social relations at an operational level, seen through the minutes of Colliery Consultative Committees. It also shows how some AGMs used the latter to extort extra production out of colliery workforces and managers using the threat of closures and redundancies. Evidence in the next chapter shows how this affected health and safety in some collieries. It places the NCB's industrial relations machinery within the wider context of the evolution of modern business processes, under nationalisation, intended to achieve greater management control of the social relations of production. This control formalised the centralisation of wage bargaining and labour direction away from the colliery to tactical and, eventually, strategic management, and, in some cases, prompted conflict between colliery management, on the one side (in some cases in alliance with labour and junior officials), and tactical and strategic management (on the other). It acknowledges that until 1957, and even after this date, up until 1966, some Scottish colliery managers continued to exercise considerable

influence in industrial relations at pit level, through the wage system (as has been noted from the number of seam agreements in chapter five). In a few cases, initially, managers attempted to use intimidation to control the colliery workforce.

The second section of the chapter illustrates the continuing informal conduct of industrial relations at Scottish collieries. It notes the continued importance in many collieries of the negotiations between local union branches and the colliery manager. It also illustrates how the inherited past and conditions in other collieries affected industrial relations.

Finally, the chapter shows, at an operational level, the effects of changing management methods amongst the mine management professions, and the gradual convergence of managerial philosophies and their eventual crystallisation through the outlook of colliery managers and production officials. It identifies those few remnants of a more autocratic style, those adherents to both the 'classical' school of scientific management and the 'naturalistic' school of human relations, and, in one case, the embodiment of the post-war construct of 'industrial democracy' (see Appendix 1 for typology of managers).³⁶⁷

The chapter concludes that the picture in Scotland was diverse. In some cases, managers at an operational level exercised a considerable amount of power in industrial relations well into the 1960s. However, initially many mining professionals at all levels were not acclimatised to consultation. At some collieries, management were constrained by conditions and Area management. The introduction of managerial labour processes- through the SPLA, NPLA, Method Study and MIS generated national productivity

³⁶⁷ Alan Fox, 'Managerial ideology and labour relations', *British Journal of Industrial Relations*, IV, 1-3, (1966), pp.366-378; The Labour Party, *Industrial Democracy. Working Party Report*, (London, 1967).

targets- did diminish the powers of colliery management. Furthermore it inflamed relations between differing levels of management and, in some cases, as Krieger has noted of the impact of the NPLA in Durham and Nottinghamshire collieries, unified colliery management, miners and junior officials against tactical management.³⁶⁸ Over time, most colliery management teams adapted to the changed face of industrial relations and some embraced them.

The diversity of practice was mirrored by the differences in outlook, on labour relations, amongst mine management professionals. Many mine management professionals' belief in the right natural characteristics as the most important prerequisite for aspirant managers was reflected in their views on labour relations, although adherence to scientific management and human relations methods were also discernible in the behaviour and comments of the mining professions.

Historical overview

The constraints of studying social relations between management and men in the industry from aggregate data have been highlighted by Alan Campbell in a critique of one study of industrial relations in the historiography of the coal industry:

Instead of focusing on the potential influence of disembodied variables upon the reified data of strike patterns, future researchers should instead study the interplay of structure, organization, consciousness and action- including strike action- within the concrete and historically nuanced contexts of real miners [or managers], their working conditions, households and communities.³⁶⁹

³⁶⁸ Joel Krieger, *Undermining Capitalism: State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983).

³⁶⁹ Alan Campbell, 'Exploring Miners' Militancy, 1889- 1966: I', *Historical Studies in Industrial Relations*, 7, Spring 1999, p. 163.

This endorses Joe Melling's view that, 'we still possess only sketchy impressions of practical nexus between managers and men below ground.'³⁷⁰

This is particularly crucial given a number of recent histories of industrial relations in the industry, which claim to scrutinise social relations at a local level.³⁷¹ Earlier sociological studies also attempted to glean a clearer picture, and may well have informed management education and literature of industrial relations at a colliery level.³⁷² However, the historiographical and sociological literature of the industry has tended to focus on miners' role in industrial relations.³⁷³

As chapter four showed, the reference made in the title to, 'the same team in different jerseys', abounds in the passing remarks about managers in the Scottish coal industry after nationalisation, especially in relation to their dealings with mineworkers, and represents one of the predominant stereotypes of management in the nationalised coal industry.³⁷⁴ This was also mirrored, in G. D. H. Cole's observations about miners' opinions of

³⁷⁰ J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry, 1900-1960' in J. Melling and A. McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), p.146.

³⁷¹ Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889-1966*, (Cambridge, 1998); Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering the Colliery Consultation Minutes of the Nationalised British Coal Industry, 1947-74', *Labour History Review*, Vol.65, No.1, (Spring 2000), pp.59-89.

³⁷² W. H. Scott, Enid Mumford, I. C. McGivering and J. M. Kirby, *Coal and Conflict. A study of industrial relations at collieries* (Liverpool, 1963); S. K. Saxena, *Nationalisation and Industrial Conflict. Example of British coal-mining* (The Hague, 1955); Hazel E. Heughan, *Pit closures at Shotts and the migration of miners*, (Edinburgh, 1953); T. T. Paterson and F. J. Willett, 'Unofficial strike', *The Sociological Review*, Vol. X, No.4, (1951), pp.57-94.

³⁷³ Peter Ackers, 'Review Essay: Life After Death: Mining History without a Coal Industry', *Historical Studies in Industrial Relations (HSIR)*, No. 1, March 1996, pp.159-170.

³⁷⁴ A. Perchard, 'Bonnie Fighters': Class consciousness and solidarity in the Scots coalfield, c. 1947- 1960, Unpublished M.Phil. dissertation, Departments of History, Universities of Glasgow and Strathclyde, 2000, p. 40; Interviews with: Archie Campbell at Kelty Miners' Welfare Club, Fife, 25 October 1999; Eddie Henrey, Moodiesburn, Lanarkshire, 15 November 1999; Alec Mills, Auchinleck, Ayrshire, 13 September 1999; and George Gillespie, Newtongrange, East Lothian.

the new National Coal Board and managers.³⁷⁵ As examples in chapter four also showed, the employment of the same managers in the industry both before and after nationalisation was a common complaint amongst mineworkers across the British coalfield.

A second view proposed in a number of the histories of the post-war British coal industry, and already discussed in the preceding chapters, is that the influence of colliery management, over labour, gradually diminished as daywage agreements were invoked between the mid-1950s and 1971, and that labour management was increasingly vested in NCB procedures, negotiated with the trade unions principally at National and Divisional level.³⁷⁶ This saw managers plagued by different problems, which the associated changes to work organisation and methods brought with them.³⁷⁷ This view acknowledges that colliery managers continued to have considerable influence over wage negotiations for most grades of surface and underground workers, up until 1955, and for faceworkers, until the introduction of the NPLA in the summer of 1966.³⁷⁸

In one of the few adjustments to the first of these views, Zweiniger-Bargielowska claims that, 'the picture of colliery managers which emerges... differs considerably from the image of managers as the *bête noire* [author's emphasis] of industrial relations'.³⁷⁹ This is supported by examples from South Wales collieries contained in Zweiniger-Bargielowska's Ph.D. thesis.³⁸⁰ In a fairly recent study of industrial disputes in the industry, Roy Church and Quentin Outram, despite their acknowledgement that new mechanisms brought in under nationalisation

³⁷⁵ G. D. H. Cole, *The National Coal Board*, pp. 15-17.

³⁷⁶ W. Ashworth, *The history of the British coal industry, Vol.5*, pp. 180 and 210-1; B. Fine et al., 'Coal After Nationalisation', pp. 173-9.

³⁷⁷ B. Fine et al., 'Coal After Nationalisation', pp. 173-9.

³⁷⁸ Ibid; W. Ashworth, *The history of the British coal industry, Vol.5*, pp.180, 210-1.

³⁷⁹ I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', p. 75.

³⁸⁰ I. M. Zweiniger-Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.341.

constrained managers, have challenged the suggestion that colliery managers' involvement was substantially limited under nationalisation and have concluded that, 'changes in ownership, structure and organization left the fundamental dynamics of the industry almost untouched at local level.'³⁸¹ This is a view supported by Peter Ackers and Jonathan Payne, using the minutes of Colliery Consultative Committees in the Nottinghamshire, Warwickshire and South Yorkshire coalfields, which illustrates the continued influence of managers, at colliery level, over industrial relations.³⁸² This evidence of the perpetuation of informal plant level negotiation, within formal corporatist industrial relations structures and procedures, further supports the view expressed by the 1968 Royal Commission on Trade Unions and Employers [Donovan Commission], and the predominating view in subsequent literature of industrial relations in post-war Britain that:

Britain has two systems of industrial relations. One is the formal system embodied in the official institutions. The other is the informal system created by the actual behaviour of trade unions and employers' associations, of managers, shop stewards and workers.³⁸³

³⁸¹ Roy Church and Quentin Outram, *Strikes and solidarity. Coalfield conflict in Britain 1889-1966*, p. 221; Church and Outram's work was undoubtedly influenced by earlier sociological studies, for example: W. H. Scott et al., *Coal and conflict*, p.65

³⁸² Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering the Colliery Consultation Minutes of the Nationalised British Coal Industry, 1947- 74', pp. 59- 89.

³⁸³ Summary of main conclusions and recommendations from the *Report of the Royal Commission on Trade Unions and Employers' Associations*, 1968, [Cmd. 3423], quoted in Allan Flanders, *Trade Unions* (London, 1970), p. 185; Hugh Clegg, *The Changing System of Industrial Relations in Great Britain*, (Oxford, 1979), foreword; P. K. Edwards, 'History, Continuity and Lessons from the Past: *The Growth of British Industrial Relations* [sic] Revisited', *HSIR*, 1, (March 1996), pp. 131-48; Chris Wrigley (ed.), *A History of British Industrial Relations 1939-1979*, (Aldershot, 1996) [see various references]; Chris Wrigley, *British Trade Unions Since 1933*, (Cambridge, 2002), pp.67-69.

I

The formal machinery of industrial relations in the NCB

Apart from charging the NCB with taking account of the welfare of its workforce, the Coal Industry Nationalisation Act (1946) also charged it, in collaboration with the unions, with constructing the machinery and processes for 'the settlement by negotiation of terms and conditions of employment, with provision for reference to arbitration in default of such settlement.'³⁸⁴ Advocates of worker representation and miners, on the one hand, and apostles of industrial democracy on the other, were to have their expectations dashed if they had believed it would give mineworkers a say in the running of the industry.³⁸⁵ However, given that these plans were drawn up using the Morrisonian model of the socialised industry, which had ruled out worker participation in the control of socialised industries, it should have come as no surprise, certainly to leading members of the labour movement, that whilst CINA suggested a more equitable system of negotiations in the industry, it was nevertheless not tantamount to workers' control of the means of production.³⁸⁶

Emmanuel Shinwell appointed a couple of trade unionists to the first board, albeit conservative former union general secretaries, in the interests of cooperation and as a reflection of trade unions' part in the post-war corporatist settlement. Ebby Edwards and Sir Walter Citrine were appointed to the first board as the members for industrial relations and

³⁸⁴ CINA, 1946, S. 46.

³⁸⁵ The disappointment was tangible in the following accounts: Aneurin Bevan, *In place of fear* (London, 1952), p. 104-5; See examples from NUM records and oral testimony in A. Perchard, 'Bonnie Fighters': Class Consciousness and solidarity in the Scots coalfield, c. 1947- 1960', pp. 44-5; G. D. H. Cole, *The National Coal Board*, pp. 8, 10-11, 16.

³⁸⁶ Herbert Morrison, *Socialisation and Transport*; In Bevan's case, his objections were partly a reflection of his political ambitions, although undoubtedly some of it was motivated by deep conviction.

manpower and welfare respectively.³⁸⁷ James Barbour was appointed to the Scottish Divisional Board as the Labour Director.³⁸⁸

Between 1946 and 1949, the NCB set about building upon surviving conciliation procedures, which existed at National and District level and had been agreed by the MFGB and MAGB before nationalisation, by adding pit conciliation schemes (agreed between the NCB and NUM on 1 January 1947). These were augmented by procedures to refer pit disputes to higher levels, if not settled at the level below, with tight timetables for referring forward to a Joint Disputes Committee (JDC) and ultimately, if agreement could not be reached at the JDC, an umpire whose say was final (see figure 13).³⁸⁹ The existing machinery of the Joint National Negotiating Committee (made up of fourteen NUM members and the whole of the National Coal Board) and a National Reference Tribunal (composed of three independent referees), whose job it was, respectively, to discuss rates and terms and conditions and to arbitrate in such matters, was also retained.³⁹⁰ New machinery was also set up to allow for negotiation between the NCB and BACM, NACM and NACODS.³⁹¹

The industry's consultation machinery combined the resurrection of wartime pit production committees and the introduction of new Area, Divisional and National fora. The National Consultative Council,

³⁸⁷ Ebby Edwards was formerly General Secretary of the MFGB and briefly the NUM, and Sir Walter Citrine had been the General Secretary of the TUC: W. Ashworth, *The history of the British coal industry, Vol.5*, pp. 123-4.

³⁸⁸ Barbour was the retired President of the National Union of Scottish Mine Workers: NCB, SD, EC, minutes, 8 March 1949, CB 42/1.

³⁸⁹ Conciliation agreements at national and divisional level were finally agreed with the BACM on 6 June 1948, agreements between the NCB and the National Association of Colliery Overmen, Deputies and Shotfirers (NACODS) were never fully established and other negotiations for office staff and other surface workers were problematic and prolonged see W. Ashworth, *The history of the British coal industry, Vol.5*, pp. 143-4.

³⁹⁰ Ibid, p. 143; Roy Church, 'Employers, Trade Unions and the State, 1889- 1987: The Origins and Decline of Tripartism in the British Coal Industry' in G. D. Feldman and K. Tenfelde, (eds.), *Workers, owners and politics in coal mining*, p.50.

³⁹¹ BACM, *The National Newsletter*, 1, 1, 21 January 1948, p. 4; BACM, National Joint Council, minutes, 30 November 1948.

composed of six NCB, nine NUM, nine NACM (the professional association rather than the BACM), and three from NACODS, and chaired by the NCB Chairman, was established in 1946 and was followed by Divisional Consultative Councils (established by July 1947), Area or sub-divisional Councils (which had been established by 1948 but Scotland only ever had one) and finally Colliery Consultative Committees (established before the end of 1947 in every colliery) composed of a mixture of management personnel, junior officials and mineworkers and trades (see figure 14).³⁹² These 'colliery parish councils' (the CCCs) were intended to be a forum for managers, first-line supervisors, mineworkers and trades to discuss joint production issues, work conditions, safety, ancillary social issues (such as canteens, pitbaths, housing), and latterly, closures and transfers.³⁹³ Ashworth makes the point that the success of the CCCs was very variable, and that they often simply became arenas for public haranguing and aggressive polarity.³⁹⁴ Equally, as Ackers and Payne have pointed out, in some cases, it is difficult to ascertain precisely what did occur at these meetings from their minutes.³⁹⁵ This is probably because minutes from all CCCs were copied to Area Consultative Councils and Area Labour Officers and, as we shall see later, both managers and NUM branch officials and Agents were unwilling to have local issues decided or, indeed, aired elsewhere (see testimony from Gillespie).³⁹⁶ Certainly the evidence from the Scottish CCCs, examined here, and from Ackers and

³⁹² W. Ashworth, *The history of the British coal industry*, Vol.5, p. 145.

³⁹³ The constitution of the CCCs was as follows: Colliery managers were appointed as chairs, NUM Area Agent and a branch official as ex-officio members, 3 officials (2 underground and 1 surface) appointed by the manager; 1 deputy (elected by his colleagues at a secret ballot); 6 other members [2 of whom, at least, had to be faceworkers] (elected by mineworkers at a secret ballot), along with a number of colliery staff who attended in an advisory capacity. Members served for three years and CCCs were held fortnightly: Ibid; NCB, SD, EC, policy papers, Circular to colliery managers, 11 April 1947, CB 44/1.

³⁹⁴ W. Ashworth, *The history of the British coal industry*, Vol.5, p. 145; P. Ackers and J. Payne, 'Through a Glass Darkly', pp.59-89.

³⁹⁵ Ibid.

³⁹⁶ NCB, SD, EC, policy papers, Circular to colliery managers, 11 April 1947, CB 44/1.

Payne's study of some English CCCs reflects the variability of these committees.³⁹⁷

Of equal importance, at least, initially, to statutory developments and prescriptions was the social contract between the NUM NEC and the Attlee government, and, at least in parts of the British coalfields, miners and their government, as the following extracts from William Lawther's speech to the NUM conference and a letter from a miner (albeit one which reads like planted propaganda) to *Coal* magazine both from 1947 show:

To our Labour Government we say, we are amongst your strongest and most solid supporters; go ahead, confound your enemies, frustrate their knavish tricks... and you will always find the miners to fight and succour you in dark days or in bright days.³⁹⁸

All miners- be united and Attlee's pleading heed,
And hew the coal that's wanted for Britain in her need.
We all should do our utmost, and let them know that we,
Will brace the nation's backbone- a credit we should be.³⁹⁹

However, the federalised structure of the NUM and the differing politics of the Area Executives meant that the honeymoon was short-lived. This was pointedly illustrated in the differences between some of the English Areas, like Northumberland and Nottinghamshire, and the more radical and militant Scottish and South Wales Areas.⁴⁰⁰

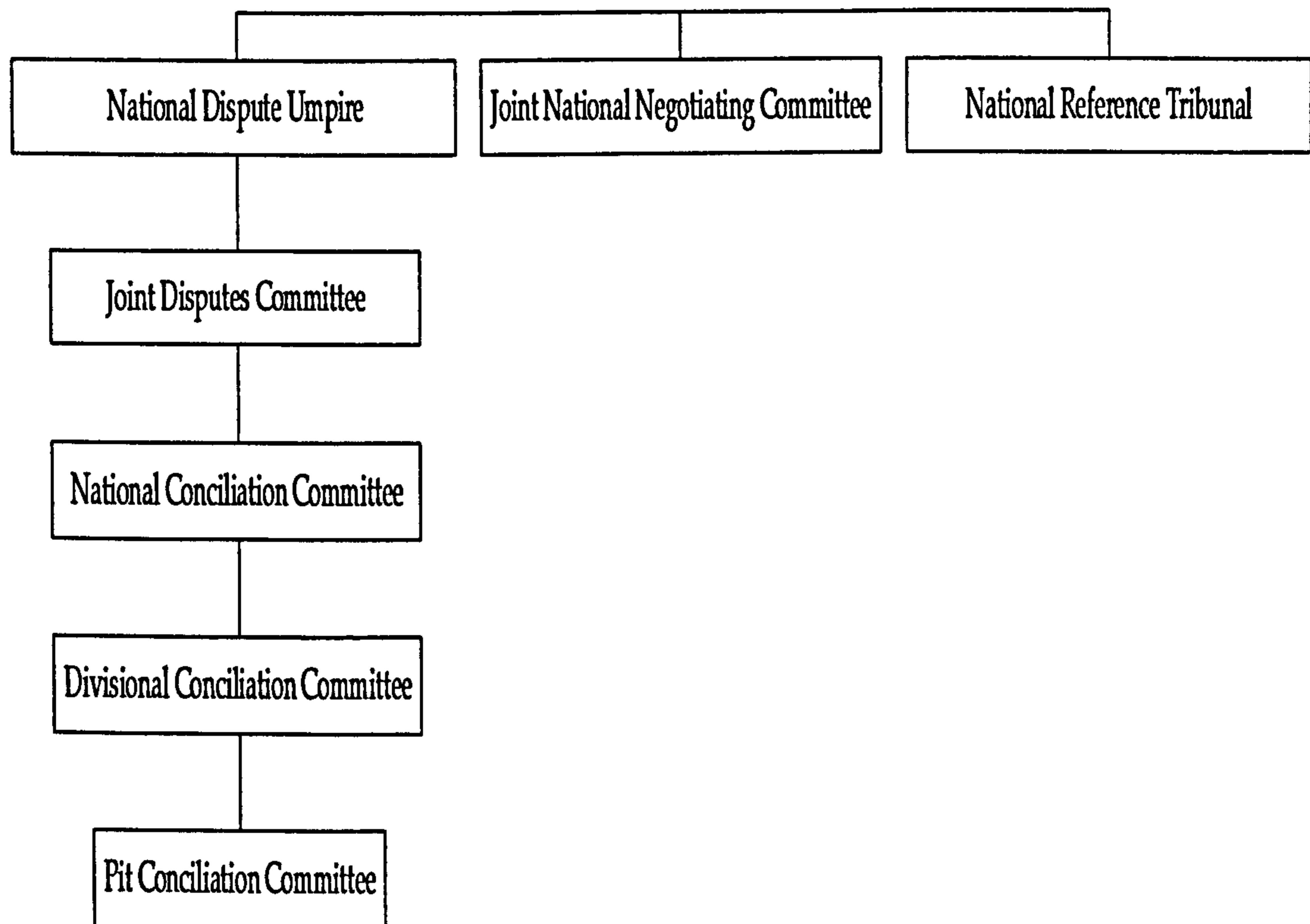
³⁹⁷ P. Ackers and J. Payne, 'Through a Glass Darkly', pp.59-89; Minutes of Scottish CCCs are only available from 1956 onwards and are limited to certain collieries. Those consulted for this study are: Blairhall, Bedlay, Burghlee, Easthouses, Fordell, Glenochil, Kingshill No.1, Kinglassie, Lingerwood, Lochhead, Mary, Minto, Overtown, Prestonlinks, Riddochhill, Roslin and Woodend [all held under NAS, CB 55 range]. The minutes of the Central Area Consultation Committee were also examined [NAS, CB 54/11].

³⁹⁸ NUM, *Annual report and proceedings*, 1947, p. 281.

³⁹⁹ *Coal*, October 1947, p. 23.

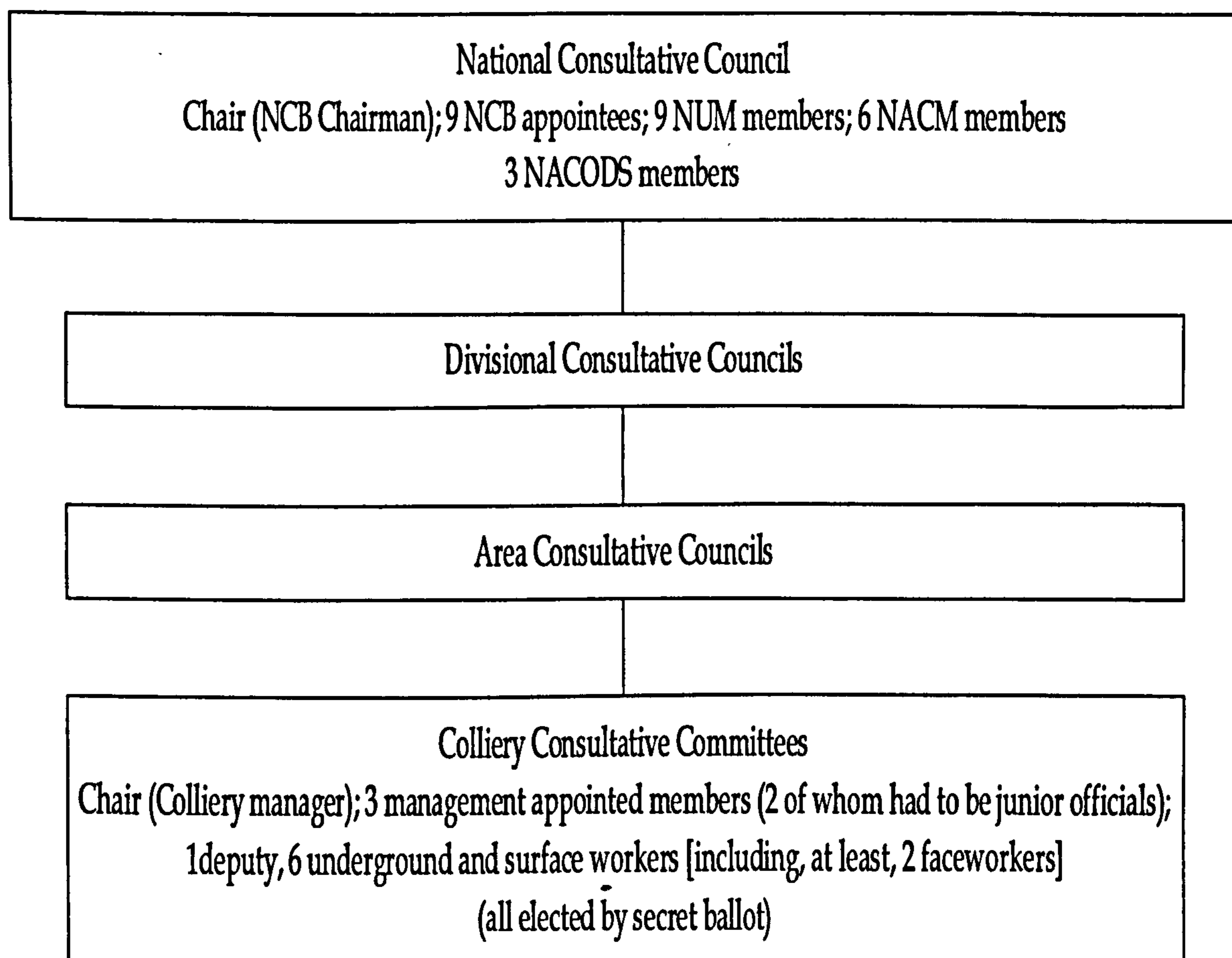
⁴⁰⁰ Hywel Francis, 'Learning from bitter experience: the making of the NUM', in Alan Campbell, Nina Fishman and David Howell (eds.), *Miners, unions and politics, 1910- 1947*, (Aldershot, 1996), pp.253-272; Nina Fishman, 'The beginning of the beginning: the National Union of Mineworkers and nationalisation', in *Ibid*, pp.273-298; Hywel Francis and Dai Smith, *The Fed. A History of the South Wales Miners in the Twentieth Century*, (Cardiff, 1998); A. Perchard, 'Bonnie Fighters': Class Consciousness and Solidarity in the Scots Coalfield, c.1947-1960', *Race, Gender & Class*, Vol.9, No.2, (2002), pp.32-46.

Figure 13: Structure of NCB conciliation machinery.⁴⁰¹



⁴⁰¹ W. Ashworth, *The history of the British coal industry*, Vol.5, p. 143-4.

Figure 14: Structure of NCB Consultative machinery.⁴⁰²



At the same time as implementing and/ or consolidating formal conciliation and consultation machinery, and cementing a social contract with the trade unions in the industry, the NCB set about tackling, albeit slowly, the incredibly complex wage structure of the industry.⁴⁰³ By eventually replacing the piecework system throughout the industry, the NCB simultaneously developed a means of centralised labour control.

⁴⁰² The Mining Agent, area Agent of the NUM and the NUM colliery lodge secretary were also all ex-officio members of the CCCs. Ibid, p.145.

⁴⁰³ Joel Krieger has succinctly summarized the problem of a national wage system for the British coal mining industry, which would have suited both NCB and NUM, see: J. Krieger, *Undermining Capitalism*, p. 12; A similar point is made by B. Fine et al, 'Coal After Nationalisation', p.173; See also: Hugh Clegg, *The Changing System of Industrial Relations in Great Britain*, p.34.

The development of a national wage system was pressing for the NCB given the time that wage bargaining occupied at all levels, and the cost and disruption that was caused by wage drift and disputes.⁴⁰⁴ As labour economist, K. J. W. Alexander noted at the time, 'in no other industry is the gap between nationally determined rates and individual earnings of large numbers of workers as wide as it is in coal mining.'⁴⁰⁵ He might also have added, nothing was at the root of so many disputes in coalmining as wages and bonuses, and, indirectly, absenteeism. Wage drift and conflict arising from local price lists was generally confined to piece-rate workers, especially faceworkers, who constituted 40 per cent of workers across the British coalfields, and 44 per cent of workers in the Scottish industry.⁴⁰⁶ Piece-rates, which took the form of bonuses added to a basic wage, payment for specific tasks completed according to price lists and comprehensive price lists for a completed set of tasks, were augmented by allowances negotiated at pit level to compensate for adverse conditions.⁴⁰⁷

After 1951, local price list revisions were capped permanently and wage augmentation relied exclusively on pit level allowances being increased.⁴⁰⁸ However, up until 1958, faceworkers still relied on pit level negotiation for wage supplements.⁴⁰⁹ By 1955, day wage agreements had been settled for all other grades of underground and surface workers and, with the growth in power-loaded faces between 1958 and 1963, Divisional Power Loading Agreements were introduced for faceworkers (the Scottish variant being the SPLA) with varying degrees of success.⁴¹⁰ The NPLA signalled the culmination of the NCB's wage rationalisation and job mapping

⁴⁰⁴ W. H. Scott et al., *Coal and Conflict*, p. 23.

⁴⁰⁵ K. J. W. Alexander, 'Wages in Coal Mining Since Nationalisation', *Oxford Economic Papers*, Vol. 8, Part 2, June 1956 cf. *Ibid*, p.24.

⁴⁰⁶ B. Fine et al., 'Coal After Nationalisation', p.174; NCB, *Annual Report And Accounts for 1948*, [Cmd. 187], Appendix 1, p. 226.

⁴⁰⁷ B. Fine et al., 'Coal After Nationalisation', p.174.

⁴⁰⁸ *Ibid*.

⁴⁰⁹ *Ibid*; W. Ashworth, *The history of the British coal industry*, Vol.5, pp.210-1.

⁴¹⁰ B. Fine et al., 'Coal After Nationalisation', pp. 173-9.

exercises.⁴¹¹ The NPLA has been described, in one study, as, 'another prominent example of the interdependence of the two managerial functions: coordination and exercising managerial authority.'⁴¹² In essence this embodied two key preoccupations, both of the NCB and industrial relations' practitioners across British industry, namely, how to control wage drift and assert greater managerial control over the labour process.⁴¹³ The NCB also recognised that disputes over wages were accounting for a high percentage of the days and output lost. Between 1947 and 1952, fifty-four per cent of disputes in the British coalfield were attributed to wages or price lists (see table 6).⁴¹⁴ Evidently wages and price lists (or seam agreements) were a major contributory factor.⁴¹⁵ Similarly, over the period 1948-1950, the majority of unofficial disputes in the Scottish coal industry were caused by disputes over wages and contracts for faces (table 7).⁴¹⁶ In contrast to other areas of British industry between 1945-55, 90 per cent of stoppages in the coal industry were resolved within six days.⁴¹⁷ All other strikes in this five-year period were largely localised.⁴¹⁸

Between 1945 and 1950, the Scottish Division accounted for more disputes than any other Division, and up until 1958, remained one of the most

⁴¹¹ Ibid, pp.180-1; This was pursued later on across British industry, see: Howard F. Gospel, 'The management of Labour' in C. Wrigley (ed.), *A History of British Industrial Relations 1939-1979*, pp.94-5.

⁴¹² Andrew L. Friedman, *Industry & Labour. Class Struggle at Work and Monopoly Capitalism*, (London, 1977), p.101.

⁴¹³ For the seminal work on this, see: Allan Flanders, *The Fawley Productivity Agreements. A case study of management and collective bargaining*, (London, 1964), pp.13-14; Allan Flanders, *Management and Unions. The Theory and Reform of Industrial Relations*, (London, 1970), pp.56, 58, 122 and 126.

⁴¹⁴ S. K. Saxena, *Nationalisation and industrial conflict*, p.83.

⁴¹⁵ Five per cent of output lost between 1947 and 1952 was due to the 1952 wage strike in the two Divisions with the lowest pay, Scottish and South Western. The strike involved 34 pits in South Wales, 12 pits in Fife and 4 Lanarkshire pits: See S. K. Saxena, *Nationalisation and industrial conflict*, pp. 120- 138.

⁴¹⁶ NCB, SD, EC, policy papers, 30 November 1950, CB 44/12.

⁴¹⁷ Justin Davis Smith, *The Attlee and Churchill Administrations and Industrial Unrest, 1945- 1955* (London, 1990), p. 4.

⁴¹⁸ Ibid.

strike prone Divisions in the British coalfield (see figure 15), although throughout the period of this study, it had one of the lowest absentee rates (see figure 16) but equally one of the lowest earnings rates for mineworkers. And, whilst, 'a "strike" is a social phenomenon of enormous complexity which, in its totality, is never susceptible to complete description, let alone explanation'⁴¹⁹, after the implementation of both the daywage system for all other classes of workers, except faceworkers, and the SPLA, the proportion of output lost through disputes in Scotland fell by 40 per cent between 1960 and 1966.⁴²⁰ At the centre of the new orthodoxy, preached notably by the Oxford School, was the belief that the British tradition of 'collective laissez-faire' be replaced by structured agreements on wages and productivity- a reciprocal social contract between management and labour at an operational level.⁴²¹ Whilst the NPLA brought every faceworker onto a level of parity across the British coalfield, it also allowed faceworkers (particularly in the high earning coalfields like Kent, Warwickshire and Nottinghamshire), for the first time, to fully appreciate the financial plight of oncost workers and to experience the sizeable decrease in wages, which miners had experienced relatively since the 1950s.⁴²²

⁴¹⁹ Alvin Gouldner, *Wildcat strike. A Study of an Unofficial Strike* (London, 1955), p. 65.

⁴²⁰ NCB, *Annual report and Accounts, Vol. I: Report year ending 31st December 1960*, [Cmd.195], pp.10 and 11; NCB, *Annual report and Accounts for 28th March 1965- 26th March 1966 , Vol. I: Report*, [Cmd. 243], pp. 4 and 14.

⁴²¹ H. Clegg, *The Oxford School of Industrial Relations. Warwick papers in Industrial Relations*, (Warwick, 1990), pp.2-3; C. Wrigley, 'Introduction' in C. Wrigley (ed.), *A History of British Industrial Relations 1939- 1979*, p.4.

⁴²² *Ibid.*

Table 6: Ascribed causes of disputes in the British coalfield, 1947- 1952.⁴²³

Ascribed cause	No. of disputes	Tonnage lost	Percentage of total loss
Wages/ price lists	4,472	4,475,140	54.0
Methods of working and organisation	1,592	905,634	10.9
5 day week disputes	86	853,561	10.3
Allowances and bonuses	556	379,288	4.6
Concessionary coal dispute (1949 only)	108	382,590	4.6
Bad working conditions	1,075	310,689	3.7
Miscellaneous (loss of tools, disputes regarding fatal accidents, Housing)	593	308,866	3.7
Refusal to accept alternative work	722	184,895	2.2
Sympathy with men dismissed, reprimanded or suspended	245	177,289	2.1
Personnel and grading questions	291	101,131	1.2
Objection to or disputes regarding officials	80	85,580	1.0
Refusal to perform work left by other shift	317	73,983	0.9
Refusal to await repairs after mechanical breakdown	275	66,552	0.8

⁴²³ S. K. Saxena, *Nationalisation and industrial conflict*, p. 83.

Table 7: Causes of major unofficial disputes in the Scottish Division, 1948-1950.⁴²⁴

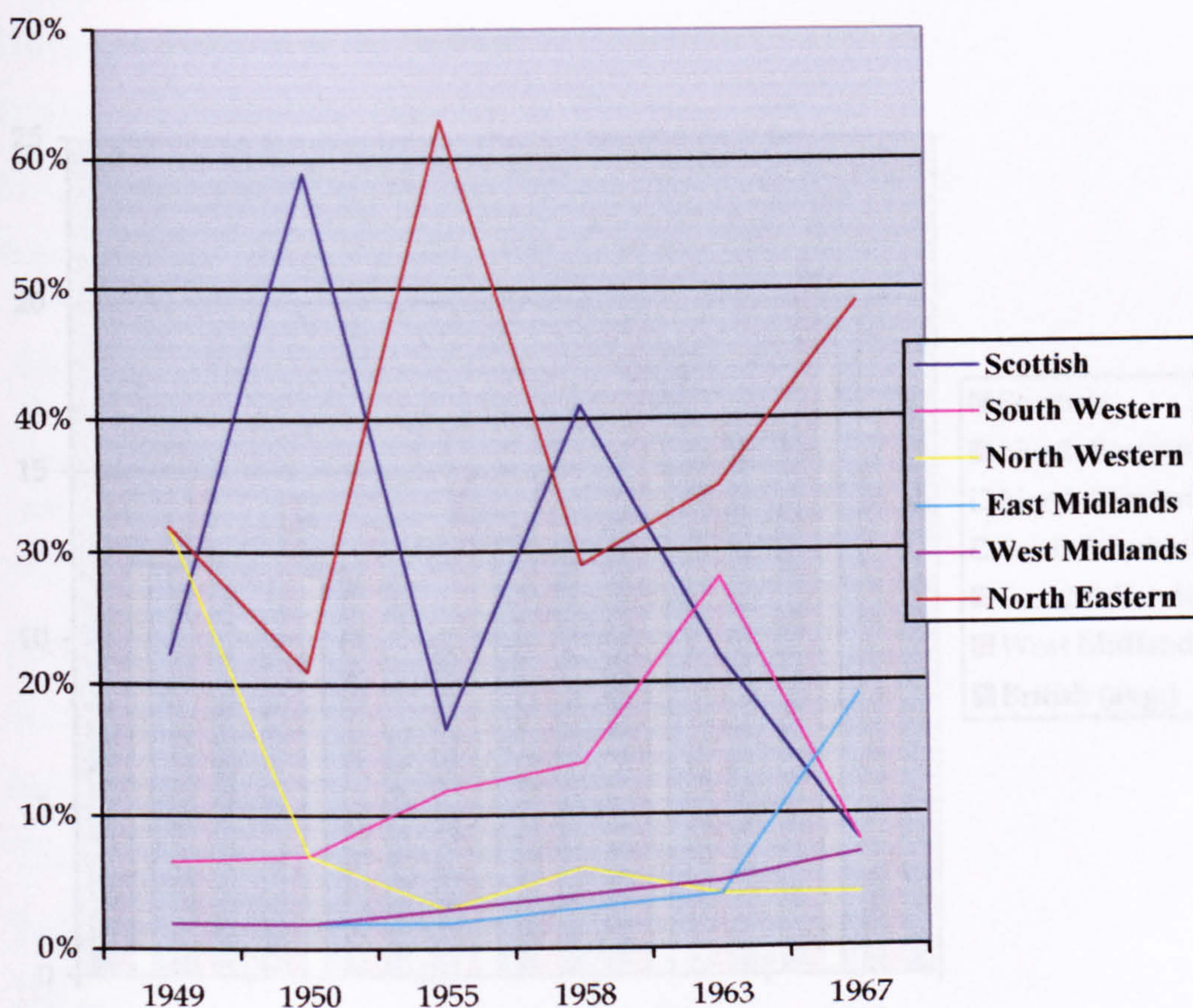
Year	No. of disputes	Manshifts lost	Tonnage lost (saleable)	Cause
1948	(i) 8 (ii) 1 (iii) 19	(i) 6,575 (ii) 1,694 (iii) 12,938	(i) 9,440 (ii) 2,100 (iii) 23,400	(i) Dismissal of five oncost workers at Bothwell Castle 3 & 4 for alleged ca'canny; (ii) Redundancies at Calderhead; (iii) Protest against award for breach of contract
1949	(i) 10 (ii) 1	(i) 3,436 (ii) 2,330	(i) 4,244 (ii) 3,300	(i) Closure of Fortissat and Hillhouserigg Collieries; (ii) Non-unionism at Burghlee Colliery.
1950	(i) 1 (ii) 4	(i) 4,098 (ii) 1,823	(i) 7,800 (ii) 1,765	(i) Strippers wages at Cardowan Colliery; (ii) Allocation of NCB houses in Lothians Area.

Colliery managers and under managers, by and large, were initially concerned with how productivity targets could be met and discipline maintained at the coalface and latterly worried about the diminution of their powers over operations and achieving efficiency gains (as well as productivity increases) in their colliery. Faceworkers were concerned, variously, by a loss of earnings and, increasingly, associated job evaluations, task allocations and increased supervision of the labour process. Whilst colliery level wage negotiations were formal, they were often not officially sanctioned.⁴²⁵

⁴²⁴ NCB, SD, EC, papers, 30 November 1950, CB44/ 12.

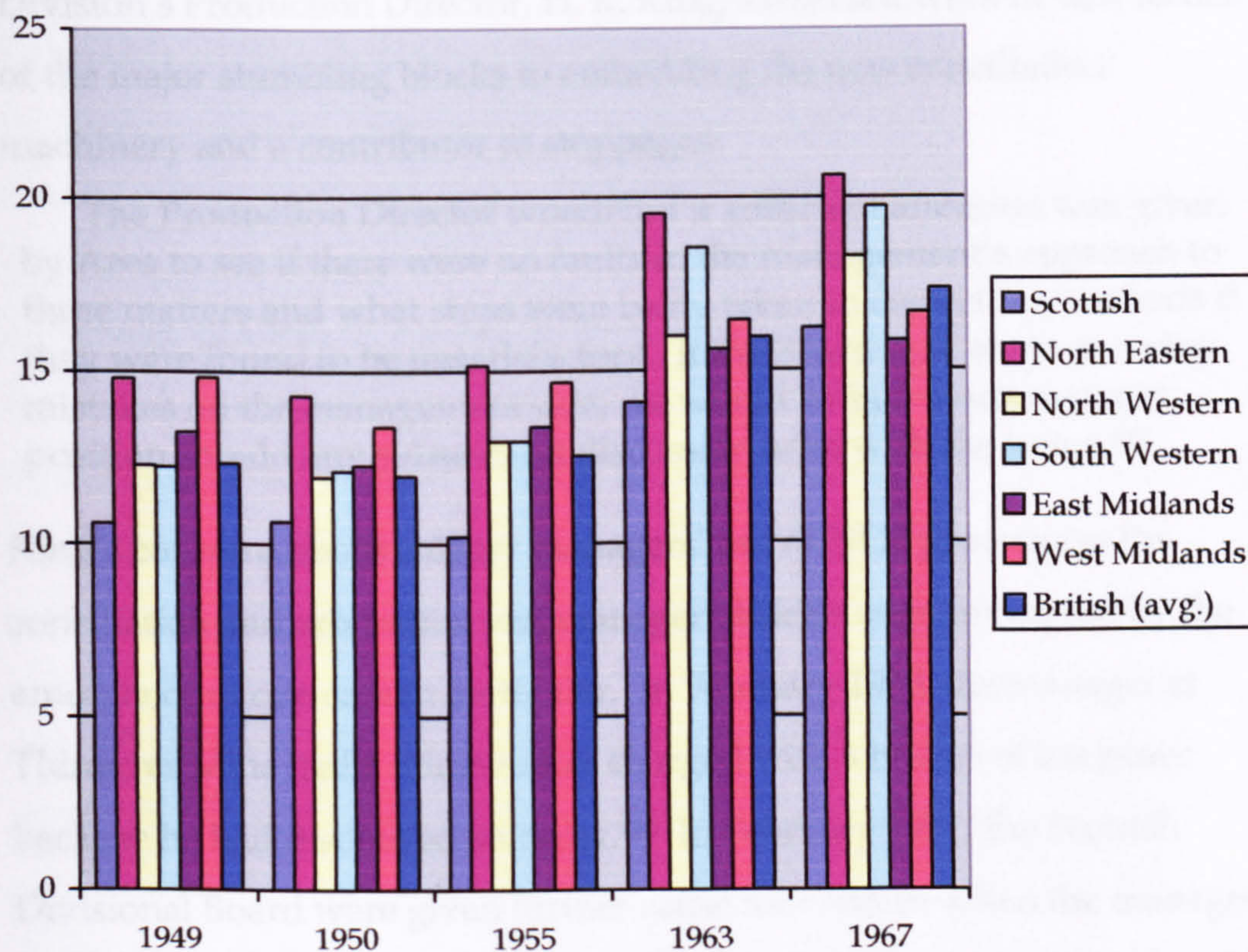
⁴²⁵ J. Krieger, *Undermining Capitalism*; A. Perchard, 'Bonnie Fighters', *Race, Gender & Class*, p.39.

Figure 15: Strikes in coalmining by selected divisions, 1948- 1967.⁴²⁶



⁴²⁶ Figures for 1949, include the time lost over concessionary coal: Ministry of Fuel and Power, *Statistical Digest for 1950*, Table 42; Ministry of Fuel and Power, *Statistical Digest for 1955*, Table 46; Ministry of Power, *Statistical Digest for 1958*, Table 29; Ministry of Power, *Statistical Digest for 1967*, Table 35.

Figure 16: Absenteeism by selected divisions (all workers), expressed as percentage, 1948- 1967.⁴²⁷



What is clear from evidence contained in this chapter, from the period preceding the introduction of the NPLA, is the number of disputes related to wages and other matters which were resolved at colliery level, and often by discussions simply involving the branch secretary of the union or the NUM agent and the colliery manager.

Managerial attitudes to NCB Industrial Relations machinery

Commenting on NCB production policy in September 1947, *The Economist* noted:

It is possible that the Board [NCB] have been going too fast for the men, and that management has been treating the miners too much as

⁴²⁷ Ministry of Fuel and Power, *Statistical Digest for 1950*, Table 42; Ministry of Fuel and Power, *Statistical Digest for 1955*, Table 46; Ministry of Power, *Statistical Digest for 1967*, Table 41.

digits set to work exciting new cutters and conveyors, and has been attempting too little to carry them along as human beings.⁴²⁸

During a meeting of the Scottish Divisional Board in February 1950, the Division's Production Director, H. R. King, identified what he saw as one of the major stumbling blocks to embedding the new conciliation machinery and a contributor to stoppages:

The Production Director wondered if sufficient attention was given by Area to see if there were no faults in the management's approach to these matters and what steps were being taken to correct the methods if they were found to be unsatisfactory. If the Board took steps to rectify mistakes on the management side, we would be in a much stronger position should any subsequent discussion arise with the union.⁴²⁹

King's concerns about colliery managers' use of NCB procedures for conciliation and arbitration and managerial skills were prompted by the emergence of one case in particular. In February 1950, the manager at Thinacres Mine had a mineworker charged with a breach of the peace because he had disobeyed an order.⁴³⁰ In February 1951, the Scottish Divisional Board were given further cause for concern when the manager of Pirnhall Colliery assaulted a miner for being off work for some time.⁴³¹

The NACM's President in 1951 also expressed his concerns at the apparent lack of enthusiasm amongst colliery managers to enter into the spirit of cooperation:

With the best intentions in the world, we have not yet touched the fringe of consultation... This new technique for co-operation in management has not been mastered for the simple reason that it has not been understood... Consultation, as I see it, is not something in which one side gives the information and the other receives it... The idea that consultation should start in London and finish with the Colliery Consultative Committees is not altogether right. It should begin at the coalface and on the "roads," in the shops and offices, and no project, however small, in which orders are going to be given to men and duties

⁴²⁸ *The Economist*, 13 September 1947, cf. S.K. Saxena, p.141.

⁴²⁹ NCB, SD, EC, minutes, 28 February 1950, CB 42/2.

⁴³⁰ *Ibid.*

⁴³¹ NCB, SD, EC, minutes, 13 February 1951, CB 42/3.

allotted to them, should be started without first of all arranging as much consultation as possible between the men on the spot who are actually doing the job.⁴³²

The speech was met with considerable animosity, but tellingly, the Scottish Division's Labour Director, James Barbour, responded by saying that progress was being 'retarded' by 'suspicion and fears'.⁴³³ One contemporary study of a strike at a Scottish colliery in the early 1950s, suggested that managers were not entirely comfortable with the new structures and miners continued to identify the manager, irrespective of the new machinery, as the embodiment of their former employers.⁴³⁴ One former Vice President of the NUM, Scottish Area, suggested that the CCCs were, in most cases, window-dressing, although he did acknowledge their usefulness in monitoring and regulating health and safety.⁴³⁵

Area Industrial Relations' officers in the Scottish Division repeatedly complained up until the introduction of the NPLA about the tendency amongst colliery managers and local NUM officials to disregard NCB procedure when drawing up new wage agreements.⁴³⁶ This was illustrated by the fact that by 1960, there were 1,600 seam agreements operating in the Scottish Division alone.⁴³⁷ And the Area IR Officers' Committee noted in February 1962, 'that increased productivity was being

⁴³² NACM, XLIX, 1953, p.7.

⁴³³ Ibid, p.20.

⁴³⁴ T. T. Paterson and F. J. Willett, 'Unofficial strike', *The Sociological Review*, X, 4, (1951), p. 59.

⁴³⁵ Interview with Tom Coulter, Stirling Miners' Welfare Club, 7 February 2000; This presents a similar picture to the comments of the Labour Party's Working Party on Industrial Democracy in their 1967 report, which identified, 'major gaps in communication; ineffective 'recognition' of worker interests... and an emphasis on dictation and command in the ordering of industry', Labour Party, *Industrial Democracy. Working Party Report*, (London, 1967), p.14.

⁴³⁶ Examples include: NCB, SD, Area Industrial Relations Officers' Committee [hereafter IR Committee], minutes, 30 October 1957, CB 53/21; NCB, SD, Area IR Officers' Committee, minutes, 24 February 1960, CB 53/21; NCB, SD, Area IR Officers' Committee, minutes, 7 February 1962, CB 53/23; NCB, SD, Area IR Officers' Committee, minutes, 5 December 1962, CB 53/23.

⁴³⁷ NCB, SD, Area IR Officers' Committee, minutes, 24 February 1960, CB 53/21.

more than offset by increases in wages. Colliery managers must be told to adhere rigidly to their budgets.⁴³⁸

This was followed later in the year by a sharp criticism of wage negotiation procedures at colliery level in the Division by the committee:

It was mentioned that it was not unusual for colliery managers, in agreement with the union delegate to revise a contract, which had originally been made at a higher level, and without any knowledge of the Department.⁴³⁹

As evidence in the ensuing pages showed, tactical and strategic management would, throughout the late 1950s and into the 1960s, attempt to reassert their power over colliery management. Whilst, this policy failed in the longer term, in the intervening period, it brought colliery managements to heel.⁴⁴⁰

What the preceding examples show is a divergence between the incorporated NCB- NUM machinery of industrial relations and colliery level. And, whilst the cases at Pirnhall and Thinacres suggest that the autocratic manager was not a thing of the past, many of the issues identified above illustrate the clash between these two cultures of local bargaining and formal NCB procedures. The apparent continuation of this, after the introduction of the SPLA, was a reflection of the increasing pressure colliery management were under to achieve increasingly unachievable productivity targets and efficiency gains (as the ensuing examples show). Similarly, Coulter's remarks are underpinned by the misuse of the CCCs by the NCB, at strategic and tactical levels. This explains the continued preference amongst colliery managers and local NUM Agents for retaining some degree of local bargaining, particularly, given that all minutes were copied to the Area Consultative Committees

⁴³⁸ NCB, SD, Area IR Officers' Committee, 7 February 1962, CB 53/ 23.

⁴³⁹ NCB, SD, Area IR Officers' Committee, 5 December 1962, CB 53/ 23.

⁴⁴⁰ For the longer term impact of the National Power Loading Agreement, see: J. Krieger, *Undermining Capitalism*.

and that increasing pressure was placed on colliery management by Divisional management to support productivity drives.⁴⁴¹ What ensues shows, in some cases, the converging interests and collaboration of colliery management, junior officials and miners against the onslaught of technical management. At other collieries, it was clear that colliery managers adhered to NCB requirements, as far as conciliation, arbitration and consultation were concerned, using these as devices to ruthlessly pursue colliery reorganisation and the intensification of production.

The following description of managerial style, from George Gillespie's recollection of an incident at Vesting Day in a Lothians pit, reflects the autocratic style of management associated at its most extreme by examples of the managers at Pirnhall and Thinacres and reminiscent of Mungo Mackay:

I can remember the manager standing on a soapbox talking to all the men:

[Manager] " This is the day you've all waited for, this is the first day of nationalisation."

And after he'd given his wee speech about how he was hoping everyone would co-operate to make everything a success, this wee voice shouts out, " Aye, they're oor pits now, we can tell ye what to do now, you'll discover a change."

Well he [the manager] shouted back, "The law still demands that there's a manager."

" Ah, you'll see, the pits are oors now.", they shouted- one or two of them.

He [the manager] says, "John, come here a minute, listen to me. You see that wee pile o' pit props, see that wee prop at the bottom, that's your share."⁴⁴²

⁴⁴¹ Wm Reid first suggested that CCCs be used to increase productivity: William Reid, 'Scottish Colliery Management', *NACM*, XLVII, 1950, p.210; NCB, SD, EC, Memo from the Divisional Industrial Relations Director, 14 May 1963, CB 41/61.

⁴⁴² The incident took place at the Lady Victoria colliery which was Mackay's old pit: Interview with George Gillespie, Scottish Mining Museum, Newtongrange, East Lothian, 14 August 1999.

In recalling this story, George Gillespie seemed proud to relate the story as an example of the ability of the manager to assert his authority over his workforce, in this case by singling the individual out for public humiliation and stamping his authority once again over the pit. This example is similar to an example of one of the respondents cited in Michael Roper's study of masculinity amongst post-war British managers.⁴⁴³

The continued autocratic management style in the early years of nationalisation at some Scottish collieries was evident from the examples, cited earlier. Similarly, a strike at Auchencruive No's 4 and 5 in 1948 was attributed to, 'a lack of understanding of the conciliation machinery' amongst the management and their, 'confrontational approach', supports this.⁴⁴⁴ Equally, Fox's identification, amongst British management, of 'management oddities', of, 'those, outbursts of resentment against union or workgroup claims', was illustrated by the following comments by the first AGM for Fife and Clackmannanshire (immediately after nationalisation), George Mullin: '... My own view is that colliery managers have been very tolerant in their negotiations with miners' leaders, but it is to be regretted that some of the trade union leaders have not been so.'⁴⁴⁵ However, examination of both Scottish Divisional records and NUM, Scottish Area records, suggests that examples of extremely confrontational management, even in this initial period, were few and far between.⁴⁴⁶

⁴⁴³ 'In the mythology of challenges from below, agitators plan to cut the boss down, while the manager aims to defeat them and so win popular support. Authority is secured by 'keeping your ear to the ground' for stirrers, and by a willingness to fight them. Working men 'can smell fear', Mr Wright explained. His time in the RAF had taught him that 'they will only respect someone who treats them firmly and who won't be pushed around' in M. Roper, *Masculinity and the British Organization Man since 1945*, p.123.

⁴⁴⁴ NCB, SD, EC, policy papers, report of joint NUM, Scottish Area and NCB, Scottish Divisional committee on dispute at Auchencruive No.s 4 & 5 Colliery, 7 December 1948, CB 44/6.

⁴⁴⁵ Alan Fox, 'Managerial ideology and labour relations', *British Journal of Industrial Relations*, IV, 1-3, (1966), p.373; *Coal*, August 1947, p.19.

⁴⁴⁶ For example: NCB, SD, EC, minutes, 1949- 1951, CB 42/1-3; NCB, SD, EC, policy papers, 1947- 1951, CB 44/1-12; NUM, Scottish Area, Minutes of Divisional Disputes Committee from

On the other hand, and of far more significance was the effect which tactical management were deemed to be having on how colliery managers conducted industrial relations, as one study of industrial relations at two collieries in Lancashire in the late 1950s suggested, 'the attitude of Area officials increased grievances at the colliery.'⁴⁴⁷

This pressure increased dramatically in the late 1950s but, as the ensuing examples show, it was also exacerbated by the attitude of Area management. Colliery managers were being put under increasing pressure to increase productive capacity. As chapter five has shown already, managers who could not meet (often unrealistic) targets were even sometimes replaced. In the East Fife Area, the Area General Manager, T. D. M. Scrimgeour, replaced most of the management team of the Michael Colliery for not meeting colliery targets.⁴⁴⁸ Scrimgeour's resolve to increase productivity at the colliery at any cost is illustrated by this extract from his memo to the Divisional Board about the colliery:

It could be, of course, that the situation has reached a point where stricter control will result in labour trouble, but if an improvement is to be got, this should be faced.⁴⁴⁹

At Kinglassie Colliery, Scrimgeour instructed the colliery manager to use the threat of closure to enforce managerial prerogatives, increase productivity and reduce manpower.⁴⁵⁰ When the manager failed to do this, he also was replaced.⁴⁵¹

29th April to 14th April 1950; NUM, Scottish Area, Minutes of Executive Committee and Special Conferences from 20th June 1949 to 2nd June 1950.

⁴⁴⁷ W. H. Scott et al., *Coal and Conflict*, p.162.

⁴⁴⁸ NCB, SD, EC, policy papers, 24 August 1957 and 17 December 1957, CB 44/28.

⁴⁴⁹ NCB, SD, PC, papers, 19 December 1957, CB44/ 28.

⁴⁵⁰ NCB, SD, Fife Area, Kinglassie CCC, 4 December 1961, CB 55/13.

⁴⁵¹ NCB, SD, Fife Area, Kinglassie CCC, 26 May 1962, CB 55/13.

This pressure on managers to achieve targets and implement continuous mining methods increased substantially by the mid- 1960s, after a meeting between Senior NCB production officials and the Scottish Divisional Production Director which decided the fate of any collieries in the Scottish Division:

Elimination of Non-Mechanised Faces, because of the general wide divergence between face productivities, was a matter of urgency. It was essential either to convert faces to mechanised operations, or transfer men to mechanised faces, even if this meant the closure of collieries. It was inevitable that the productivity factor would eventually mean the closure of those areas of coal or collieries which could not be mechanised. It was acknowledged that special quality coals, the demands of the domestic market and higher than average productivities on conventional working would have to be taken into account before decisions to convert, or close were made; but Mr. Collins emphasised there was no place in the economy for gross losers.⁴⁵²

Ultimately, the Board's senior officials, at the meeting, concluded that, 'time, not manpower, was the vital element'.⁴⁵³ The Division had envisaged this being achieved through the more effective use of method study, increased supervision and the introduction of 'Area Commando' teams (specially chosen teams of Stakhanovite-like faceworkers).⁴⁵⁴ This was also to be achieved, with the rescinding of local bonuses and their replacement with national bonuses for faceworkers linked to time and space targets ('coal-face potential') determined by method study teams and much more heavily supervised.⁴⁵⁵

Yet, even after the signing of the NPLA, conflict apparently continued between tactical and colliery managements prompted by the former's attempts to impose NCB directions over the latter. Area industrial

⁴⁵² NCB, SD, EC, policy papers, 29 June 1965, CB 41/68; See the following exhortation to colliery managers in R. H. Tucker, 'The Changing Pattern of Mine Management', *The Mining Engineer*, May 1966, pp.527-531.

⁴⁵³ Ibid.

⁴⁵⁴ NCB, SD, EC, policy papers, 13 August 1964, CB 41/66.

⁴⁵⁵ See chapter 5: NCB, SD, EC, Papers, 15 June 1965, CB 41/ 68; NCB, SD, Central Area, meeting between AGM and managers, 2 April 1964, CB 54/ 11.

relations officers complained to the Scottish Divisional Board in 1966 that colliery management had not been exploiting the findings of the method study branch's, 'delay studies' [which examined the timing of operations on the face] and calling for more influence being brought to bear on colliery managers to use these studies.⁴⁵⁶

Nevertheless the effects of the power-loading and productivity drives can be seen from the following disaggregated examples. At Blairhall Colliery, which was under the control of the Alloa Area and had previously experienced disputes, the minutes from the colliery consultative committee suggested reasonably stable relations until pressure was placed on management from Area level, to speed up turn around times at the face or face closure, and open tensions started to appear.⁴⁵⁷ This was reflected in a shift in management attitude to a more confrontational stance:

Mr Cameron [Manager, Blairhall Colliery] said that the time was now ripe, if not overdue when something should be done concerning the inability of men and officials to keep the face conveyors running ... He [Cameron] also felt that more men and officials should become "output conscious" and endeavour to keep the face conveyors running.⁴⁵⁸

In the ensuing meetings recriminations were exchanged, although at first the NUM branch secretary was conciliatory to the point of submission, until the committee settled into entrenched positions of conflict with management largely on the offensive:

Mr Bell [Undermanager] said it was the lazy attitude of some men on faces by belting off conveyors without good reason and their attitude to management.⁴⁵⁹

⁴⁵⁶ NCB, SD, Area IR Officers' Committee, 2 February 1966, CB 53/ 23.

⁴⁵⁷ Prior to this, the pit had been more relaxed after the departure of a more stringent manager, R. H. Tucker, who had been rewarded for this diligence to productivity with a promotion to Divisional Production Assistant: NCB, SD, Alloa Area, Blairhall CCC, 6 December 1965- 2 August 1966, CB 55/2.

⁴⁵⁸ NCB, SD, Alloa Area, Blairhall CCC, 10 May 1965, CB 55/2.

⁴⁵⁹ These are also an illustration of Fox's example of management, 'outbursts of resentment against union or workgroup claims'. NCB, SD, Alloa Area, Blairhall CCC, minutes for 24 May 1965- 2 August 1966.

The use of, in some cases, unilateral criticisms and belligerent language by management undoubtedly contributed to the subsequent bad feeling, but was not responsible for the polarisation of this pit committee. Despite the, at times, high handed attitude of management in this pit, the effects of Area management's pressure for increased productivity were tangible in escalating tensions in the pit.⁴⁶⁰

Alistair Moore recollected the de-motivating effects of the implementation of uniform and unattainable standards, given geological conditions, at the colliery he worked at [Kinneil Colliery] and across Scotland more generally:

The way the bonus scheme was operated in Scotland, via the method-study reports was wrong. And I don't think senior management ever recognised that. They were basically trying to reduce miners' earnings. A lot of discontentment arose from that. I've seen men coming off the faces, meeting at the tailgate and saying that the bonuses had been changed, targets upped again and this was being done frequently. The sections at Kinneil, for example, were very small in comparison to England. A section that went for 18 months or two years was very special and maybe, in that time, the target was changed four or five times. It did nothing for the colliery.⁴⁶¹

The NCB's policy by this time, as the Divisional Production Directors' account of his meeting with senior headquarters staff, cited earlier, shows, was also aimed at concentrating production and thus closing pits. This again illustrated both the divisions between Area and colliery management in some areas and the collaboration between colliery management, officials and miners to save their colliery from closure, as the ensuing examples show.

However, the effects of the threat of closure also impacted on absenteeism, safety and productivity in pits. At Woodend Colliery in Lanarkshire, colliery management, local unions and the mineworkers worked together

⁴⁶⁰ Ibid.

⁴⁶¹ Interview with Alistair Moore, Bo'ness, 12 March 2004.

to save this ageing colliery and achieved remarkable productivity gains.⁴⁶² This contrasts with the considerable animosity felt at the pit to the AGM, W. Welsh and the Area Production Manager, R. B. Dunn, for using the threat of closure to raise productivity and then renegeing on their assurances to keep the colliery open.⁴⁶³ However, in general, the onset of widespread closures by the early 1960s was seriously affecting morale in many collieries which colliery managements were often powerless to counter. This was manifested in rising absenteeism and, particularly amongst young mineworkers, a general flouting of safety measures and vandalism underground.⁴⁶⁴ At Fordell Colliery in East Fife, the looming threat of closure, and increasing numbers of redundancies as part of the run-down of the pit, was reflected in a dramatic rise in absenteeism with an accompanying loss of productivity.⁴⁶⁵ And whilst not the effect of the NCB's efficiency drive, the impact of conditions and looming closure on miners at Glenochil illustrates the difficulties faced by a colliery manager having to maintain safety practices and attendance, with morale in tatters. In the years leading up to the closure of the colliery, as chapter four explained, the comparatively inexperienced workforce was exposed to dire conditions and delays. The gradual decline in morale, evident from the minutes of the colliery consultative committee, was expressed in indiscipline resulting in a high number of accidents and frequent vandalism (often of safety equipment and alarms).⁴⁶⁶ This can be attributed initially to inexperience and frustration amongst young miners who, having received face training, were not getting a concerted period

⁴⁶² NCB, SD, Central Area, Woodend CCC, 11 December 1962- 26 May 1966, CB 55/30.

⁴⁶³ R. B. Dunn was brought into the Division from England in the early 1950s to lead the mechanisation drive. This, apparently, he did with a ruthless zeal and little consultation of either colliery managers or miners: NCB, SD, Central Area, Woodend CCC, 24 March 1965 and 26 May 1965, CB 55/ 30; Interview with Alistair Moore, Bo'ness, 12 March 2004.

⁴⁶⁴ NCB, SD, Fife Area, Fordell CCC, 7 April 1964 and 28 August 1964, CB 55/9; NCB, SD, Lothians Area, Burghlee CCC, 13 January 1960 and 18 January 1960, CB 55/4; NCB, SD, Fife Area, Kinglassie CCC, 4 September 1962 and 19 October 1965, CB 55/13; NCB, SD, Fife Area, Mary CCC, 21 October 1964 and 16 March 1965, CB 55/ 20.

⁴⁶⁵ NCB, SD, Fife Area, Fordell CCC, 24 March 1964- 20 October 1964, CB 55/ 9.

⁴⁶⁶ NCB, SD, Alloa Area, Glenochil CCC, 9 October 1957- 13 July 1960, CB 55/11.

working at the face (and the opportunity for remuneration).⁴⁶⁷ Their frustration was expressed in vandalism and risk-taking.⁴⁶⁸ As the future of the colliery hung in the balance, accident rates soared, with 116 accidents between March and June alone.⁴⁶⁹ This break-down of discipline seemed to be beyond the powers of the manager and the union agent to tackle.⁴⁷⁰ The fact that, as the NUM Agent noted, the closure, 'would come as no surprise to the men in the pit', made the job of maintaining morale a very difficult task, especially as the Division was increasingly unable to transfer men to other Scottish pits, let alone pits within travelling distance.⁴⁷¹

The preceding examples showed the conflict created, as Trevor Hopper et al. suggested, by the NCB's 'managerial labour processes', including the politicisation of relations between operational, tactical and strategic management levels.⁴⁷² They also illustrate the environment in which industrial relations took place, in particular, the impact on social relations at collieries when pressure was brought to bear on colliery management by Area management. The section has provided a direct link between NCB production policy, the parameters of which were determined at a national level, and the effects on collieries. It also starts to illustrate, as Zweiniger Bargielowska's studies show, that the presentation of colliery managers as tyrants is far too simplistic. The next section illustrates the other side of social relations at the colliery illustrated by unofficial bargaining, which, as preceding evidence in this and the preceding chapter have shown was prolific.

⁴⁶⁷ Ibid.

⁴⁶⁸ Ibid.

⁴⁶⁹ NCB, SD, Alloa Area, Glenochil CCC, 20 April 1960, 11 May 1960 and 15 July 1960, CB 55/11.

⁴⁷⁰ NCB, SD, Alloa Area, Glenochil CCC, 9 October 1957- 13 July 1960, CB 55/11

⁴⁷¹ NCB, SD, Alloa Area, Glenochil CCC, 14 March 1963.

⁴⁷² T. Hopper et al., 'Management Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process' in David Knights and Hugh Willmott (eds), *Managing the Labour Process* (Aldershot, 1986), p. 114.

II

Unofficial industrial relations at collieries

George Gillespie's recollection below provides an insight into how local negotiations were conducted at a small pit he managed, in Kilsyth:

In one of my first colliery manager's jobs, I also had a delegate called Jimmy Turnball. This occasion he came into the office and ... He said, "trouble in the ball coal. What are you going to do about it?" [George Gillespie, the manager], " Well, I've offered them a rate." [Jimmy Turnball], " Forget about that. What are you going to do about this guy who lost his pay?"

[Gillespie], " Well he left his work after two hours work, he walked out. He was lucky to get up the pit."

[Turnball], " Come on, this fella was not right. He got up on the wrong side."

[Gillespie], " He's had justice. He's been paid according to the time he spent in this pit."

[Turnball], " He's got justice, has he? I remember when I was a young man and work was scarce. I got work as a stoker on a cattle boat."

[Gillespie], " What's this got to do with the price of fish?"

[Turnball], " Just hear me out! Me and a friend got a job on this boat, Liverpool to New York. So we were on this boat sailing into New York... and I could see this angelic woman standing twenty foot high with a set of scales and a sword. And my friend said, " That's the American courts." And I looked closely and you know what, Mr Gillespie, one of her eyes was closed. She was winking at justice. What about it Mr. Gillespie?"

And, silly bugger, I gave him the money.⁴⁷³

George Gillespie also related how in another pit in Ayrshire, he used to have pre-meetings, before the pit meetings, with the NUM branch secretary, in offices out of sight of the colliery, to settle on an agreement so that they could take separate stands at the meeting and not be seen to concede ground.⁴⁷⁴ The Branch Secretary in question confided in him, " I don't want things to go to Edinburgh. I don't want my failures and cases to go to Edinburgh."⁴⁷⁵

⁴⁷³ Interview with George Gillespie, Newtongrange, 14 August 1999.

⁴⁷⁴ Ibid.

⁴⁷⁵ Ibid.

This correlates with evidence collected by Ackers and Payne about colliery level negotiations in Nottinghamshire, South Yorkshire and Warwickshire, Saxena's studies of South Wales collieries and Krieger's evidence from Durham and Nottinghamshire, which also reflect the wish amongst colliery managers and local NUM officials to keep negotiations at the colliery.⁴⁷⁶ The imposition of wage agreements and national targets was underpinned by an increasingly tough stance taken against managers, who contravened these regulations. Alistair Moore recalled the case of a promising young manager whose decision to set up a wage agreement with the local union agent at Bilston Glen colliery, without consulting his superiors, led to his career progression being blocked afterwards.⁴⁷⁷

Given the number of disputes arising from local agreements, the reaction of senior managers to this manager's initiative, especially at one of the Division's new flagship collieries, was predictable. Problems with locally devised agreements were especially pronounced with the introduction of semi-mechanised systems into collieries, as the example of Polkemmet Colliery illustrates. In the early 1950s, Polkemmet was held up as a shining example for the Division of semi-mechanised production, with Divisional production staff complaining about other colliery managers' reluctance to follow the example set at Polkemmet:

It is found that in the course of general discussions most managements agree on the need for mechanisation but when it comes to application a certain amount of apathy is apparent. To what extent this is due to lack of enthusiasm or general frustration arising from labour difficulties is conjectural but it is undeniably true that a large number of managers are reluctant to make any changes that might precipitate any dispute with the workmen. On the other hand any changes may mean "more bother" and it is frequently easier to maintain existing routine,

⁴⁷⁶ The proliferation of this practice in Scottish pits is illustrated by the numerous seam agreements in operation (see earlier references in the chapter: Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering the Colliery Consultation Minutes of the Nationalised British Coal Industry, 1947-74', pp. 72, 84-5; Joel Krieger, *Undermining Capitalism: State Ownership and the Dialectic of Control in the British Coal Industry*, (Princeton, 1983), pp.102-256; S. K. Saxena, *Nationalisation and Industrial Conflict. Example of British coal-mining* (The Hague, 1955) pp.170-185.

⁴⁷⁷ Interview with Alistair Moore, Bo'ness, 12 March 2004.

particularly as excuses in most pits are not difficult to find. For example personnel from other areas have from time to time visited Polkemmet and inspected the "flighting" face. They are usually agreed on the possibilities and actually acquire sets of flights, but it is difficult to understand why they are not installed.⁴⁷⁸

Yet by 1963, Polkemmet experienced 18 strikes in one year, apparently over wages.⁴⁷⁹ Polkemmet Colliery was one of the Board's major reconstructions, one of Scotland's largest pits and one of biggest producers of high-grade Scottish coking coal. In the early 1950s four faces in the Jewel Seam were converted for flight-loaders.⁴⁸⁰ However, the introduction of the flight-loading equipment had displaced some strippers from the face, and the colliery manager conceded a spare strippers wage to these men to compensate them.⁴⁸¹ This was subsequently increased, in line with other strippers.⁴⁸² In the knowledge that other mechanisation experiments were being carried out in the pit, the Polkemmet miners called for all contract workers displaced by mechanisation to be given the spare stripper's rate (compensating them for the loss of earnings).⁴⁸³ The success of the Lambton-Flights at the colliery initially increased the Divisional Board's enthusiasm for flight-loading and increasing mechanisation more generally.⁴⁸⁴ However they wanted management in the pit to achieve manpower savings, which were affecting the productivity for flight-loaded faces and preparatory work.⁴⁸⁵ Ultimately, the thinning of coal in the Jewel Seam meant that flight loading had to be abandoned and handfilling returned to.⁴⁸⁶ The decision to switch to power-loading on some faces in the pit, taken at Divisional level, considerably reduced the number of

⁴⁷⁸ NCB, SD, EB, Papers, Memo from H. H. Wilson to Production Director, 26 November 1953, CB 41/ 19.

⁴⁷⁹ R. Church and Q. Outram, *Strikes and solidarity*, Table 12.7.

⁴⁸⁰ NCB, SD, EC, policy papers, 12 December 1957, CB 44/ 28.

⁴⁸¹ Ibid

⁴⁸² NCB, SD, EC, minutes, 1 April 1952, CB 42/4.

⁴⁸³ Ibid.

⁴⁸⁴ NCB, SD, EC, papers, 26 November 1953, CB 41/19; NCB, SD, EC, policy papers, 18 December 1957, CB 44/ 28.

⁴⁸⁵ NCB, SD, EC, policy papers, November 1957, CB 44/ 28.

⁴⁸⁶ NCB, SD, EC, policy papers, 19 December 1957, CB 44/28.

shifts available whilst at the same time the colliery was being plagued by diminishing faceroom. Consequently, the income of many faceworkers, after several years of imposed fluctuations, was lower than they had previously been used to and job reallocation meant that some were unlikely to achieve their former earning power.⁴⁸⁷ The rancour caused at the colliery was not exclusively confined to wages but also to changes in work methods and organisation. Equally, the colliery management had chosen to concede compensatory wages to implement changes in methods and were then pressurised by senior management to reduce the wage bill.⁴⁸⁸ In addition, managers were expected to do this in the face of increasingly unsuitable physical conditions. Polkemmet not only had a track record of numerous wage claims and stoppages but also of political consciousness amongst miners.⁴⁸⁹

At other collieries, local bargaining was popular because of traditions at the pit, based on size and familiarity. Gillespie, for example, attributed relations at the Kilsyth pit to this.⁴⁹⁰ This was also the case at Bedlay Colliery, where relations between miners and management were very cordial. Indeed the NUM branch secretary actually led calls for increased productivity.⁴⁹¹ The pit was also the centre for the first and only concerted attempt, after nationalisation, to set up a breakaway union from the NUM.⁴⁹² This may well be explained by the fact that the pit had been owned, prior to nationalisation, by Wm. Baird's and Company.⁴⁹³

⁴⁸⁷ NCB, SD, EC, papers, 13 August 1964. CB41/ 66.

⁴⁸⁸ Ibid.

⁴⁸⁹ NUM, Scottish Area, Minutes of the Executive Committee and Special Conferences, (1949-50), pp. 247, 264, 407 and 557; NUM Scottish Area, Minutes of the Executive Committee and Special Conferences, (1950-1), pp. 420-1.

⁴⁹⁰ Interview with George Gillsepie, Newtongrange.

⁴⁹¹ NCB, SD, Central Area, Bedlay CCC, 18 March 1963, CB 55/3.

⁴⁹² The Union of Democratic Catholic Mineworkers was to have been built from the existing Catholic Miners' Guild. Bedlay was also a hot-bed of anti-Communist activity and was regularly in conflict with the NUM Scottish Area: A. Perchard, 'Bonnie Fighters': Class consciousness and solidarity in the Scots coalfield, 1947-60', pp. 51-3.

⁴⁹³ Bairds employed a very patriarchal style of management, see chapter 3.

Unofficial negotiations were inherent at collieries throughout this period in Scotland for a variety of reasons. One of the main reasons for this was that both colliery management and local NUM branches were keen to avoid interference from above. Furthermore, miners and management had every reason to be suspicious of official machinery. Equally, given the number of strikes, wage drift and the tendency for colliery management to concede more at a local level, it is understandable why tactical and strategic NCB management wanted to curtail these practices. However, the other main reason for the NCB's attempts to put an end to local bargaining was that it wanted greater, and more centralised, control over the labour process. Quite evidently, this was not popular with colliery management, junior officials and mineworkers, as it gave greater control to the Board (and senior NUM officials) at the expense of their own control and discretion over the social relations at the point of production.

III

Managerial outlook on industrial relations

The NACM's national president for 1952, G. H. Jones, stated in his address to the association's annual general conference that:

The way in which management is viewed both by managers and men has been changing in recent years. The idea of managerial authority with unquestioned obedience, of an almost military authority, imposing the will of the manager upon the managed is going. The idea of political democracy cannot go side by side with that of industrial dictatorship. A manager has to recognise that power resides in his office and not in him as a person... I do not mean to say that the manager should not exercise his power and authority- far from it- but he must remember that he was not elected to be the boss.⁴⁹⁴

⁴⁹⁴ G. H. Jones, 'Sixty Years of Labour Relations in Coal Mining', *NACM*, XLIX, 1952, p. 17.

As chapters three and four suggested, most colliery managers' attitudes to labour on the eve of nationalisation were fairly patrician. Equally, whilst it has been established that the stereotype of colliery managers as the village tyrant was not accurate, as Benney's manager suggested, managers were not wholly enthusiastic or well equipped to cope with the changed realities of industrial relations under nationalisation and with a resurgent labour movement. As chapters two to four established, many of the colliery managers in post on 1 January 1947 were largely practically trained men who had worked as miners. Equally, a fair number of mine management were fairly sceptical of management theory and education, other than the technical variety. And despite the public discussion of management philosophy throughout this period, many continued to hold more store by an individuals' innate qualities. An example of what were considered by some to be excellent natural prerequisites for aspirant managers was offered by G. H. Jones in his 1952 address:

As I look back over the years and think of the successful managers I have known, I have been struck by the fact that they had some personal qualities in them which called forth the best endeavours of the men who worked for them, qualities of character, justice, generosity, of virtue and friendliness which made the tone of the pit.⁴⁹⁵

Fifty-two years later, Alistair Moore identified similar qualities amongst some managers he had worked with in the industry:

I've got to say that some of the friction at colliery level was caused by the attitude of management. And that's because some managers were more manpower friendly than others. It brings to mind a wee manager across in Fife. Now, he never had any friction at any of the collieries he was at because he understood men. Now there were other managers who beat their chest and said, "Now, I am the manager and you will do."⁴⁹⁶

Of the other mining professionals interviewed for this study, George Gillespie made it clear that he believed in a firm but fair hand to guide

⁴⁹⁵ Ibid.

⁴⁹⁶ Interview with Alistair Moore, Bo'ness, 12 March 2004.

colliery proceedings.⁴⁹⁷ A different definition again of a good man manager and an indication of his own management style employed was that offered by Bill Marshall, who was some thirty years younger than Gillespie and became a manager after the period under discussion here:

As an under-manager myself, I always tried to be straight with men. I was a hands-on guy. If there was a bad roof or something, I wasnae fiert of getting mucked about 'cos I wouldnae ask anybody to do what I wouldnae do maesel'. That was mae culture. So I put maesel' in harms way a few times... You got guys who relied on different ways of doing it- they delegated. But when it got hot, I didnae delegate, I was there. That was my way but I'm no the kind of guy that says, "No, I want you to go and do it. You use your judgment to do what you need to do and I'll stand back." I know other under-managers, a couple, who really got money for doing nothing, nothing, they just sat back and let it happen. I couldnae do that. And there was one of them and he was reviled by the men. That would be horrendous for me. The man was reviled. He had an office underground and the men used to go up and piss on his door. That was- he just didnae sparkle, he didn't get into the thing, he just sat back and didnae do anything.⁴⁹⁸

Alan Fox's detailed exploration and application of Keynes' affirmation, cited in chapter four, that, 'practical men, who believe themselves to be quite exempt from any intellectual influences, are usually the slaves of some defunct economist', to British management is illustrated by the following two remarks, made in the infant years of the NCB, from mine management professionals on management techniques:

The difference in types and capacities of the human machine makes it incumbent on the executive of an industrial concern to choose men suitable to the variety of jobs offered... Herein, therefore lies the need for the institution of personnel supervisory departments at every colliery to interview and select the most suitable type of workmen...The underground official, faced with what seemed to be a tremendous task, was apt to choose his best strippers to man the new machines and to take on the key positions, and in many cases disappointment and failure have resulted. Experience has taught the writer that a man with no preconceived ideas is the best type to put on any new class of machine.⁴⁹⁹

⁴⁹⁷ Interview with George Gillespie, Newtongrange, 14 August 1999.

⁴⁹⁸ Interview with Bill Marshall, Kirkcaldy, 21 April 2004.

⁴⁹⁹ This was presented to the Lothians Branch of the NACM: William Steele, 'Human Element in Coal Mining', NACM, XLV, 1948, pp. 90-1.

The essential need for successful management is the application of scientific methods towards the technical and human sides, scientific attitude being the establishment of facts as opposed to opinions and the ability to recognize and apply principles rather than rely on natural ability.⁵⁰⁰

What these illustrate is the diversity of opinion on the application of labour management amongst the mine management professions under nationalisation.

The litmus test of managerial opinion of relations with labour can also be gleaned from the practices of managers at colliery level, irrespective of the aforementioned parameters that they were working within, management education and age. The observations about George McAlpine, both as manager of Dollar Mine and latterly (and outside the focus of this study) as Scottish Area Director, offered at the beginning of this chapter may well be explained by the following insight into his incisive but sensitive management style:

It is also important to record some facts concerning manpower in order to understand fully the problems of this time. Various collieries had closed in the area, and as a result of this, the manpower force at Dollar comprised workmen and officials and tradesmen from all these collieries. Some of the men had mechanization experience, while others had none or very little. All were feeling the effects of redundancy and not unnaturally trade union unity was almost non-existent. Team spirit was very low and when in the first few weeks of No. 1 South going into production, two facemen were fatally injured in a roof fall, morale took another serious blow. Of all the achievements at Dollar since the beginning of 1961, I think the greatest has been the restoration of confidence; mutual confidence between man and management, confidence by the workmen in themselves, and confidence by all in the system.⁵⁰¹

Clearly, for McAlpine, understanding the colliery workforce's needs and sympathising with their difficulties, and using this to foster some mutual

⁵⁰⁰ 'Presidential Address', *NACM*, XLX, 1953, p. 7.

⁵⁰¹ G. McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, LX, 1963, p. 35.

understanding was critical to McAlpine's conception of management and may well explain what made him both a successful and popular manager. McAlpine makes for a good contrast with the very different conception of consultation-which reinforces Coulter's appraisal of consultation under nationalisation- offered by R. H. Tucker in his role as manager of Blairhall colliery:

Consultation has its place as a sounding board for workers' comments on the fortnightly colliery information broadsheet which gives details of colliery performance, plans and policies. But responsibility and control must be firmly kept within the managerial grip. The main decisions are always taken above the level of subordinates wherever they may be.⁵⁰²

In a similar vein, William Clarke, the manager of Lady Victoria colliery, proudly described in a paper on the effectiveness of his scientifically managed project for reorganisation of work and layout underground at his colliery, including the rationalisation of jobs at the colliery, how this was achieved with a modicum of consultation with the local NUM branch.⁵⁰³

Another illustration of the praxis of management style is offered by the comparison of two different managers' approaches at the same pit.

Kingshill No.1 in Lanarkshire was managed up until April 1966 by Mr. M. McParland.⁵⁰⁴ He was replaced after this date by Mr G. Hinshelwood, who managed the pit up until his death in September of that year.⁵⁰⁵

McParland's style was very obviously confrontational. He seemed content to use the threat of dismissal for non-attendance and actually dismissed a hutch mender, 'who was idle'.⁵⁰⁶ Furthermore, McParland showed little

⁵⁰² R. H. Tucker, 'Colliery Management in the Sixties', *The Mining Engineer*, February 1965, p. 309; See also: R. H. Tucker, 'The Changing Pattern of Mine Management', *The Mining Engineer*, May 1966, pp.527- 531.

⁵⁰³ W. Clarke, 'Progressive Reconstruction at Lady Victoria Colliery', *NACM*, LXI, 1964, pp.92-9.

⁵⁰⁴ NCB, SD, Central Area, Kingshill No.1 CCC, CB 55/12.

⁵⁰⁵ *Ibid.*

⁵⁰⁶ *Ibid.*, 1 February 1966 and 14 March 1966.

interest in the pit and failed to properly equip the pit.⁵⁰⁷ In contrast, Hinshelwood, who had managed Fortissat colliery for the Shotts Iron Company, seemed genuinely consultative, immediately took an interest in the pit and ordered equipment for the colliery.⁵⁰⁸ This also further illustrates that managers inherited from the private industry were not all the tyrants they were made out to be.

However, a description from James Grant, a retired Deputy, of his first encounter, as a junior official, with one of the undermanagers at Cardowan Colliery in Lanarkshire suggests that some managers continued to see a clear distinction between management and labour:

I was sitting with the men at piece time and this chap, the undermanager, came over to me and signalled for me to come out of the road and talk to him. I thought it was to do with the job.
 [Undermanager] "What are you doing?"
 [Grant] "What do you mean, what am I doing? I'm having my piece."
 [Undermanager] "Aye and you're sitting wi' the men."
 [Grant] "Well, what about that?"
 [Undermanager] "Well, where ah come frae we didnae do that."
 That gives you an idea of what was going on in the industry. They had an air of people that thought they were above you and that.⁵⁰⁹

Given the evident breadth of views and practice of managers in relation, shown by the preceding evidence, it is clear that a frank and public debate was necessary amongst the mine management professions about management style. The examples show the difference in approach taken by managers, which crossed lines of age and experience, with some managers, like Tucker and Clarke, who were enthused by talk of the rationality of scientific planning which closely mirrors Nicos Poulantzas' description of the modern manager.⁵¹⁰

⁵⁰⁷ Ibid.

⁵⁰⁸ NCB, SD, Central Area, Kingshill No.1 CCC, 19 April 1966, 9 and 16 May 1966, and 8 August 1966, CB 55/12.

⁵⁰⁹ Interview with James Grant, Moodiesburn, 3 April 2000.

⁵¹⁰ 'The directing role of the managers, the fact that they fulfil functions of capital and that they exercise directly the powers of these functions, is bound up with their situation in the hierarchical authority of the despotic organization of work in the factory, and also with their

Nevertheless, even Poulantzas' more thorough appraisal of modern professional managers, than that offered by his other Marxist contemporary, Ralph Miliband, is plainly inadequate as an all encompassing model for managers in the Scottish Division at this time.⁵¹¹ Furthermore, they are not applicable, given mine management professionals' own social background and the integral part many colliery staff, in particular, still played in the communities close to which they worked (and in some cases came from). As Mick McGahey noted (see earlier remarks), and Zweiniger- Bargielowska's respondents testify to, in some cases, managers clearly could not be divorced from the unique communities and industry, which had forged them.⁵¹²

situation in relation to the 'secrecy of knowledge' and 'bureaucratic secrecy' in the division between manual and mental work. These situations, in the precise forms that they assume in this case, are also so many determinants of the bourgeois class. This objective place of the managers in political and ideological relations cannot be reduced to simple characteristics of 'culture' or 'social milieu'; it is embodied in the specific ideology of these agents, which, in its form of 'economic rationality', 'efficiency of returns' and 'expansion', in short in the form of technocracy, is the currently dominant variant of bourgeois ideology', Nicos Poulantzas, *Classes in Contemporary Capitalism* (London, 1975), pp.180-1.

⁵¹¹ Ralph Miliband argued that managers were intuitively capitalist because they were drawn mainly from the propertied and professional classes and were driven by the profit motive. Poulantzas was particularly critical of what he saw as the simplicity of Miliband's behavioural interpretation of 'the lure of gain' for managers rather than acknowledging managers' role in the 'decision-making process' and their 'common culture' of which an objective category of 'profit' is the realisation of surplus-value, see: Ralph Miliband, *The State in Capitalist Society*, (London, 1969), pp.28-48; N. Poulantzas, *Classes in Contemporary Capitalism*, pp.178-9.

⁵¹² I. Zweiniger-Bargielowska, 'Industrial Relationships and Nationalisation in the South Wales Coalmining Industry', p.345; For further example, see obituary of one of her respondents: *The Times*, 'Phillip Weekes: Humane National Coal Board area manager who clashed with Ian MacGregor over the handling of the miners' strike in Wales', 3 July 2003, p.29.

IV

Conclusion

Nationalisation, contrary to Church and Outram's assertions, clearly did alter the nature of industrial relations at collieries over the period as a whole. Nevertheless, they, along with other academics, are correct to stress the continued and important role operational management played in industrial relations in the industry. The NCB's reform of the industry's industrial and business processes sought to diminish the role of colliery management, local NUM officials and rank and file miners in day-to-day social relations at the pit. Conversely, it was intended to strengthen the position of the NCB and the NUM's national executive council, through formal processes and procedures. However, this, as the chapter has shown, did not stop colliery managers and miners' representatives, at a local level, from conducting unofficial negotiations, even after the SPLA and NPLA. Furthermore, the NCB's *de jure* use of performance related pay, irrespective of conditions, must have encouraged local deals or, conversely, coercion in some pits.⁵¹³

Nevertheless, strategic and tactical managements' drives for mechanisation, at first, following by formalised day-wage systems, multi-shift production and the associated directions for use of method-study and increased supervision, placed considerable pressure on colliery managers. Furthermore, the NCB encouraged some Area managements to use the sanction of closure and of dismissal to force operational managers to comply with these changes. The fact that they could not, in some cases, because of conditions or did not want to because of the sake of labour relations at the colliery fell on unsympathetic ears at some Area and Divisional levels with officials keen to ingratiate themselves and advance

⁵¹³ See chapter five.

their own careers within the industry. At other pits, some managers enthusiastically complied for a variety of reasons. In the case of one Lanarkshire colliery, cited here, management and miners appeared to present a united front against Area officials who were intent on closing the pit. In addition, the NCB's own performance related pay scheme for colliery managers encouraged flouting of NCB industrial relations procedures, in some cases, to achieve targets. Ultimately, these changes did politicise the relations between operational and other levels of management.

Managerial attitudes to labour relations were as varied as the practice, although, as in other areas of management, Scottish mine management professionals did place great emphasis on natural qualities. On the other hand, clearly some mining professionals seemed enthused by both scientific management methods and human relations approaches. It is also clear that some colliery managers paid lip-service to consultation, whilst others fully engaged with miners and entered into the spirit of dialogue.

The chapter further illustrates the diversity of opinion amongst mine management professionals, the intractable problems of enforcing industrial relations processes on local management and miners (mirrored across the rest of the British coalfield and British industry), and continued importance of mine management professionals' role in the social relations of production in the industry (which has been little touched upon).

The ambiguity of control: mine management professionals and health & safety in Scottish coal mines, 1947-66.

I am still of the opinion that the clarification of duties is far from complete, that all orders and instructions to a technically qualified man relative to production should be given only by a superior with equal qualifications and that a team spirit should be developed, such that every man in an area in all circumstances knows that he has both the National Coal Board and the Area General Manager behind him. One question I am persistently asked and to which I am unable to have a satisfactory answer is "why is the manager or the Sub-Area Manager always the Goat? Why is the National Coal Board itself never prosecuted as owners? The old owners prior to Vesting Date were frequently joined as defendants in colliery prosecutions and the law is still the same?"¹

In some instances, it has been argued that the official who has failed from a safety point of view is in other respects an excellent servant of the Board. However, one of the prime duties of an official is to look after the safety of the men in his charge on behalf of the Board. If he fails in this, he fails to do his duty.²

The first of these quotes, an extract from a 1954 article by the then President of the BACM, Stanley Walton-Brown, was prompted specifically by a number of prosecutions, brought under the Coal Mines Act, 1911, of colliery managers, under-managers and Sub-Area Managers in the aftermath of accidents at Knockshinnoch Castle (1950), Kames (1953 rather than the later 1957 accident), Newcraighall and Glenraig collieries in the early 1950s. The significance of Walton-Brown's remarks lie both in their elucidation of the ambiguities of the statutory responsibility placed on colliery management, in particular, for safety in collieries, whilst the NCB faced no charges of culpability in the event of an accident, and the sense of persecution felt by colliery managers in Scotland, at the time, over prosecutions. The case of Kames Colliery, in particular, demonstrated the level of bitterness over the prosecution of the manager. The colliery

¹ BACM, *The National News Letter*, 29 November 1954, Vol. I, Part II, No. 29, p.1.

² Dr. Wm. Reid, 'Scottish Colliery Management', *Proceedings of the NACM*, XLVII, 1950, p.210.

manager at Kames was suspended by the Area General Manager and Area Production manager, following a fall of coal and an inrush from a disused heading in 1953, and was eventually found guilty of a failure to comply with the Coal Mines Act, 1911.³ In the meantime, a temporary manager was appointed but was directed, by the BACM, not to take up his post.⁴ After a meeting in May 1953 between the BACM, NACM and the Scottish Divisional Board- prior to the prosecution- it was agreed by the BACM that the manager, 'had failed to comply with good mining practice in this instance', and the new manager was cleared to start.⁵ However, neither the temporary manager nor his eventual replacement were able to take up post due to a boycott by the Ayrshire sub-branch of the NACM, who felt their position was vindicated by the fact that the District Inspector of Mines thought that the Divisional Board had been 'too sweeping in their actions'.⁶ Despite the criticism by managers and mining professionals at what they saw as the high handedness of Area and Scottish Divisional officials, H. R. King, the Scottish Division's Production Director, had actually delayed prosecutions (in the face of pressure from the NUM for legal action) because of the reaction of managers, who felt that the Board were taking action, 'against one of their own'.⁷ Given the fact that a subsequent investigation suggested that the Manager, along with a pumpsroom attendant (responsible for ensuring drainage of the area), had lied to the Inspectorate about the date of the last inspection of the accident area (an inspection was, in fact, long overdue), the Board's actions in appointing him as the under-manager in another pit (a demotion), rather than debarring him from the industry, could be argued to have been over-lenient.⁸

³ HM Inspectorate of Mines, Scottish Division [hereafter HMIM, SD], 1953, p. 4.

⁴ NCB, SD, EC, Minutes, 16 June 1953, CB42/5.

⁵ NCB, SD, EC, Minutes, 16 June 1953, CB42/5.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid; NCB, SD, EC, Minutes, 5 January 1954, CB42/6.

In the case of the Sub-Area officials and manager and under-manager at Newcraighall, in which all were subsequently acquitted, the Procurator Fiscal declared in his summation that, 'The manager had been badly let down by his subordinates'.⁹ It does seem that the management team was unfairly singled out. This fatal accident, which arose from a fall of roof in a roadway, was wholly the fault of the deputies and oversman in the district, who had countermanded both the manager and under-manager's orders for this part of the roadway to be shored up by a certain date, and had taken the extra men (directed to this task by both managers) off the work to carry out other tasks.¹⁰ Furthermore they had omitted this from their progress reports.¹¹

The Knockshinnoch Castle Colliery accident and subsequent prosecutions presents perhaps the best illustration of the sense of persecution that managers felt over personal statutory responsibility (and the absence of charges laid against the NCB for corporate liability), and the problems of communication within the NCB. In one of Scotland's most famous pit disasters and rescues, a sudden inrush of peat into one of the districts in this Ayrshire pit killed thirteen men and trapped a further one hundred and sixteen, who eventually emerged two days later after a daring rescue.¹² The subsequent enquiry blamed confusion, poor communication and a lack of clear understanding between the colliery management and Area and Sub-Area planning staff about whether to develop a district given its dangerous closeness to the surface.¹³ In the final fatal mistake, a trainee surveyor, at Group level, failed to raise his concerns about the

⁹ BACM, *The National News Letter*, Vol. 1, Pt. II, No. 28, August 1954, p.5.

¹⁰ Ibid.

¹¹ Ibid.

¹² Ministry of Fuel and Power, *Accident at Knockshinnoch Castle Colliery Ayrshire. Report on the cause of, and circumstances attending, the accident which occurred at Knockshinnoch Castle Colliery, Ayrshire, on 7th September, 1950* by Sir Andrew Bryan, J.P., F.R.S.E., H.M. Chief Inspector of Mines, March 1951, (Cmd. 8180), p.1.

¹³ Ibid, pp.8-9.

proximity of the district to the surface, confirmed by him in a surface inspection of the area over the district just a week before the accident.¹⁴ It became clear in the inquiry that there was confusion about where responsibility, under the new structures, lay for planning and that the apprentice surveyor had not been supervised.¹⁵ Apart from the fact that the Board was felt to have avoided its culpability in this case, the BACM nationally also subsequently, in light of other cases, criticised the joint defence given by NACM and BACM (Scottish Branch) representatives.¹⁶ The BACM National Executive stated that the defence afforded to managers involved in cases throughout the 1950s was undermined by the fact that the NACM was too close to the Scottish Divisional Board and consequently protecting the Divisional Board's interests over those of the managers.¹⁷ Scottish Divisional Board minutes certainly suggest that the NACM was close to the Board.¹⁸ However, given its position as one of the oldest professional associations in the industry with considerable technical knowledge on which the Board could draw, whether this was tantamount to complicity in shielding Board members from either criticism or prosecution was merely speculative. Clearly the importance of the comments of Walton-Brown at the beginning of the chapter, lie also in showing the attitude of older managers in the industry, who associated themselves with employers and were consequently shocked by what they saw as an attack from within.¹⁹ The sole prosecution of colliery and Group management, in the event of accidents, under the relevant legislation inevitably prompted colliery managers to see the benefits offered by BACM membership.

¹⁴ Ibid, p.9.

¹⁵ Ibid; Robin Page Arnot, *A history of the Scottish miners*, (London, 1955), pp.369-400.

¹⁶ BACM, National Executive Committee (NEC), Minutes from meeting at the Russell Hotel, London, 27 March 1958.

¹⁷ BACM, NEC, Minutes from meeting at the Russell Hotel, London, 27 March 1958.

¹⁸ NCB, SD, EC, Minutes, 8 April 1958, CB 42/19.

¹⁹ See discussion in chapter 8.

The comments of Dr. William Reid (in the second quote), at the time of publication, Deputy-Chairman of the Scottish Divisional Board, superficially suggest a strident attitude, taken by the NCB, at tactical and strategic levels, to safety. Nevertheless, the NCB, as a public corporation and managers' employer, had to be seen to be a neutral party in accident enquiries and the regulation of health and safety in the industry. In fact, as the example of the 1953 Kames case showed, and discussions between the Scottish Divisional and National Boards on colliery managers' autonomy on safety matters were concerned (see ensuing references), the NCB crossed that line. Furthermore, at a meeting between the BACM National Executive and NCB officials in November 1952, Sir Andrew Bryan, on behalf of the NCB, mooted the setting up of a defence fund for officials, which, he indicated, the Board could organise a loan for, but stated that, 'it was not right for the Board, as a public corporation, to undertake the defence of officials'.²⁰ The poignancy lies, though, in the implicit contradictions between NCB policies on safety and production (which this chapter will outline), and the dilemma which these presented to colliery managements.

The issues of statutory responsibility, personal liability, corporate culpability and individual complicity are intrinsic to the discussion of occupational health and safety. At the same time, all are in one way or another, subjective and open to interpretation or criticism. Yet, in judging the record of Scottish colliery managers on their safety record, it is critical that these four notions be engaged with. Furthermore the practice of occupational health and safety does not occur in a vacuum. W. G. Carson has noted that the policing of health and safety, since the nineteenth century factory acts, has plucked:

²⁰ BACM, NEC, minutes, meeting between BACM and NCB at Great Northern Hotel, London, 11 November 1952.

Issues such as health and safety out of the fraught... arena of industrial conflict... making them a matter of 'classless' state regulation. As a result of the above processes... safety as one category and industrial relations as another, took place.²¹

This intrinsic link between occupational health and safety and bargaining, at local and national, personal and collective levels, as part of the wider 'politics of productivity' were, as one historian has noted, a critical component in the daily struggle for control of the labour process in the coal industry.²²

In a moment of fiction mimicking reality, Barry Hines in his novel, *The Price of Coal* (based in and around a South Yorkshire colliery) describes the aftermath of a fatal explosion at his fictional colliery. As reports feed back to the NUM officials and colliery management, it becomes apparent that the cause of the accident was a motor being overhauled by an apprentice fitter, who had been left unsupervised whilst his colleague busied himself with the day's racing tips.²³ However, it also emerged that the colliery management had been putting pressure on the district deputy to get the face back to working order as quickly as possible as they were being coerced by Area management themselves.²⁴ This is recognisable in many of the incidents in these pages.

As it will become abundantly clear from the ensuing discussions, colliery management's response on health and safety was largely affected and influenced by the input from Area and Divisional management.

²¹ W. G. Carson, 'Hostages to history: some aspects of the occupational health and safety debate in historical perspective' in W. B. Creighton and N. Cunningham (eds.), *The Industrial Relations of Health and Safety* (Sydney, 1985), pp.64-5.

²² J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry, 1900-1960' in J. Melling and A. McKinlay (eds.), *Management, labour and industrial politics in Modern Europe: the quest for productivity* (Cheltenham, 1996), pp.146-7.

²³ Barry Hines, *The Price of Coal* (London, 1979), pp.113-4 and 147-8.

²⁴ *Ibid*, pp.164-5.

Consequently, occupational health cannot be divorced from the 'politics of productivity'.

Chapter aims and objectives

The main thrust of this chapter will be to examine whether Scottish colliery managements actively pursued, precluding unavoidable and unforeseeable accidents, policies which did their utmost to protect all employees within the colliery or whether they were negligent, not only according to the letter of the law but in terms of personal liability, in pursuing the best safety standards, including those which affected the long-term health of workers and officials, and if so, why?

In deliberating this central issue, it will examine a number of other questions. Firstly, how many accidents were attributable to other factors, both the unavoidable (such as unforeseen explosions in pits with no history of gas problems) or mineworkers or junior officials' negligence (although these could be analogous to management failures)? Secondly and, perhaps, most critically, can it be argued that, in contrast to the NCB's public commitment to safety, its drives for maximum output between 1947-1952, and productivity and efficiency gains accompanying the introduction of power-loading from the late 1950s onwards (especially in the context of colliery closures and concentration of production in the Scottish Division), compromised its assurances, both in their outlook and implementation, so that culpability for some fatalities and accidents can be directly laid at the door of various National Chairman in particular? Thirdly, to what extent was avoidable exposure to occupational hazards due to a 'culture of toughness' or a pit culture of familiar contempt for daily dangers? Fourthly, what gains were made in tackling, particularly in

Scotland, the industry's terrible safety record and to what extent was this the result of a combined effort on the part of colliery management, mineworkers, officials and unions? And finally, given the aspirations of the architects of the socialised industries, what light does this shed on the claims of the rationality of modern capitalist corporations, using safety as a measure?

Given the wealth of literature, both historical and technical, on health and safety in Scottish (and British) mines, it is not the intention here to cover areas of mines' safety exhaustively, but simply to use examples to inform the deliberations and arrive at conclusions on the aforementioned questions.

This chapter is divided into two sections. The first part tackles safety matters- namely those aspects, which relate to accidents affecting the short-long term safety of employees in the coal mine- and the latter occupational diseases, specifically focusing on pneumoconiosis and silicosis. The reasoning is that whilst the latter relies on a brief overview of the development of the body of scientific and medical knowledge, the former, whilst often informed by NCB researchers, could also be developed by and first adopted at collieries. Thus, whilst a strong understanding of the epidemiology and pathology of dust related diseases was heavily reliant on medical and scientific research, knowledge of and capability in how to tackle dangerous conditions was not monopolised by scientists, but equally by mineworkers, officials, colliery engineers, surveyors and managers, who, as well as having technical learning, had a tremendous practical knowledge, built up over years of working underground.

I

Health and safety in the Scottish coal mining industry, 1947-66.

Nationalisation did bring substantial improvements to health and safety in the industry and relief for the 'great army of bruised and broken humanity' who had become too familiar with temporary or long-term incapacity (and its associated social privations) from accidents and had attended too many funerals.²⁵

Nevertheless, 'the steady drip-drip of death' continued, punctuated by the intermittent traumatic heave of major accidents.²⁶ As one Scottish mineworker, and poet, in a poem written in the aftermath of the Auchengeich Colliery disaster in Lanarkshire in 1959, pleaded, 'So fireside cities, please, do not jeer- The price of coal has cost men dear.'²⁷

The NCB, under the directions of CINA, 1946, was charged with a duty to the health, welfare and safety of its employees. Some of the improvements to health and safety in pits occurred as a result of modernisation of pits, in particular, better layout, greatly improved lighting, ventilation, roof and wall support mechanisms and haulage (including an increase in man-riding facilities) underground. Others were due to a considerable commitment and concerted effort, on the part of the NCB, trade unions, mineworkers, officials, scientists, managers and the mining professions, to improve the understanding of pit dangers and occupational hazards through extensive research and development, and training programmes, which included reorganising existing and setting up new research establishments, namely: the safety in Mines Research Establishment; the

²⁵ See Herbert Smith's evidence to the Buckmaster Court of Inquiry on Wages, 1924, cited in Barry Supple, *The history of the British coal industry*, Vol. 4, p.426; W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.547-572.

²⁶ J. Benson, *British Coalminers in the Nineteenth Century* cited in Arthur J. McIvor, *A History of Work in Britain, 1880- 1950* (Basingstoke, 2001), p.119.

²⁷ John Morrison, *The Auchengeich Disaster, 1959*, unpublished poem provided by Eddie Henrey.

Central Engineering Establishment; the Coal Research Establishment; and finally (in 1969) the Institute of Occupational Health.²⁸ In addition, the Ministry of Fuel and Power established the National Pneumoconiosis Joint Committee and commissioned nationwide research into pneumoconiotic disorders.

Health and safety campaigns and best practice were disseminated and policed through the new networks of Divisional, Area and Colliery Safety and Consultative Committees, the greatly expanded (although still undermanned) Inspectorate of Mines, extensive publicity in NCB publications such as *Coal* and *Coal News*, the NUM Scottish Area paper, *The Scottish Miner*, trade journals like the *Colliery Guardian*, through the journals of the professional associations and mobile NCB exhibitions.²⁹ The NCB medical service, colliery medical centres, mobile X-ray units and a growth in Mines Rescue Stations and personnel offered much prompter responses to accidents and the diagnosis of occupational diseases.³⁰ The extension of pit baths, the introduction of canteens, improved social housing in mining areas and paid holidays also undoubtedly contributed to improving the health of miners and mining communities.³¹

Despite the fact that existing health and safety legislation, in the form of the Coal Mines Act, 1911, was dated and new legislation long overdue, the new duties, which the NCB was charged with under CINA, 1946, and the

²⁸ W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.114-5 and 549-572.

²⁹ Ibid; NCB, SD, EC, Minutes, 7 February 1956, CB 42/8; *Coal News*, Vol. 1, No. 2, July 1961, p.8; *Coal News*, Vol. 1, No. 3, September 1961, p.3; A. Winstanley, 'Dust Prevention and Suppression in Coal Mines', CG, Vol. 184, 24 April 1952, pp.487-491.

³⁰ J. M. Rogan (Chief Medical Officer, NCB), 'Medical Development and Medical Problems' in Sir Guy Nott-Bowers and R. H. Walkerdine, (eds.), *National Coal Board: The First Ten Years. A Review of the first Decade of the Nationalised Coal Mining Industry in Great Britain* (London, 1957), pp.95-100; Ashworth, pp.549-572; See also, HMIM, SD, reports, 1947- 1956 (and from 1957, HM Inspectorate of Mines and Quarries reports [HMIM & Q]).

³¹ W. Ashworth, *The history of the British coal industry*, Vol. 5, pp.525-547.

flurry of regulations (largely formulated and policed by the Mines Inspectorate, along with an increasing number of Workman's Inspectors) relating to almost every practice underground, issued from 1947 onwards, made ample prescription, at least in theory, (in the intervening years) for safety in mines.³² However, it was not until 1957 that a replacement for the CMA, 1911, was brought into force in the form of the Mines and Quarries Act, 1954. This legislation owed much to the Rockley Commission, although a significant influence, which has been neglected in histories, were the events surrounding the Knockshinnoch Castle Colliery disaster.³³ Despite Melling's suggestion to the contrary, the Reid Report also had a significant indirect positive (as well as negative) bearing on health and safety through some its observations, not least on ventilation, layout, haulage and prop setting.³⁴

The role of colliery managers in health and safety in the industry has largely been ignored by Ashworth's history, which overstates the exclusive roles of the NCB as a body corporate, and the Mines Inspectorate in improving health and safety, and misleadingly suggests that the NCB was willing to shoulder responsibility in the event of accidents.³⁵ And despite, his acknowledgement that the reciprocal relationship which the Mines Inspectorate benefited from with 'the men on the spot about the best way to conduct certain operations in particular', he has been scant

³² Melling, for example, laments the delay in introducing new legislation and argues that health and safety practice effectively stagnated in the early years of nationalisation and that in the end the Mines and Quarries Act, 1954 (which replaced the CMA, 1911) was simply an iteration of the findings of the Rockley Commission in the late 1930s. See J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry', in J. Melling and A. McKinlay, *Management, labour, and industrial politics in Modern Europe* (Cheltenham, 1998), p.153; Ashworth acknowledges in the delay in legislation but notes that a 'good deal of adaptation was achieved' through regulations, W. Ashworth, *The history of the British coal industry*, Vol. 5, p.553.

³³ Ibid; J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry', in A. McKinlay and J. Melling, (eds.), *Management, labour, and industrial politics in Modern Europe*, p. 164.

³⁴ Ibid; *Reid Report*, paragraphs 325-9, 336-461, and 502-519.

³⁵ W. Ashworth, *The history of the British coal industry*, Vol. 5, p.547.

both in his examination of the praxis of health and safety in mines and the role of colliery management and labour in addressing health and safety issues.³⁶ At a more fundamental level, Ashworth's account is flawed in that it infers that the health and safety improvements in the industry were almost wholly a victory for rational-institutional approaches.³⁷

Undoubtedly, the NCB's own corporate contribution was critical in driving forward and supporting advances in health and safety. However, in reiterating Coal Board claims that production and safety were like Siamese twins, Ashworth does not acknowledge the often-glaring ambiguities between policies on these two matters.³⁸ Equally, he chooses to avoid the impact that this dichotomy could present to both colliery management and labour. In particular, this chapter will argue that the pressure placed on colliery management teams and labour to achieve greater productivity (in the face of colliery closures, concentration, redundancies and worsening conditions underground particularly in the Scottish Division), by a triumvirate of NCB Chairmen, starting with Sir Hubert Houldsworth but pursued with even more vigour, after the late 1950s, by Sir James Bowman and Alf Robens, compromised safety procedures in pursuit of efficiency gains and productivity targets. In this climate, colliery management, officials and mineworkers were often singled out for blame in relation to accidents, in reports which glossed over employer culpability.

Melling's study of safety and supervision in mines, which primarily focuses on the Scottish coalfield, quite rightly links them with the 'politics of productivity', although he overstates the amount of inertia in either the Scottish or British coalfields, under nationalisation, between 1947 and

³⁶ Ibid, p.552.

³⁷ Ibid, pp.547-558.

³⁸ Ibid, p.549; See references on pp.363-4.

-1960, to tackling safety.³⁹ Melling's account does not undertake a thorough examination of individual complicity and liability, and NCB culpability, due to the limitations of space in a small study.⁴⁰ Similarly, the alliances of union and management, in common interest against competitive threats from other divisions (which gained added poignancy in the Scottish coalfield from the late 1950s onwards), could also play a part in affecting the vigilant policing of health and safety practice in collieries.⁴¹ Equally, the role of the individual, whether manager, junior official or mineworker, affected the praxis of health and safety measures, for example, care taken in setting props (positive), over familiarity and attempt to show control over environs (fostering carelessness) or smoking underground (both negative).⁴² In the case of the latter two points, the example set by the manager, in language and behaviour, as important as his formal circulated procedures, was critical to safety, especially in the tough, and exclusively male, enclave of the pit.⁴³ Health and safety practice also needs to be seen against the backdrop of the drive for maximum output and shortages of materials (for example, wood and steel for props and roadway girders respectively), between 1947 and 1953, and budgetary constraints, the failure of key development projects and the closure programme in Scotland from the late 1950s onwards.

³⁹ J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry', pp.146-152.

⁴⁰ Ibid.

⁴¹ For a parallel and examination of concepts of a united union-management front at operational level see: Michael Burawoy, *Manufacturing Consent. Changes in the Labor Process under Monopoly Capitalism* (Chicago, 1979), p.190; Similarly, this can be explained by the concept of the 'bureaucratization of workplace trade unionism' see: Richard Hyman, *Strikes*, p.214; Christine Edwards and Edmund Heery with Margaret Bird, *Management Control and Union Power. A Study of Labour Relations in Coal-Mining* (Oxford, 1989), pp.105-193.

⁴² See F. H. Moorhouse, 'The 'work ethic' and 'leisure' activity: the hot rod in post-war America', in Patrick Joyce (ed.), *The historical meanings of work* (Cambridge, 1987), p.242.

⁴³ M. Roper, 'The cult of toughness', *Masculinity and the British Organisation Man since 1945* (Oxford, 1989), pp.105-131.

Ultimately the praxis of health and safety was acted out at colliery level, yet increasingly, with the introduction of the SPLA and NPLA and more rigid targets, the nexus of wage-labour transaction determined at Divisional and National level prescribed the rules. However, Scottish colliery managements' responses varied. For some colliery managers, apparent from the evidence presented in the two preceding chapters, a market model, achieved through what they perceived as the sanitised rationality of unit costing (measured in productivity targets and efficiency gains), was the driving force, with a blind eye turned to faces choosing to ignore Managers' Rules (sets of procedures published, and displayed around the colliery, by the colliery management for all working practices). Other colliery managements were more zealous in their pursuit of stringent health and safety measures. However, the following comment by a retired NCB safety engineer and Superintendent of the Cowdenbeath Mines Rescue station provides a particularly illuminating insight into just how dependent safety was on production targets:

I think that whilst everybody was taking on board the need for improved safety, there were some colliery managers who would strive a little harder. Now there may have been various reasons for that: (a) Did the accident rate at their colliery reflect a problem which had to be resolved? *Because their productivity level was reasonable in comparison to other collieries, were they able to devote more of their attention to this aspect when suggestions were made to them at times [my emphasis]?⁴⁴*

This account by someone well placed to comment on safety in the industry somewhat contradicts claims by members of the National Board (such as Sir Hubert Houldsworth), the Scottish Divisional Board (in particular, Dr. William Reid) or the following comment by the National President of the Association of Mining Electrical and Mechanical Engineers, for 1951-2, F. J. Hopely:

Safety should always be the primary consideration in the coal mining industry. The Board has fully recognized this fundamental fact

⁴⁴ Interview with Frank Gibb, Cowdenbeath, 24 August 2003.

and has done much to increase safety and welfare. Nationalization admirably lends itself to setting up good standards of practice throughout the industry.⁴⁵

In the aftermath of the Knockshinnoch disaster, the National Board sent out a memo to all the divisional boards along with a draft directive suggesting that in future they would issue detailed instructions on the status and responsibility of management, planning and surveying staff.⁴⁶ This attempt to centralise direction was arguably designed with the best of intentions but was vigorously and, perhaps, understandably resisted by the Production Director of the Scottish Divisional Board who stated that if the Board insisted on issuing, 'detailed instructions on technical management and anything arose from these instructions the Board would necessarily have to accept due responsibility for these instructions.'⁴⁷ H. R. King subsequently insisted on the inclusion of the following paragraph protecting the colliery manager's statutory right to insist upon safety first and foremost (a form of which would later be included in the Mines and Quarries Act 1954):

Further, the Manager or Agent must be responsible and he is free to refuse to carry out an instruction if such refusal is, in his view, necessary from the point of view of safety.⁴⁸

In the same paper, King also insisted that references to terms of operation being, 'settled by higher technical management', should be replaced with the wording, 'settled after consultation with higher technical management', and that, 'it should also be made clear that, no matter what plan is decided upon, the responsibility for ensuring full compliance with the Coal Mines Act and the Regulations rests with the Agent and

⁴⁵ F. J. Hopely, 'Presidential Address: Four Years of Nationalization from an Engineer's Point of View', *The Mining Electrical and Mechanical Engineer*, July 1951, p.8.

⁴⁶ NCB, SD, EC, Minutes, 8 May 1951, CB 42/3.

⁴⁷ NCB, SD, EC, Minutes, 8 May 1951, CB42/ 3.

⁴⁸ NCB, EC, papers, Production Director's comments on National Board directive, 19 February 1952, CB 41/14.

Manager'.⁴⁹ This stance by King, reiterated in the concluding remarks (see below) of the Scottish Divisional Board's response to the NCB's minute and supported by most of the Scottish Divisional Board (but not the Labour Director) suggests some degree of empathy with the difficult position of colliery management:

It has been made clear in this Division that all plans for the working of a colliery must be discussed and agreed with the Agent and Manager. It would now be quite wrong for higher technical management to decide any plans for the working of a colliery without full discussion with the Agent or the Manager.⁵⁰

However, it still left Scottish colliery managements, through much of the 1950s, in a position of ambiguity, with the pressure to carry out plans and directives from higher management, whilst bearing the statutory responsibility for health and safety. Nowhere was this position given more poignancy than with the NCB's moves to intensify and plan work (through the use of work-study), the increase of mechanisation and the move to the intensified continuous mining methods, starting with Sir Hubert Houldsworth's 1953 directive.⁵¹ Despite occasional objections, the Scottish Divisional Board was, at best, complicit in implementing these directives and, at worst, active in pursuing them.

Consequently, as chapter five showed and ensuing evidence in this chapter illustrates, the NCB's policies of rationalisation, concentration and intensification sent out a very clear message to colliery managements that if they wished their colliery to avoid selection for closure lists, widespread redundancies (including their own) and, in some cases, to improve their chances of promotion and pay then production targets would have to be met and efficiency gains made at any cost.

⁴⁹ NCB, EC, papers, Production Director's comments on National Board directive, 19 February 1952, CB 41/14.

⁵⁰ NCB, EC, papers, Production Director's comments on National Board directive, 19 February 1952, CB 41/14.

⁵¹ See reference in chapter five, p.244.

This exacerbated existing problems of working under already difficult geological and physical conditions. The following examples of the conditions in a number of pits across the Scottish coalfield where mechanisation had been introduced give some indication of the difficulties and risks of working in these conditions. A memo from King in 1957, on the progress of mechanised seams at Bowhill and Blairhall Collieries, and Torry Mine in West Fife and Easthouses in the Lothians, revealed low productivity levels due to a combination of faulted seams, poor roof conditions and steep gradients.⁵² A retired deputy, and later manager, who worked at Seafield Colliery, describing the physical challenge faced by underground workers, particularly faceworkers, revealed that it was not uncommon for it to take forty-five minutes in travelling time (both to and from the face) in sweltering conditions to reach the face.⁵³ He then went on to give a description of the working conditions on the coalface at the pit:

At Seafield, the faces were gradients of 1 in 1. I was a strong, physical man but even one trip up that face and you were knackered because the temperature was high. You were working in temperatures in the nineties and a gradient of 1 in 1. It was physically punishing.⁵⁴

Hazel Heughan described the demoralising effects of similar conditions to these on Shotts miners transferred to the Fife coalfield in her 1953 study.⁵⁵

Aside from the immediate dangers of working on a face with extremely steep gradients, in temperatures many human beings would be having to rest in, after having walked a considerable distance to work, the face teams then had to operate large, powerful and heavy coal-cutters and conveyors.

⁵² NCB, SD, EC, policy papers, 19 December 1957, CB 44/28.

⁵³ Interview with Bill Marshall, Kirkcaldy, 21 April 2004.

⁵⁴ Bill Marshall, Kirkcaldy, 21 April 2004; These conditions were confirmed in the account of another who worked as a Deputy at Seafield between 1964-1975 and provides details of the dangers of working in these conditions with machinery, see: Ian Terris, *Twenty Years Down The Mine*, (Ochiltree, 2001), pp.96 and 109.

⁵⁵ Hazel E. Heughan, *Pit closures at Shotts and the migration of miners* (Edinburgh, 1953), pp. 46, 50 -51.

The minutes of the Seafield Safety Committee reveal that the steep gradients, and presumably the heat and fatigue from both, did apparently account for a number of accidents from stumbling, slipping and falling.⁵⁶ Add to this, increasingly stringent production targets and you already had the conditions for tragic accidents caused by fatigue and conditions.

The following description of conditions at Glentore Mine in the Central West Area, from the same memo, mentioned on the preceding page, further illustrates the immediate physical and geological problems, and consequent potential dangers, of working in some pits even before intensification was introduced into the equation:

Throughout the year heavy roof water has been encountered and the coping with this water has been made more difficult by unexpected undulating faceline conditions. The working conditions in a seam 23" thick with falling stone above, soft pavement below, and water, have not been conducive to retaining manpower at a mine which is relatively isolated from communities.⁵⁷

The moves to pursue a policy of rationalisation, concentration and intensification of production, from the late 1950s onwards, under James Bowman and then Alf Robens, can only have added to the risk and discomfort of working under these conditions.⁵⁸ Key to intensified mechanised methods was, as chapter 4 has explained, the continuous mining process of power-loading, which relied on the uninterrupted running of the face and increasingly on speeding up the process to maximise productivity and realise efficiency gains. What is more, bonuses on power-loaded faces were dependent on no stoppages or delays (either

⁵⁶ NCB, SD, Alloa Area, Seafield Colliery Safety Committee, 29 April 1965, 27 May 1965 and 24 June 1965, CB 55/35.

⁵⁷ NCB, SD, EC, policy papers, 19 December 1957, CB 44/28.

⁵⁸ NCB, SD, EC, policy papers, letter from Sir James Bowman to Divisional Chairmen urging greater rationalisation and concentration of production on mechanised faces, 22 December 1958, CB 44/32; NCB, SD, EC, policy papers, letter from Alf Robens to the Scottish Divisional Board demanding that they speed up the closure programme, 17 April 1962, CB 44/37; NCB, SD, EC, policy papers, reply from Scottish Divisional Board outlining the heavy social impact of this policy, April 1962, CB 44/37.

intentional or unavoidable), as the following extract from the Scottish Divisional Industrial Relations Director, explaining the Scottish Power Loading Agreement (SPLA), shows:

The Agreement provides that for each individual face on which a P. L. machine is employed on cyclic operations, there shall be an agreed task representing a reasonable shift's work. A bonus is payable for the completion of this task within the normal shift. Where a P. L. machine is employed on *a continuous process, a bonus is payable for the completion of an agreed minimum task* (my emphasis).⁵⁹

Consequently, the bonus became dependent on the continuation of the process, placing pressure both on the face teams and other underground workers (pressured by faceworkers and officials to quicken their pace). This was worsened by Robens' introduction of the unrealistic 'coal face potential' formula and targets in 1964 to increase speed at which operations were carried out at the face.⁶⁰ Taken together with the descriptions of physical and geological conditions outlined earlier on in this chapter, it provides a good inkling of the potential for disastrous and tragic consequences. Indeed, it could well be argued that the fact that more fatalities and serious accidents did not happen was due, in no small part, to the vigilance exercised by and experience of many managers, officials and mineworkers. However, examples of accidents related to power-loaded faces that do exist, provide an equally graphic illustration of the effects of intensification, combined with fatigue and harsh natural conditions, which explodes the myth, in some cases, of exclusive personal carelessness and liability, and identifies areas of employer culpability.

Nevertheless, the considerable improvements made to health and safety practice in pits did noticeably reduce 'the terrible price men pay-for coal'.⁶¹ Despite the factory inspectorate's justified assertion that mining remained

⁵⁹ NCB, SD, EC, papers, 14 May 1963, CB 41/61.

⁶⁰ NCB, SD, EC, papers, 18 June 1964, CB 41/66.

⁶¹ John Morrison, *The Auchengeich Disaster*, 1959.

one of the 'least healthy working environments in the 1950s', the NCB, inspectorate, colliery management, officials and labour, and the trade unions' efforts were having some effect tackled in the Scottish coalfield.⁶² Between 1948 and 1958 alone, fatalities in Scottish coal mines were halved (see Table 8). Nevertheless, the number of fatalities in the Scottish coalfield still numbered thirty-two in 1958.⁶³ At the same time, the number of accidents in reality probably rose, as minor accidents were not properly classified after 1957.

*Table 8: Fatalities and injuries in Scottish coal mines, 1945- 1966.*⁶⁴

Year	Fatalities	Reportedly Injured (up to 1957)	Seriously Injured (after 1957)
1945-1947 (avg.)	71.7	263.3	
1948	64	293	
1950	66	241	
1952	61	283	
1954	60	278	
1956	50	222	
1958	32		230
1960	50		248
1962	40		195
1964	31		151
1966	22		127

⁶² Ronald Johnston and Arthur McIvor, *Lethal Work. A History of the Asbestos Tragedy in Scotland* (East Linton, 2000), p.54.

⁶³ HMIM & Q, SD, 1958, Appendix A.

⁶⁴ HMIM, SD, 1948, p.5; HMIM, SD, 1950, p.3; HMIM, SD, 1952, p.4; HMIM, SD, 1954, p.6; HMIM, SD, 1956, p.5; HMIM & Q, SD, 1958, Appendix A; HMIM & Q, SD, 1960, Appendix A; HMIM & Q, 1964, Appendix A; HMIM & Q, SD, 1966, Appendix A.

In an illuminating outburst, the Area General Manager of Alloa, Bill Rowell, suggested that many minor accident figures were attributable to 'malingering', which suggests a less than sympathetic climate in the Alloa Area, in which the true numbers of accidents were actually reported.⁶⁵ Indeed, Bill Rowell's remark (in response to accusations from both the NACODS and NUM representatives on the committee that safety was being sidelined in the drive for production), seen alongside his statement to the Alloa Area Joint Safety Committee in 1963, further show the ambiguity of higher management's statements on safety and production:

Because of a change of method at the coalface, it was vital that every job was done correctly, otherwise both safety and production suffered. Therefore, pressure on junior officials was not for production but for standards... There must be a drive on standards and not a drive on production at the expense of safety.⁶⁶

These comments were made, despite reports from the District Inspector for Mines and the NUM representative on the safety committee (based on interviews conducted amongst junior officials)- confirming the earlier accusations of NUM and NACODS representatives of the deleterious effect of mechanisation combined with productivity targets on safety- and evidence of the link between intensification of machine times on power-loading faces and safety lapses (shown later in the chapter) at Blairhall Colliery.⁶⁷ The effects of intensification of work practices, increased supervision, and resulting industrial fatigue, injuries and ill-health have been noted across Scottish industry in the period.⁶⁸

It should be noted, however, when judging both NCB approaches to tackling safety in mines and colliery managements' measures that they

⁶⁵ NCB, SD, Alloa Area Joint Safety Committee, 4 October 1962, CB 53/4.

⁶⁶ NCB, SD, Alloa Area Joint Safety Committee, 7 June 1963, CB 53/4.

⁶⁷ NCB, SD, Alloa Area Joint Safety Committee, 30 January 1964, CB 54/4.

⁶⁸ R. Johnson and A. McIvor, *Lethal Work*, p.54.

faced considerable material shortages both initially and latterly.⁶⁹ The demand for increased coal production in the early years of nationalisation, for industrial and domestic purposes, along with the continuation of locally devised bonus schemes placed a great deal of pressure on the industry and mineworkers, particularly underground, and may well have contributed to accidents at the face.

In addition, in light of further mechanisation, a number of other factors contributed to increasing accident rates, namely inadequate training received by faceworkers (who were often inadequately prepared for the new machinery), machinery ill-suited to the conditions (especially in Scotland, as the preceding evidence has shown) and junior officials who were not suitably qualified to supervise semi-mechanised faces (see references to accidents from this period). Further analysis of categories of accidents, combined with a combination of Inspectorate observations, NCB records and oral recollections suggests that the intensification of production methods, particularly at the coalface, latterly also contributed to a large number of accidents.

Some cases were attributable to a dereliction of duty on the part of some mine management professionals, either by failing to enforce their own rules or by turning a blind-eye to illicit work practices on the face in order to meet production targets.⁷⁰ Some mineworkers and junior officials were also responsible for countermanding the regulations set out in the

⁶⁹ NCB, SD, Central West Area [see references to boundary changes with the Division in chapter four], Development Committee, 10 January 1956, 26 March 1956 and 23 August 1958, CB 54/10; NCB, SD, Central Area, AGM meeting with Senior Managers, 20 June 1965, CB 54/11; NCB, SD, Central Area, Bedlay CCC, CB 55/3; M. Chick, *Industrial policy in Britain 1945-1951*, pp.41-71.

⁷⁰ In order to improve their PRP, advance their careers or protect their position, prevent closures of faces or the colliery and resultant redundancies.

Manager's Rules, to maximise earnings or by colluding in the oversight of regulations, where a face or colliery was in sanction.⁷¹

However, many of the individual and group abuses of health and safety regulations need to be seen, as this chapter has argued, within the context of considerable NCB policy directions for productivity, concentration and intensification, which made spurious the claims of NCB chairmen that production and safety were, 'twin partners striving for higher safety'.⁷² Viewed against figures for accidents per 100,000 manshifts, both pre and post nationalisation, this claim is highly questionable. In 1935, there were on average 70 accidents per 100,000 manshifts across the British coalfield, whilst the figure for the Fife Coal Company stood at 20 per 100,000 manshifts.⁷³ Meanwhile, figures for the East and West Fife coalfield, covering most of the same areas as Fife Coal Company, stood respectively at 103 and 80 accidents per 100,000 manshifts in 1951.⁷⁴ Whether this rise can be attributed to the effects of the National Insurance (Industrial Injuries) Act (1946), as Peter Bartrip has suggested for more aggregated figures for British industry, is not clear.⁷⁵ Similarly, as evidence about coal owners' opposition to screening of miners for pneumoconioses suggests, private coal companies records may well not have fully recorded the extent of industrial accidents.⁷⁶ That said, the Fife Coal Company did seem to have been a great deal more rigorous in collecting accident data.⁷⁷ Although these figures had dropped significantly by 1957, Scottish figures

⁷¹ See pp. 331 and 367.

⁷² Sir Hubert Houldsworth cited in H. Watson-Jones, 'Presidential Address: The Engineer, the Machine Age and the World Tomorrow', *The Mining Electrical and Mechanical Engineer*, July 1952, p.7.

⁷³ Samson was appointed as the Scottish Division's first Divisional Safety Engineer in 1959: T. R. Samson, 'Safety in Mines in Scotland', *The Mining Engineer*, March 1963, p.506.

⁷⁴ Ibid.

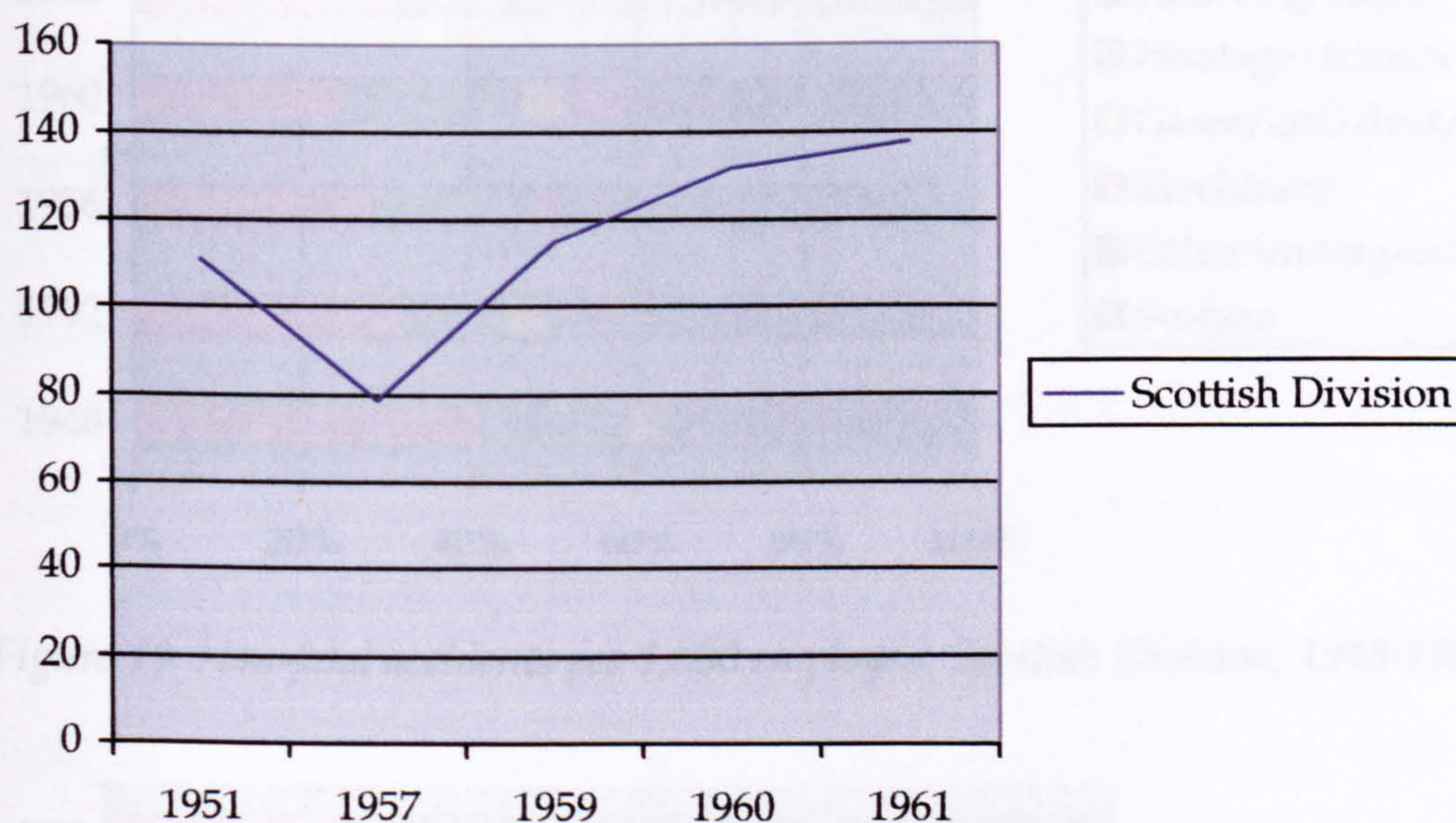
⁷⁵ Peter Bartrip, *Workmen's Compensation in Twentieth Century Britain*, (Aldershot, 1987); R. Johnston and Arthur McIvor, *Lethal Work. A History of the Asbestos Tragedy in Scotland*, (East Linton, 2000), pp. 51, 51, and 135-6.

⁷⁶ See chapter three, p.127.

⁷⁷ See chapter three, pp.101 and 102.

continued to rise throughout the 1950s and 1960s (see figure 17). At the same time it is interesting to note that figures per 1,000 employed in the industry suggest little change to the general trends in types of fatal or non-fatal accidents (see figure 18 and 19).

Figure 17: Frequency rate of accidents per 100,000 manshifts, Scottish Division, 1951- 1961.⁷⁸



The Scottish Divisional Board's explanation of the high number of certain types of accidents which continued to be prevalent combined the views of the Health Research Report, which suggested that across British industry at the time, 'given equal exposure to risk, roughly 75 per cent of recorded accidents happen to 25 per cent of the people exposed to them', and William Reid's estimate that the combination of a change in workplace for one third of the colliery workforce every twenty-four hours and poor

⁷⁸R. Samson, 'Safety in Mines in Scotland', p.506.

supervision led to higher accident frequency rates.⁷⁹ Evidently some, like Bill Rowell, felt these figures were kept artificially high by 'malingering'.

Figure 18: Fatal accidents by type per 1,000 employed, Scottish Division, 1948-1966.⁸⁰

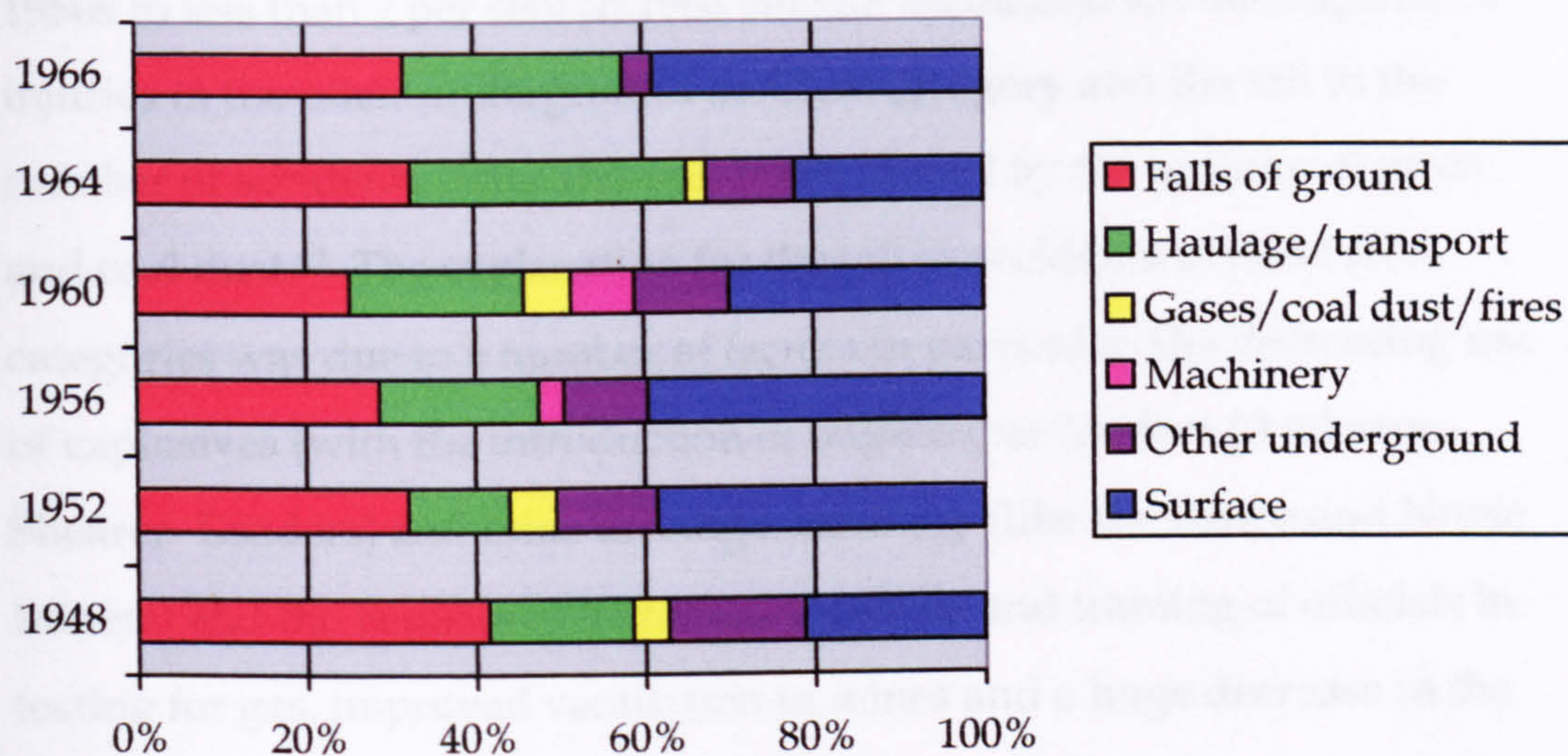
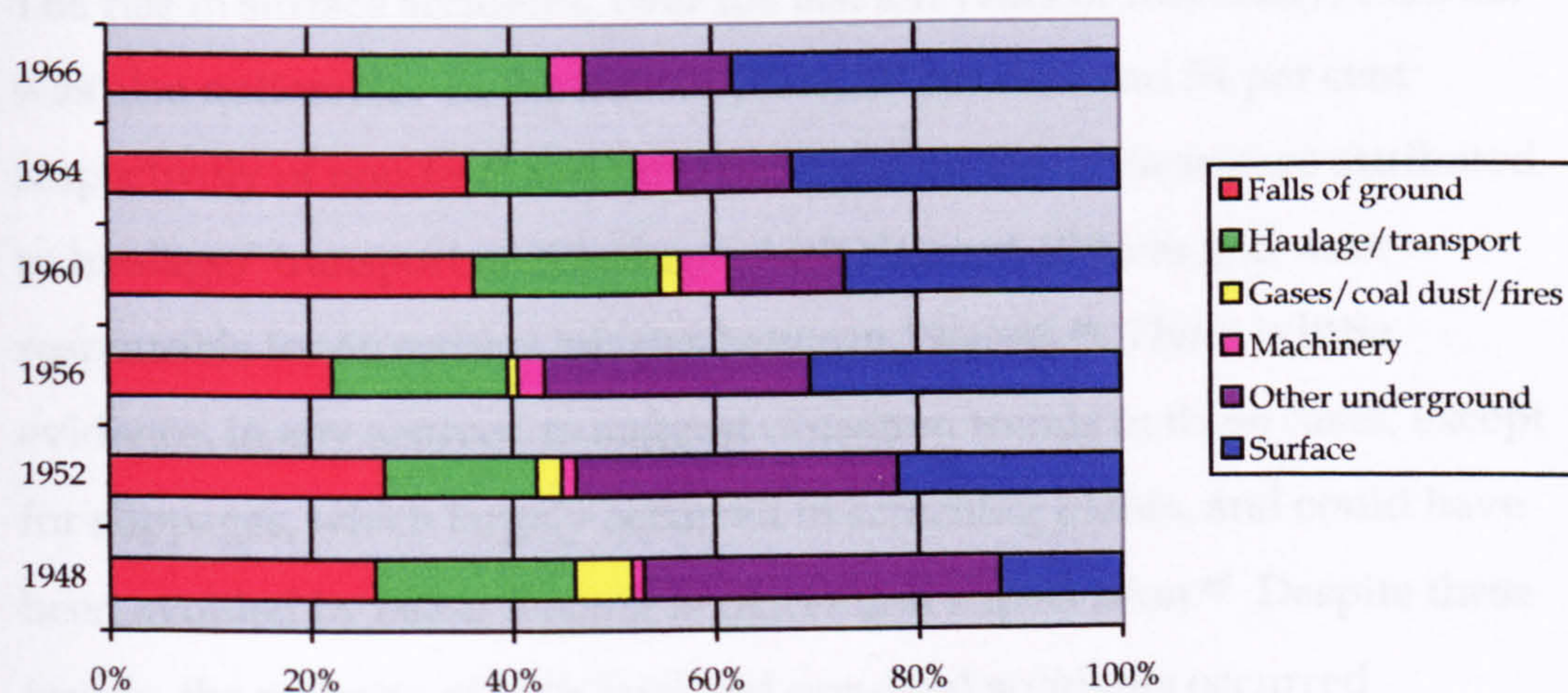


Figure 19: Non-fatal accidents per 1,000 employed, Scottish Division, 1948-1966.⁸¹



⁷⁹ T. R. Samson, 'Safety in Mines in Scotland', p.508.

⁸⁰ HMIM, SD, 1948, Table 11, p.7; HMIM, SD, 1952, Appendix B, p.22; HMIM, SD, 1956, Appendix B, p.25; HMIM & Q, SD, 1960, Appendix B, p.46; HMIM & Q, SD, 1964, Appx. B, p.36; HMIM & Q, SD, 1966, Appx. B, p.37.

⁸¹ HMIM, SD, 1948, Table 11, p.7; HMIM, SD, 1952, Appendix B, p.22; HMIM, SD, 1956, Appendix B, p.25; HMIM & Q, SD, 1960, Appendix B, p.46; HMIM & Q, SD, 1964, Appx. B, p.36; HMIM & Q, SD, 1966, Appx. B, p.37.

What is evident from these Scottish Divisional figures is a general long-term decrease in the category of other underground accidents. In particular, accidents involving shotfiring, which fell from accounting for around 25 per cent of all non-fatal underground accidents in the early 1950s to less than 2 per cent in 1966 yet still accounted for the majority of injuries in the other underground accident category and the fall in the number of accidents (fatal and non-fatal) caused by the ignition of gases and coal dust.⁸² The explanation for the fall in accidents in these two categories was due to a number of factors in particular, the decreasing use of explosives (with the introduction of more cutter-loaders (Anderton-Shearer-Loaders) and mine driving machinery (like the Dosco and Norse Miners) and the benefits of increased vigilance and training of officials in testing for gas, improved ventilation in mines and a huge decrease in the number of people using contraband underground.⁸³

The rise in surface accidents, over the last ten years of this study, 1956-66, was also noticeable. In the last six years, 57 per cent and 54 per cent respectively of non-fatal and fatal accidents on the surface were attributed to haulage/ transport or slipping, which claimed 10 lives and were responsible for 66 serious injuries between 1960-66.⁸⁴ There is little evidence, in any sources, to suggest causation trends in these cases, except for slippages, which largely occurred in screening plants, and could have been avoided by better fencing in places and supervision.⁸⁵ Despite these trends, the majority of both fatal and non-fatal accidents occurred underground, were attributable to falls of ground and underground

⁸² HMIM, SD, 1952, Appendix A, p.19; HMIM & Q, SD, 1966, Table 3, p.34.

⁸³ See discussion surrounding the Lindsay colliery disaster later on in the chapter.

⁸⁴ HMIM & Q, SD, 1960, Table 2, p.44; HMIM & Q, SD, 1961, Table 2, p.49; HMIM & Q, SD, 1962, Table 2, p.45; HMIM & Q, SD, 1963, Table 2, p.43; HMIM & Q, SD, 1964, Table 3, p.34; HMIM & Q, SD, 1965, Table 3, p.35; HMIM & Q, SD, 1966, Table 3, p.35.

⁸⁵ Ibid.

haulage and transport, and a growing proportion to machinery (see table 9).⁸⁶ Consequently, it is these that the chapter will focus on.

Clearly the fact that these three categories accounted, between 1948 and 1966, for an average of around 70 per cent of fatalities and 62 per cent of serious injuries makes them a high priority in terms of analysis. However, their relevance also resides in the peaks and troughs of incidences. In particular, the fact that the number of fatalities and accidents connected with machinery rose between 1957 and 1959 is illuminating given that this coincided with the period when power-loading machinery was being tested in the Scottish Division and the transition towards continuous machine cutting-loading methods was being made. However, arguably of even more significance is the fact that the greatest correlating peak for non-fatal accidents connected with all three categories coincided with the height of the Scottish colliery closure campaigns, the move to integrated cutting-loading systems and Robens' campaign for 'coal-face potential' between 1958-1965. This provides a useful starting point for the key hypothesis in this chapter, namely that National Board production policy, pushed through by Divisional and Area officials, with the complicity of managers, officials and mineworkers in some cases, played a critical part in undermining safety procedures.

⁸⁶ HMIM, SD, 1948, p.5; HMIM, SD, 1949, p.5; HMIM, SD, 1950, Appendix A, pp.19-20; HMIM, SD, 1951, Appendix A, pp.22-3; HMIM, SD, 1952, Appendix A, pp.20-1; HMIM, SD, 1953, Appendix A, pp.22-3; HMIM, SD, 1954, Appendix A, pp.24-5; HMIM, SD, 1955, Appendix A, pp.21-2; HMIM, SD, 1956, Appendix A, pp.23-4; HMIM & Q, SD, 1957, Appendix A, Table 1, pp.35-6; HMIM & Q, SD, 1958, Appendix A, pp.57-8; HMIM & Q, SD, 1959, Appendix A, pp.43-4; HMIM & Q, SD, 1960, Appendix A, pp.43-4; HMIM & Q, SD, 1961, Appendix A, Table 2, pp.47-8; HMIM & Q, SD, 1962, Appendix A, Table 2, pp.43-4; HMIM & Q, SD, 1963, Appendix A, Table 2, pp.41-2; HMIM & Q, 1964, Appendix A, Table 3, pp.32-3; HMIM & Q, SD, 1965, Appendix A, Table 3, pp.33-4; HMIM & Q, SD, 1966, Appendix A, Table 3, pp.33-4.

Table 9:
Underground
fatalities &
injuries, by
selected
major causes,
Scottish
Division,
1948-1966.

	Falls of ground (from roof or sides on face or roadway)		Haulage/ transport		Machinery		Total underground accidents	
	Fatal	Non-fatal (1948-1956); Seriously Injured (1957-1966)	Fatal	Non- fatal (1948-1956); Seriously Injured (1957-1966)	Fatal	Non- fatal (1948-1956); Seriously Injured (1957-1966)	Fatal	Non- fatal; Seriously injured
1948	31	73	13	63	-	4	59	281
1949	37	69	10	36	1	1	57	237
1950	21	56	12	41	2	7	63	219
1951	23	67	11	46	2	5	48	214
1952	30	91	9	50	-	5	52	260
1953	28	88	12	45	1	6	47	261
1954	31	81	12	54	-	5	53	255
1955	21	72	12	57	1	9	42	234
1956	20	63	13	49	2	8	42	197
1957	23	82	8	51	8	10	72	267
1958	15	95	9	60	-	13	28	213
1959	21	94	10	71	4	19	89	214
1960	16	113	13	57	5	15	45	226
1961	26	94	8	56	4	6	42	197
1962	18	87	12	53	1	7	37	182
1963	15	60	8	50	1	10	27	151
1964	12	71	12	33	-	8	29	164
1965	7	59	7	49	4	7	19	129
1966	10	44	8	34	0	6	19	110

Figure 20: Underground fatalities by falls of ground, haulage and transport, and machinery expressed as percentage of total underground fatalities, Scottish Division, 1948-1966.⁸⁷

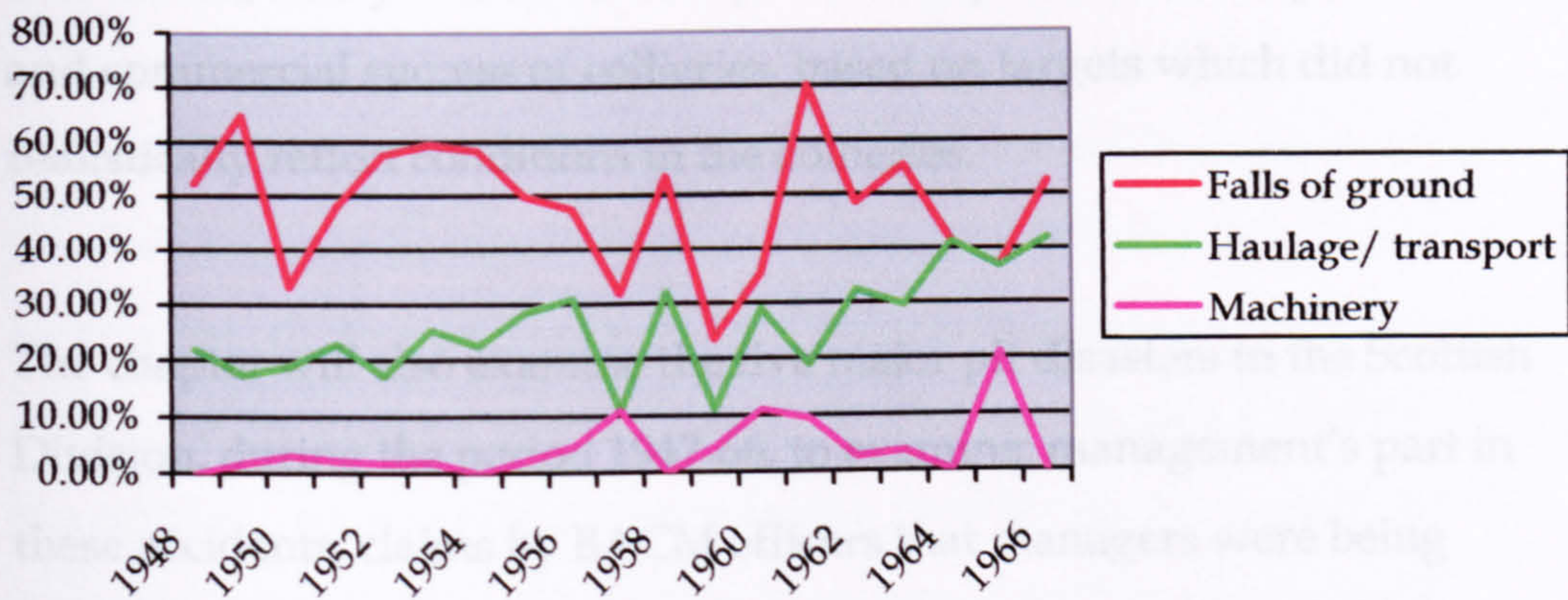
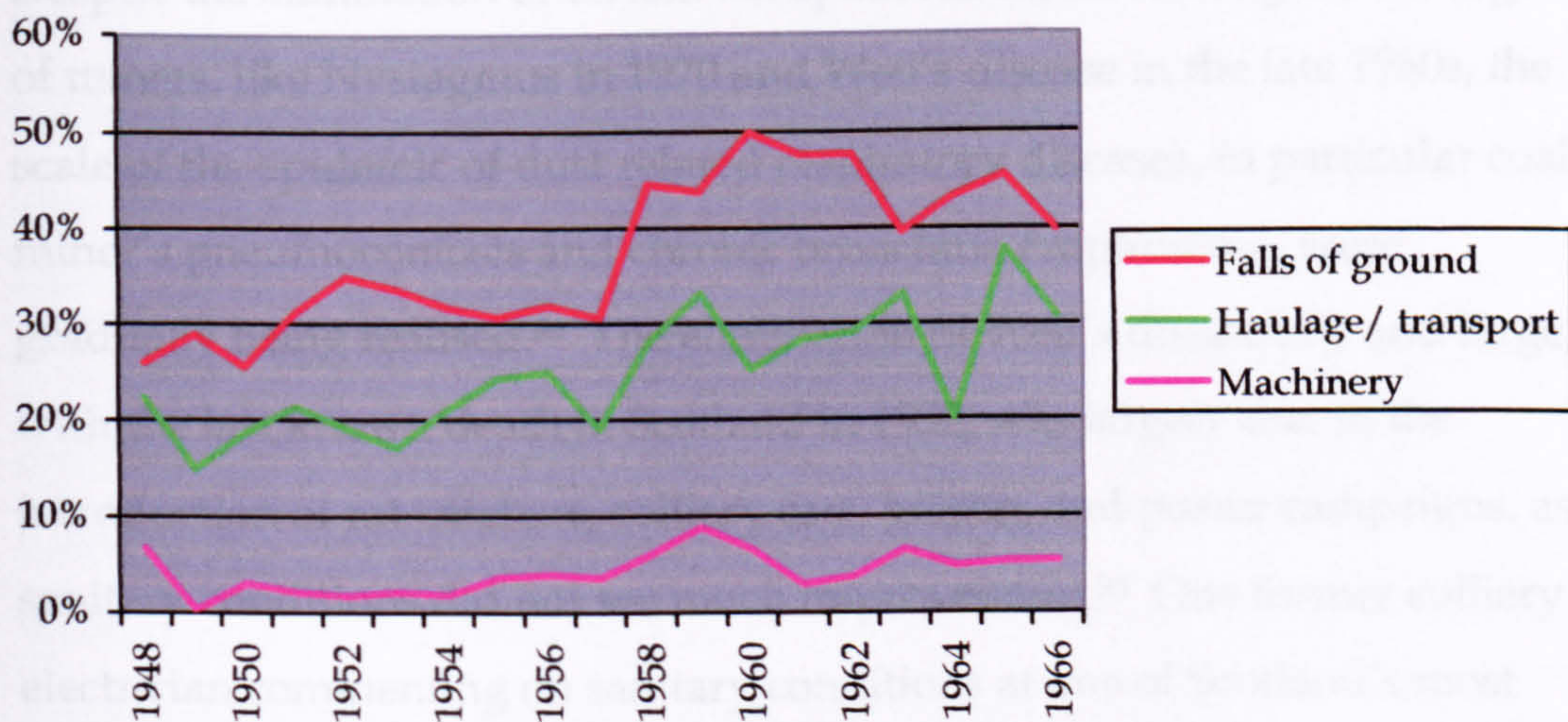


Figure 21: Underground injuries (figures represent serious injuries after 1956) by falls of ground, haulage and transport, and machinery as percentage of total underground injuries, Scottish Division, 1948-1966.⁸⁸



⁸⁷ HMIM, SD, 1948, p.5; HMIM, SD, 1949, p.5; HMIM, SD, 1950, Appendix A, pp.19-20; HMIM, SD, 1951, Appendix A, pp.22-3; HMIM, SD, 1952, Appendix A, pp.20-1; HMIM, SD, 1953, Appendix A, pp.22-3; HMIM, SD, 1954, Appendix A, pp.24-5; HMIM, SD, 1955, Appendix A, pp.21-2; HMIM, SD, 1956, Appendix A, pp.23-4; HMIM & Q, SD, 1957, Appendix A, Table 1, pp.35-6; HMIM & Q, SD, 1958, Appendix A, pp.57-8; HMIM & Q, SD, 1959, Appendix A, pp.43-4; HMIM & Q, SD, 1960, Appendix A, pp.43-4; HMIM & Q, SD, 1961, Appendix A, Table 2, pp.47-8; HMIM & Q, SD, 1962, Appendix A, Table 2, pp.43-4; HMIM & Q, SD, 1963, Appendix A, Table 2, pp.41-2; HMIM & Q, 1964, Appendix A, Table 3, pp.32-3; HMIM & Q, SD, 1965, Appendix A, Table 3, pp.33-4; HMIM & Q, SD, 1966, Appendix A, Table 3, pp.33-4.

⁸⁸ Ibid.

Furthermore, mineworkers, officials and colliery managements were, in many cases, victims of the context in which they were operating. As Frank Gibb noted, safety was an economy which depended on the production and commercial success of collieries, based on targets which did not realistically reflect conditions in the collieries.

The chapter will also examine the five major pit disasters in the Scottish Division, during the period 1947-66, to examine: management's part in these accidents; claims by BACM officers that managers were being victimised in some cases; and whether the NCB, as employers, had a case of liability to answer in any of these accidents.

Despite the elimination of certain occupational diseases, long the scourge of miners, like Nystagmus in 1970 and Weil's disease in the late 1960s, the scale of the epidemic of dust related respiratory diseases, in particular coal miner's pneumoconiosis and chronic bronchitis-emphysema, were gradually being realised.⁸⁹ The elimination of Weil's disease, by and large, with the last known death in Scotland in 1952, was largely due to the introduction of rat-catchers, colliery cats, poison, and poster campaigns, as sanitary conditions did not see much improvement.⁹⁰ One former colliery electrician commenting on sanitary conditions at one of Scotland's most advanced pits in the 1970s noted, '... millions of pounds of infra-red monitoring linked to computers and surface control rooms, remote operated faces, and, yet, there wasnae a place for you to go and take a sh*te because that would have taken up space, of course.'⁹¹

⁸⁹ W. Ashworth, *The history of the British coal industry*, Vol. 5, p. 561.

⁹⁰ HMIM, report, 1953, p.16.

⁹¹ Interview with Jim Goudie, Glasgow, 18 June 2004.

As the chapter shows later, by the early fifties, the time bomb of pneumoconiosis was finally being recognised. The NCB did devote considerable resources and effort to increasing knowledge of the epidemiology of pneumoconiosis and silicosis, and testing means and measures of tackling dust levels in pits, with various degrees of safety. However, in many cases, they were constrained initially by a lag in technology, limited understanding of pneumoconiosis in particular and mostly by the geology of the industry. In the end, despite suggestions to the contrary, improvements for reducing dust levels, once again, would emanate as much from the various branches of mining engineering combined with coalfield expertise as it became clear that dust suppression techniques successful in one pit were pitifully inadequate in another. Nevertheless, there are clear examples, used in this chapter, of good practice in tackling the dust levels amongst managers, mining professionals, junior officials, mineworkers and trade union officials. Conversely there are also examples, as with safety, of negligent practice in some pits amongst managers, officials, union officers and mineworkers. Once again, though, the pervading note is that of an economy of measures determined by Board production policy, which undermined the praxis of dust control. Other incubated occupational diseases, derived from working places and tasks, such as Vibration White Finger (VWF) and beat knee and elbow were also prevalent, the former increasingly so with the use of more machinery.

The terrible toll the coal industry exacted amongst the men, who worked it, so eloquently referred to in John Morrison's poem, was articulated by one of the retired managers, interviewed for this research, describing a recent visit to the mining town in Fife where he spent much of his childhood:

I was in Cowdenbeath the other day and I could recognise all the old miners, stooped bodies and broken spirits, ken?⁹²

Safety legislation

The Coal Mines Act (CMA), 1911, remained the principal safety legislation governing the industry, up until the inception of the Mines and Quarries Act, 1954, in 1957. Under the CMA, 1911, sole responsibility for safety rested with colliery managers, with lesser deputising arrangements for underground control and underground districts for under-managers and deputies respectively:

[e]very mine shall be under one manager, who should be responsible for the control, management and direction of the mine.⁹³

However, as the Rockley Commission had noted in the late 1930s, and despite explicit prescriptions under the CMA, 1911, interference from senior officials, which compromised safety and the manager's position, continued under nationalisation.⁹⁴ Assertions that safety prescriptions remained unaltered, in the early years of nationalisation, until the Mines and Quarries Act, 1954, though, are misleading (as the chapter has already illustrated).⁹⁵ In addition to prescriptions, under CINA, 1946, charging the NCB with the safety and welfare of their employees, scores of regulations on every aspect of colliery operations were issued in the intervening period between 1947 and 1957.⁹⁶ Collieries were also advised and issued directions by the Mines Inspectorate.⁹⁷

⁹² Interview with Bill Marshall, Kirkcaldy, 21 April 2004.

⁹³ *Coal Mines Act, 1911, 1 & 2, Geo. 5, c. 50, S. 2 (1).*

⁹⁴ For examples, see chapters two and three, pp.53 and 96.

⁹⁵ J. Melling, 'Safety, supervision and the politics of productivity in the British coalmining industry', p.146.

⁹⁶ W. Ashworth, *The history of the British coal industry, Vol. 5*, p.553.

⁹⁷ *Ibid.*

Despite the obvious concern amongst colliery managers about the loss of personal autonomy, and some mine management professionals, about the decline in influence of the mining professional associations, the Mines and Quarries Act, 1954, in particular, was to introduce a degree more clarification into the statutory regulations for the industry.⁹⁸ This crucial inclusion, prohibited, other than through the colliery manager, the owner or anyone acting on their behalf, the right to issue instructions to any employee in the mine.⁹⁹ Furthermore, it stipulated that:

Where a manager is of the opinion that the execution of the instructions [by the owner or someone acting on their behalf] would or might be likely to prejudice the safety or health of the persons employed at the mine (or any of them) or to impede him the discharge, in relation to the mine of any duty imposed on him by or by virtue of the Act.¹⁰⁰

However, the Act also allowed for managers to be 'subject to any instructions given to him by the owner of the mine.'¹⁰¹ The battle lines of control were established, in the Scottish Division, in the early days after the Knockshinnoch Castle disaster, as the chapter has already noted.

There is no evidence to suggest, and indeed testimony from a retired BACM officer for Scotland confirmed this, that Section 3 of the Act- allowing managers to refuse to carry out an instruction that they felt might be in breach of the Mines and Quarries Act- was ever invoked.¹⁰² Alistair Moore claimed that all officials would have refused to carry out any direct instruction which contravened the Act, and this was made clear at Planning Consultation meetings.¹⁰³ However, the evidence in this chapter

⁹⁸ For an example of the initial concerns of the professional associations: J. McCowat, 'The Presidential Address', *The Mining Electrical and Mechanical Engineer*, December 1950, pp.204-5.

⁹⁹ *Mines and Quarries Act*, 1954, Part II, S. 3 (2).

¹⁰⁰ *Ibid.*

¹⁰¹ *Ibid*, S. 2 (a) & (b).

¹⁰² Follow-up interview with Alistair Moore by telephone, 25 June 2004.

¹⁰³ Follow-up interview with Alistair Moore by telephone, 25 June 2004.

suggests that some of the discussion of health and safety issues took place on the peripheries of meetings and in a climate of veiled threats.

Falls of ground

The collapse of roofs, walls and sides, as table 2 and figures 4 and 5 show, was consistently responsible for the highest single category of underground accidents (around 80 per cent of those which occurred at the coalface) in the Scottish Division during this period.¹⁰⁴ What is more, it provides a good illustration of the ambiguity between NCB safety and production policy, the failure of some colliery managements to enforce their own support regulations, and the complicity, in some cases, of both officials and mineworkers (for shortcuts, to meet targets or to ensure maximum bonus) in cutting corners. In his report for 1966, the Scottish Divisional Inspector of Mines noted that in half of the cases that he had investigated that year, 'support which was clearly required had not been set', and went on to issue the following frustrated rebuke:

It is the duty of the manager to lay down rules to govern this kind of work. The sequence of operations and the method or methods by which each operation can safely be carried out should be specified, and illustrated if this is necessary. It is not enough to say "take care" and leave everything to "experience".¹⁰⁵

This confirms that high numbers of accidents due to falls of ground were due to negligence and that some managers failed to ensure that their regulations were being carried out. This would appear to be even more damning when considered against comments in the Divisional Inspector's report of two years earlier, in a year where accidents from falls of ground had risen to around 46 per cent of all accidents in Scottish pits:

All of these accidents would have been avoided if the work had been done in accordance with the Support Rules, but it is likely that in each case the men were following their usual practice. The manager's duty

¹⁰⁴ See HMIM reports, 1947- 1956 and HMIM & Q reports, 1957-1966.

¹⁰⁵ HMIM & Q, SD, 1966, pp.7 and 9.

does not begin and end with making Support Rules for his mine; he must be satisfied that they can be observed and, through his officials, he must ensure that they are being observed.¹⁰⁶

Despite the apparent culpability of managers and junior officials in failing to enforce safety rules, a more deep-seated explanation lies also in underlying reasons for either a tardiness or carelessness in setting props, revealed inadvertently in this account of the introduction of prototype Schwarz props into a newly mechanised face at Plean Colliery in the early 1950s:

This greatly lessened the men's task and incidentally increased the output from the face, since, all other being equal, *the rate of extraction is governed by the speed of erecting the roof supports* [my emphasis].¹⁰⁷

This shows an acknowledgement that prop setting held up the rate of advance on coalfaces and the implicit frustration with the time-delays this caused. Consequently the support of faces, sides and roadways was dependent either on the deployment of extra manpower or, as this mining engineer noted, time allocated for men, who could be cutting and loading, to attend to prop-setting. A case, highlighted in the Divisional Inspector's report of 1954, in which three machine men died on a Lambton Flight loader face (crushed by a fall of roof), points to a failure to set adequate supports because of preoccupations with getting back to the cutting run:

There seemed no doubt that one prop was broken and it is difficult to understand why steps were not taken to renew any broken supports and, indeed, set additional supports following the weighting before commencing operations again. There were several unsatisfactory features which contributed towards the fall, and these were in the application of the system of support rather than any weakness of the scheme itself.¹⁰⁸

The significance of the last two references lies also in the date of these comments, in that this followed both the NCB Chairman, Hubert

¹⁰⁶ HMIM & Q, SD, 1966, p.8.

¹⁰⁷ Duncan McGill, 'Working the Bannockburn Main Coal Seam at Plean Colliery with the Haarman scraper-peeler', *IME*, 1953-4, Vol.113, p.725.

¹⁰⁸ HMIM, SD, 1954, p.8.

Houldsworth's minute to Divisional Boards to increase productivity, using method-study, and NCB's Directions to increase mechanisation (see chapter five, 'increasing productivity').¹⁰⁹ As chapter five illustrated this was supported by a mechanisation drive in Scotland, led by R. B. Dunn. The failure of mechanised schemes, despite conditions, was blamed, by Divisional production staff, on managers and more pressure was placed on collieries to get results from these faces.¹¹⁰ The two preceding chapters have illustrated the escalation of this policy of mechanisation, concentration and intensification, directed by NCB Chairman, James Bowman and Alf Robens, the impact this had in general on collieries and the pressure which was placed on colliery managements, in some cases, to achieve this, sometimes in the most impossible of conditions. Furthermore, they illustrated how increasingly unattainable targets added further strain on colliery managers, officials and faceworkers. In particular, the way that bonuses (to both mineworkers and colliery managers) were awarded and the threat of closure encouraged or forced the flouting of safety regulations.

In the case of roof falls, this meant men working on the face side (particularly bad on power-loaded faces as they remained unsupported to allow the shearers a clear run of the face)- a practice which had been giving the Inspectorate cause for concern for some time due to the number of accidents- to ensure machinery continued working. This was reflected in the accident rates with 58 per cent of casualties from falls of ground at the coalface being on power-loaded faces by 1964.¹¹¹ In 1966, half of all accidents from falls of ground were on unsupported parts of the face,

¹⁰⁹ NCB, SD, EC, Memo from Production Director outlining memo from Sir Hubert Houldsworth, 'Production efficiency and work study', 6 January 1953, CB 41/17; NCB, SD, EB, Memo from Asst. Production Director (operations), H. H. Wilson, on progress of mechanised schemes, 26 November 1953, CB 41/19.

¹¹⁰ NCB, SD, EC, Memo from H.H. Wilson, 26 November 1953, CB 41/19.

¹¹¹ HMIM & Q, SD, 1961, pp.12-13; HMIM & Q, SD, 1964, pp.7-8.

which men were working under.¹¹² The Divisional Mines Inspector noted, in his report of 1961, the worrying rise in accidents on prop free front faces, largely those on which power-loading machinery was operating.¹¹³ In 1961 alone, seven faceworkers were killed and one injured by falls of ground whilst working on the unsupported face side.¹¹⁴ In a paper to the Mining Institute of Scotland in 1961, T. R. Samson, the Divisional Safety Engineer, and J. H. Paterson, the Scottish Divisional Mechanisation Engineer noted the increased safety risk, which had arisen with power-loaded faces even in spite of powered supports and link bars (and the implicit dangers inherent in intensification of power-loaded output):

In spite of the facility of use of hydraulic and mechanical props and link bars, the speed of power loaders is governed by the speed at which the support systems were developed in order to still further facilitate the setting of supports behind the power-loader. Many faces are now supported by this system expected that it will find general approval for rapid extension in the future. One of the main safety problems arising from the use of self-advancing supports on a prop-free front is the lack of space with some types of supports for men to travel up and down the face. There is the danger that, should the supports be set too close to the conveyor, it may not leave enough room for persons to travel with reasonable facility, so that they are tempted to cross the conveyor to an easier but less safe passage.¹¹⁵

One retired colliery manager, who worked on a power-loading team at Frances colliery between the late 1950s and early 1960s, described how rules relating to roof support and unsupported ground were flouted in a bid to keep the power-loaders and armoured flexible conveyors (AFCs) running:

At Frances Colliery, in the early days we used to have problems with a bit of bad roof or that, but oor culture, you always kept the machines going, you worked it, you kept the conveyor going, you worked on top of it. Now you're not supposed to do that, you're not supposed to go on the face side with temporary supports or things like that. These are all

¹¹² HMIM & Q, SD, 1966, pp.7-9.

¹¹³ HMIM & Q, SD, 1961, pp.12-13.

¹¹⁴ Ibid.

¹¹⁵ T. R. Samson and J. H. Paterson, 'Safety in relationship to mechanisation', *The Mining Engineer*, March 1961, p. 423.

things that stop things: The conveyor stops, the shearer stops, the coal stops.¹¹⁶

This confirms the view that in some collieries, safety rules, at the face in particular (both in terms of working under unsupported roofs but also standing on top of moving machinery), were undermined by production concerns. It is also worth noting that this colliery was in the Fife Area, which came under the Area General Management of T. D. M. Scrimgeour, who sacked a number of managers in his Area during the late 1950s and early 1960s for failing to meet productivity targets.¹¹⁷ At Blairhall Colliery, in the Alloa Area, under Bill Rowell's control, members of the colliery consultative committee also complained about time studies to be carried out on the time taken to erect supports.¹¹⁸ On the other hand, Bill Marshall also pointed out that he worked on faces, where men refused point blank to contravene managerial support rules.¹¹⁹

There were a considerable number of cases of roof and side collapses at roadways and roadheads, which owed more to a failure to carry out instructions to shore up roadways and insufficient inspections by junior officials and managers.¹²⁰ As the 1953 case at Newcraighall showed sometimes officials countermanded orders from the management for essential support work to be carried out to direct men elsewhere in the colliery.¹²¹ A visit to Overtown Colliery, by the Area General Manager for Central Area and the Group Manager ended with damning recriminations about the poor state of supports on some roadways, and a total absence on

¹¹⁶ Interview with Bill Marshall, Kirkcaldy, 21 April 2004.

¹¹⁷ See chapter six, p.238.

¹¹⁸ NCB, SD, Alloa Area, Blairhall Colliery CC, 24 May 1965, CB 55/2.

¹¹⁹ Interview with Bill Marshall.

¹²⁰ For example: HMIM, SD, 1954, p.9; HMIM, SD, 1956, p.7; HMIM & Q, SD, 1957, p.7; HMIM & Q, SD, p.11.

¹²¹ See p.330.

others.¹²² At Easthouses colliery, the colliery management, reporting back on an inspection of underground districts, complained about the failure on the part of some sections to improve prop-setting in line with the manager's Support Rules in view of criticisms which had been levelled by other members of the CC in their last visit.¹²³

On the other hand, the observations of the Inspectorate in a number of cases over the years were less than glowing about some colliery management's procedures for enforcing their own Support Rules or for making them easily understood.¹²⁴ Another element that should not be overlooked was the number of cases where risks were taken because of an apparent familiarity with conditions. This was particularly the case with men going into unsupported waste areas to salvage pit props.¹²⁵ Alistair Moore (whose job included that of accident investigator at one Lothian pit he worked in) recounted a story about a miner killed whilst setting props in an unsupported waste area, and concluded by saying, 'he was an experienced miner and should have known better. I suppose familiarity breeds contempt.'¹²⁶

Bill Marshall, as an adjunct to the remarks quoted earlier, defended those faceworkers who did take risks and officials who were complicit:

Now to compromise safety, the guys, I was talking about, working on top of the conveyor, they weren't stupid, they knew the dangers and they eliminated the dangers with their skill. The skill of their eyes, their hands and to watch what was going on about them and to do what needed doing- that comes down to the individual. And you'd some excellent face officials who had a rapport with their men when it came to doing that, so they were there as well, keeping an eye on it, to make sure

¹²² NCB, SD, Central Area, Overtown Colliery Consultative Committee, 13 April 1966, CB 55/24.

¹²³ NCB, SD, Lothians Area, Easthouses Colliery CC, 8 April 1964, CB 55/8.

¹²⁴ HMIM & Q, SD, 1964, p.8; HMIM & Q, SD, 1965, p.10.

¹²⁵ HMIM & Q, SD, 1961, p.11.

¹²⁶ Interview with Alistair Moore, Bo'ness, 12 March 2004; For examples of this and criticisms, see HMIM & Q, SD, 1960, p.10.

there was nothing silly going on. But, at the same time, letting the men get on with what they were doing, what they were capable of doing safely, not according to Support Rules.¹²⁷

Clearly, there were cases in which managers failed to enforce support rules, junior officials failed to ensure they were implemented or countermanded directions given by management, and mineworkers flouted them. However, equally apparent was the pressure, coming from the highest levels, to maximise the time spent on production. In addition, there were cases of ingenuity and extra care on the part of mining professionals, which saved lives. For example, the Chief Mechanical Engineer at Manor Powis colliery invented a temporary cantilever support, which could be put in place before packing took place on a shift, to protect those working on the face in the intervening period.¹²⁸

Haulage and transport

One former employee of the NCB's Institute of Occupational Health reminiscing on one of his trips underground, recalled how aghast he was when the colliery safety engineer jumped on a conveyor and invited him onto it in order to get from one end of the pit to another (a highly illegal but nevertheless common practice at many pits to save the long travelling distances and consequently fatigue).¹²⁹

Amongst the accidents directly attributable to pressures to eliminate delays and keep machinery running were those which occurred whilst materials were being shifted off the conveyor or when men were briefly working on top of the conveyor and the conveyor was started too hastily, or not stopped:

¹²⁷ Interview with Bill Marshall.

¹²⁸ HMIM & Q, SD, 1957, p.9; See also example of one colliery manager's special support procedures for dealing with especially bad faulting: HMIM & Q, SD, 1960, p.9.

¹²⁹ See Bill Marshall's comments about Seafield earlier in the chapter and references to Hazel Heughan's Shotts miners: Interview with Robin Howie, Glasgow, 28 May 2004.

Another danger in connection with cutter-loaders mounted on chain conveyors is that of the possibility of a man falling onto the moving flights of the conveyor and being carried into the moving flights of the confined space underneath the machine carriage. The main cause of this type of accident is that the face conveyor may be stopped for purposes outwith the face working and face personnel may stand on the conveyor to carry out some minor job. Should the conveyor start without warning, he may be dragged under the cutter-loader.¹³⁰

The comments of one bullish under-manager at Blairhall colliery, who complained about, 'some men on faces belling off conveyors [signalling for the conveyor to be stopped] without good reason', show how production culture could affect miners' safety.¹³¹ This is particularly significant given that there was increasing pressure coming from Alloa Area level management to increase turn around times on the face at Blairhall colliery, using the promises of Blairhall being tied into the Longannet project as an incentive, which the NUM representative and the manager were emphatic could not be achieved under the conditions at the colliery.¹³² The latter point was noted by the Scottish Division's Production Director who recognised that conditions made mechanised production hard going.¹³³ In other haulage accidents, a number of men underground (as on the surface) were crushed between tubs, where not enough caution was being taken (possibly because of pressures from the pithead and from faceworkers to keep the coal going to the top) to ensure that tubs were being coupled safely.¹³⁴

¹³⁰ HMIM & Q, SD, 1959, pp.10-14; HMIM & Q, SD, 1965, pp.8-10.

¹³¹ NCB, SD, Alloa Area, Blairhall Colliery CC, 2 August 1966, CB 55/2.

¹³² Ibid.

¹³³ NCB, SD, EC, policy papers, 19 December 1957, CB 44/28.

¹³⁴ HMIM & Q, SD, 1960, pp.11-16.

Despite this, as Robin Howie's evidence suggests, a great number of deaths and serious injuries were caused by an apparently lax attitude to the dangers of haulage equipment from managers, officials and mineworkers. A substantial number of accidents throughout the period were caused by illegal riding of conveyors or mounting moving underground trains, (although over time, as the number of prosecutions for this offence show, this practice declined).¹³⁵ Between 1950 and 1957 alone, seventy men were prosecuted, under the CMA, 1911, or Mines and Quarries Act, 1954, for travelling on conveyors, boarding moving trains or dangerous behaviour on man-riding trains.¹³⁶ At Glenochil colliery, low morale saw a rise in incidences of illegal riding of trains and even young miners (appointed as trainee locomotive drivers) joy-riding in locomotives.¹³⁷ And, at Easthouses colliery in the Lothians, the colliery manager threatened prosecutions after reports of 'horsing around' by young miners on the man-riding trains.¹³⁸ However, in many cases, the reason for illegally man riding on conveyors, rope haulage (in the early days) or jumping on and off man-riding trains was the increasingly lengthy distances men had to travel to get to their place of work, thus diminishing their time at the face (and potentially their bonuses), combined with the physical impact (in the type of conditions prevalent at some Scottish mines as described earlier in the chapter) of having to travel a lengthy distance in sweltering conditions, up steep gradients and then having to do a strenuous shift under the same conditions. This point was not lost on the Inspectorate, who from the outset had called on colliery management to introduce more man-riding facilities:

¹³⁵ HMIM, SD, 1948, p.15; HMIM, SD, 1949, p.9; HMIM, SD, 1950, p.3; HMIM, SD, 1951, p.3; HMIM, SD, 1952, pp.3-4; HMIM, SD, 1953, p.4; HMIM, SD, 1954, p.6; HMIM, SD, 1955, p.4; HMIM, SD, 1956, p.4; HMIM & Q, SD, 1957, p.4.

¹³⁶ HMIM, SD, 1950, p.3; HMIM, SD, 1951, p.3; HMIM, SD, 1952, pp.3-4; HMIM, SD, 1953, p.4; HMIM, SD, 1954, p.6; HMIM, SD, 1955, p.4; HMIM, SD, 1956, p.4; HMIM & Q, SD, 1957, p.4.

¹³⁷ NCB, SD, Alloa Area, Glenochil Colliery CC, 20 November 1957, 25 February 1959 and 24 February 1960, CB 55/11.

¹³⁸ NCB, SD, Lothians Area, Easthouses Colliery CC, 20 May 1964, CB 55/8.

In this connection managements should keep in mind that the temptation to ride up long steep haulage inclines is very great and wherever possible man-riding facilities should be provided as part of development schemes.¹³⁹

Indeed, the case of the first reported fatality under nationalisation illustrates this. The victim was a seventy-year-old miner catching a lift on a conveyor.

However, how much fault can be laid at the hands of colliery managements, who could not authorise the expenditure on what would have been fairly costly schemes, is questionable, given that this was the reserve of Divisional and National managements. Little was done to rectify this situation or that of the replacement of unsafe tub haulage with locomotive haulage (which had been requested by the Inspectorate too), largely because the majority of NCB budgets were designated for production purposes, with the result that there continued to be a high number of accidents arising from haulage accidents.¹⁴⁰ Attempts to introduce the cyclical overhaul of conveyors were also held up by backlogs at Central Workshops caused by closures, as was essential work on new signalling work on conveyors to prevent accidents.¹⁴¹ This, at a time, when the NCB were spending on average half a million pounds, at least, for machinery on power-loaded faces. In comparison, between 1961 and 1962, the NCB spent £36,000 on safety campaigns.¹⁴²

¹³⁹ HMIM, SD, 1948, p.15.

¹⁴⁰ HMIM & Q, SD, 1960, pp.11-16; HMIM & Q, SD, 1965, pp.8-10; NCB, SD, Alloa Area, Area Joint Safety Committee, 23 December 1965, CB 54/4.

¹⁴¹ NCB, SD, Area Electrical Engineers' Committee, 21 January 1960, 11 May 1960 and 7 December 1960, CB 53/5; Area Mechanical Engineers' Committee, 21 November 1966, CB 53/6.

¹⁴² NCB, SD, Area Safety Engineers' Committee, 28 June 1961 and 1 May 1962, CB 53/9.

Machinery

Despite the comparatively small numbers of accidents attributed to machinery, compared to the two preceding categories, the significance of examining machinery accidents is that they provide an excellent illustration of the effects of NCB production policy on safety and that they were intrinsically linked to the other two categories. This was worsened in the case of machinery by the need to overhaul it, a dearth of electricians and mechanics, and delays at central workshops (caused by a combination of closures and increased use of machinery).¹⁴³

The strain of continuous mining methods, and by implication the effects of speed-up, and the use of inadequate machinery was neatly referred to in this 1961 paper in *The Mining Electrical and Mechanical Engineer*:

This great increase in the use of machinery in the difficult conditions of the coal-face has brought with it the inevitable problem of maintenance, a problem which is not eased by the modern tendency not only to increase the proportion of productive time of machines over three shifts in each day. Another aspect which aggravates the burden of the maintenance engineer is the fact that, owing to the urgent demand for new types and capacities of machines, some of which have been hurriedly developed and put into production while they are little better than prototypes using in many cases relatively untried components. In some cases it would seem that insufficient consideration appears to have been given to the problem of continued serviceability and ease of maintenance under the conditions likely to be encountered, which may be very different from those to which the prototype was subjected during trials or from those for which the machine was in fact designed.¹⁴⁴

The inadequacy of machinery and the pressure for production can be seen in numbers of machines which ended up being serviced due to a breakdown at the face rather than, as they should have been, being

¹⁴³ NCB, SD, Area Electrical Engineers' Committee, 21 January 1960, 11 May 1960, 5 October 1960 and 7 December 1960, CB 53/5; Area Mechanical Engineers' Committee, 21 November 1966, CB 53/6.

¹⁴⁴ S. J. Ayres, 'Mechanical Engineering Safety in Mines During 1960', *The Mining Electrical and Mechanical Engineer*, November 1961, pp.138-9.

checked in for planned routine maintenance. In 1960, 40 per cent of mining mechanical and electrical engineers' time was devoted to responding to underground breakdowns, whilst only 15 per cent was spent on planned maintenance.¹⁴⁵ The relevance of this lies in the fact that, with the intensification of turn-around times on power-loaded faces, face teams were under even more pressure, where a breakdown had occurred, to achieve targets within shorter periods of time especially when the cost implications of stoppages were so dire on power-loaded faces.¹⁴⁶ The implications, in terms of accident rates, can be seen from figures of the increasing gulf of accident frequency margins between power-loaded and conventional (either hand worked, but increasingly semi-mechanised, i.e. machine cut, hand loaded) faces, which were starting to merge in the late 1950s. This is particularly well illustrated on power-loaded faces in the Lothians (where most of the trials of continuous mining from power-loaded faces took place). In 1956, Scottish Divisional figures for accidents on power-loaded and conventional faces, per 100,000 manshifts) stood at 97.59 and 91.43 respectively.¹⁴⁷ In the Lothians, these figures stood at 128.6 for power-loaded faces, and 91.13 for conventional faces, respectively.¹⁴⁸ Considered against Alistair Moore's remarks about NCB productivity strategies, these serve to illustrate how the bonus schemes and increasingly stringent, and unachievable targets, amplified the problem.¹⁴⁹

The complaints of tradesmen that they were on the receiving end of much abuse from face teams to reduce delays, as outlined in the poem quoted beneath, and that junior officials were interfering with work carried out by

¹⁴⁵ Ibid.

¹⁴⁶ See George McAlpine, 'Three-shift Working at Dollar Mine', p.36.

¹⁴⁷ NCB, SD, Area Safety Engineers' Committee, 25 October 1956, CB 53/8.

¹⁴⁸ Ibid.

¹⁴⁹ Alistair's evidence is particularly telling as he worked as the surveyor for one of the group of collieries in the Lothians which carried out the most extensive trials of power-loading machinery at the time of the trials.

electricians and mechanics gives some impression of the frenzied atmosphere which the productivity drives were inducing:

When breakdowns happen thro' the nicht, they get ye' on the 'phone,
Ye' cross your fingers, ask whit's wrang,
And then ye' hear them moan,
"Ye'll hiv' tae come tae this machine, it's jist been sittin' hummin'."
To which our gallant lad replies, " O.K. you... I'm comin'."
And when he gets there oot o' braith, they ask him, "Hiv' ye broacht yer graith," and, "Whit has kept ye'- Play the gem, we've a run tae cut tae cut the nicht ye ken."¹⁵⁰

The hasty repairs carried out on machinery to cut down on delay times undoubtedly underpinned the Divisional Mines Inspectorate's complaints in the early 1960s about the number of fatal accidents which arose from machinery not being overhauled properly.¹⁵¹ The introduction of machinery into appropriate conditions, part of the Board's drive for mechanisation at any cost, was not only completely unworkable under some conditions, but also resulted in a rise in fatal accidents and serious injuries. In 1958, one faceworker was crushed when a coal-cutter working on a gradient of 1 in 1.8 sprung free and crushed him against a face conveyor.¹⁵² Another faceworker operating a coal plough in a thin seam (1ft 10 inches) was killed by a chain which sprung out when the cutter became stuck.¹⁵³ In another case that year, a coal cutter, working a coal cutting machine in a 3 foot 6 inch seam on a 1 in 2.5 gradient, was injured in the leg when it became caught in the loop of a trailing cable.¹⁵⁴ Given the 1955 survey of coalfaces in the Scottish Division, cited in chapter five, which revealed that 40 per cent of coal was being extracted from seams which were less than three feet thick, 20 per cent from coalfaces in which gradients were one in four or more extreme, and, in five out of the, then,

¹⁵⁰ J. McKinnon, 'Introduction and Operation of Planned Maintenance at Collieries', *The Mining Electrical and Mechanical Engineers*, 1 May 1958, p.307; NCB, SD, Lothians Area, Lingerwood Colliery CC, 7 March 1960, CB 55/15.

¹⁵¹ HMIM & Q, SD, 1963, pp.12-14; HMIM & Q, SD, 1964, pp.11-12.

¹⁵² HMIM & Q, SD, 1958, p.14.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

eight areas in the Scottish Division, the average coalface life was less than a year, there was considerable scope for even more accidents (and it is remarkable there were apparently not more).¹⁵⁵

The effects of speed up on machinery-induced accidents are well illustrated by separate accidents in 1965, which resulted in the death of two men and serious injuries to another. One machine man was killed when, contrary to the colliery management's regulations that all machinery be turned off whilst it was being overhauled or examined, he went to check picks on the drum of a shearer (which he had left on) and it came forward and crushed him.¹⁵⁶ In the second case, machines crossed over each other too fast on a face killing a shearer cable man and seriously injuring the operator.¹⁵⁷ In the latter case, the machine teams should not have been passing each other at such speeds.¹⁵⁸ Whilst, it might be claimed that this was down to exuberance on the part of face teams, it suggests an environment which encouraged unsafe working practices, whether through the bonus scheme or negative incentives (such as closures of faces, districts or the colliery) to achieve production targets.

Whilst the examination of these types of accidents does reveal negligence on the part of colliery managements and officials (in particular), and mineworkers, it also suggests a considerable degree of culpability on the part of the NCB at the highest level because of the production culture they were imposing. There is clear evidence here of a hierarchy of responsibility. The fact that Area and Divisional managements insisted on efficiency gains and unrealistic targets on faces, which they knew to be

¹⁵⁵ NCB, SD, EB, minutes, 4 March 1955, CB42/7; H. H. Wilson and J. H. Paterson, 'Problems of coal-face mechanization in the Scottish coalfield', *IME*, 116, 1956-7, p. 280.

¹⁵⁶ HMIM & Q, SD, 1965, p.11.

¹⁵⁷ *Ibid.*

¹⁵⁸ *Ibid.*

precarious, suggested culpability. Equally, the culpability at higher levels of management could be deemed to be all the greater given the aggregated figures at their disposal, and their insistence on mechanisation and intensification and the application of uniform targets in the knowledge of the dangers at some pits.

Colliery disasters

The five major colliery disasters which occurred during this period, also illustrate that safety was less of a clear-cut issue than suggested by the accident inquiries into them. The case of the Knockshinnoch Castle Colliery disaster has been examined elsewhere in the chapter. The four other accidents were: the explosion at Kames Colliery in Ayrshire on 19th November 1957, which killed fifteen mineworkers, a shotfirer and a mechanic, and injured twelve others; the explosion at Lindsay Colliery in Fife on 14 December 1957, which took the lives of five mineworkers, one deputy and an oversman; the underground fire at Auchengeich Colliery in Lanarkshire on 18 September 1959 in which forty-seven men were killed; and the explosion at Cardowan Colliery on 25 July 1960 in which three men were killed and seven injured.

In the cases of three, Kames, Auchengeich and Cardowan, out of the four remaining accidents, the inquiries certainly either explicitly blamed or inferred a degree of criticism of the colliery managements.¹⁵⁹ There was

¹⁵⁹ Ministry of Power, *Explosion at Kames Colliery, Ayrshire. Report on the causes of, and circumstances attending, the Explosion which occurred at Kames Colliery, Ayrshire, on 19th November, 1957* by Sir Harold Roberts, C.B.E, M.C., B.Sc., July 1958, [hereafter *Kames Report*] (Cmd. 467), pp.16-19; Ministry of Power, *Underground Fire at Auchengeich Colliery, Lanarkshire. Report on the causes of, and circumstances attending, the fire which occurred at Auchengeich Colliery, Lanarkshire on 18th September, 1959* by T. A. Rogers, C.B. E., May 1960 [hereafter *Auchengeich Report*], (Cmd. 215), pp.19, 21 and 25; Ministry of Power, *Explosion at Cardowan Colliery Lanarkshire. Report on the causes of, and circumstances attending, the explosion which occurred at Cardowan Colliery, Lanarkshire on 25th July, 1960* by H.R. Houston, C.B.E., January 1961 [hereafter *Cardowan Report*], (Cmd. 1260), pp.17-19.

ample justification for this in all three cases, although, at both Auchengeich and Kames, the NCB, and Scottish Divisional Board and Ayrshire Area respectively were culpable to some degree.

Lindsay Colliery explosion

In this case, the culpability for this explosion lay with a small group of miners, who ignited coal dust by striking a match to have a cigarette.¹⁶⁰ The taking of contraband (cigarettes, lighters and matches) was illegal in pits but in Scotland, where there had been few gassy pits, it was a harder habit to stamp out. Between 1948 and 1966, there were nine hundred and ninety-nine successful prosecutions of mineworkers for carrying contraband, the majority of these before 1960.¹⁶¹ The impact of the Lindsay explosion, and subsequent stiffer sentencing for repeat offenders, along with further tightening of routine checks of those going down the pit had a considerable impact on curtailing the practice.¹⁶² In addition, rough justice could be meted out to those caught smoking in pits, by their work colleagues, as Alistair Moore recalls:

At the reception when the dayshift was working, you'd an hour and a half gap where there was no workmen. You'd be able to get on with your job without interruption 'cos when you'd got men walking down the road with a flashing light. So we went down at eight o' clock. On the job within an hour and a half after the backshift finished to do what we wanted to do, working on the roadways. We came out a bit after, say about one o' clock in the morning, to go up the pit and down this heading and I said to this chap, "I smell smoke- cigarette smoke." And as we got down to the bottom of this heading, there was an engine house there, there was a strong smell. And just as we came down the heading, there was two chaps come in and we said, "you been smoking?" They said, "No, somebody's been smoking." We went into the engine house and there was this guy who had been smoking but had it out when he'd heard the voices. And we went away.

¹⁶⁰ Ministry of Power, *Explosion at Lindsay Colliery, Fifeshire. Report on the causes of, and circumstances attending, the Explosion which occurred at Lindsay Colliery Fifeshire, on 14 December 1957 by Sir Harold Roberts, C.B.E., M.C., B.Sc.*, August 1958 [hereafter *Lindsay Report*], (Cmd. 485), p.3.

¹⁶¹ HMIM, SD, reports, 1948- 1956; HMIM & Q, SD, reports, 1957-1966.

¹⁶² HMIM & Q, SD, 1958, p.2.

As we went further away, we heard the shouts and squeals of this guy getting a hammering. That was the way. It may have been brutal but pound to a pinch of snuff he didnae smoke again cos' he'd of got a hammering. He put everybody's life at risk. There was rules you obeyed as part of the family.¹⁶³

Nevertheless by the late 1960s, going by the number of prosecutions for contraband, the habit of smoking underground in Scottish pits seemed to have petered out.

During the Lindsay enquiry, it was noted that both the undermanager and the colliery manager had made, 'determined efforts to put an end to smoking', by using the colliery consultative committee, advertising and searches.¹⁶⁴ However, the Lindsay enquiry found widespread incidences of smoking underground and a lax attitude amongst junior officials to carrying out thorough searches.¹⁶⁵ Nevertheless, it suggested that the colliery management had been over optimistic about the quantities and velocity of air needed to dispense the gas in the pit.¹⁶⁶ This criticism of ventilation practice would recur in a number of these cases and in the comments of the Inspectorate and professional association's reports of the period.

Kames Colliery

The explosion at Kames was caused by the ignition of coal dust by a match.¹⁶⁷ Sir Harold Roberts, presiding, laid the blame almost wholly at the colliery management's door for failing to take enough samples of air

¹⁶³ Interview with Alistair Moore, Bo'ness, 12 March 2004; Ian Terris describes a similar incident taking place at Rothes colliery, see: I. Terris, *Twenty Years Down the Mines*, p.74.

¹⁶⁴ *Lindsay Report*, pp.13-16.

¹⁶⁵ *Ibid*, pp.13-14.

¹⁶⁶ *Ibid*, p.17.

¹⁶⁷ *Kames Report*, p.3.

underground and to ventilate the pit properly.¹⁶⁸ The evidence from an expert witness from the Safety in Mines Research Establishment concluded that localised ventilation of the district was subject to leakage and that the area round the ignition site had not been checked for four days, particularly worrying given that the last readings in the district suggested levels of gas sufficient to cause an initial explosion.¹⁶⁹ As Roberts noted, 'on a number of occasions records of air measurement tallied to the last figure [50-90 cubic feet, sufficient to ignite coal dust and gas]. This should have indicated to an alert management the need for investigation of the way in which the official who made them, and who was also responsible for taking dust samples, was carrying out his duties.'¹⁷⁰ One study carried out by NCB scientists in the early 1950s into colliery fires revealed the most minimal amounts of coal dust could cause small ignitions which could spread rapidly out of control, if unchecked.¹⁷¹

The theme of ventilation was recurrent in the cases of Kames, Auchengeich and Cardowan, and reflected the concerns of those within the mining professions and the Inspectorate over the state of ventilation planning in mines. The following quote from a paper on mine ventilation, in the aftermath of the report of the sub-committee on Mining explosions, which reported in 1959, chaired by Sir Andrew Bryan, encapsulated the ventilation problem in Scottish mines:

In some respects, ventilation is the Cinderella of mining techniques. Whilst the safety factor is fully appreciated, the importance of long-term ventilation developments, has not always been given the attention it merits... The development of the ventilation system during the life of a colliery, particularly as regards return airways, has sometimes proceeded in a somewhat haphazard fashion in the past, as indicated by the plans of some of the older mine workings; far more attention has been devoted to the layout of the transport roads and the working faces.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid, pp.13-14.

¹⁷⁰ Ibid, p.14.

¹⁷¹ H. S. Eisner and W. C. F. Shepherd, 'Recent research on mine fires', *IME*, 113, 1953-1954, p.1064.

Today, considerable attention is given by specialists to mechanization, strata control, dust suppression, firefighting, etc., yet the air current, which is the life blood of the mine, does not command the same attention from experts.¹⁷²

What caused Collinson and Vance additional concerns, in view of these comments, was that, 'only rarely will the ventilation engineer have available to him the full information desirable when preparing a ventilation plan.'¹⁷³ And in the Divisional Mines Inspectorate report of 1959, colliery managements were criticised for not making greater improvements at collieries to ventilation, despite the help afforded them by Area ventilation engineers.¹⁷⁴ However, as the Inspectorate should have known, the level of expenditure necessary to undertake underground developments of this nature could not have been authorised by colliery managements. Furthermore, many Areas in the Scottish Division were struggling at this time to get funding for small schemes.¹⁷⁵ Indeed, though they had a voice in operational issues at their pit, the plans for developing districts of a colliery were very much dominated by divisional and area production targets and funding available, which explains the haphazard way in which ventilation could develop.¹⁷⁶

It is clear that in the case of Kames, as with Auchengeich, air sampling and leakages in the colliery's ventilation system were the responsibility of the colliery management, and they were found wanting. However, It should be noted that the colliery manager at Kames had been seriously ill for some time before the accident and consequently the colliery at the time of the accident was being managed by a temporary manager, who was also

¹⁷² The Bryan Committee also criticised the poor attention to ventilation plans: P. L. Collinson and W. E. Vance, 'Mine Ventilation Planning', *The Mining Engineer*, November 1961, p.142-143.

¹⁷³ Ibid, p.144.

¹⁷⁴ HMIM & Q, SD, 1959, pp.25-6.

¹⁷⁵ See pp.159, 237 and 349.

¹⁷⁶ See chapter five, pp. 243-9.

manager of Douglas Colliery.¹⁷⁷ This was in direct contravention of the Mines and Quarries Act, 1954, which stipulated that 'no person shall, without approval of an inspector, be manager of more than one mine unless: (a) the total number of persons employed at all mines of which he is manager does not exceed one thousand; (b) surface entrances to all shafts and outlets for the time being in use at all such mines lie within a circle whose radius is two miles.'¹⁷⁸ Yet, these collieries were a great deal more than two miles apart and fell under different colliery Groups, the Muirkirk Group and the Douglas Group.¹⁷⁹ The Act did however allow for seventy-two days grace in finding a replacement manager and Mr. Harley, the manager of Douglas Colliery, had been covering both collieries since 26 September 1957 (fifty-four days).¹⁸⁰ The Inspectorate also, under the 1954 Act, retained the right, if they felt that one person was not adequately covering both mines, to, 'prohibit both mines from being worked by the same person'.¹⁸¹ It seems unfair, taking the preceding points into consideration and given that the report on the explosion at Kames criticised the colliery management for not responding quickly enough to concerns about gas levels, that at no point were the District Inspectorate or the Group or Area management deemed to be culpable parties. Consequently, the righteous indignation of the inquiry seems a little hollow and duplicitous given the Inspectorate and higher management's role.¹⁸²

¹⁷⁷ *Kames report*, p.4.

¹⁷⁸ Mines and Quarries Act, 1954, S.5 (1) (a) and (b).

¹⁷⁹ *Colliery Guardian, Guide to the Coalfields*, 1957, (London, 1957), pp.82-89.

¹⁸⁰ *Kames report*, p.4; M & Q Act, 1954, S. 2 and 7 (1).

¹⁸¹ *Ibid*, S. 5(2).

¹⁸² *Kames report*, p.16.

Auchengeich disaster

The Auchengeich fire was caused by friction on a booster fan belt, of a specification approved by the NCB, which had been shortened, as it kept breaking, in the weeks running up to the fire. The decision to speed up the fan to increase ventilation into the pit wore the fan belt away causing friction and the ignition of coal dust, which had accumulated on the machine. In the fire that ensued forty-seven men on an underground train were overcome by toxic fumes. In the subsequent enquiry, the evacuation procedures at the colliery were criticised, and it was noted that none of the fire extinguishers in the area worked.¹⁸³ The report's comments on evacuation procedures provide an interesting insight into priorities:

The under-manager did not take any steps to see that all men were withdrawn into an intake airway when he went down the upcast shaft at about 7.10 a.m. and found thick smoke. It would have been far too late for anything to have been done to save the men on the train but there were other men in the upcast pit bottom and they should not have been allowed to stay there. I am satisfied that these officials conceived it to be their duty to get to the fire as quickly as possible, and to deal with it safely and expeditiously. This reaction to the situation, however, is an example of an unfortunate tendency on the part of persons faced with an emergency to concentrate their attention on removing the cause of the danger rather than first safeguarding against its possible effects.¹⁸⁴

Whilst it is apparent that the colliery management were lax in carrying out checks on safety equipment and dust levels, confirmed by two former mine management professionals who had a close knowledge of the colliery and the accident, the accident report also confirmed that colliery management did not realise that the belting (the cause of the fire), approved by the Production Department of the NCB, was substandard and constantly some culpability lay with the NCB for issuing such

¹⁸³ *Auchengeich report*, pp. 8 and 19.

¹⁸⁴ *Ibid.*

belting.¹⁸⁵ In the subsequent court case, this factor evidently played a part in a diminished fine for the colliery manager.¹⁸⁶

Cardowan Colliery

The explosion at Cardowan Colliery was less attributable to avoidable causes. Cardowan was a famously gassy pit and went on to become a major supplier of methane, which was tapped from the colliery. Thus the seams were gassy and the fire had started up in an area sealed off from a previous fire. A fire at the colliery in 1931, which started in a similar fashion, was also caused by spontaneous combustion of coals.¹⁸⁷ Whilst little evidence was collected from the accident, it was the Deputy Chief Inspector of Mines and Quarries, who chaired the inquiry, view that though many samples were taken, the presence of carbon monoxide in the samples should have prompted further samples in different places.¹⁸⁸ The colliery management could not be blamed for this, per se, as sampling, as a precursor to reopening of the North-Side district of the mine was being carried out at the time by the NCB's Divisional Mobile Laboratory.¹⁸⁹ However the fact that the colliery management had come under criticism, prompted an angry response to the report from the National President of BACM, Jim Bullock, to a meeting of the BACM National Executive in February 1951:

Mr Houston [Deputy Chief Inspector of Mines who led the enquiry], whilst admitting that there was insufficient evidence for him to form any conclusions, nevertheless indulged in a considerable amount of unsubstantiated opinion, which was damaging to Management.¹⁹⁰

¹⁸⁵ Interview with Jim F. Dickson, Kirkintilloch, 14 August 2003. Jim Dickson was Ventilation Engineer (Special Duties) at Auchengeich at the time of the disaster; Follow-up with Alistair Moore, 24 June 2004; *Auchengeich report*, pp.12-14; BACM, National Executive, minutes for meeting on 2 February 1960, BACM House, Nottingham.

¹⁸⁶ Jim Bullock also remarked on the good defence mounted jointly by BACM and NACM: BACM, National Executive, minutes of meeting on 1 February 1961, BACM House, Nottingham.

¹⁸⁷ *Cardowan report*, pp. 3-5.

¹⁸⁸ *Ibid*, p.16.

¹⁸⁹ *Ibid*, p.6.

¹⁹⁰ BACM, National Executive, minutes for meeting, 1 February 1961.

Jim Bullock's criticisms of the Cardowan enquiry would appear to be fair, given that colliery management were being held responsible for inadequacies in sampling and delays in reporting the findings which were not of their making.

Whilst the other findings would appear to be far more clear-cut, in a number of the cases, it is, at the very least, understandable why colliery managers felt some sense of indignation at the exclusive prosecution of their members, in particular, the failure to criticise or prosecute the District Inspectorate and Area management in the case of Kames or the NCB procurements and production departments over Auchengeich.

The preceding examples of daily and major accidents show the ever-present dangers of coal-mining, including to managers.¹⁹¹ Clearly, a great deal of effort, by the NCB, managers, officials and mineworkers, and resources both directly and indirectly was channelled into improving health and safety in Scottish collieries with tangible results. And, whilst there were evidently breaches and abuses of these systems, there were other examples of extra efforts taken to ensure the safety of those working in collieries.

However, managerial responsibility, liability and culpability, as with those of officials and mineworkers, does need to be balanced against the very real pressures placed on them by NCB production directives. There is clear evidence, here, of production policy, introduced from the top down, which placed the lives of mineworkers, officials and managers at risk.

¹⁹¹ This edition of the BACM *National News Letter* carried details of the death of an under-manager, at Lochhead Colliery in Fife, killed whilst trying to free miners trapped underground, along with an engineer killed at an unspecified colliery: BACM, *The National News Letter*, 1, I, 7, October 1948, p.2.

II

*Scottish managers and the dust problem under nationalisation, 1947- 1966*¹⁹²

The intelligent mining engineer knew that if dust was not allowed to enter the lungs, disease could not occur, and his particular charge was the reduction of dust to the minimum... It was known what should be done, but it must be admitted that far too often application lagged behind the discovery of the means of prevention.¹⁹³

This extract from the report of the presidential address given by Professor George Hibberd to the Scottish Branch of the NACM in 1953 illustrates the misplaced view that the failure to react to the dangers of dust and its effects on respiratory diseases amongst mineworkers were largely attributable to colliery managers and the mine management professions.¹⁹⁴

Like other aspects of health and safety in Scottish coal mines, precautions against harmful levels of dust were subject to the context in which the industry operated. In particular, as with other safety measures, dust suppression methods were sometimes not applied with the stringency they might have been, when production targets had to be met.

Like the preceding examples in section one, NCB policy, particularly from the late 1950s onwards, and its implementation by the Scottish Divisional Board and Area managements could compromise the health of those working in collieries by pressurising local managers to prioritise production. Nevertheless the newly formed NCB set about trying to tackle the scourge of dust related diseases as the scale of the epidemic grimly

¹⁹² For more detail see forthcoming article for the *Journal of the Scottish Labour History Society*, Volume 40, (2005): Andrew Perchard, 'The Mine Management Professions and the Dust Problem in the Scottish coal mining industry, c. 1930- 1966'.

¹⁹³ NACM, 1954-55, LII, p.167.

¹⁹⁴ Professor George S. Hibberd was also Chair and Professor of Mining Engineering at the Royal Technical College, Glasgow (after 1964, University of Strathclyde), 1947-67. University of Strathclyde, Department of Petroleum and Mining Engineering records, F/ 34/1.

dawned. This task was initially hampered by the state and layout of the many antiquated collieries, particularly in the Scottish Division, shortages of crucial materials, a desperate demand, first and foremost, for coal, a huge gap in scientific knowledge of coal-dust pneumoconiosis and therefore amongst mine management professionals and junior officials.

An inkling of the epidemic of coal-dust pneumoconiosis had soon become evident after its prescription in 1943. In 1943, 1,608 cases of pneumoconiosis were diagnosed in South Wales alone.¹⁹⁵ And between 1945 and 1946, a further 9,028 South Wales miners were diagnosed with the disease.¹⁹⁶ The numbers of Scottish miners certified with pneumoconiosis between 1943- 1961, though smaller than South Wales initially, were nevertheless substantial and rose dramatically, as figure 22 shows.

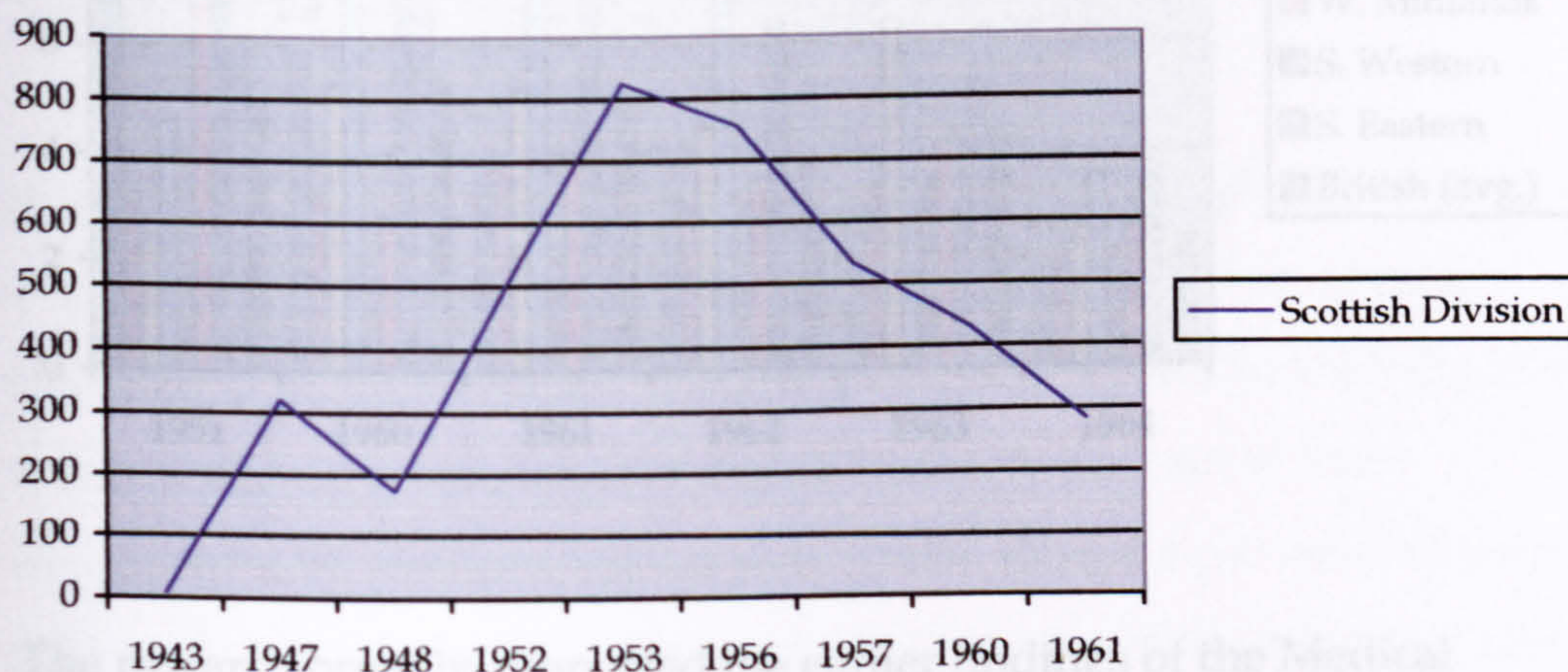
Figure 23 suggests a huge increase in diagnosed cases of the disease in Scotland, which coincided with regular NCB X-ray monitoring of miners, with a gradual decline from 1956 onwards. Nevertheless, even in 1961, 285 cases were diagnosed. One of the questions this surely raises is whether this was a measure of NCB success in dust suppression and prevention? In addition, the early figures represent one of the major problems which faced the NCB, namely a lack of empirical evidence on the epidemiology of the disease. This prompted the National Joint Pneumoconiosis Committee of the Ministry of Fuel and Power to commission, in February 1952, the NCB's Pneumoconiosis Field Research to conduct a major piece of national research to, 'determine how much and what kinds of dust cause pneumoconiosis and to establish what environmental conditions should be maintained if mineworkers were not to be disabled by the dust

¹⁹⁵ W. C. Sharp, 'Pneumoconiosis of Coal Miners. Paper read before the Scottish Mining Students' Federation in Edinburgh on November 18, 1950', *C G*, February 22, 1951, p. 227.

¹⁹⁶ *Ibid.*

that they breathe during the course of their work'.¹⁹⁷ The research was informed by X-ray surveys of around 30,000 working miners carried out between 1953 and 1958 at twenty-six pits across the British coalfield, including five in Scotland.¹⁹⁸

Figure 22: Numbers of Scottish miners diagnosed with pneumoconiosis category 1 or more, 1943- 1961.¹⁹⁹

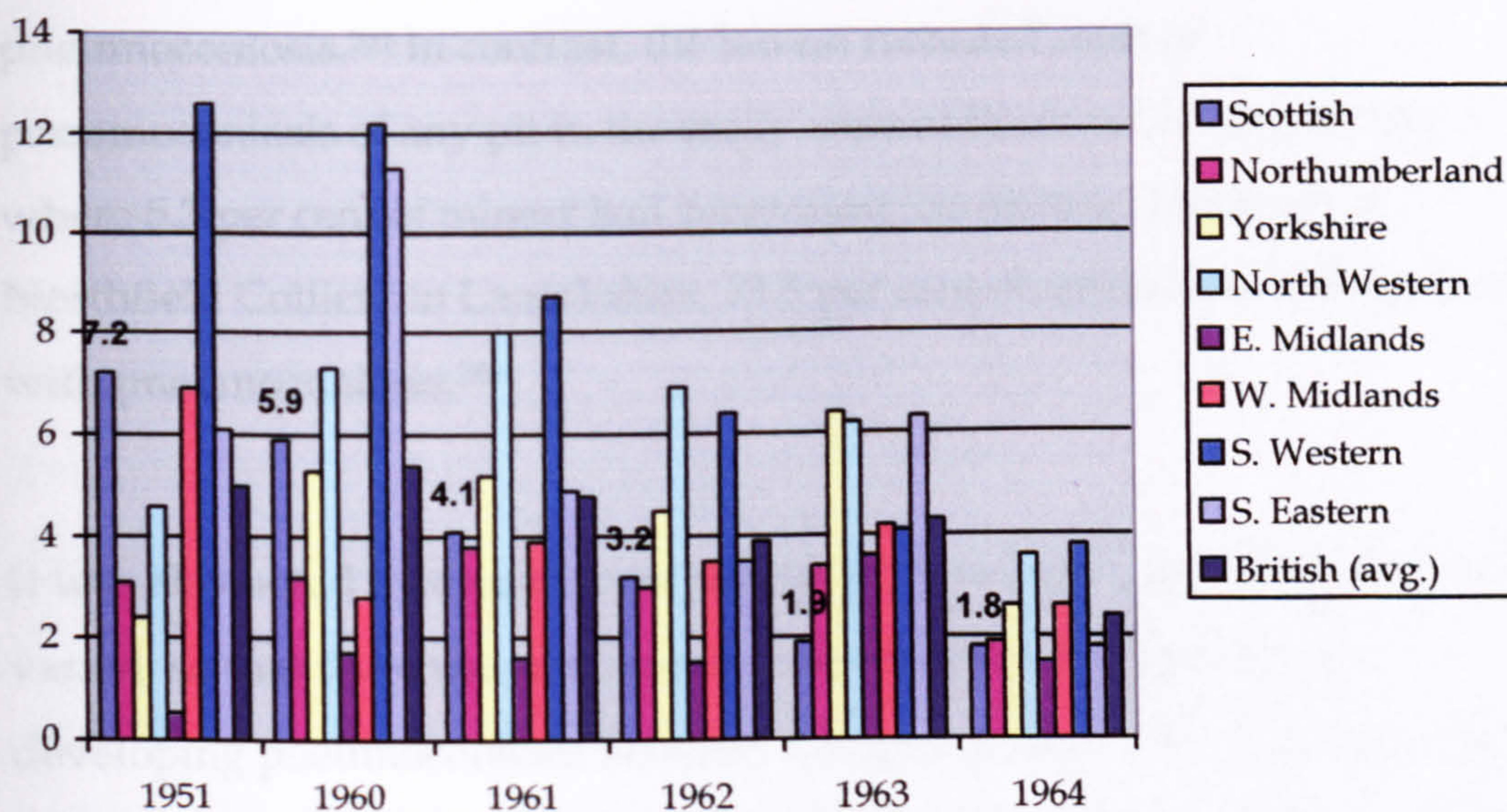


¹⁹⁷ D. Hicks, J. W. J. Fay, J. R. Ashford and S. Rae/ NCB, Scientific Department, *The relation between pneumoconiosis and environmental conditions. An analysis of the results of the first series of X-ray surveys in the National Coal Board's Pneumoconiosis Field Research* (London, 1962), p. 1.

¹⁹⁸ *Ibid*, p. i.

¹⁹⁹ *Ibid*; HMIM, report, 1953, p.20; HM Inspectorate of Mines & Quarries (HMIM &Q), report, 1957, p.24; HMIM & Q, report, 1962, pp. 31-2.

Figure 23: Newly diagnosed cases and prevalence of pneumoconiosis, rate per 1,000 wage earners by Division, 1951- 1964 (with data labels for Scottish Division).²⁰⁰



The research broadly supported the earlier findings of the Medical Research Council's research in the South Wales coalfields, conducted between 1936 and 1942, which led to the 1942 Pneumoconiosis Orders. These findings stated that the cause of pneumoconiosis amongst coal miners, was the inhalation of airborne coal dust; that the incidence of pneumoconiosis correlated with the type/ rank of coal (so that the prevalence of pneumoconiosis was significantly higher in the anthracite pits of South Wales); and that certain jobs underground, particularly faceworkers on the coal-getting shift, had much higher risks than others, like underground haulage workers.²⁰¹ The NCB's Pneumoconiosis Field Research also revealed the huge variation in incidence of pneumoconiosis, in its various categories, and Progressive Massive Fibrosis (PMF), its most serious form, across each coalfield. The South Wales pits, included in the

²⁰⁰ W. H. Walton, 'The Airborne Dust Problems in Coal Mines in Great Britain', *The Mining Engineer* (formerly, *Transactions of IME*), November 1966, Table 2, p. 101.

²⁰¹ *Ibid*, pp. v-vii; John M. Rogan, 'Chest Disease in coalminers, with special reference to the Pneumoconiosis Field Research', *The Mining Engineer* (formerly *Transactions of IME*), November 1960, pp. 108-9.

study, uniformly had higher rates of pneumoconiosis, with 41.5 per cent of miners at one mine, Cwmgwrach, being diagnosed with pneumoconiosis.²⁰² In contrast, the lowest recorded rates of pneumoconiosis of any pit in the study were at Frances Colliery in Fife, where 5.3 per cent of miners had contracted the disease. However at Northfield Colliery in Lanarkshire, 23.5 per cent of miners were diagnosed with pneumoconiosis.²⁰³

It was also noted that incubation periods for low and high rank coal types varied, so that there was a dramatic increase in the numbers of men developing pneumoconiosis between the ages of 46 and 50 working at the Scottish pits surveyed, whilst in South Wales 39 per cent of those diagnosed with pneumoconiosis were under 40, and 8 per cent between 21 and 30.²⁰⁴ This was partly accounted for by the fact that, in South Wales, mineworkers started at a younger age at the coalface. However, it also revealed the alarming time bomb effect of the disease, which was mirrored in other respiratory diseases and cancers across Scottish industry.²⁰⁵ The 1962 Pneumoconiosis Field Research report was forced to admit that, 'there is little or no reliable information about composition and concentration of respirable airborne dust particles at various collieries prior to the commencement of this research.'²⁰⁶ It was able to conclude that dust concentration probably had less to do with the contraction of pneumoconiosis than the type of coal and size of particles.²⁰⁷

Despite a dearth of data, mining engineers were able to formulate methods of dust suppression, some of which were already progressing, incidentally,

²⁰² D. Hicks et al., *The relation between pneumoconiosis and environmental conditions*, p. iii.

²⁰³ Ibid.

²⁰⁴ Ibid.

²⁰⁵ R. Johnston and A. McIvor, *Lethal Work*, p.56.

²⁰⁶ D. Hicks et al., *The relation between pneumoconiosis and environmental conditions*, p. iv.

²⁰⁷ Ibid, p. viii.

as part of colliery reconstructions (such as wider roadways, improvements in mine ventilation planning, and the opening up of coalfaces as part of increasing mechanised longwall mining), others were more mechanical (water, and a small number of chemical, sprays on machinery, conveyors and roadways, use of dust traps, infusion of water into boreholes, use of PVC water ampoules to reduce dust from shot-firing, design of more effective respirators and spread of these).²⁰⁸ In addition, means and frequency of dust sampling improved over the period.²⁰⁹ Increasingly mining engineers focused their attention on machinery, and latterly power-loading machinery like the Anderton Shearer-loader (introduced to the Scottish Division in 1957), as it became clear that the growth in mechanised cutting and loading was creating more dust, see figure 8 (non-approved dust conditions and method of filling). Professor Hibberd in a paper to the NACM in 1951 noted the growing problem of dust suppression in a more mechanised mine:

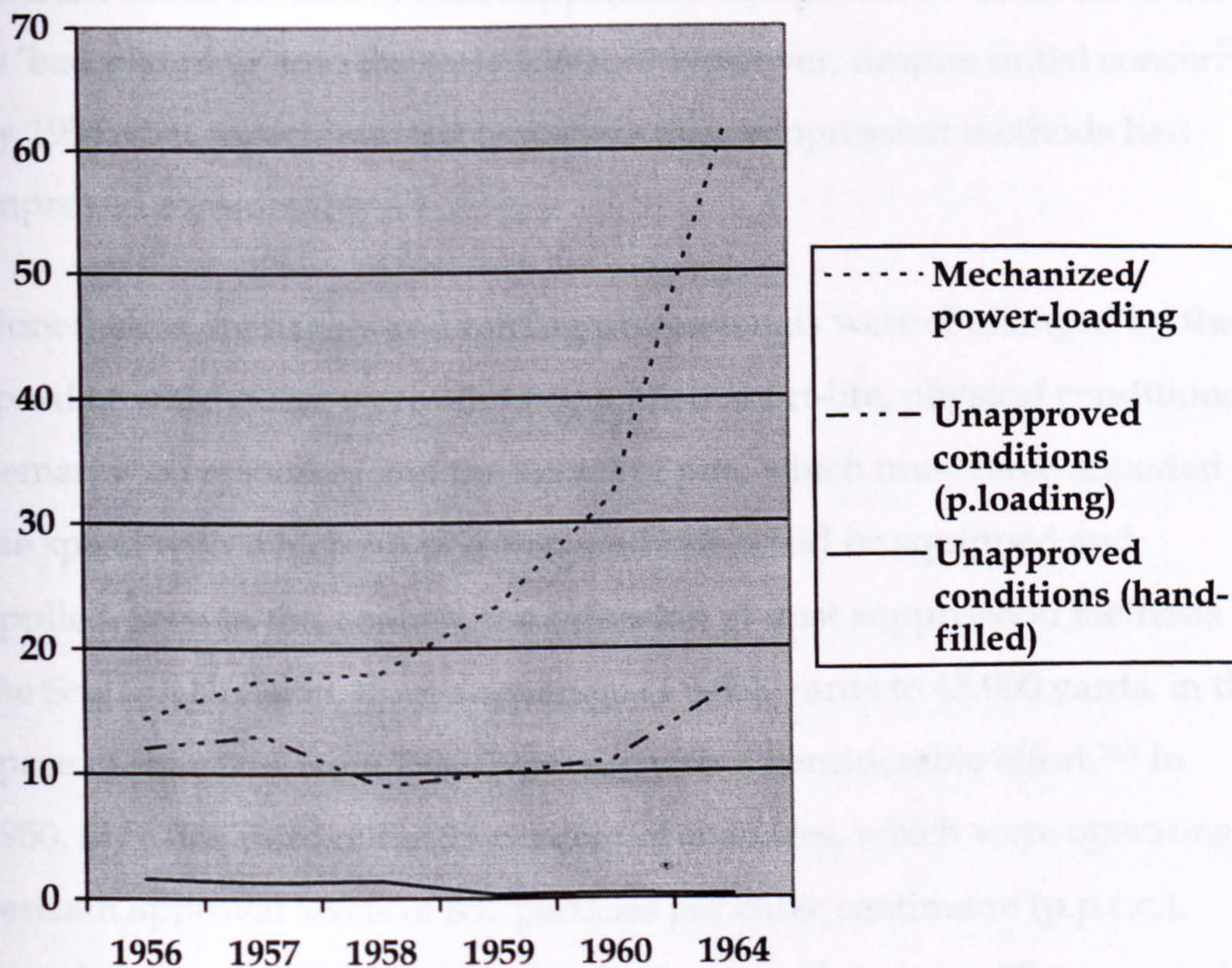
Persons are most likely to be subjected to the dust produced by drilling, coal-getting and blasting, and it is clear that if a means can be adopted to relate production of dust from these sources a great step forward will be made. Sir Andrew Bryan has said that the concentration of dust is directly proportional to the horse-power expended at the face, and this is no mere catch-phrase. The solution is obvious.²¹⁰

²⁰⁸ W. C. Sharp, 'Pneumoconiosis of Coal Miners', *CG*, February 22, 1951, p. 231; H. R. King, 'Problems in the Scottish Coal-mining Industry', *NACM*, XLX, 1953, p. 177; HMIM & Q, Scottish Division (SD), report, 1958, pp.29-30; Samar Bandyopadhyay, 'Dust Suppression Underground', *CG*, March 10, 1960, pp.279-282; 'The Martindale Dust Respirator', *CG*, June 22, 1961, p.750; P. Ward, 'The Present Dust Problem', *CG*, October 17, 1963, pp. 490-6; HMIM & Q, SD, 1964, pp. 22-3.

²⁰⁹ D. H. J. Catchpole, R. E. Greenham and E. White, 'Airborne Dust. Correlation of Thermal Precipitator and P.R.U. Hand-Pump', *CG*, December 23, 1952, pp. 792- 6; R. G. H. B. Boddy, 'Dust Aggregates and the Assessment of Respirable Airborne Dusts', *CG*, May 4, 1961, pp.521- 7; HMIM & Q, SD, 1965, pp.23-4; P. I. Collinson and W. E. Vance, 'Mine Ventilation Planning', *The Mining Engineer*, November 1961, pp. 141-153.

²¹⁰ G. Hibberd, 'Geology and Safety and Health in Miners', *NACM*, XLVIII, 1951, pp.169-170.

Figure 24: Non-approved dust conditions and method of filling (hand-filled or power-loaded) in the Scottish Division, expressed as a percentage, 1956-1964.²¹¹



According to H. R. King, the Scottish Division's Production Director, dust suppression measures were proving successful in reducing dust in the Division.²¹²

Despite King's assurances, the former Divisional Inspector of Mines, H. R. Houston, in a parting shot before he left to become Deputy Chief Inspector of Mines, was far more sanguine about the praxis of dust suppression in his report for the same year.²¹³

²¹¹ Figures from: T. R. Samson and J. H. Paterson, 'Safety in Relationship to Mechanization', *The Mining Engineer*, March 1961, p. 427; NCB, SD, PC, papers, 26 May 1964, CB 44/39; HMIM & Q, SD, report, 1964, pp.22-3; HMIM & Q, SD, report, 1965, pp.23-4.

²¹² H. R. King, 'Problems in the Scottish Coal-mining Industry', *NACM*, XLX, 1953, p.177.

²¹³ HMIM, SD, 1952, pp. 17-18; Houston made a similar remarks in his response to King's cited paper, see comments after: King, 'Problems in the Scottish Coal-mining industry', p.179.

Houston's point was subsequently reiterated by other members of the mine management professions.²¹⁴ The Inspectorate continued to express concern about the lack of dust suppression equipment on some faces due to 'bad planning' into the early 1960s.²¹⁵ However, despite initial concerns, by 1954, the Inspectorate felt that stone dust suppression methods had improved considerably.²¹⁶

Nonetheless, managers and mining professionals were challenged by the speed at which faces were advancing, their short-life, physical conditions, demands on resources and the layout of pits, which must have impeded the speed with which suppression methods could be equipped and applied. Seen in this context, the extension of dust suppression methods by the Scottish Division, from a coverage of 5,858 yards to 43,000 yards, in the space of six years, from 1950-1956, suggests a considerable effort.²¹⁷ In 1950, only one third of the 25 per cent of coalfaces, which were operating beneath approval levels of 850 particles per cubic centimetre (p.p.c.c.), were being treated.²¹⁸ By 1954, despite the growth in faces, 95 per cent of coalfaces were operating within approved conditions.²¹⁹ What is more, the short-life of coalfaces and geological and physical extremes in many pits, such as steeply inclined faces, thin seams (and cramped working conditions), heavy faulting, heat and humidity made for even greater problems, especially in parts of the Scottish coalfield.

The problem became even more pronounced as power-loading was introduced. Not only did power-loading produce considerably more dust,

²¹⁴ For example: A Winstanley, 'Dust Suppression and Supervision in Coal Mines', CG, April 24, 1952, p. 489.

²¹⁵ HMIM & Q, SD, 1955, pp.18-9; HMIM & Q, SD, 1958, pp. 29-30; HMIM & Q, SD, 1961, p. 36.

²¹⁶ HMIM & Q, SD, 1954, pp.21-2; There was considerable disquiet expressed by the Inspectorate about stone dust levels in their report for 1950, p. 17.

²¹⁷ HMIM, SD, 1951, p.20; HMIM & Q, SD, p.21.

²¹⁸ HMIM, SD, 1950, p. 17.

²¹⁹ HMIM & Q, SD, 1955, pp. 18-9.

and degradation of coal as a product (particularly where dirt bands, fireclay floors or rock faulting occurred) but the speed of advance meant that the lifespan of coalfaces was substantially curtailed. Furthermore, if, as was often the case, faulting was encountered, all the machinery and sprays would have to be dismantled and reassembled with considerable losses in terms of output (for the colliery) and earnings (for the faceworkers) placing additional strain on the face teams.

In particular, the Anderton-Shearer loader created dust levels 17.5 per cent above those of any other face.²²⁰ Despite advances made by reducing the size of the Anderton-Shearer loader's cutting drum from five to four feet in diameter, reducing the number of picks, adding a hood (or cowl) to the machine, applying more sprays, using bi-directional shearers (which had drums at both ends and reduced the frequency with which the shearer needed to cross the face in a shift) and slowing the machine down, 21 per cent of Anderton-Shearer loaders in use in the Scottish Division in 1965 were still operating above the new approved level of dust of 700p.p.c.c., table 10.²²¹ Table 11 provides illuminating disaggregated data on coalfaces, which exceeded 'approved' levels of dust concentration, from which to examine the issue of dust suppression, using the selected collieries from those identified. They provide a useful vantage point from which to observe colliery management's attempts to tackle excessive dust levels and factors, which could mitigate against them, especially on power-loaded faces. It may be worthwhile considering some of the prevalent impressions of attitudes towards dust suppression at collieries first.

²²⁰ HMIM & Q, SD, 1964, pp.22-3.

²²¹ On 1 October 1965, new dust prescription levels of 700 p.p.c.c. were introduced ;NCB, SD, Committee of Area Safety Officers, 18 October 1965, CB 53/10.

The Inspectorate continued to blame high dust levels on the recalcitrance of mineworkers and dereliction of duty on the part of colliery management throughout the later 1950s and into the 1960s.²²²

Evidence from Bill Marshall and Alistair Moore challenges the Inspectorate's suggestion of a rump of complacency amongst mineworkers, noting that a large number of men took health and safety seriously, although the odd older mineworker (less likely to be working on a power-loaded face) could object to sprays or the wearing of respirators.²²³ Once again, Frank Gibb's observations of an economy of safety seem to be reflected in the praxis of dust suppression.²²⁴

*Table 10: Number of 'unapproved' Anderton-Shearer Loaders operating in the Scottish Division, by Area, 1965.*²²⁵

<i>Area</i>	<i>Total number in operation</i>	<i>Approved</i>	<i>Unapproved</i>	<i>Borderline</i>	<i>Unclassified</i>
Fife	18	13	4	1	-
Lothians	18	16	1	-	1
Central	25	25	-	-	-
Alloa	15	11	4	-	-
Ayrshire	15	5	10	-	-
Scottish Division	91	70	19	1	1

²²² HMIM, SD, 1956, p. 21; HMIM & Q, SD, 1958, pp. 29-30; HMIM & Q, SD, 1960, p. 36.

²²³ Interview with Bill Marshall Kirkcaldy; Interview with Alistair Moore, Bo'ness.

²²⁴ Interview with Frank Gibb, Cowdenbeath.

²²⁵ NCB, SD, Committee of Area Safety Officers, minutes, 18 October 1965, CB 53/10.

Table 11: List of collieries operating 'unapproved' and 'borderline' faces as at 18 October 1965.²²⁶

Colliery/ face/ Area	Status	Dust concentration measurement (p.p.c.c.)
Frances, No. 1 (Lethanwell), Fife	Unapproved	1251
Michael, Branxton 21, Fife	"	1063
Michael, Dysart Dip No. 3, Fife	"	890
Wellesley, Bowhouse No. 1 East, Fife	"	911
Frances, No. 7, Fife	Borderline	759
Lady Victoria, No. 4 Parrott, Lothians	Unapproved	1210
Dollar Mine, No. 4 South, Alloa	"	1714
Dollar Mine, No. 3 West, Alloa	"	1200
Comrie, No. 55, Alloa	"	894
Bogside, Righead No. 3, Alloa	"	1100
Killoch, No. 1 East, Ayrshire	"	878
Killoch, No. 2 East, Ayrshire	"	1021
Killoch, No. 6 East, Ayrshire	"	840
Killoch, No. 2 West, Ayrshire	"	1236
Killoch, No. 3 West, Ayrshire	"	867
Killoch, No. 6 South, Ayrshire	Borderline	720
Douglas, No. 1 North, Ayrshire	Borderline	738
Douglas, No. 14 Kirkrod, Ayrshire	Unapproved	901
Fauldhead, Splint No. 3, Ayrshire	Unapproved	901
Auchlochan, No. 5 6 ft, Ayrshire	Unapproved	822

Perusal of the colliery consultative committees of eight pits and two colliery safety committees across the Scottish coalfield from the late 1950s up into the mid 1960s suggests that dust suppression was taken very seriously and, with a few exceptions, acted upon very promptly.²²⁷

Colliery, Area and Divisional Safety Committees, though not exclusively

²²⁶ Ibid.

²²⁷ NCB, SD, Alloa Area, Blairhall Colliery Consultative Committee (CCC), 8 December 1964 and 24 May 1965, CB 55/2; NCB, SD, Lothians Area, Burghlee CCC, 13 June 1960, CB 55/4; NCB, SD, Fife Area, Frances CCC, 22 April 1964, CB 55/ 10; NCB, SD, Alloa Area, Glenochil CCC, 28 January 1959, CB 55/11; NCB, SD, Fife Area, Kinglassie CCC, 4 September 1962, CB 55/13; NCB, SD, Fife Area, Lochhead CCC, 24 June 1964, 27 October 1965, 10 November 1965 and 12 November 1966, CB55/18; NCB, SD, Mary CCC, 18 March 1964 and 29 April 1964, CB 55/20; NCB, SD, Lothians Area, Monktonhall Colliery Safety Committee (CSC), 9 June 1966, CB 55/34; NCB, SD, Alloa Area, Seafeld CSC, 2 December 1965, CB 55/35; See comments about variable reliability of CCCs in chapter six: Peter Ackers and Jonathan Payne, 'Through a Glass Darkly': Deciphering Colliery Consultation Minutes of the British Coal Industry, 1947- 1974', *Labour History Review*, Vol. 65, No. 1, (Spring 2000), pp. 59-89.

focused on dust suppression or other aspects of occupational health, can nevertheless provide illuminating insights to colliery management's attitude to safety, and *ergo* their attitude to dust suppression and other occupational diseases.

Turning to the collieries identified as having high dust levels on a number of faces, the immediately ensuing deliberations will examine the following selected collieries: Dollar mine and Bogside mine (Alloa Area), and Killoch colliery (Ayrshire Area). All of these collieries were either new or relatively new developments and were heavily mechanised.

Bogside mine suffered from a common problem, that of faulting and dirt bands, which created considerable amounts of dust. In an attempt to tackle the problem, the colliery management had introduced bi-directional shearers fitted with sprays under a hood which wet the coal on the face before it was cut and this appeared for some time to have suppressed excessive dust levels.²²⁸ However the Bogside Colliery Safety Committee had also been berated in a report following an inspection in 1962, by one of the representatives of the Alloa Area Joint Safety Committee, for their lax attitude to safety and finished by noting that the Bogside Safety Committee was 'more interested in the times of their buses for getting home'.²²⁹ However the Area Joint Safety Committee were able to report a considerable improvement in the safety regime at the colliery by the following year.²³⁰

Dollar mine had a very active safety committee and a colliery manager who was genuinely consultative.²³¹ However the mine was plagued by poor geological conditions, which included bad faulting, heavy watering,

²²⁸ William Chalmers, 'Advanced Shearing Techniques at Bogside Mine', *Proceedings of the NACM*, LXII, 1965, pp. 143-5.

²²⁹ NCB, SD, Alloa Area, Area Joint Safety Committee (AJSC), 5 July 1962, CB 54/4.

²³⁰ NCB, SD, Alloa Area, AJSC, 7 June 1963, CB 54/4.

²³¹ NCB, SD, Alloa Area, AJSC, 5 July 1962, CB 54/4; George McAlpine, 'Three-shift Working at Dollar Mine', *NACM*, LX, 1963, pp. 33-40.

dirt band seams and soft fireclay floors, which made going difficult and dust levels unpredictable.²³²

Killoch colliery was sunk nearby by the Mauchline coalfield and fault in Ayrshire, and suffered from notoriously difficult geological conditions.²³³ In January 1964, a ranging shearer was introduced and immediately, due to faulting and igneous intrusions, dust levels increased rapidly.²³⁴ The management, unions and engineers at the colliery collaborated on measures to combat the dust but found that water sprays were relatively ineffective, especially when sprayed into the air rather than onto the coal during the cutting process, and that the solution lay in the fitting of hoods with sprays onto the coalface itself, accompanied by dust extraction fans.²³⁵

Easthouses colliery, one of the first pits in Scotland to introduce shearer-loaders, eventually managed its dust suppression by an evolutionary process of trying smaller drums, hoods and then vane sprays under the hood.²³⁶ Other collieries experienced many of the same problems with sudden increases in dust levels where shearers hit dirt-band seams, floor redd or rock.²³⁷ The use of varying methods to suppress dust seems to have emerged by process of elimination rather than a standard process. However, this is more of a reflection on the diversity of colliery or even

²³² Ibid, pp. 34-35.

²³³ NCB, SD, EC, policy papers, 14 April 1957, CB 44/33.

²³⁴ See glossary for explanation of a ranging shearer: A. B. Blair, 'The Ranging Shearer at Killoch Colliery', *The Mining Engineer*, January 1967, p.254.

²³⁵ Ibid, pp.258-9.

²³⁶ NCB, SD, Lothians Area, Easthouses CCC, minutes, 1959- 1964, CB 55/7-8.

²³⁷ HMIM & Q, SD, 1960, pp.31-2; HMIM & Q, SD, 1962, pp.31-2; HMIM & Q, SD, 1963, pp.29-30; HMIM & Q, SD, 1965, pp.23-4; John Pettigrew, 'Improving Efficiency Elsewhere Underground at Whitrigg Colliery', *NACM*, LXIII,1966, p. 217; W. H. Walton, 'The Airborne Dust Problems in Coal Mines in Great Britain', *The Mining Engineer*, November 1966, pp. 111-2; NCB, SD, Fife Area, Lochhead CCC, 10 November 1965, CB 55/18.

individual face conditions rather than a general comment on the praxis of dust suppression.²³⁸

Clearly, as the example of Bogside suggests lax safety regimes did exist at some pits.²³⁹ Furthermore, representatives of NACODS, the NUM and the District Inspector of Mines, after conducting interviews amongst junior officials in the Alloa Area, claimed, in meetings of the Alloa Area Joint Safety Committee in 1963 and 1964, that the junior officials concerned had confirmed that safety was being ignored, 'for the sake of production because of the increasing tempo'.²⁴⁰ Meanwhile at Frances Colliery in Fife, the manager's response, to NUM complaints that junior officials were placing safety second to output, was met with a response which suggested a less than judicious approach to colliery safety:

Mr. Clark [the manager] replied Mr. Taylor [NUM] was forgetting that officials were not only responsible for safety but production was also their problem, and occasions might arise where they could not think of everything.²⁴¹

Given Bill Marshall's recollections of working practices at the colliery around this time, it casts an even more damning light on the manager's statement. Clearly, there are examples of both carelessness and indifference to health and safety. However, as the preceding examples have shown, it is also clear that many managers and mining professionals were rigorous in applying dust suppression to faces, ensuring that standards on low dust levels were maintained throughout the pit and attempting, not always successfully (because of very difficult and unpredictable conditions), to find local solutions to dust problems in their

²³⁸ Ibid.

²³⁹ See references to Plean Colliery's Safety Committee as well: NCB, SD, Alloa Area, AJSC, 5 July 1962, CB 54/4.

²⁴⁰ NCB, SD, Alloa Area, Area Joint Safety Committee, 7 June 1963, CB 54/4; NCB, SD, Alloa Area, AJSC, 30 January 1964, CB 54/4.

²⁴¹ NCB, SD, Fife Area, Frances CCC, 22 April 1964, CB 55/10.

pits. Sometimes colliery management and safety committees went beyond prescribed standards. At Monktonhall colliery, the colliery set standards which were far more stringent than those set by the NCB standards to ensure dust levels were kept well under control, and, at Seafield colliery, despite the general rule that respirators were only prescribed for stone driving, from 1965 onwards respirators were issued to all faceworkers and routine inspection of sprays and mask filters carried out.²⁴²

Inadequate dust suppression and tardiness in fitting new dust suppression measures, like cowls (hoods) and sprays, can also be attributed to the very real shortages of equipment and long delays at the central workshops.²⁴³ Certainly this was a problem, which continued to vex divisional electrical and mechanical engineers throughout the 1960s.²⁴⁴

However the chief reason for any compromises in dust suppression standards lay, as in other areas of health and safety, in the NCB's prosecution of its mechanisation and productivity campaigns at strategic and tactical levels.

Conclusions

Clearly, in some cases, NCB policy, enforced through Divisional and Area managements, to achieve productivity gains, which were increasingly unrealistic in some cases, could, especially in a climate of closures, contraction and even greater emphasis on face turnaround times, compromise health and safety. Post-war shortages of materials, pressures on central workshops and tightening of NCB budgets also played their

²⁴² NCB, SD, Alloa Area, Monktonhall Colliery Safety Committee, 9 June 1966, CB 55/34; NCB, SD, Alloa Area, Seafield Colliery Safety Committee, 2 December 1965, CB 55/35; The information about Seafield was confirmed by William Marshall, who worked at the colliery as a Deputy.

²⁴³ See explanations in chapter five: HMIM & Q, SD, 1961, p. 36.

²⁴⁴ NCB, SD, Committee of Area Electrical Engineers, minutes, 11 May 1960 and 5 October 1960, CB 53/5; NCB, SD, Committee of Area Mechanical Engineers, minutes, 21 November 1966, CB 53/6.

part in placing additional pressure on coal-faces and collieries. In some cases, negligence on the part of colliery managements, junior officials, union officials and mineworkers was responsible for inadequate or non-existent health and safety measures. However, the very real achievements in mine ventilation, roof supports, dust sampling technology, dust suppression methods on cutting, loading and conveying machinery, along with better designs of respirators were attributable to the perseverance of mine management professionals and scientists. It is equally clear though that once the balance of power changed within the industry, health and safety suffered at the hands of productivity.²⁴⁵

Colliery managers and under-managers, in particular, were in an unenviable position, subject to contradictory NCB directives yet shouldering the statutory responsibility for safety at the colliery. In many unreported and uneventful cases, managers probably, to attain productivity targets (either to advance their careers, retain their jobs or to save coal faces, districts or the colliery), averted their eyes to abuses of the manager's rules in the realisation that targets would not be achieved otherwise. Where managers could, because of conditions, health and safety were placed at a premium. As Frank Gibb so accurately noted there was an economy on safety set by NCB production targets, and to a lesser degree accident rates. Managers were subject to the economic, social and political parameters- enforced, sometimes ruthlessly by Area, and particularly Divisional and National Boards. Ultimately, as George Maxwell has so

²⁴⁵ Jonathan and Ruth Winterton, 'Production, politics and technological development: British coal mining in the twentieth century' in J. Melling and A. McKinlay (eds.), *Management, labour, and industrial politics in Modern Europe*, pp.134-140; Steve Leman and Jonathan Winterton, 'New technology and the restructuring of pit-level industrial relations in the British coal industry', *New Technology, Work and Employment*, Vol. 6, Spring 1991, pp. 54-64; Christine Edwards, 'Power and decision making in the workplace: a study in the British coal mining industry', *Industrial Relations Journal*, 50, 69, Spring 1983, pp. 50- 69; See comments about the Longannet Complex in R. Johnston and A. McIvor, *Lethal Work*, p. 61; See Krieger's comments about longer term struggles over control of the labour process and health and safety in J. Krieger, *Undermining Capitalism*, p.276.

adroitly noted, managers and mine management professionals could be caught between 'rocks and hard masters', constrained by the managerial processes, directives and 'internal labour market' of the NCB's hierarchy.²⁴⁶

²⁴⁶ G. M. Maxwell, 'Between Rocks and Hard Masters'; Craig R. Littler, 'A Comparative Analysis of Managerial Structures and Strategies' in Howard F. Gospel and Craig R. Littler (eds.), *Managerial Strategies and Industrial Relations. An historical and comparative study* (London, 1983), pp.171-196; Ad W. M. Teulings, 'Managerial Labour Processes in Organised Capitalism; the Power of Corporate Management and the Powerlessness of the manager' in D. Knights and H. Willmott (eds.), *Managing the Labour Process* (Aldershot, 1986), pp.142-165; David Cooper, Tony Lowe, Teresa Capps and Jan Mouritsen, 'Managerial Control and Worker Resistance in the National Coal Board: Financial Controls in the Labour Process', in *Ibid*, pp. 109-141.

The formation and development of the British Association of Colliery Management (BACM), 1947- 1966.

The Association is unique. It is the first Trade Union to represent, nationally, management in a large basic industry. This is an experiment which not only the man in the street is watching critically, but about which management in other industries earmarked for nationalization are increasingly curious.¹

It is a far cry back to the days of 1947 when this Association commenced its task of putting the relationships between the Board and the Union on a firm and proper basis. At that time we were faced with an atmosphere created by the first Board whose conception of the Management Staff dated not merely back to feudal times but even further, perhaps even to the days of Rome, Egypt and Babylon when slaves might be seen but certainly not heard.²

The most striking observation was in B.A.C.M., where colliery managers form an unmistakable "aristocracy". Colliery Managers, and those above them, who comprise less than three per cent of the membership, form 21 per cent of the National Executive and 33 per cent of the B.A.C.M. representatives on the National Joint Council (N.J.C.), where many matters of a national character are negotiated to the National Executive. They inevitably play a greater part in negotiating decisions than the other members of the Executive.³

The three preceding perspectives from and observations of the BACM provide a useful starting point from which to examine the formation, development, outlook and behaviours of the managers' union in the British coal industry, after nationalisation. Colliery managers and the mine management professions had been served- largely on technical matters with infrequent forays into political or economic comment- by the professional

¹ BACM, *The National News Letter*, 21 January 1948, Vol. 1, Pt. I, No.1, p.5.

² BACM, *The National News Letter*, May 1955 (by May 1948, *The National News Letter* was issued monthly and hence became monthly editions), Vol. 1, Pt. II, No. 31, p.1.

³ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', unpublished University of Warwick M.A. dissertation (1975), pp.7-8.

associations from the late nineteenth century onwards. Prior to nationalisation, colliery managers and mining professionals represented themselves and negotiated individual terms and conditions with employers.⁴ The BACM was indeed 'a new departure'.⁵

*Aim, objectives and historical context*⁶

Whilst this chapter is primarily concerned with the BACM's formation, development, administration and outlook, and specifically how this affected and involved Scottish mine management professionals, it will also examine the union as part of the boom of white-collar, and particularly managerial, trade unions after 1945.

The initial declaration from the first edition of the BACM's *National News Letter* captures the intrigue, trepidation and reluctance surrounding the 'experiment' of managerial trade unionism in the coal industry, although the claim of pre-eminence was not strictly accurate.⁷

⁴ See chapter two, pp.28-34.

⁵ BACM, *The National News Letter*, February 1954, Vol.1, Pt.II, No.26, p.1.

⁶ I am grateful to the General-Secretary and President of BACM- Team (Technical, Energy and Administrative Management) and the staff at the BACM-Team offices in Doncaster for their help. I was able to consult the minutes of BACM's National Executive and National Joint Council along with copies of the BACM's journal, *The National News Letter*. Unfortunately, the Union could not locate the copies of the minutes of the national delegate conferences. The representative for the Scottish retired members' branch, Alistair Moore, arranged for me to interview a number of retired mining professionals. Jim Bullock's autobiography, *Them and US*, also offered a valuable insight into the outlook of the BACM's most influential national President.

⁷ A union for managers and professionals had existed in the electricity supply industry since 1913. The Electrical Power Engineers Association (EPEA) was recognised by the industry's employers, as the sole representative for the staff side (plant managers, administrators and technical professionals) in 1920. Whilst, the Association of Supervisory Staffs, Executive and Technicians (ASSET), representing managers, higher technicians and professionals in the engineering industry was recognised and granted negotiating rights for those employees by the Engineering Employers Federation (EEF) in 1944.:A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p. 2; Chris Wrigley, *British Trade Unions Since 1933* (Cambridge, 2002), p.22.

As the chapter notes later, recognition by employers, and perforce the context to recognition (for example, conditions of employer recognition), was critical to the success and consolidation of support for managerial trade unions given their opposition, by and large, to industrial action. The emergence of and culture of change within the BACM, between 1947 and 1966, provide an excellent illustration of the transition from, 'individualistic, pro-employer orientation', to, 'employees', whose, 'role in industrial relations cannot be assumed to reflect only their position as representatives of the employer', amongst mine management professionals in this period.⁸ The change in managerial consciousness was symbolised by the difference in approaches between the first (permanent) National President of the union from 1947-1956, Major Stanley Walton- Brown, and the General Secretary throughout much of the period from 1947- 1959, Major R. W. Anderson, and the much feted leadership of Jim Bullock (National President, 1956- 1969) and George Tyler (General Secretary, 1959- 1973).⁹

Stanley Walton- Brown's reflections on early BACM- NCB negotiations, in the second quote, undoubtedly present a jaundiced interpretation of events. However, it provides an insight into the very real sense of shock and incomprehension felt, particularly by colliery managers, at nationalisation and the changes this involved in terms of managers' relations with their employers. Managers' expectation of tacit support and common purpose from

⁸ Brian McCormick, 'Managerial Unionism in the coal industry', *British Journal of Sociology*, Vol. II, (1960), p.357; A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.1.

⁹ Major R. W. Anderson had been the colliery manager at Seghill colliery (coincidentally working for the same company [the Seghill Colliery Company Ltd.] as Walton-Brown) between 1921-1946. General Secretary of BACM (1947- 1959). Andrew M. Bryan was transitional chairman during the BACM's inception, between May and September 1947, see BACM, National Executive, minutes, 5 March 1947- 20 September 1947.

their new employers, the NCB, was soon dispelled and helps explain the very tangible sense of awkwardness and deference displayed by some BACM negotiators in their early conferences with the NCB. It also partly explains the accusations of betrayal leveled at the NCB by BACM members and officers over exclusive prosecutions of colliery managers and Area production officials under the Coal Mines Act in the early years of nationalisation (particularly the cases in Scotland). The quote- made as part of Walton-Brown's comment on the Fleck Report- was also significant in that it marked a watershed in the outlook and tactics of the union.

From 1956 onwards, with a change of Union leadership, the BACM National Executive pursued negotiations with the NCB in a more circumspect manner. Bullock and Tyler also, with the support of sections of the membership, actively, but slowly, nurtured consciousness amongst amenable groupings within the union and developed policy and tactics to reflect the changing outlook of progressive members and the realities of their political, social and economic environment. This included recognising the benefits of and building temporary alliances with other trade unions in the industry. More fundamentally, events within the industry and the growing crisis for coal, and battle for fuel markets, further encouraged progressives, and alerted realists, within BACM's ranks to campaign for a voice within corporatist structures. This took the form of arguing for TUC affiliation. However, they were met with stiff opposition from within the BACM's ranks by many who were averse to trade unionism and clearly aligned themselves with employers.

Finally, Alan Arthurs' remark (third quote), from the findings of his own research into managerial unionism in key basic industries (coal, steel and electricity supply)- and one of only two detailed studies of managerial unionism in the coal industry- provided a glimpse into the internal politics

and administration of the BACM.¹⁰ In much the same way as some colliery managers and higher production officials were not considered to be collegiate, and even imperious, in their working relationships with other sections of the mine management professions, apparently colliery managers could, and did, dominate the BACM and felt it to be 'their association'.¹¹ This chapter will deliberate whether the change in union outlook was influenced by 'centrifugal', 'centripetal' or environmental forces. In other words, was the change in BACM policy and strategy prompted by union leadership, by the membership or by the collectivist structures and public service codes put in place by the NCB, and was the increasing participation of certain vocational groups within the union and eventually the National Executive and National Joint Council a critical factor in forging a sense of managerial trade union consciousness? The final quote suggests a fundamental difference theoretically- socially and strategically- between a great many colliery managers and other mining professionals, namely that colliery managers found it difficult to come to terms with their position as employees (distinct and estranged from their historical bonds to their employers) and, especially, their role as trade unionists. It was a role thrust upon them initially by the industrial relations machinery of nationalisation and a Labour Government, of whom they were, by and large, either ideologically distrustful of or fundamentally opposed to (as was illustrated by the early leadership of Walton-Brown and Anderson). It was not without significance that Walton-Brown and Anderson continued to use their military ranks within every aspect of their commercial careers. Indeed, a brief reflection as to whether retired British army officers of the early-mid twentieth century, or indeed the present day, would advocate or feel comfortable participating in a trade union is a useful reminder of the C(c)onservatism of this group.

¹⁰ The other being: B.J.McCormick, 'Managerial Unionism in the coal industry', *BJS*, II, (1960), pp.356-369.

¹¹ See Alistair G. H. Moore's comments later in the chapter.

In addition to Walton-Brown and Anderson's hierarchical fixation, they were former coal executives (they had both held board positions and had shares in private colliery companies).¹² This was not the most auspicious start to the formation of a managerial trade union but nevertheless reflected the realities of the coal industry. It could also not have been more different from Jim Bullock and George Tyler who both came from mining stock, had worked as miners, and were committed trade unionists and Labour Party members who supported nationalisation. However, given the C(c)onservatism of most colliery managers, and their dominance of both the National Executive and National Joint Council, it is little wonder that the BACM, at least initially, in outlook and membership participation patterns, behaved more like a 'co-ordinating' and 'protective association' than a trade union.¹³ This preoccupation with 'the protection of members' occupational interests'- which can make the distinction between some trade unions and professional associations blurred- did not change dramatically over time but, for reasons which have been touched on already and will be explored in more detail in due course, the tone and approach of the BACM changed noticeably.¹⁴ This was primarily shaped by the pragmatism and experience of operating within the post-war structures of industrial relations and corporate policy-making but also by the determination of key figures at national and branch levels to change the outlook of the union.

Despite the union's no strike pledge (like that of other managerial unions) and the absence of any organised militant rank and file movements, there

¹² Jim Bullock, *Them and US* (London, 1972), p.147.

¹³ Roger Lumley, *White Collar Unionism in Britain* (London, 1973) cited in Michael P. Jackson, *Trade unions* (London, 1982), pp.37-8.

¹⁴ *Ibid*, p.37.

were examples regionally (in Scotland, South Wales, Yorkshire and Lancashire) of divergences in approach at regional and sub-branch level which were shaped, like the national BACM policy, by a wish to voice local concerns within regional policy fora. Nowhere was this was illustrated with greater poignancy than in Scotland- primarily because it was more crisis ridden than any of the other coalfields- where BACM built temporary alliances with the NUM, Scottish Area, NACODS and the Enginemen, Boilermen & Tradesmen's Association (EBTA) to lobby against the transference of traditional Scottish coal markets to Nottinghamshire collieries. The collaboration to prevent the loss of jobs in Scotland reflected the increasing common interest between the mining unions as the future of the deep coal mining industry in Scotland became more uncertain. BACM members in Scotland could see the value of tactical alliances with other mining unions to have a voice in the circles of the 'corporatist elites' like the Scottish Council for Development and Industry (SCDI) through the STUC (who were represented at the table) in Scotland's 'branch plant economy'¹⁵ In contrast to Harold Perkins' picture of the rise of professional society, this had little to do with managerial and professional groups increasingly guiding and informing social and economic agendas and more to do with a desperate attempt to register their concerns about the chronic decline of the coal industry in Scotland from the early 1960s onwards.¹⁶

The chapter will focus principally on the following areas: the structure, character and outlook of BACM (and its main office-holders), and the context and experiences which shaped the union over this period; how this compared with a few other selected managerial and white-collar unions; the level and degree of participation in union affairs (of all groups) and composition of

¹⁵ David McCrone, 'Scottish Elites in the Twentieth Century' in A. Dickson and J. Treble (Eds.), *People and Society in Scotland, Volume III: 1914-1990* (Edinburgh, 1992), p.190.

¹⁶ Harold Perkins, *The Rise of Professional Society. England Since 1880* (London, 1989), pp.303-5.

BACM; the relationship between BACM and the NCB, government, other unions within the industry, the NACM, and the wider trade union movement; and the relationship between the Scottish Branch of the BACM and the union nationally.

Formation, administration and aims of the BACM

The formation and survival of BACM was largely due to the immediate post-war Labour Cabinet's belief in a voice for management employees as part of the new industrial settlement. Whilst BACM was formed with the support of the NACM, IME, AMEME and the Institute of Mining Surveyors (IMS), it was, as the BACM National Executive acknowledged in one of their initial meetings, a combination of NACM and Labour Ministers' suggestions, which led to the formation of the association.¹⁷ Labour's plans for industrial democracy (and view of managerial employees within that) have already been examined elsewhere. The NACM had explored the possibility of becoming the representative body for management grades in the industry in the nationalized industry but were prevented from doing so by their Royal Charter, which designated them as a professional association.¹⁸ Nevertheless, Andrew Bryan, as NACM President, had in his 1946 address to the annual conference presented a draft charter for management (akin to the Miners' Charter) and was recognised, by Attlee's administration, between 1945-1947 as the representative body to approach on matters of staff salaries and conditions of employment.¹⁹ BACM was also preceded by two largely regionally based unions for managers and staff grades in the coal industry.

¹⁷ BACM, National Executive, minutes, meeting between Major Walton-Brown and Major Anderson (BACM) and Lord Hyndley, Sir Arthur Street and Mr. R. G. C. Cowe (NCB), Landsdowne Hotel, London, 23 April 1947.

¹⁸ BACM, National Executive, minutes, meeting between BACM and NUM, NUM offices, London, 5 August 1947.

¹⁹ Ina Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', *Business History*, 33, 4, (1992), p.65.

With nationalisation imminent, colliery officials in South Yorkshire, with the help of South Yorkshire coal owners, set up the Yorkshire Association of Colliery Officials and Staff (YACOS) to represent all those in the industry not covered by the NUM.²⁰ Despite considerable support within South Yorkshire, this was met with opposition from coal owners in West Yorkshire.²¹

Nevertheless, support for a union for supervisory, managerial and administrative grades in the coalfields of the North East of England and South Wales prompted YACOS to extend its membership and change its name to reflect interests outside Yorkshire, becoming the British Association of Colliery Officials and Staff (BACOS) in late 1946.²² Despite having built a membership of more than 7,000 by mid-1947, its patchy recognition across the British coalfield revealed the weakness, particularly of managerial trade unionism, without employer recognition.²³

Indeed, as the example of the British Iron and Steel Managers' Association (BISMA) illustrates, managerial unionism in the coal industry would undoubtedly have foundered had it not been for nationalisation.²⁴ The NCB sealed BACOS' fate when it refused it recognition because of its geographical and compositional coverage.²⁵ Consequently, BACOS, along with the National Association of Under-managers, merged with BACM (who by this stage had been recognised by the NCB) in August 1947 to create a 10,000 strong union.²⁶ However, the initial recruitment of junior clerical grades and junior officials in South Yorkshire by YACOS, and then North East England

²⁰ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.3; B. J. McCormick, 'Managerial Unionism in the coal industry', p.358.

²¹ Ibid.

²² Ibid; A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.3.

²³ This is a further illustration of colliery owners' opposition to the representation of managerial grades (see examples in chapter two). Ibid.

²⁴ See references to BISMA later on in the chapter.

²⁵ Ibid.

²⁶ Ibid; B. J. McCormick, 'Managerial Unionism in the coal industry', p.360.

and in South Wales by BACOS, prior to the merger would plague the BACM in the demarcation negotiations which culminated with a settlement in 1953.²⁷

Whilst the NACM had intermittently passed comment on aspects of the industry's direction during the 1930s, and latterly, as chapter 2 has shown colliery managers and other mine management staffs largely relied upon arbitrary, and irregular, agreements with coal owners. At BACM's first annual delegate conference- held in York in July 1947- delegates agreed a series of aims for the Association (see appendix 4).

How far the achievement of some of the BACM's aims was due to the Union's negotiation and how much was due to NCB acceptance of these principles as a rule without any need for negotiation, will be explored later in the chapter. Clearly, in some cases, local branches felt that BACM had not adequately protected their membership.²⁸ The first York conference also decided upon two other principles, members' responses to industrial action by other mining unions and staff eligibility for BACM membership, which were respectively initially and in the longer term, to be divisive in terms of district, local and individual members' responses. From the early days of nationalisation up until and including the miners strike of 1984-5, the principle, agreed at this conference as, 'a guiding principle', that, 'members ought not to do the work of other bodies on strike, "except in matters involving the safety of the pit into strict and proper sense', would be a highly contentious issue.²⁹ This was first challenged by BACM members from the South Western Branch at the 1952 annual conference in Blackpool, where they proposed a motion replacing the original rule with one urging officials, in the event of a strike, to, 'do

²⁷ See later references to BACM representation of clerks in North Eastern Division, and junior officials in Scottish and South Western Divisions.

²⁸ For example, cases of Kames and Bickershaw collieries, see pp.330 and 426- 427.

²⁹ BACM, *The National News Letter*, 21 January 1948, Vol.1, Pt.I, No.1, p.1.

everything in their power in the interests of safety', and, 'keep everything going'.³⁰ The motion was subsequently defeated.³¹ Nevertheless in 1966, during unofficial action in the Lothians Area, unit engineers flouted BACM rules to carry out essential maintenance for safety purposes.³²

The other principle agreed at the first delegate conference, which was to cause frictions (both within and outwith the Association), was that 'all ranks of management and staff were eligible for membership', including those below 'supervisory level'.³³ As the chapter has already shown, YACOS and BACOS had recruited large numbers of junior clerks and junior officials. This practice had continued, particularly in the South Western, Scottish, North Eastern (Yorkshire) and North Western divisions and would later result in conflict (see later references). It was not until 1952 that a judicial settlement was reached on union demarcation within the industry in which it was agreed that BACM would represent colliery staff above the level of Oversman up to and including Divisional Production Directors.³⁴ Under agreement with the NCB, Association of Scientific Workers (AscW) and the Royal College of Nursing (RCN), BACM also negotiated on behalf of the growing body of scientists and nurses employed in the industry.³⁵

The first five years of nationalisation saw the satisfactory resolution of issues on demarcation, a vast improvement for most BACM members of their pay

³⁰ BACM, *The National News Letter*, 1, II, 22, September 1952, p.2.

³¹ Ibid.

³² BACM, *The National News Letter*, III, 76, September 1966, p.11.

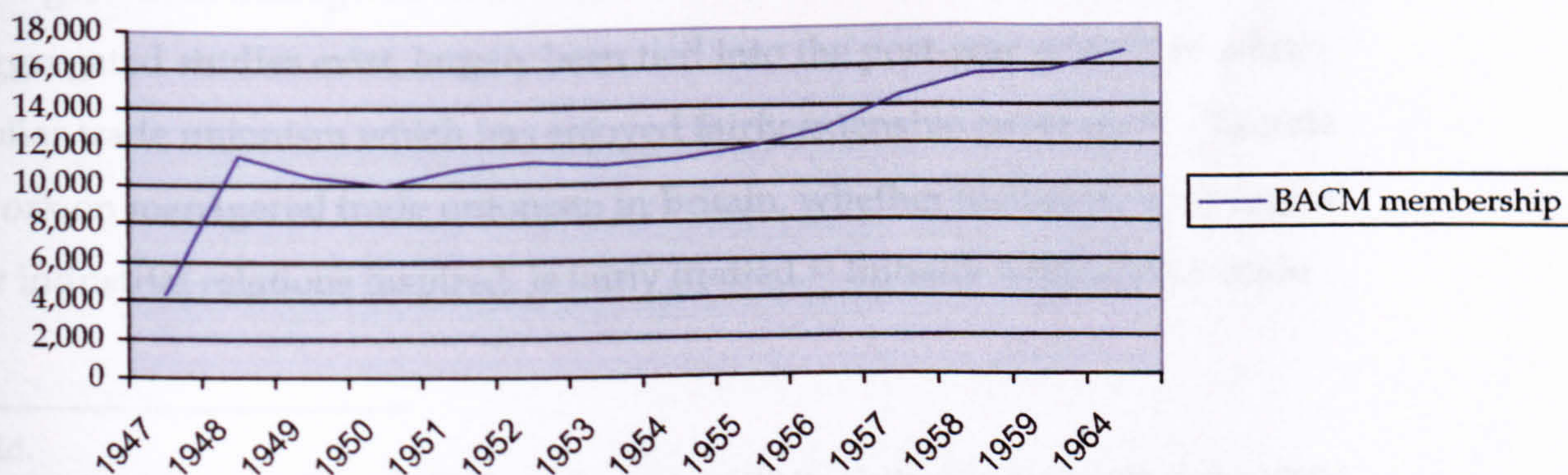
³³ BACM, *The National News Letter*, 1, I, 1, 20 February 1948, p.2.

³⁴ This included undermanagers along with specialist supervisory engineers (although subordinate to undermanagers) and, in large pits, assistant undermanagers. Frequently senior Divisional production staff relinquished their membership when promoted to these posts. A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.3.

³⁵ Ibid; B. J. McCormick, 'Managerial Unionism in the coal industry', pp.358-9.

and conditions, and agreement on perquisites.³⁶ However the issues which continued to unite BACM members and increase recruitment, George Tyler claimed, were victimisation, particularly during public enquiries, and the realisation that only through the union would they find a voice: 'At first fear brought them into the union and afterwards the success of the union in bargaining.'³⁷ BACM membership reached its peak of 16,700 members in 1964 after which it declined due to the contraction of the industry (see figure 25). Despite frequent complaints throughout this period of non-unionism amongst managerial grades, BACM claimed ninety-five per cent unionisation by the 1970s, amongst those grades entitled to join.³⁸

Figure 25: BACM membership, by selected years.³⁹



Aside from changes to membership both before and immediately after the 1952 judicial agreement on union representation within the industry, and the pursuant growth in membership of groups like unit engineers, there was a

³⁶ BACM, *The National News Letter*, 1, II, 24, July 1953, p.11.

³⁷ B. J. McCormick, 'Managerial Unionism in the coal industry', p.361.

³⁸ For example: BACM, *The National News Letter*, 1, II, 26, February 1954, pp.1 and 10; Greg Bamber, *Militant Managers? Managerial Unionism and Industrial Relations* (Aldershot, 1986), p.8.

³⁹ B. J. McCormick, 'Managerial Unionism in the coal industry', Table 1, p.360; A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.3.

dramatic increase in membership between 1957- 1964, with a 30.7 per cent rise in membership, on 1956 numbers, over this period.⁴⁰ It is no coincidence that this coincided with the ascension of Bullock and Tyler to their positions as President and General Secretary respectively. It is argued here that their robust defence of members, vigorous negotiation techniques and tactical repositioning of BACM, as an independent managerial trade union, instilled confidence into managerial and staff grades and encouraged stragglers, and newly promoted or appointed NCB employees (to these grades) to join the union in large numbers, mirroring, to some degree, the Jenkins' effect in ASSET.⁴¹

British managerial trade unionism in the twentieth century

The growth in managerial trade unionism in Britain after 1945 has, where aggregated studies exist, largely been tied into the post-war growth of white-collar trade unionism which has enjoyed fairly extensive coverage.⁴² Discrete work on managerial trade unionism in Britain, whether historical, sociological or industrial relations inspired, is fairly limited.⁴³ Initially white-collar trade

⁴⁰ Ibid.

⁴¹ C. Wrigley, 'From ASSET to ASTMS: An Example of White-Collar Union Growth in the 1960s', *Historical Studies in Industrial Relations (HSIR)*, No.7, (Spring 1999), pp.57-74; J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', *International Review of Social History (IRSH)*, 48, (2003), pp.245-271.

⁴² For examples: George Sayers Bain, *The growth of white-collar unionism* (Oxford, 1970); George Sayers Bain, 'The Growth of White Collar Unionism in Britain', *British Journal of Industrial Relations*, Vol. IV, Numbers 1-3, (1966), pp.303- 310; Guy Routh, 'White-collar Unions in the United Kingdom' in Adolf Sturmthal (ed.), *White-collar trade unions. Contemporary developments in Industrialized Societies*, (London, 1966)

⁴³ Examples include: A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries'; A. J. Arthurs, 'Managerial Trade Unions', *Journal of Industrial Relations*, Vol.25, (1983), pp.140-152; B. J. McCormick, 'Managerial Unionism in the coal industry'; G. Bamber, *Militant Managers? Managerial Unionism and Industrial Relations*, pp.1-15; C. Wrigley, 'From ASSET to ASTMS: An Example of White-Collar Union Growth in the 1960s', pp.57-74; J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', pp.245-271.

unions did share some common characteristics with managerial trade unions. However, on other principles, they were fundamentally polarised.

The growth of white-collar employment and the decline of traditional heavy manual industries had a dramatic effect on the composition of both the TUC and the STUC between 1948 and 1979. In 1948, 5.4 per cent of the British civilian workforce worked in the coal, cotton and railway industries, with trade union density of 86.4, 78.3 and 88.7 per cent respectively.⁴⁴ By 1971, these industries accounted for 2.6 per cent of civil labour.⁴⁵ Between 1951 and 1979, white-collar workers increased from one third to one half of the British workforce, with a 29.8 per cent growth in white-collar trade unionism between 1951 and 1968.⁴⁶ Between 1931 and 1961, managers, administrators, and higher and lower professional groups grew from 8.3 per cent to 14.4 per cent of the total British workforce.⁴⁷

In Scotland, the industrial section of the STUC- consisting of mining & quarrying, railways, transport, metals and machines, and construction- still accounted for 57 per cent of the total affiliated membership, with 26 per cent accounted for by the service section (distributive trades, public employees and general workers) in 1960.⁴⁸ By 1980, civil and public servants, and non-manual workers alone accounted for 45 per cent of the STUC's affiliated membership.⁴⁹ Between 1951 and 1971, employers and managers, and

⁴⁴ Chris Wrigley, *British Trade Unions since 1933*, p.21.

⁴⁵ *Ibid*, p.21.

⁴⁶ *Ibid*, p.22.

⁴⁷ George Sayers Bain, 'The Growth of White Collar Unionism in Britain', *British Journal of Industrial Relations (BJIR)*, Vol. IV, No.s 1-3, 1966, pp.305-6.

⁴⁸ Knox suggests that in 1947 the majority of union members came from this same industrial section: William Knox, 'Class, Work and Trade Unionism' in A. Dickson and J. Treble (eds.), *People and Society in Scotland, Volume III: 1914-1990* (Edinburgh, 1992), p.123.

⁴⁹ *Ibid*; W. Knox, *Industrial Nation* (Edinburgh, 1998), p.287.

professional employees grew from 7.8 to 10.8 per cent of the Scottish workforce.⁵⁰

The relevance of these figures lies in showing the growth in white collar and managerial groups in this period as a backdrop to BACM's formation and development. They also highlight the increasing numbers of white-collar trade unionists within the ranks of the TUC and STUC. The figures for numbers of managers in Scotland have unfortunately been amalgamated with those for employers, but show relatively smaller numbers in comparison to British figures. Nevertheless, as we shall see, the growth in numbers of white-collar unions affiliating to the TUC, and the increasing power and influence which accompanied it, encouraged the BACM, along with other small managerial trade unions, to seek a voice in these larger trade union fora, aware of the greater influence they afforded.

The growth of white-collar, and particularly managerial, trade unionism in Britain after 1945 was greatest in the public sector- largely a reflection of Labour's extension of existing corporatist structures and post-war roadmap to industrial democracy.⁵¹ This expansion of managerial unionism in Britain was part of a wider growth across Western Europe.⁵² Even in the public sector, personal status, perceptions of social responsibility to the status quo, and a distrust of trade unionism meant that often white-collar public employers, and managers even more so, were awkward and reluctant trade unionists.⁵³

⁵⁰ D. McCrone, 'Scottish Elites' in A. Dickson and J. Treble (eds.), *People and Society in Scotland*, Vol.III, Table 2, p.192.

⁵¹ G. S. Bain, 'The Growth of White-Collar Unionism in Britain', *BJIR*, IV, 1-3, (1966), pp. 305-6; Guy Routh, 'White-collar Unions in the United Kingdom' in Adolf Sturmthal (ed.), *White-collar trade unions. Contemporary developments in Industrialized Societies* (London, 1966), p. 165; A. J. Arthurs, 'Managerial Trade Unions', *Journal of Industrial Relations*, Vol.25, (1983), pp.140-143.

⁵² *Ibid*, pp.142-3; G. Bamber, *Militant Managers?*, pp.4-5.

⁵³ Guy Routh, 'White-collar Unions in the United Kingdom', p.165.

There was also, even in the public sector, considerable opposition to unionising both white-collar staff and managers.⁵⁴ Nevertheless, the Attlee Governments' commitment, in particular, to unionisation for white-collar and managerial public employees to operate within corporatist industrial relations structures, in public services, local and central government, and the nationalised industries, induced, in some cases, and allowed in others the birth and growth of union representation for these groups of employees within these areas.⁵⁵

General rules cannot, on the whole, be applied either to the distinctions between managerial and white-collar or to similarities between managerial unions or white-collar unions. For example, the approach of ASSET was pointedly different to that of either BACM or BISMA.

However, where managerial and white-collar unions did increasingly diverge was on industrial action, as Arthurs has noted managerial unions are, 'reluctant to strike: they are ideologically inhibited and in weak positions strategically.'⁵⁶ This opposition to strike action, and indeed covering the work of others during strikes, was a feature of both BACM (as we have seen) and BISMA.⁵⁷ In contrast, white-collar unions, despite concerns about their status and respectability in the eyes of society, were willing from the late nineteenth-century onwards to challenge their employers by the use of industrial action.⁵⁸ Whilst some white-collar unions' industrial action met with mixed results, the success of others would appear to have stemmed from members'

⁵⁴ A. J. Arthurs, 'Managerial Trade Unions', pp. 140-143.

⁵⁵ W. Knox, 'Class, Work and Trade Unionism in Scotland', pp.124-5 and 129-130.

⁵⁶ A. J. Arthurs, 'Managerial Trade Unions', p.148.

⁵⁷ G. Bamber, *Militant Managers?*, p.37.

⁵⁸ For examples, see action taken by some Civil Service unions in the 1950s and members of the Clerical and Administrative Workers' Union: G. Routh, *White-collar Unions in the United Kingdom*, pp.176-199.

willingness, where forced, to use the strike.⁵⁹ This set them apart from managers' unions.

TUC and Labour Party affiliation was less clear-cut, although there is an evident division between more conservative managerial unions, like BISMA and BACM, and more left-leaning managers' unions, like ASSET. Up until the 1970s, the majority of the BACM and BISMA membership were fundamentally opposed to TUC membership because of the TUC's affiliation to the Labour Party and other political activities.⁶⁰ BACM members' reluctance and, in some quarters, overt hostility to TUC affiliation undoubtedly weakened BACM's position strategically- a point on which Bullock and Tyler were critically aware and were always at pains to point out to the membership- at a critical time for the long-term survival of the industry. BISMA's bargaining positioning, weak as it was, was even further undermined by non-affiliation to the TUC.⁶¹ However, membership of the TUC and forays into politics also remained either out of bounds or divisive for some white-collar unions.⁶²

⁵⁹ Ibid.

⁶⁰ See later discussion about the rifts within BACM over TUC membership. G. Bamber, *Militant Managers?*, p.30; In contrast, both EPEA and ASSET had long been members of the TUC and had affiliated early on in their respective histories. ASSET, under Clive Jenkins' leadership, in particular, was very politically active within the TUC: A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.16; J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', pp.245-271; C. Wrigley, 'From ASSET to ASTMS: An Example of White-Collar Union Growth in the 1960s', pp.57-74.

⁶¹ G. Bamber, *Militant Managers?*, p.33; Conversely, it has been argued in two studies, ASSET, after 1968, ASTMS, built up a powerful support base through its activities within the TUC, and particularly those of its one-time Communist General-Secretary, Clive Jenkins: J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', pp.245-271; C. Wrigley, 'From ASSET to ASTMS: An Example of White-Collar Union Growth in the 1960s', pp.57-74.

⁶² CSCA, the National Union of Bank Employees (NUBE), the Union of Shop, Distributive and Allied Workers (USDAW), and UPW were all affiliated to the TUC, whilst the latter was affiliated to the Labour Party. However, the Institution of Professional Civil Servants (IPCS) was affiliated

The case of IPCS and the other civil service unions presents arguably the best comparison with managerial unions and illustration of the difficulties of drawing comparisons between white-collar and managerial trade unions. Whilst, all of the members of IPCS, CSCA, UPW and other civil service unions were civil servants, their status, background and positions were very different. IPCS's members were usually involved in policy work and strategic managerial decision-making, whilst CSCA and UPW members were not, and thus were more closely linked to the difficulties faced by managerial unions. IPCS members were caught in the dilemma of most managers that of professional ethic weighed against union loyalty:

Conflicts of loyalty exist for all employees, but for managers they assume a much greater importance. Managers have traditionally put the interests of the industrial organization in which they work above those of any external organisation.⁶³

Arthurs also identified low participation rates in union activity amongst EPEA, BACM and the Steel Industry Managers' Association (SIMA), challenging earlier claims by Lipset of higher participation, in professional unions, because of higher education and status.⁶⁴

Another measure which can be used to examine the consciousness and benchmark the behaviour of a union is that of 'unionateness', applied by R.

to neither More CSCA and UPW members came from working class backgrounds and consequently, Routh asserts, were more familiar with trade union membership. In contrast, IPCS' members were more likely to be drawn from middle class backgrounds and have less experience of trade unions, save to view them negatively: G. Routh, 'White-collar Unions in the United Kingdom', pp.185 and 190-5; Between 1947-1966, no less than four presidents of the STUC were from white-collar trade unions: Angela Tuckett, *The Scottish Trades Union Congress. The First Eighty Years, 1897- 1977*, (Edinburgh, 1986), pp.428-9.

⁶³ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.32.

⁶⁴ SIMA was BISMA's predecessor: A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.5; However Routh also found lower levels of union participation amongst white-collar unions than Lipset suggested: G. Routh, 'White-collar Unions in the United Kingdom', pp.165-195.

M. Blackburn.⁶⁵ Blackburn identified seven indicators of 'unionateness'. The first three are variable, whereas the remnants are distinctive. The first three depend on the union being primarily concerned with representing its members in collective bargaining and protecting their rights (rather than acting as a professional regulatory body or a welfare organisation); the union being separate of employers so that it can represent its membership independently; and lastly its willingness to use industrial action to achieve its ends.⁶⁶The remaining points on Blackburn's scale involve the union being: registered as a trade union; declaring itself to be a union; affiliated to the TUC; and finally, affiliated to the Labour Party.⁶⁷ These rules are obviously limited by their simplicity and can only begin to hint at the nuances of the internal political constituencies, which determine union outlook. Nevertheless, they provide a useful starting point and one which can be qualified by the specifics of praxis.

Differences clearly existed which belie distinctions between white-collar and managerial trade unions, although these shifted overtime as managers and professionals became more conscious of their status as employees and, perforce, the potential benefits to be enjoyed as trade unionists from dialogue with and through the wider trade union movement. However, the differences between white-collar and managerial trade unions mean that other managerial unions offer the most meaningful comparison. The unions selected below present a broad spectrum of managerial union approach and tactics but ones in which members broadly fit Arthurs' definition managers as

⁶⁵ R. M. Blackburn, *Union Character and Social Class* (Batsford, 1967).

⁶⁶ *Ibid*, p.18.

⁶⁷ *Ibid*.

those who controlled the work of foremen or supervisors or those 'employees of equal status' (professionals).⁶⁸

Although the EPEA had considerably more experience than BACM as a trade union and had a membership which was far more comfortable as trade unionists, EPEA members-as the BACM membership- held and expressed similar concerns about the centralisation of power. Of all the managerial unions, the youngest, and most obviously similar to BACM, was BISMA. Not only were the coal, iron and steel industries historically linked but they also shared similar management strategies, including an innate conservatism amongst management grades in these industries. Some steel managers, like their counterparts in the coal industry, were also less than keen advocates of nationalisation.⁶⁹ On the other hand, after re-privatisation in 1952, under the Conservatives, BISMA effectively disappeared until the industry was re-nationalised in 1967 and it re-emerged as SIMA.⁷⁰

EPEA

The EPEA was founded in 1913, as the Association of Electrical Station Engineers.⁷¹ At the first annual conference, held in 1917, its aims was declared to be to unite:

⁶⁸ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.1; Space in the thesis does not allow for what might be an interesting comparison between the apparently polar opposites of BACM and ASSET. ASSET presented a polar opposite to BACM, in terms of its public profile and its overtly political stance, particularly under Jenkins' leadership. However, ASSET illustrated what a managerial union- irrespective of political outlook- could achieve within the fora of the TUC. That said, unlike BACM, ASSET was not operating in a rapidly contracting industry and Jenkins, unlike Bullock and Tyler, could count on a sizeable majority to support his leadership and tactics: J. Melling, 'Managing the White-Collar Union: Salaried Staff, Trade Union Leadership, and the Politics of Organized Labour in Postwar Britain, c.1950-1968', pp.245-271.

⁶⁹ G. Bamber, *Militant Managers?* p. 27-29.

⁷⁰ *Ibid*, pp. 29-35.

⁷¹ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.2.

Members working in the various electricity companies and authorities, to secure their position on joint negotiating machinery being proposed for the industry, to improve pay and conditions, and particularly to protect the interests of individual members.⁷²

When the industry was nationalised in 1948, the British Electricity Authority (BEA) entered into an agreement with the EPEA, continuing the employer recognition which the Association had had since 1920.⁷³ EPEA membership stood at 10,317 members in 1948 but had grown to 29,612 by the end of 1970.⁷⁴ By 1975, the EPEA claimed that 97 per cent of engineers and scientific staff in England and Wales were members.⁷⁵ It also claimed half of the industry's 1,671 managers and higher executives as members, with the rest either represented by NALGO or the Association of Managerial and Electrical Executives (AMEE).⁷⁶ The EPEA had affiliated to the TUC in 1942 and managed to consolidate a consensus for executive actions, in spite of low turnouts at delegate conferences (through the use of postal ballots).⁷⁷ The EPEA's alliances with other staff unions in the industry (with the EPEA in the lead) led to successes at arbitration against their employers in the mid 1950s over salary settlements and showed the benefits of inter-union alliances.⁷⁸

BISMA

BISMA was formed shortly after the nationalisation of the steel industry in 1950.⁷⁹ Like BACM's predecessors, YACOS and BACOS, BISMA's membership was largely limited to the North East of England and South

⁷² Ibid.

⁷³ Ibid.

⁷⁴ Ibid, p.2.

⁷⁵ Ibid.

⁷⁶ Ibid, p.3.

⁷⁷ Ibid, pp.6 and 16.

⁷⁸ L. Hannah, *Managers, Engineers and Politicians. The First Fifteen Years of Nationalised Electricity Supply in Britain*, (London, 1982), p.128.

⁷⁹ A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.4.

Wales.⁸⁰ Like the BEA and NCB, the British Steel Corporation (BSC) was charged, under the terms of nationalisation, with seeking consultation with appropriate bodies deemed by them to be representative of the employees 'for the settlement by negotiation of terms and conditions of employment.'⁸¹ BISMA was initially set up by managers in the seven private firms earmarked for nationalization, with the support of the directors of the private companies.⁸² Membership grew to 600 on the eve of the 1951 election.⁸³ However, when it was re-privatised, BISMA suffered a hemorrhage of members as the private steel companies refused to recognise BISMA.⁸⁴ Whether employer support for BISMA was in the hope that it would destabilise the nationalised industry is unclear. Since BISMA's inception, it had also faced opposition from the Iron and Steel Trades Confederation (ISTC), which covered most workers in the steel industry.⁸⁵ Furthermore, BISMA was restricted from joining the TUC because the TUC accepted the ISTC's claim to represent all workers in the steel industry.⁸⁶ BISMA's agreement, under duress, to relinquish any claims to represent supervisors in the steel industry, in 1952, further damaged the union when one of the large branches of the union (the Consett Centre) walked out in protest at BISMA's acceptance of the ruling.⁸⁷ Consequently its small membership, lack of employer recognition and exclusion from the TUC meant that BISMA was very limited in the success and scope of its activities until the industry was re-nationalised in 1967.⁸⁸

⁸⁰ G. Bamber, *Militant Managers?* pp. 27-8.

⁸¹ *Ibid*, p.16.

⁸² *Ibid*, pp.27-8; A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.4.

⁸³ *Ibid*.

⁸⁴ *Ibid*.

⁸⁵ *Ibid*.

⁸⁶ *Ibid*, p. 16.

⁸⁷ G. Bamber, *Militant Managers?* p.29.

⁸⁸ *Ibid*, pp.29-34.

The experiences of these preceding managerial unions were to find resonance in BACM's experience.

BACM

It must now be clear beyond all doubt that in this nationalised industry an official in pursuing his lawful claim can achieve nothing by himself. Collective action is the only hope.⁸⁹

Major Walton-Brown assured Lord Hyndley and Sir Arthur [Street] that although they had been accustomed to do it in the past, the attack was not directed against Lord Hyndley or Sir Arthur personally. The position was not completely changed by the new circumstances with one employer. It might be necessary for the Association to take more active steps in defence of their interests than in the past.⁹⁰

The chairman [Walton-Brown] drew attention to the fact that he had received communications on Association business written on Coal Board note-paper, and from Coal Board addresses. Although the old owners were more gracious in this respect, he knew the Coal Board held different views.⁹¹

The preceding remarks illustrate the twilight world, which BACM's National Executive and a large number of its membership felt they had entered, upon nationalisation. Their initial declaration of strength through unity (first quote) was hardly a resounding rallying call, especially when viewed against the deference in negotiations with the NCB (second quote), or willingness to assimilate themselves with their new position, evident in the implicit distrust of the NCB and dissatisfaction with nationalisation of Walton-Brown's remarks (final quote).

⁸⁹ BACM, *The National News Letter*, 1, I, 1, 21 January 1948, p.5.

⁹⁰ BACM, National Executive, minutes of meeting between Majors Walton-Brown and Anderson (for BACM) with Lord Hyndley, Sir Arthur Street and Mr R. G. C. Cowe (for the NCB), 23 April 1947, Landsdowne Hotel, London.

⁹¹ BACM, National Executive, minutes of meeting, 20 September 1947, Coal Trade Offices, Newcastle.

As chapter four noted, Jim Bullock remarked in his Presidential Address to the BACM annual delegate conference in Blackpool in May 1961, that the union was essentially conservative in nature and that, particularly amongst the higher echelons, there were many who had been less than enthusiastic about nationalisation.⁹²

As negotiations would show, the BACM National Executive, certainly in the first few years of nationalisation, were uncomfortable trade unionists and NCB employees. Even Walton-Brown's declaration to the second annual conference that, 'there has never been a time when the management and staff were so disgruntled... so ready to talk of the possibility of industrial action as at the present time', was little more than empty sabre-rattling.⁹³ Certainly, Walton-Brown's assertion that he had not seen so much bad feeling amongst managers and staff within the industry and that managerial grades were willing to consider industrial action, as the ensuing descriptions show, bore little resemblance to the experience of settlements of pay and conditions for management and the mine management professions in the first few years of nationalisation. As chapter two has shown, managers and staff did not, as employees, have access to representation on issues of pay and conditions prior to nationalisation. Zweiniger-Bargielowska has shown some evidence of the substantial improvements to managers' pay and conditions under nationalisation, although Brian McCormick claimed that managers, in particular, actually saw a loss in money terms, due to the replacement of certain perquisites with equivalent (taxable) payments.⁹⁴

⁹² BACM, *The National News Letter*, 1, II, 55, June 1961, p.3.

⁹³ Quoted in I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', p.67.

⁹⁴ I. Zweiniger-Bargielowska, 'Colliery Managers and Nationalisation', p.67; B. J. McCormick, 'Managerial Unionism in the coal industry', pp.362-6.

Within the first four years of nationalisation, colliery managers, undermanagers and instructors alone saw annual salary increases of between 3 and 6 per cent.⁹⁵ Most managerial grades were granted fourteen working days holiday, along with statutory days, whilst colliery managers got nineteen days holiday.⁹⁶ For the first time, final dismissal procedures were implemented, along with sick leave on full-time pay for six months and half-pay for six to twelve months.⁹⁷ Aside from some localised disputes, there was no talk of industrial action.

Walton-Brown's preceding remarks about discontent amongst managers may well have had more to do with the demarcation battles which were taking place over the junior clerical grades and supervisory officials up until 1952, and the local cases like that at Bickershaw Colliery in Yorkshire. In the North Eastern Division, BACM had signed up 600-700 oversmen as members of the association, along with 75 per cent of all clerks, whilst BACM's Scottish branch representative, T. King, suggested that over 50 per cent of all oversmen in Scottish pits were members of BACM.⁹⁸ The Durham Division also complained about BACM's attempts to poach clerks and other grades represented by the NUM.⁹⁹ At the same meeting, BACM claimed membership of 16 per cent of the 23,000 clerks in the industry.¹⁰⁰

⁹⁵ BACM, *The National News Letter*, 1, I, 2, 20 February 1948, pp. 2, 3 and 5; BACM, *The National News Letter*, 1, I, 7, October 1948, p.2; BACM, *The National News Letter*, 1, I, 18, May 1951, p.4.

⁹⁶ BACM, *The National News Letter*, 1, I, 3, 30 March 1948, p.7.

⁹⁷ BACM, *The National News Letter*, 1, I, 5, June 1948, p.3; BACM, *The National News Letter*, 1, I, 6, August 1948, p.1.

⁹⁸ BACM, National Executive, minutes for 1 November 1947, Station Hotel, York; BACM, National Executive, minutes for 20 December 1947, Royal Station Hotel, York

⁹⁹ BACM, National Executive, minutes for 7 June 1950, Waldorf Hotel, London.

¹⁰⁰ *Ibid.*

The controversy continued through the early years of nationalisation with Lord Hyndley issuing a strongly worded rebuke to the BACM in 1949.¹⁰¹

Clearly, given claims cited earlier, of concerted BACM recruitment in some coalfields, amongst the groups identified in Hyndley's letter, his criticisms were well founded. The implications of this, if allowed to go unchecked, as Hyndley mentioned, would have been industrial disputes and, more fundamentally, the loss of confidence in, and even derailing of, the NCB's arbitration and conciliation machinery. Furthermore, Hyndley cited an example in his letter of the attempts of the colliery manager to recruit his officials, presumably attempting to cultivate hegemony at his pit as well as increase BACM recruitment.¹⁰²

BACM spent much of the first five years of nationalisation, aside from demarcation squabbles, negotiating members' pay and conditions with the NCB's introduction of national salary scales for most grades of NCB employees. In particular, there was a great deal of a furore over Sir Arthur Street's steps to replace the system of perquisites (benefits enjoyed by colliery staff, such as turkeys at Christmas and free lunches), free housing and coal allowances- in line with Civil Service pay and conditions.¹⁰³ This was bitterly resented by colliery managers, in particular.¹⁰⁴ It culminated with the NCB

¹⁰¹ Hyndley complained of 'poaching... of a flagrant kind... of such men as overmen, deputies and clerks': BACM, National Executive, extract of letter from Lord Hyndley read at meeting between BACM and NCB, 15 February 1949, Hobart House, London.

¹⁰² BACM, National Executive, extract of letter from Lord Hyndley read at meeting between BACM and NCB, 15 February 1949, Hobart House, London.

¹⁰³ BACM, *The National News Letter*, 1, I, 2, 20 February 1948, p.2; BACM, *The National News Letter*, 1, I, 13, November 1949, pp.1-2; BACM, *The National News Letter*, 1, II, 25, November 1953, p.7; BACM, National Joint Council (NJC), minutes, 15 March 1950; BACM, NE, minutes, 23 April 1947; BACM, NE, minutes, 26 October 1949; BACM, NE, minutes, 10 November 1949; B. J. McCormick, 'Managerial Unionism in the coal industry', pp.362-3.

¹⁰⁴ BACM, *The National News Letter*, 1, I, 2, 20 February 1948, p.2; BACM, *The National News Letter*, 1, I, 13, November 1949, pp.1-2; BACM, *The National News Letter*, 1, II, 25, November 1953, p.7; In

agreeing to retain coal allowances to the value of £50, and for those managers and engineers with houses already provided to keep them.¹⁰⁵ Colliery managers without a house, were to be given an 18 per cent salary increase (on top of across the board raises to salaries), if they earned less than £2,000 per annum, and 20 per cent, if it exceeded that, to compensate them for the loss of free housing.¹⁰⁶ For colliery managers whose houses had substantial grounds, the NCB continued to allow for the provision of a gardener.¹⁰⁷ All other perquisites were valued and compensation given in tax-deductible extras.¹⁰⁸ Attempts to continue coal allowances for managers and staff were finally replaced- after a National Reference Tribunal rejecting the trade unions' attempts to extend the scheme- with pooling scheme for staff in 1953 and for managers in 1957.¹⁰⁹ McCormick's charge that the 'Board's policy on perks' caused 'a fall in real income' was true in so far as income was concerned within the period of nationalisation.¹¹⁰ However, as Zweiniger- Bargielowska has shown NCB's pay scales substantially increased the salaries of many managers in the South Wales coalfield from the sums they had received from the colliery companies prior to nationalisation.¹¹¹ Similarly, given the evidence provided in chapter two, nationalisation would have considerably improved Scottish mine management professions' pay and conditions.¹¹²

addition, the BACM made a brief and indignant stance against the NCB's demand that colliery managers and mining professionals give up directorships of private mining engineering firms who provided the NCB with machinery or other supplies: BACM, NE, minutes of meeting between NCB and BACM, 23 April 1947, Landsdowne Hotel, London.

¹⁰⁵ BACM, NJC, 15 March 1950; BACM, *The National News Letter*, 1, I, 2, 20 February 1948, p.2

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ Gas, water and electricity were not considered to be perquisites: BACM, *The National News Letter*, 1, II, 25, November 1953, p.7.

¹⁰⁹ B. J. McCormick, 'Managerial Unionism in the coal industry', p.363.

¹¹⁰ Ibid.

¹¹¹ Ina Zweiniger- Bargielowska, 'Colliery Managers and Nationalisation: The Experience in South Wales', pp.60-64.

¹¹² This was confirmed by George Gillespie who was the only mine management professional interviewed who had worked as a manager under both regimes. Interview with George Gillespie, Scottish Mining Museum, Newtongrange, East Lothian, 14 August 1999.

The Lanarkshire Coal Masters' Association had recommended a salary of around £545 for colliery managers in 1942. Ina Zweiniger-Bargielowska has cited a salary range for colliery managers in South Wales in 1944 of between £480 per annum, for small collieries, and £600 per annum for collieries employing more than 100 men.¹¹³ In contrast, in 1947, the NCB introduced a national salary range for all colliery managers, irrespective of the size of colliery, with a minimum of £650 and a maximum of £1,650.¹¹⁴ All colliery managers' salaries were raised again in May 1951. After the 1951 settlement, the scale was adjusted to range from a minimum salary of £1,000 to a maximum of £1,650 for large collieries, and £800 per annum minimum and £1,200 for small collieries.¹¹⁵ Between 1948- 1951, under-managers' salaries increased from a minimum of £700 to £900 per annum and a maximum of £1,100 to £1,200 per annum.¹¹⁶

In the Scottish Division, this was not linked precisely to the size of pit, although this would have had considerable bearing, but to the output from the pit.¹¹⁷ This partial embracing, in the Scottish Division, of what was tantamount to a system of performance related pay (PRP) may well have

¹¹³ Ibid, p.63.

¹¹⁴ Ibid.

¹¹⁵ BACM, *The National News Letter*, 1, I, 15, May 1951, p.4; B. J. McCormick, Table 2, p.365.

¹¹⁶ BACM, *The National News Letter*, 1, I, 2, 24 February 1948, p.2; For Scottish Divisional awards see: BACM, *The National News Letter*, 1, I, 7, October 1948, p.2; B. J. McCormick, Table 2, p.365; However, the NCB pay schemes apparently disadvantage managers in other Divisions. The most prominent clash between BACM and the NCB came over the salaries of management staff at Bickershaw Colliery, in Lancashire (whose salaries as proposed by the North Western Division immediately after nationalization) would have cut their salaries by half (as the former owners had offered premium salaries to attract the best possible candidates). The case was further compounded by the North Western Division's refusal to allow senior electrical and mechanical engineers to join BACM.: BACM, *The National News Letter*, 1, I, 2, 24 February 1948, p.1; BACM, *The National News Letter*, 1, I, 6, August 1948, p.2; BACM, NJC, minutes, 30 November 1958.

¹¹⁷ The preceding chapters have already outlined the impact this could have on industrial relations and health and safety: BACM, *The National News Letter*, 1, I, 7, October 1948, p.2.

discriminated against the plethora of aged and small collieries but it was in line with BACM calls for the introduction of a system of PRP.¹¹⁸

The salaries of mining professionals, as a whole, almost certainly improved under nationalisation. After the tenth Porter settlement of May 1953, managers, under-managers and some other mining professionals' wages were raised, in line with earlier increases to junior officials' wages, and mining professionals saw regular pay increases throughout the 1950s and 1960s.¹¹⁹ However, it would appear that whilst colliery managers and under-managers, in general, saw an improvement to their salaries, those managing small and old pits were at a disadvantage to those managing large and modern pits, particularly in Scotland. BACM concerns and criticisms over pay and allowances were largely limited to the early years of nationalisation and were much more of a reflection on the implementation of national salary scales and formal employment procedures. Viewed against the problems of implementing a national wage structure for mineworkers, the introduction and consolidation of a national salary scales and conditions of employment for managers and the mine management professions was relatively painless and any problems, short lived. Nevertheless, throughout the first nineteen years of nationalisation, the BACM, like other managerial unions outside the industry, continued to be plagued by the 'conflict of interests', which was exploited by the NCB, as Jim Bullock remembered with a resigned bitterness in his memoirs:

It was sufficient for me to even mention a salary claim and an economic blizzard would sweep, not only through the corridors of Hobart House... They would have us believe any increase given to management would start off a string of other claims from the workmen, that it would ruin the

¹¹⁸ BACM, *The National News Letter*, 1, I, 10, April 1949, p.3.

¹¹⁹ B. J. McCormick, 'Managerial Unionism in the coal industry', Tables 2 & 3, p.365.

industry, ruin the export market, upset the balance of payments and even the pound itself might be shaken.¹²⁰

This was mirrored by the almost begging nature of negotiations between BISMA, both under nationalisation and once it had been re-privatised, and employers.¹²¹

The BACM continued to focus much of its attention throughout this period, on complaints about the structure of the industry (and the need for decentralisation), the perceived persecution of managers (whether through the prosecution of managers, alone, under the Coal Mines Act, 1911, and, after 1957, the Mines and Quarries Act, 1954 or the dismissal of managers for breaches of discipline), and increasingly the apparent failure of policy-makers to formulate a National Fuel Policy.

BACM criticisms about structure of the industry, and the reduction of the status and power of colliery managers, in particular, continued to be a major complaint of the BACM throughout the period, as the following examples illustrate¹²²:

The resignation of Sir Charles Reid has focused public attention on the chaotic position in which the Board finds itself and against which your Executive have been struggling for many months. This resignation, in a sense, crystallizes the widespread anxiety and uneasiness which prevails among officials in the industry... It is hoped that this publicity [from the media] following on from Press reports and the President's remarks on the subject at Edinburgh, will convince the public and the authorities that it is imperative, in the national interest, to re-shape the administration of the industry so that officials shall have a chance of getting on with their proper jobs and, (so far as BACM is concerned) so that causes of dissatisfaction

¹²⁰ J. Bullock, *Them and US*, pp.183-4; See also references in BACM, NE, minutes, 1 November 1947; BACM, NE, minutes, 2 April 1949; BACM, NE, minutes, 5 December 1951.

¹²¹ G. Bamber, *Militant Managers ?*, pp.31 and 33.

¹²² See chapter four, pp.181-2.

may be promptly investigated and negotiations with the Board may proceed much more rapidly than in the past.¹²³

The Committee [Fleck] do report that the Colliery Manager has not been taught to manage. I should put the matter in another light and say that the Colliery Manager has never yet been given by the Board an adequate stall to enable him to manage.¹²⁴

These remarks need to be balanced against the evidence in preceding chapters about actual and perceived diminution of managerial power. They also need to be set against the backdrop of the composition and views of the dominant wing of the union's membership and national executive at this time- namely the dominance of older colliery managers and senior mining engineers, fundamentally opposed to nationalisation (as epitomized by Walton- Brown and Anderson's leadership)- who were happy to exploit any opportunity to attack nationalisation. Hence, these extracts from Walton Brown's presidential addresses made after the Burrows and Fleck reports respectively, whilst highlighting some legitimate concerns, were also heavily laced with the political partisanship of dominant cabals within BACM at the time.¹²⁵

Increasingly though the BACM was finding its feet, albeit uncomfortably, with Walton-Brown declaring at the 1953 annual delegate conference:

In a monopolistic industry, the ideas of a National Coal Board and their managers as employees no longer coincide to the same extent as was the case under the former regime.¹²⁶

However, Walton-Brown's inherent misgivings with nationalisation are still evident from this quote. Equally clear was Walton-Brown's deference to senior NCB figures who were themselves surviving vestiges of the private

¹²³ BACM, *The National News Letter*, 1, I, 4, May 1948, p.4.

¹²⁴ BACM, *The National News Letter*, 1, II, 32, August 1955, p.11.

¹²⁵ As Bill Marshall was quick to point out, complaints of interference from above continued amongst colliery management long after the dissolution of the Divisions in 1967: Interview with Bill Marshall.

¹²⁶ BACM, *The National News Letter*, 1, II, 24, July 1953, p.10.

industry.¹²⁷ This was especially visible with the ascension of Sir Andrew Bryan and Sir Hubert Houldsworth to the Chair and membership of the Board. At the first meeting between Walton-Brown and Anderson, and Andrew Bryan and Hubert Houldsworth after their respective appointments to the national board, Walton-Brown asked Bryan and Houldsworth to view BACM as a, 'very necessary help to the Board', and, 'no longer a nuisance'.¹²⁸ Despite BACM's recognition by the NCB nationally, there were repeated complaints from local branches, throughout the early years of nationalisation, about a lack of recognition and consultation by the divisional boards. Most seriously, in the Scottish Division, this was manifested in complaints that, contrary to their obligations as set out in CINA, the divisional board had been holding consultative discussions with the NACM, on matters relating to managers' and mining professionals' pay and conditions of service.¹²⁹ These problems continued, with BACM's Scottish Branch complaining in 1951 that it was not being brought into the consultative machinery.¹³⁰ The North Eastern Branch's representative, Jim Bullock, suggested that BACM pull out of all national consultative machinery with the NCB until the Board rightfully involved BACM in consultation.¹³¹ This was rejected by the rest of the BACM National Executive, who decided that they should seek separate discussions with the NCB to resolve it and, if necessary, seek legal advice.¹³² As chapter seven noted, complaints were made about the conduct of joint BACM-NACM defences of managers in the Scottish Division throughout the early

¹²⁷ Bamber suggests that similar attitudes were prevalent amongst senior steel managers in this period: 'In several steel companies, many of the managers had enjoyed the fruits of benevolent paternalism. Some of the senior managers, in particular, feared that nationalisation would disturb their rather cosy employment relationship', G. Bamber, *Militant Managers?*, p.27. Bearing in mind chapter 2, this was clearly not the case with all colliery managers.

¹²⁸ BACM, *The National News Letter*, 1, II, 20, January 1952, pp.1-2.

¹²⁹ BACM, NE, minutes of meeting of 21 December 1949, Euston Hotel, London.

¹³⁰ Similar complaints were made by the North Eastern Branch of BACM see earlier references to Jim Bullock's complaints. BACM, NE, minutes of meeting of 1 August 1951, Great Northern Hotel, London.

¹³¹ Ibid.

¹³² Ibid.

1950s. Furthermore, concerns were expressed about NACM's great influence and collusion with the Scottish Divisional Board, as late as 1958, as this comment from Jim Bullock, to a BACM National Executive meeting, shows:

The President expressed his concern at the relationship existing between BACM and NACM in Scotland. The President doubted whether there had been any gain from having joint technical and legal advice. Describing his experience in Scotland, the President said that he got the impression that it was impossible to separate the NACM from the NCB.¹³³

Eventually, BACM reached agreement with the NACM on arrangements for a joint defence fund and shared technical advice in managers' defence cases in 1958.¹³⁴ Scottish Branch concerns about being left out of consultations and the influence of NACM with the divisional board seem to be well founded, with NACM still contributing the sole comment to the Scottish Divisional Board, on aspects of managers' conditions well into the 1950s.¹³⁵ That said, it had taken BACM branches all over the British coalfield over six years to get representation on the various consultative committees, which NACM had been represented on since Vesting Day.¹³⁶ BACM members in the North Eastern Division had fought a particularly hard battle for recognition and for conditions. BACM's early responses to the victimisation of members varied in terms of success, as the 1953 Kames case (see chapter seven) showed local branches were not always satisfied with BACM efforts. Out of these struggles and their early experience in managerial trade unionism, emerged BACM's tougher, more independent, new management team of Jim Bullock and George Tyler. It was through this campaigning, Bullock maintained, that they had built a strong power base:

¹³³ BACM, NE, minutes of meeting of 27 March 1958, Russell Hotel, London.

¹³⁴ BACM, NE, minutes of conference between BACM and NACM, 15 and 16 July 1958, Great Northern Hotel, London.

¹³⁵ NCB, SD, PC, papers, 8 April 1958, CB42/10.

¹³⁶ BACM, NE, minutes of conference between BACM and NCB, 12 March 1953, Great Northern Hotel London; BACM, NE, minutes of meeting, 12 November 1953, Kenilworth Hotel, London.

Mr Bullock referred to the North Eastern Division position and said that the strong membership at some pits arose from the personal influence of key BACM members.¹³⁷

Throughout the early 1950s, Jim Bullock had used his voice on the National Executive (first as the representative of the North Eastern Branch and then as the BACM representative for welfare) and particularly in discussions with the NCB to forcefully (in marked contrast to the deference shown by many BACM national officers in discussions with the NCB) pursue members' claims and concerns.¹³⁸ Bullock's reputation as a negotiator undoubtedly brought him to national attention and resulted in him being elected national President, upon Walton-Brown's retirement in 1956, and ushered in a new era in BACM's history.¹³⁹

Unlike Walton-Brown, Bullock had been born into a household of miners, had worked as a miner himself for years since leaving school at thirteen, and had worked also as a deputy, oversman and undermanager before his appointment as a colliery manager.¹⁴⁰ He remained a Labour Party supporter, as well as an advocate of nationalisation and a committed trade unionist.¹⁴¹ He was, like James Bowman, a product of pits.¹⁴² Furthermore, he came from a very similar background to many mine management professionals in the Scottish coal industry.

¹³⁷ BACM, NE, minutes of meeting, 12 February 1953, Great Northern Hotel, London.

¹³⁸ BACM, NE, minutes of meeting, 1 August 1951, Great Northern Hotel, London; BACM, NE, minutes of conference between BACM and NCB, 5 December 1951, Great Northern Hotel, London; BACM, NE, minutes of meeting, 12 February 1953, Great Northern Hotel, London; BACM, NE, minutes of meeting, 12 November 1953, Kenilworth Hotel, London.

¹³⁹ BACM, NE, minutes of meeting, 9 February 1956, Great Northern Hotel, London.

¹⁴⁰ J. Bullock, *Them and US*, p.150.

¹⁴¹ Ibid, pp.132- 144; BACM, *The National News Letter*, III, 66, March 1964, p.3.

¹⁴² Bullock's understanding of and respect for Bowman is evident from his memoirs. Bullock's own background added to his appeal amongst other mine management professionals (see Alistair Moore's comments, see, *Them and US*, p.192.

Bullock's subsequent partner in this new era, as the BACM's General-Secretary (appointed in 1959), had similar credentials to those of the President. George Edward Tyler came from mining stock, left school at fourteen to become an apprentice fitter, subsequently worked for six years as a miner, went to study mining and discovered an interest in trade unionism and aptitude for social sciences.¹⁴³ These he went on to study at Nottingham University for four years, followed by two years at Oxford University.¹⁴⁴ Tyler had worked with the South Wales Miners' Federation and British Universities in the 1930s organising holiday camps for unemployed miners in the 1930s and 1940s. In 1946, he became Secretary for YACOS and, from 1947, held numerous posts around the country, in BACM.¹⁴⁵

Both men adopted a more strident approach and independent agenda, attacking the Ministry (and Ministers) for their senior appointments' procedures and for salary increases for Board members (against a backdrop of calls from the NCB, for wage restraint, to the industry's unions).¹⁴⁶ Bullock and Tyler were openly critical of the failure of successive governments to alleviate the distress of the contraction of the industry and develop a robust national fuel policy, and, for the first time, worked nationally with the NUM and NACODS to lobby against the decline of the British coalfields.¹⁴⁷

Collaboration between BACM and the other mining unions became more common in the face of the contraction of the industry in the late 1950s and

¹⁴³ BACM, *The National News Letter*, 1, II, 46, March 1959, p.10.

¹⁴⁴ Ibid; J. Bullock, *Them and US*, p.148.

¹⁴⁵ Ibid; BACM, *The National News Letter*, 1, II, 46, March 1959, p.10.

¹⁴⁶ BACM, NE, minutes of meeting, 15 January 1959, Kenilworth Hotel, London; BACM, *The National News Letter*, 1, II, 54, March 1961, p.4; BACM, *The National News Letter*, 1, II, 55, June 1961, p.1.

¹⁴⁷ BACM, NE, minutes of meeting, 30 January 1962, BACM House, Nottingham; BACM, *The National News Letter*, III, 70, March 1965, p.2; BACM, *The National News Letter*, III, 71, June 1965, p.3; BACM, *The National News Letter*, III, 75, June 1966, p.4.

early 1960s. In the midst of the closure programme in Scotland, BACM's Scottish Branch wrote jointly with the other mining unions to James Bowman to lobby against the proposal to transfer of coal production from Ayrshire, for Irish markets, to the East Midlands.¹⁴⁸

The significance of this letter lies, not in the specific matter, but in the wider implications for BACM in Scotland and nationally, namely the growing realisation that BACM's had common cause, on some matters, and would be best served by finding its place within the wider forum of the trade union movement. Bullock was unequivocal about his support for TUC membership, as this appeal to BACM members makes clear:

My mind has always been clear that any union that wanted to be a union in spirit as well as in name should join the TUC.¹⁴⁹

Despite Bullock and Tyler's advocacy, an inherent distrust of the TUC lingered on amongst large sections of BACM's membership. In the Association's vote on affiliation to the TUC in 1964, which managed only a 29.58 per cent turnout, only 36.77 per cent of those BACM members who voted supported affiliating to the TUC.¹⁵⁰ On the back of this failure, Bullock and Tyler opened up the debate, arguing in the face of closures for the membership benefits to be accrued from TUC affiliation and that BACM could establish itself as a small non-political centre force within the TUC. The following statement from Tyler and Bullock, printed in the *National News Letter* in 1965, outlined their vision for BACM within the TUC:

The T.U.C. itself is concentrating increasingly upon economic and social questions and the growing influence of affiliated black-coated unions will help to ensure that in time purely political questions are left to political parties. In the event of affiliation the Society will react to questions as it does now according to how these affect our relationship with the Government and employer. We are not concerned with politics from any

¹⁴⁸ BACM, NE, minutes of meeting, 23 September 1959, BACM, House, Nottingham.

¹⁴⁹ BACM, *The National News Letter*, III, 66, March 1964, p.3.

¹⁵⁰ BACM, *The National News Letter*, III, 68, September 1964, p.17.

other aspect and regard the T.U.C. affiliation entirely from an industrial (i.e., occupational) standpoint. The Society is fully committed to this outlook.¹⁵¹

In addition, Bullock and Tyler saw TUC membership as being critical to gaining access to the network of corporatist bodies, like the National Economic Development Council (NEDC) and the European Coal and Steel Community (ECSC), which would give the BACM more of a voice in discussions over the coal industry's future.¹⁵² Despite this attempt to adopt a more 'distinctive' outlook for BACM by making tactical alliances, raising the profile of the Association outside the industry, and fostering a union identity (for the first time in its history), Bullock and Tyler faced stiff opposition from within BACM's ranks.¹⁵³ Opponents of BACM affiliation to the TUC argued that, as a non-political union, there was no place for BACM in the TUC. A letter from one of the disgruntled majority, F. H. Southam, to *The National News Letter*, cited the TUC's affiliation to the Labour Party and the likelihood of their embroilment in TUC discussions about Vietnam and Rhodesia as reasons for staying out of the TUC.¹⁵⁴ In the same letter, Southam criticised Bullock and Tyler for pursuing the issue of TUC affiliation and accused them of being, 'out of touch with the BACM membership'.¹⁵⁵ Whilst a combination of external factors, like further contraction of the industry, and Bullock and Tyler seemed to have paid some dividends in changing the minds of some of the membership, a sizeable majority of the membership were still opposed to TUC affiliation in 1970.¹⁵⁶

¹⁵¹ BACM, *The National News Letter*, III, 73, December 1965, p.13.

¹⁵² Ibid; BACM, *The National News Letter*, III, 74, March 1966, pp.1-3.

¹⁵³ See J. Melling, 'Managing the White-Collar Union', p.252.

¹⁵⁴ BACM, *The National News Letter*, III, 74, March 1966, p.6.

¹⁵⁵ Ibid.

¹⁵⁶ In union vote on the issue of TUC membership in 1970, only 42 per cent of the membership voted in favour of affiliation. Despite this defeat, Arthurs claimed that by 1975, most of the BACM National Executive was in favour of affiliating to the TUC. A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', pp.16-17.

Opponents claimed that their reservations about TUC membership stemmed from their concerns about the political character of the TUC. This, they claimed, would threaten the union's position of political neutrality and professional integrity. However, as the ensuing evidence suggests, these claims to political impartiality were frankly questionable. At the BACM's 1950 annual conference, delegates voted overwhelmingly against the government and NCB's instruction that managers were to refrain from making public political statements.¹⁵⁷ And, as Walton-Brown's comments to the 1953 conference, quoted earlier, show, the BACM's National Executive, in the early years of nationalisation, made no bones about which system of ownership they approved of. What is more, evidence from the Scottish Division in the 1960s suggests that some managers were involved in supporting anti-Communist activity at some collieries.¹⁵⁸ A more convincing explanation of opposition to affiliation to the TUC was neatly alluded to by Jim Bullock in his comments to the 1961 conference, namely that there was a sizeable majority of the BACM membership who were inherent opponents of both trade unionism and the Labour party, and were innate C(c)onservatives.¹⁵⁹ It was not until well after this period that BACM would finally affiliate to the TUC, and, even then, they attempted to block Scottish Branch attempts- for strategic purposes, namely to gain access to the Scottish Council on Development and Industry (SCDI)- to affiliate to the STUC.¹⁶⁰ As Ken Coates and Tony Topham noted, by employing Blackburn's model, that the affiliation of BACM, along with other unions like Association of University

¹⁵⁷ BACM, *The National News Letter*, 1, I, 15, May 1950, pp.1-2.

¹⁵⁸ A. Perchard, 'Bonnie Fighters': Class consciousness and solidarity in the Scots coalfield, c.1947-1960', Unpublished M.Phil. dissertation, Universities of Glasgow and Strathclyde (2000), pp.51-53.

¹⁵⁹ See also: J. Bullock, *Them and US*, p.146.

¹⁶⁰ Interview with Alistair Moore, Bo'ness.

Teachers and IPCS, to the TUC did not necessarily suggest trade union consciousness/ 'unionateness'.¹⁶¹

This deep-seated antagonism to trade unionism amongst sections of BACM's membership blinded them to the strategic benefits which could accrue to them and the necessity, within post-war Britain of corporatist structures. As the ensuing discussion shows, this can be partly ascribed by the dominance of the Association's main policy-making and negotiating structures by colliery managers. Nevertheless, Bullock and Tyler's leadership was to change the face of BACM into a managerial trade union proper. Bullock's popularity and perceived impact, in particular, were to endure, as this comment from a former BACM Scottish Branch official shows:

Jim Bullock was the best leader that BACM have ever had and, yes, there was a change in the attitude of the management union... Jim Bullock was the man for me. He came up, as you'll know, from the pit. He was a pit family. Brother, father, uncle, Tom Cobley and all were miners. He was from a mining village and he was a hands-on man.¹⁶²

For BACM members, like this respondent, the fact that Bullock understood the industry and all of those who worked in it because he was hewn out of the same rock was also a critical factor in his success. Bullock epitomised the meritocratic ideal- the manager who had achieved his position through a combination of perseverance and personal discipline in study, a practical knowledge of the pit environment learnt from working in manifold jobs in the pit at every grade and from coming from a family of miners. He had the 'feel for the industry'.¹⁶³

¹⁶¹ Ken Coates and Tony Topham, *Trade Unions in Britain*, (Nottingham, 1980), p.6.

¹⁶² Interview with Alistair Moore.

¹⁶³ See McGahey's comments in chapter six for an explanation.

Clearly, some of Bullock's appeal came from his background and by inference his hands on management style and pit sense. This language, whether perceived or real, of collectivity and of belonging to the industry, is important in explaining the support for Bullock amongst some of the other vocational work groups amongst the membership, such as surveyors, who objected to the lack of undemocratic practices and dominance of colliery managers within the union. Alistair Moore claimed that the attitude exhibited by colliery managers in Scotland in branch proceedings was, 'managers always thought... that they should be in charge and that other disciplines were subservient. If you like, they were lesser beings.'¹⁶⁴ Certainly, colliery managers and senior production officials were still very strongly represented amongst the Scottish branch's office-holders in the late 1950s.¹⁶⁵ Furthermore, as preceding evidence has shown, there may well be other explanations for the hostility between colliery managers and mining engineers, on the one hand, and other mining professionals on the other. Alistair Moore's triumphant relaying of the election of a surveyor, after 1966 (which is used, like the material which follows, because it illustrates the polarisation within the BACM throughout this period and beyond), to the chairmanship of the Scottish branch provides an illuminating insight into the schisms within the BACM, between colliery managers and other mining professionals:

I was party to a coup, if you like, up at Alloa, Scottish North Area, another surveyor, being trade-union minded, set out to become the branch Chairman and we had the canteen at Alloa, which was a big hall, and we had people standing outside. And the managers had appeared in force and they were sat along the front row. I was Secretary therefore I was sat at the top table looking at this... Tam Jackson was the chap asking for office and he had done a lot of lobbying, but when I saw this phalanx of managers, I thought you're on a hiding to nothing. However, he had done his homework and he prevailed. And when I was able to announce the result of the ballot- it was a paper ballot and I was able to announce that Tam had

¹⁶⁴ Interview with Alistair Moore, Bo'ness.

¹⁶⁵ BACM, *The National News Letter*, 1, II, 35, May 1956, p.6.

won fairly handsomely- the front row [the colliery managers] walked out because they were not now in charge. And there was never ever a manager as branch chairman after that – chief engineers, surveyors. That was the conservative attitude, if you like, “This is our union, you have only pinned yourselves on. Therefore we should be in charge.”¹⁶⁶

This view certainly reinforces Alan Arthurs’ observations of managers’ dominance of BACM. Despite the fact, unlike both the EPEA and BISMA, that vocational groupings had separate representation since BACM’s inception, managers were still dominant and over-represented in both the national executive and the NJC. For example, even in 1975, three out of the nine vocational groups that made up BACM- representing half of the union’s membership numbers- did not have one representative on the twelve man NJC.¹⁶⁷ In contrast, mining groups (colliery managers, mining engineers and senior production staff), representing 18 per cent of the membership, held 39 per cent of the seats on the national executive and 42 per cent on the NJC.¹⁶⁸ And, at the 1975 BACM annual delegate conference, an attempt was made to have all vocational groups represented on the NJC, this was defeated by a counter-motion, from a colliery manager who sat on the NJC, who argued that, in Alan Arthurs’ words, ‘the National Executive tried to elect those whom they thought would best serve the interests of the Association as a whole. He thought that perhaps some of the problem arose from the fact that there were Vocational Group representatives who placed their Group interests above the general interests of all the members of B.A.C.M.’¹⁶⁹ However Arthurs contested this claim, as a ploy, by:

Colliery managers who are amongst the most highly paid members of the union and who, as the bosses of a substantial proportion of the

¹⁶⁶ Interview with Alistair Moore.

¹⁶⁷ A. J. Arthurs, ‘Managerial Unionism in the coal, steel and electricity supply industries’, p.8.

¹⁶⁸ Ibid, p.8.

¹⁶⁹ Ibid.

membership are in a position of authority over them, are likely to exert a disproportionate influence on union policy.¹⁷⁰

Conclusion

Arthurs, in his reflections on the formation and impact of managerial unionism, has noted:

Managerial unionisation has developed primarily in large organisations. It is important to distinguish the union impact from that of bureaucratisation, for many of the changes sometimes attributed to unionisation are best explained by the growth of bureaucratic management techniques.¹⁷¹

The added poignancy of this statement as far as the BACM is concerned is that Arthurs had based many of his findings about managerial unionism on his research into managerial unionism in nationalised industries in Britain, including the heavy triumvirate of coal, steel and electricity supply. As a general theory, therefore, Arthurs' preceding hypothesis may not be applicable (for example, consider ASSET-ASTMS), but for the nationalised British coal industry- as with steel- there is a good deal of currency in this claim. However, this primarily rests on the fact that at no time during this nineteen-year period, and despite the later efforts of Bullock and Tyler, did BACM members unite, nationally, in a show of collectivism either internally or externally. In its infant years, it vacillated between deference and, unsupported, oral outbursts to a chiding patriarch in the form of the NCB and was dominated by men who longed for the days of the private industry. In its adolescence, it was racked by growing pains, reflected in schisms between those progressives who, with some success, were trying to nurture a sense of

¹⁷⁰ Despite the eventual allocation of seats for other vocational groups on the NJC and the NEC, Arthurs pointed out in a further study, in the 1980s, that, 'one third of seats on BACM's National Executive were drawn from senior managers in the top 3 per cent of the management hierarchy.' :A. J. Arthurs, 'Managerial Unionism in the coal, steel and electricity supply industries', p.8; A. J. Arthurs, 'Managerial Trade Unionism', *Journal of Industrial Relations*, Vol. 25, (1983), p.146.

¹⁷¹ *Ibid*, p.148.

consciousness amongst managerial and professional employee, and those, largely colliery managers, who longed for a select professional association who enjoyed preferential treatment from their employer. Despite BACM's later affiliation to the TUC (and to the STUC in Scotland) and its brief alliances with other unions, BACM's journey to a sense of 'unionateness' was slow and gradual. It was immediately identifiable as a trade union, in terms of functions (although as much at the NCB's behest), legal registration and public declarations, however it was only latterly that it became more confident and forceful in pursuing its members' interests in collective forums, and it eventually affiliated to both British and Scottish TUCs. However, the large majority of its membership remained vehemently opposed to affiliation to the Labour Party. Much more significantly, it was a union fundamentally at odds with industrial action and even the issue of covering the jobs of others during strikes for safety purposes and maintaining the industry, despite the actions of some throughout BACM's history, precipitated divisions within the union (which became particularly bitter during the Miners' Strike of 1984-5).

It is fair to conclude that the most significant national gains and changes for managers and the mine management professions, in terms of their salary, conditions of employment and consciousness of their role as professional and managerial employees, as well as professionalisation, were cultivated by their employer, the NCB. The code of conduct, pay structures and disciplines for managerial and professional employees, as well as junior clerical staff, owed much to two men, Sir Arthur Street, who transposed civil service regulations in the NCB, and Herbert Morrison, whose vision of public officials running socialised enterprises inspired it. Ultimately, this was a vision that many colliery managers, in particular, found hard to assimilate to.

However, a certain degree of consciousness developed organically out of experiences. In particular, the effects of the contraction of the industry, and

their communities, which they shared with other mining unions, did occasionally produce a sense of pride and collectivism for industries and communities of which they were part.

Conclusion

The preceding chapters have shown that the mine management professions were a diverse and distinct constituency within the Scottish coal industry. This thesis has illustrated the significant contribution played by them and thus the importance of populating the history with their narrative. Despite the extensive study of labour management strategies and processes in the historiography of the industry, along with a number of contemporary sociological studies, which detailed mining professionals' outlook and roles under nationalisation, few histories have examined the experience of these groups (see preceding chapters for references). Ironically, this mirrors mine management professionals' isolation within the industry. They were an island within the, 'isolated mass', of mining communities.¹

Above all, the thesis has shown the difficulty of providing a general typology of Scottish mine management professionals, although this has been attempted (Appendix 1) in the interests of identifying historical trends and dominant schools of thought amongst mining professionals. The conclusion will review this thesis at two levels, namely, the historical forces and factors which determined mine management professionals' role and behaviours; and their interaction with each other and with employers, supervisory officials and mineworkers.

¹ Clark Kerr and Abraham Siegel, 'The interindustry propensity to strike- an international comparison', in Arthur Kornhauser, Robert Dubin and Arthur M. Ross (eds.), *Industrial Conflict*, (New York, 1954), pp.189-212; See also Martin I. A. Bulmer, 'Sociological models of the mining community', *SR, New Series*, 23, 1, (1975a), pp. 61-92; and David Lockwood, 'Sources of variation in working-class images of society', *SR, New Series*, 14, 3, (1966), pp.249-267.

The early chapters, covering the period 1930 to 1946, illustrated the determinism of capital in shaping the fortunes of the mine management professions. These chapters, as well as the chapters which cover the period post nationalisation, also identify the emergence of mining professionals as part of a longer-term continuum in the economic metamorphosis of the industry.

By and large, McCormick and Zweiniger-Bargielowska's impressions of the isolation of mine management professionals and their reliance on their employers are mirrored by the Scottish examples in this study. Mining professionals relied on their employers for their livelihood, promotion prospects and professional development. In most cases, colliery managers, in particular, were drawn from the ranks of mining labour and acquired their vocational skills through practical experience and/or unsupported study in what leisure time they had. Few employers supported education and training opportunities. The failure of many Scottish colliery companies to invest meaningfully in their fixed capital resources was mirrored in their neglect of their human capital. However, some Boards of Directors in a handful of progressive Scottish colliery concerns recognised the importance of adequately equipping their mining professionals to cope with the rapidly quickening pace of change, to business and industrial processes, in the industry and to ensure the survival of the industry in Scotland. As in other aspects of the behaviour of the majority of Scottish colliery companies, at this time, the Canute-like adherence to an industrial formula, which they had prospered from for nearly one hundred years, including the short-sighted exploitation of the industry's resources (human, geological, and technical) for temporary gain, was illustrated by the lack of investment in their mining professionals' skills and qualifications. This legacy was evident from the continued confidence of many mine management professionals, in the formative years of nationalisation, in the innate managerial skills of the 'practical man' and,

in equal measure, their particular suspicion of management education programmes.² Even those mining professionals who received formal education and training in mining engineering and science, had their curriculum decided by mining employers (as was the output of research into occupational health and safety). All the mining technical schools, across the Scottish coalfields, and the mining departments of Scottish higher education establishments were reliant on coal owners for critical funding. Consequently, the provision of courses was often heavily influenced or determined by colliery companies. The same was true of research into health and safety at a national level. This is so poignantly illustrated in the case of research and orthodoxy on dust related diseases in the industry, and thus the knowledge of mine management professionals.

These early chapters also show that, throughout this period, many mine management professionals were comparatively poorly paid, alongside other professional employees. Furthermore, most Scottish colliery companies were opposed to superannuation or, indeed, formal industrial compensation schemes for their employees. Many Scottish coal employers, particularly in the West, forcefully resisted any attempts on the part of the mine management professional bodies to bargain collectively. And, given the opposition of the majority of Scottish colliery companies to collective bargaining for colliery officials of all grades, the declining membership of certain professional associations like the NACM, should be seen as a fear amongst some mining professionals to be associated with any organisation that was likely to damage their prospects with their employers.³

² See Joseph Melling's observations in: J. Melling, 'Management, labour and the politics of productivity: strategies and struggles in Britain, Germany and Sweden' in A. McKinlay and J. Melling, (eds.), *Management, labour and industrial politics in modern Europe. The quest for productivity growth during the Twentieth Century*, p.18.

³ For examples amongst supervisory officials, see: Joseph Melling, 'Safety, Supervision and the politics of productivity in the British coalmining industry, 1900- 1960' in J. Melling and A.

Even in the most progressive of Scottish companies, colliery managers' functions, if not always those of senior mining professionals, were heavily prescribed by their employers. For example, colliery managers had little or no control over the planning and layout of their pits. Furthermore, in most colliery companies, save the few progressive concerns like the Fife Coal Company, managers had little in the way of resources to expend on new developments or on simply ensuring the integrity of underground workings. These constraints on colliery level managerial innovation, and the pursuant effects on health and safety, were exacerbated by the further tightening of already limited budgets as many Scottish colliery companies embarked on a suicidal price war throughout much of the 1930s. Colliery managements' role in maintaining safety remained a deeply ambiguous one. Theoretically, colliery managers and under-managers had sole statutory responsibility for safety in the whole colliery and underground respectively. In reality, as chapter two and three have shown, this could be compromised by employers' stipulation that output be prioritised and that unit costs be kept to a minimum, although it is clear that in some cases colliery managers and under-managers were solely to blame for accidents. Similarly, colliery managers' relations with labour were prescribed by the same parameters. However, contrary to McCormick's suggestion, managers did not always simply acquiesce to employer demands. In individual cases and in public fora, some mining professionals were openly critical of the mismanagement of the industry and of employer interference. They were supported in this by the Directors of some of the more progressive colliery concerns, many of who were mining professionals themselves, officials in the Mines Department (and, after 1942, the Ministry of Fuel and Power) and politicians from the main political parties. Equally, some mining professionals were becoming more

evidently conscious of their future role in the industry and progressive changes to the industry at the time, through amalgamations and concentration. This manifested itself in enthusiasm for modernised administrative, industrial and labour management processes- influenced notably by scientific management and human relations methods. Notwithstanding the enthusiasm in some quarters of the mine management professions, some mining professionals were worried by new developments in the industry because of the threat of redundancy and fear of the unknown. Most Scottish mine management professionals remained, in this period, patrician in their outlook towards labour.

These chapters make it hard to justify the generalised one-dimensional picture of mine management professionals as local tyrants and agents of capital, especially given the ensuing observations by Eric Thompson on social stratification:

When we speak of a class we are thinking of a very loosely defined body of people who share the same categories of interests, social experiences, traditions, and value systems, who have a disposition to behave as a class, to define themselves in their own actions and in relation to other groups of people in class ways.⁴

The chapters covering 1947-1966 similarly challenge the generalities and simplistic mythologies, which have grown up around the mine management professions and fail to acknowledge both the deterministic factors which framed managers' functions and actions and the diversity of their interaction with and outlook on other groups in the industry.

Chapter four challenges the assumptions that Scottish and British mining professionals left the industry in their droves because of their opposition to nationalisation and they were Fifth columnists intent on the failure of public ownership. It illustrates that large numbers stayed and, whilst

⁴ E. P. Thompson, *The Poverty of Theory and Other Essays*, (London, 1978), p.85.

many were not overly enthusiastic, contributed a great deal to the industry. However, the chapter also shows the legacy of the private colliery companies' underinvestment in the training and education of their mining professionals. Most mining professionals were ill-equipped to cope with the management and administrative tasks, especially in the first ten formative years of nationalisation (1947- 1957), which accompanied the changes in the industry. This inadequacy was most pronounced at tactical levels of management, where the continued selection and recruitment of candidates for posts as AGMs on their prowess as mining engineers further exacerbated the difficulties. The technical inexperience of some mining professionals, highlighted in chapters five and seven, was also at the root of some disastrous mistakes in the Scottish Division over this period (1947-1966). In building a new organisation, the NCB also failed, by and large, to coalesce mine management professionals into a cadre. This resulted from the first two Boards' poor communication of organisational objectives, procedures and personal responsibilities to lower levels of management, and also the resistance, in some cases, of mining professionals to management education and training.

On the other hand, the NCB's professional development programmes- part of their 'ladder plan' schemes- did nurture some highly technically and practically proficient mining professionals. The NCB also, for the first time, offered mine management professionals greater career opportunities as well as much more secure terms and conditions of employment (including a formal superannuation package). Furthermore, the scheme offered a great many more opportunities for mineworkers to train to become mining professionals. Most colliery managers, in particular, continued to be drawn from the ranks of the miners.

However, the NCB's professional development programmes did not initially challenge the perpetuation of the ethos of the 'practical man', who

embodied natural leadership skills, as the best candidate for management. This included a very physical masculinity as an important quality. This assumption was, however, roundly challenged by some prominent mining professionals, like Sir Andrew Bryan, who continued, as they had done in the 1930s, to exhort the mine management professions to reflect on changes in the industry and to review the occupational standards necessary for the professions, especially management skills. These years saw the convergence of the two dominant schools of management thought within the industry, namely, scientific management methods and human relations methods, and their crystallisation into a modern management philosophy for the mining professions. Indeed, it might be said that the battle for the hearts and minds of mining professionals was eventually swayed by the professional associations.

Despite improvements to mining professionals' contractual and working conditions, the last nine years of this period, 1957-1966, saw the diminution of the powers of colliery managers, whose functions were increasingly bound up in the processes and procedures which were coming to dominate the NCB's *modus operandi*. Conversely, the NCB's 'line and staff' principles greatly increased the contribution of other mining professionals. These changes were bound up in the embryonic reshaping of business and industrial processes evident in some colliery companies in the 1930s. Tactical and strategic managements' powers were greatly augmented, at the expense of operational management, with the extension and use of MIS and AIM. Strengthened by these administrative procedures and a number of other coincidental factors, the national, Divisional and Area Boards, from the late 1950s onwards, pursued a vastly accelerated programme of mechanisation, followed by intensive campaigns for productivity and efficiency gains. This was supported by nationally devised targets, method-study and increased supervision, and, in some cases, by the aggressive application of these policies by some Area

managers. It was also, as chapter five has shown, complimented, initially at any rate, by a substantially increased unit of resource available for restructuring collieries, although this was curtailed by the later years of this study. The NCB's priorities, under the chairmanships of both Sir James Bowman and Lord Robens, pressurised many colliery managements, particularly the increasingly unattainable targets, and compromised, in some cases, health and safety and inflamed labour relations. This was worsened by the use of threats- of colliery closure and termination of managers' employment- by some AGMs.

Conversely, some colliery managers continued to ignore NCB prescriptions on mineworkers' bonuses and data returns, much to the annoyance of Area, Divisional and National officials. Equally, these policies caused contusions between colliery managers and mining professionals at tactical levels of management, which, along with ambiguities about safety regulations, was reflected in differences between these groups within the managers' union, the BACM.

Chapters six and seven also illustrate the wide personal variations in approach taken by colliery managers in the spheres of industrial relations and health and safety at pits.

The authoritarian stance of a few colliery managers in the early years of nationalisation did compromise industrial relations at their collieries and understandably, as it threatened joint NUM and NCB agreements, caused Divisional managers considerable concern. However, as Benney's colliery manager observed of the changes which colliery management underwent between 1942 and 1945, this should be seen, as a reflection of the way in which colliery managers had been used to operating under the private colliery companies. Furthermore, examples of the 'village autocrat' did not pre-dominate in the industry. Some colliery managers fully subscribed to the bureaucratic principles espoused by the NCB, some out of

conviction, others to ingratiate themselves (in the hope of securing promotion). There were also examples of colliery managers who genuinely consulted the workforce at their collieries and were certain to their views in the application of their policies. Similarly, whilst health and safety were, as one mine management professional interviewed for this thesis pointed out, subject to an economy based on individual pit's performance and conditions, mine management professionals played a part for good or ill in its praxis in the coalfields.

These chapters acknowledge that mine management professionals' actions, after nationalisation (as well as before) were inextricably bound up in the politics of productivity. However, they were not completely bound by these parameters, as was illustrated by the variability of the picture and, in particular, the individual actions and views of mining professionals.

Chapter eight illustrates the distance travelled by the mine management professions, over the first nineteen years of nationalisation, through the outlook of the BACM. From its beginnings as a deferential professional body to its emergence as an increasingly vocal managerial union, also seen through the distinctions between its first two chairmen, the BACM illustrated mining professionals' growing consciousness of their own distinctive place within the industry. Nevertheless, the Union was apparently broadly divided on lines between colliery managers and mining engineers, on the one hand, and the other branches of the mining professions (for example, surveyors, mining electrical and mechanical engineers), with the former colluding, throughout this period, to keep representatives of the latter out of the BACM's policy-making fora. In part, this arose because of the way that the Union was raised, by colliery managers in the North of England and South Wales. As the preceding chapters showed, this arose because of resentment amongst colliery managers about the prosecution of their number over errors made by Area

and Divisional staff (see Knockshinnoch and Cardowan, for example) and, arguably, because of friction between colliery management and Area and Divisional staff over the pursuit of the NCB's production priorities (although this is speculative and based on managers' reactions to what they perceived as unfair prosecutions and undue interference in their operational functions). Alternatively, these divisions may have been caused by the view amongst mining engineers and colliery managers, reported by Alistair Moore, that it was their union. The chapter also notes that the BACM remained a distinctly managerial union and that, despite the efforts of Bullock and his general-secretary, George Tyler, it remained, throughout this period, non-political and conservative.

As Paul Thompson observed, 'reality is complex and multi-sided', and thus mine management professionals cannot be typified by overly deterministic models. This thesis places their myriad of voices within the complex historical narrative of Scottish coal mining communities and workers. Above all, it has identified them as a separate and diverse group worthy of discrete study rather than as vassals to coal owners or the NCB.

Appendix 1: Typology of management in the Scottish coal industry, 1930 -1966

1930s

Autocratic
'king of the
village', e.g.,
Mungo McKay
(1930-
c.1950s)

1940s

Wage systems: Piece rates for all colliery workers (national, district and local agreements) **Work methods:** Hand got and semi- mechanised [stoop and room and longwall]. **Work organisation:** Subcontractor (1930- 1948) and price lists and seam agreements (1930-1955) **Management style:** in principle, power invested in colliery managers. In practice, managers were often subject to interference from above; **Safety legislation:** Coal Mines Act (1911) **Trade unions:** MFGB + district unions (1930- 1944), NUM (1944-)

1950s

Scientific
management/
'classical', e.g.,
Dr. William Reid
(late 1930s-
c.1960s)

Wage System: day wage (except faceworkers) [1955-]; SPLA + allowances (faceworkers) [1958- 1966]; NPLA [1966-] **Work methods:** semi-mechanised (1930s- 1950s). At some pits, power-loaded multi-shift output [1957-]. **Work organisation:** piece rates [up until 1955 and 1958 respectively] then day wage and allowances. Both supported to greater or lesser degree by method study, supervision and selection of teams. **Management style:** Management increasingly through processes but imposed on mineworkers with little consultation. **Safety legislation:** CMA (1911); Mines and Quarries Act (1954)

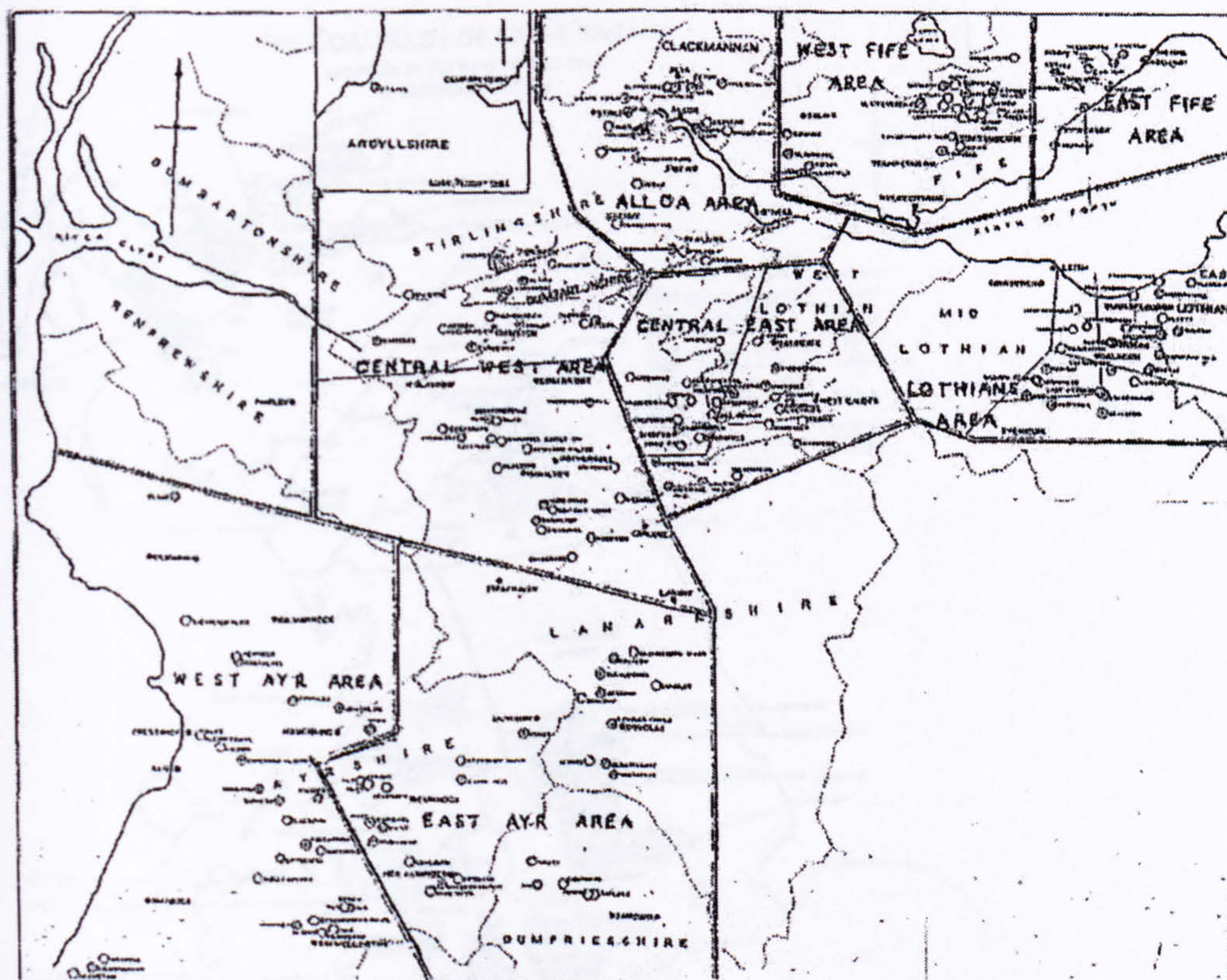
1960s

Human relations/
naturalistic, e.g.,
William Steele,
William Clarke
and **R. H. Tucker**
(late 1930s-
1960s)

Wage systems, Work methods, Safety legislation, Work organisation largely as above **Management style:** environmental changes and incentives for men. However, consultation a formality and a mechanism to control labour.

Cooperative,
e.g., **G.**
McAlpine (late
1950s-)

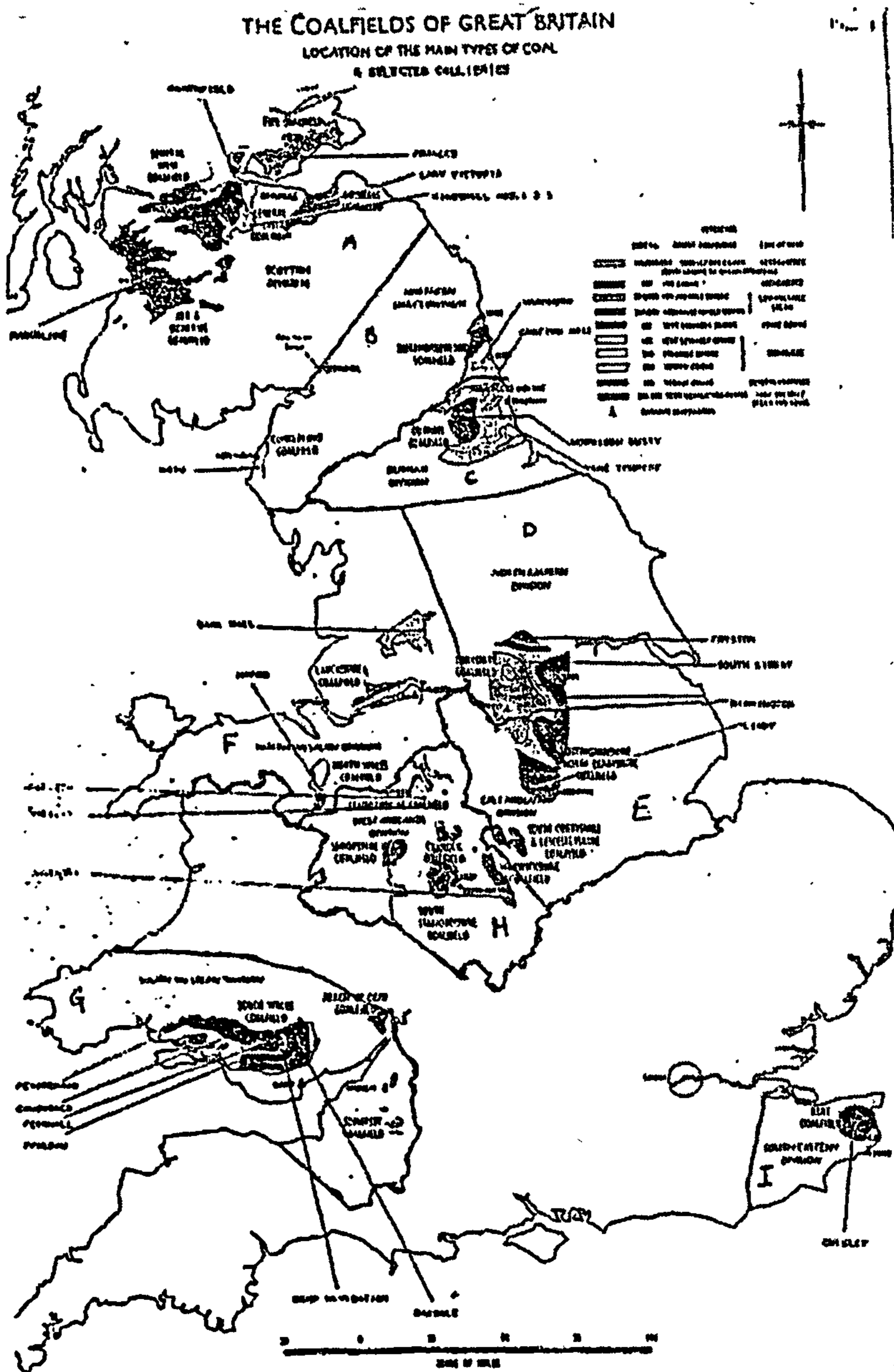
Wage systems, work methods, safety legislation and work organisation largely as above, except attempt to achieve results through cohesion and consensus, rather than coercion **Management style:** Statutory authority in office of manager; team player; attempt to understand mineworkers' position, to genuinely pay attention to views and build understanding on all sides.

Appendix 2: Map of the Scottish coalfields (1955)¹

Guide:

- Denotes Area boundaries
- Denotes County boundaries

¹ NCB, SD, *Scotland's Coal Plan*, p.16.

Appendix 3: Map of the British coalfields (1961)²

Guide:

_____ Denotes Divisional boundaries

Divisions: (A) Scottish; (B) Northern; (C) Durham; (D) North Eastern; (E) East Midlands; (F) North Western; (G) South Western; (H) West Midlands; (I) South Eastern.

² D. Hicks et al., *The relation between pneumoconiosis and environmental conditions: an analysis of the results of the first series of x-ray surveys in the national coal board's pneumoconiosis field research*, (London, 1961).

Appendix 4: BACM's aims agreed at their first annual general conference in York in July 1947¹

- To secure, preferably by negotiation, fair terms and conditions of employment for all vocational group members;**
- To secure redress for members who have felt compelled to take an appointment on terms less favourable than those previously enjoyed;**
- To help "redundant" persons to secure compensation;**
- To oppose strenuously the abolition of perquisites which have been enjoyed by custom under private ownership;**
- To ensure a fair system of appointments and promotion;**
- To oppose any attempt in any quarter to victimise members;**
- To secure proper judicial procedure in enquiries in which members are implicated;**
- To see that statutory conciliation machinery deals promptly with members' grievances;**
- To obtain proper terms and conditions of employment, including reasonable working hours and generous holidays, having regard to the operation of the 5-day week in other large industries and the grant of the 5-day week to the miners.**

¹ BACM, *The National News Letter*, 1, 1, 1, 21 January 1948, p.1.

Appendix 5

Illustration 6: Anderton-Shearer Loader in operation on face [image provided courtesy of Robin Howie].

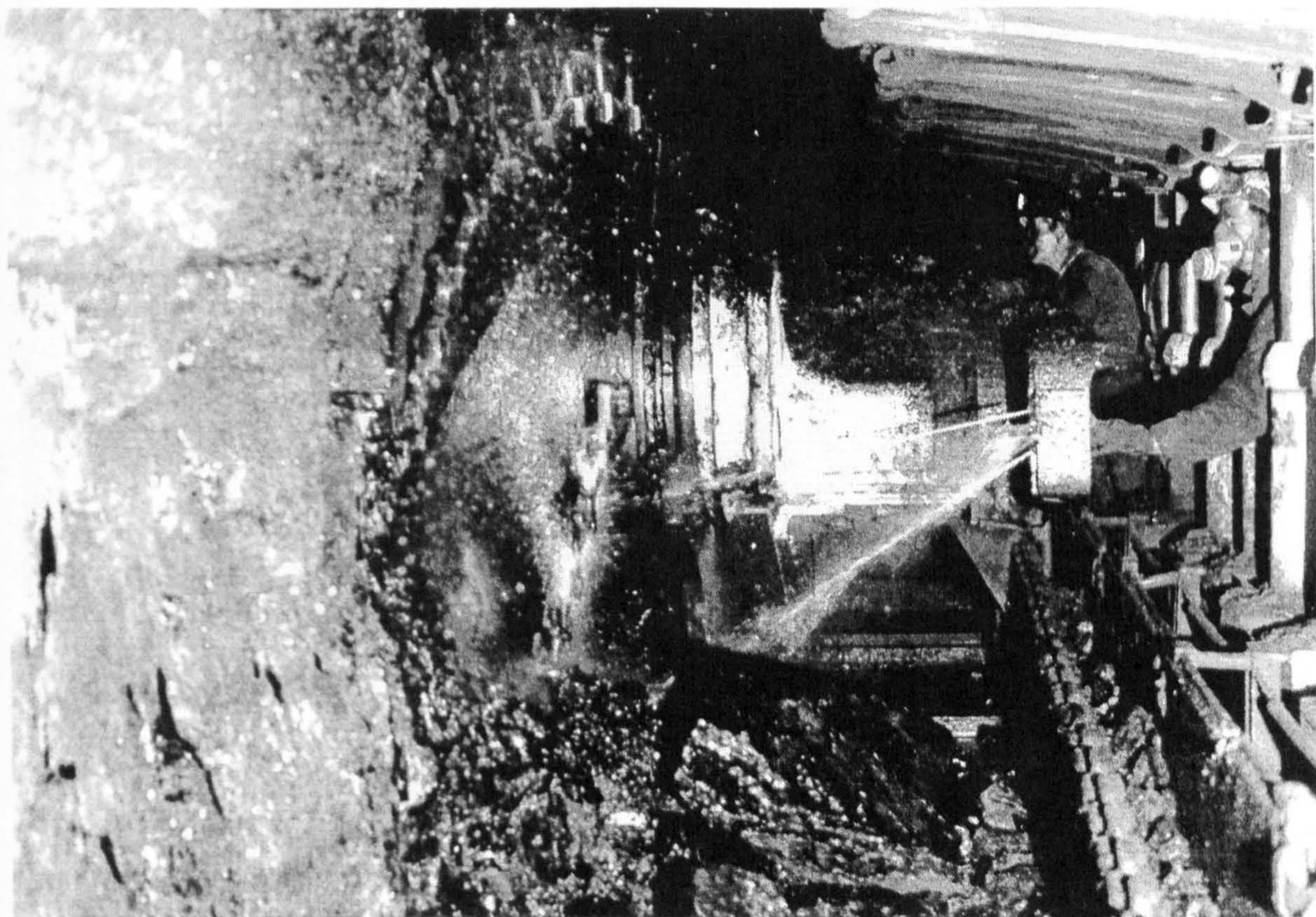


Illustration 7: Trepanner mounted on Armoured Face Conveyor

PLATE 18—MINING MACHINERY. Trepanner; also self-advancing chocks and panzer conveyor.

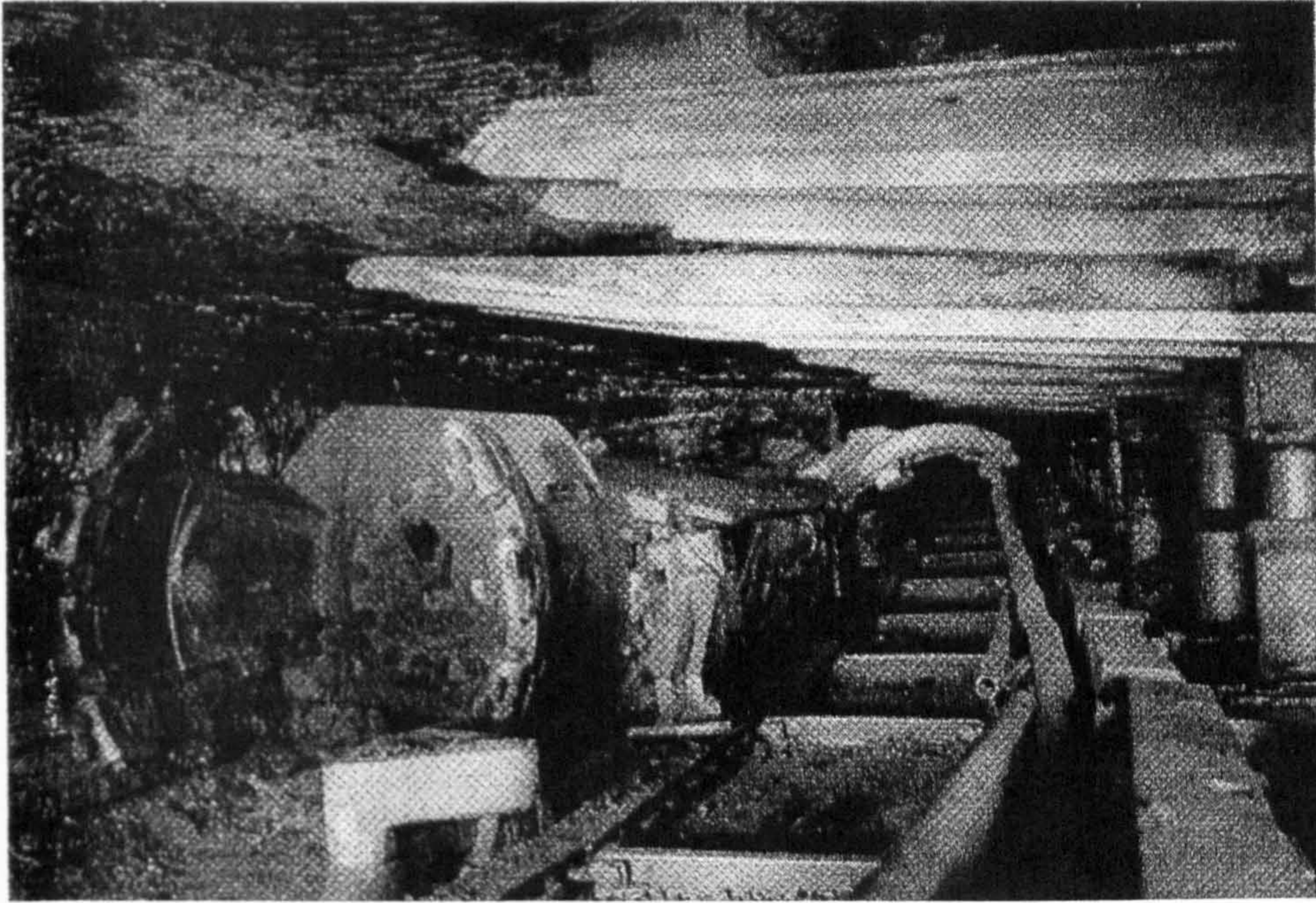


Illustration 8: Diagram of three-shift semi-mechanised coalface

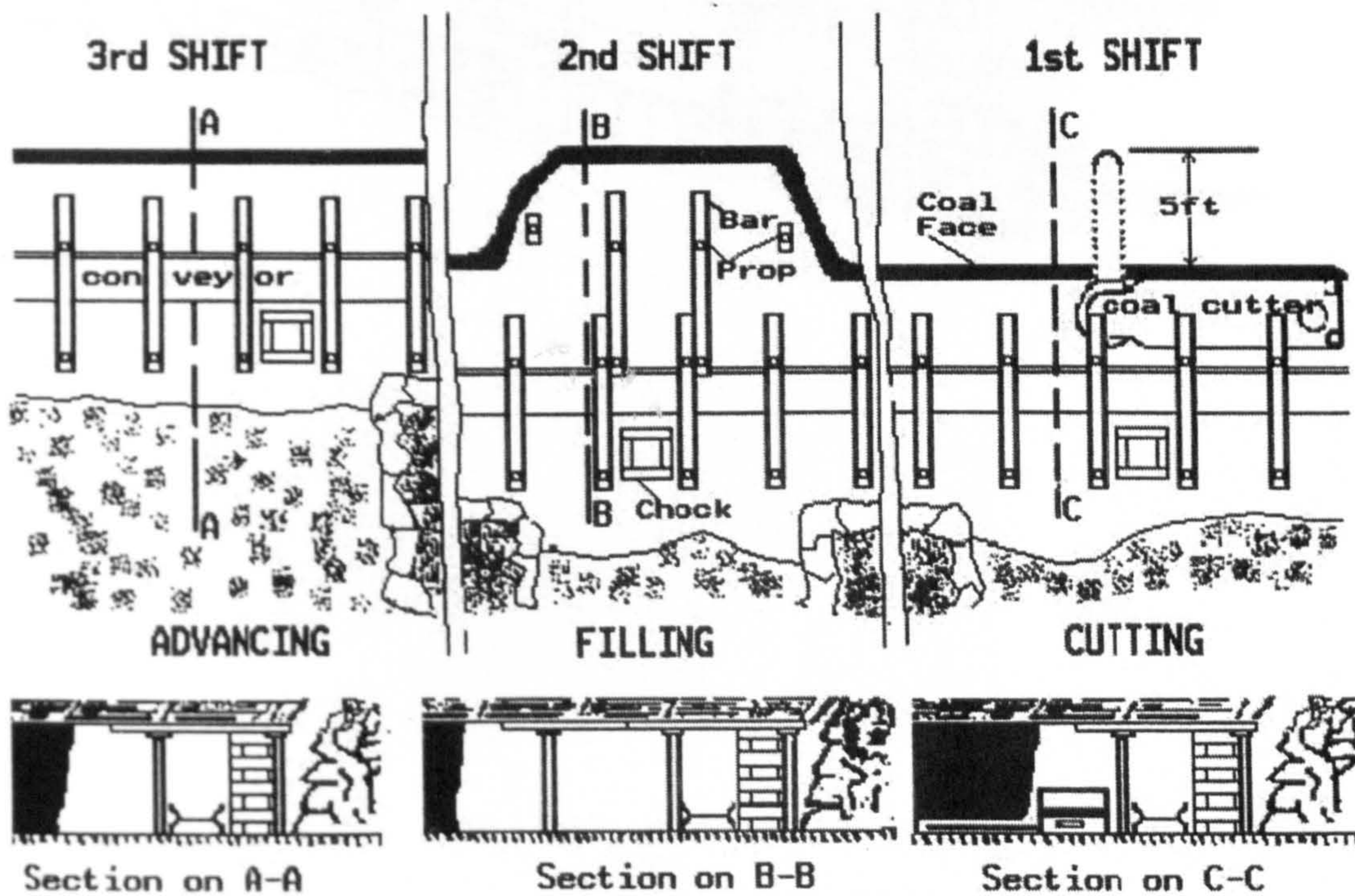
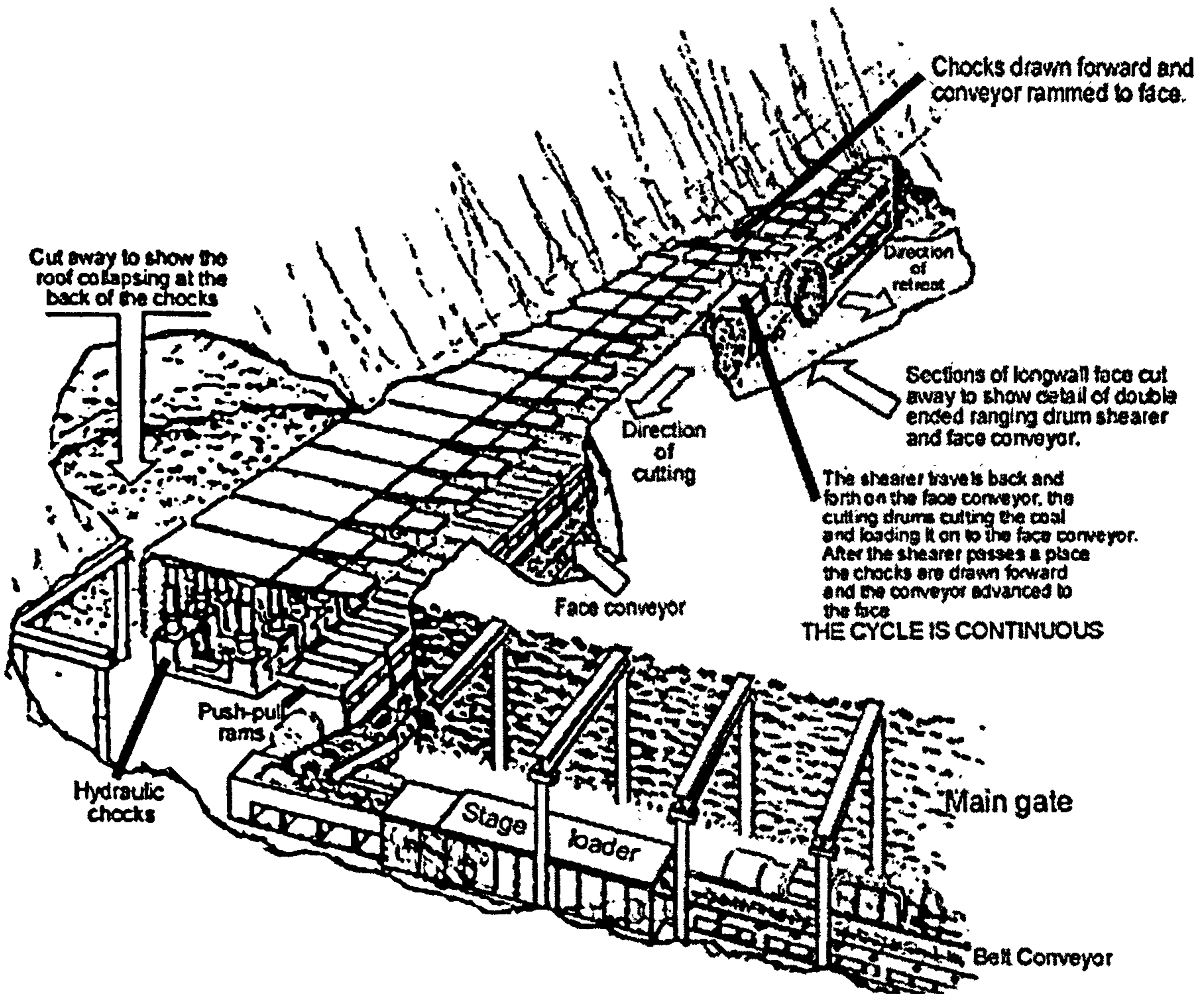
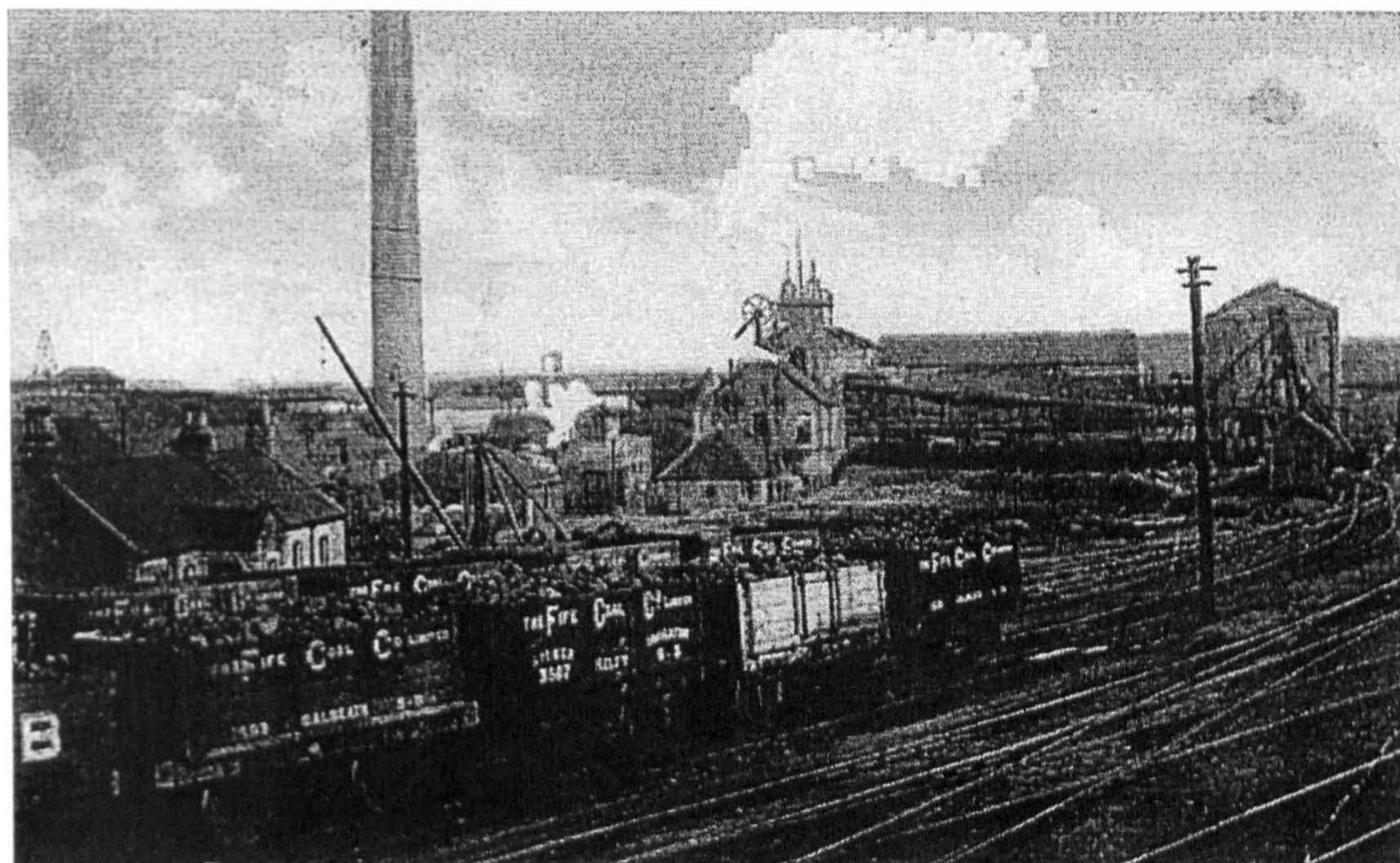
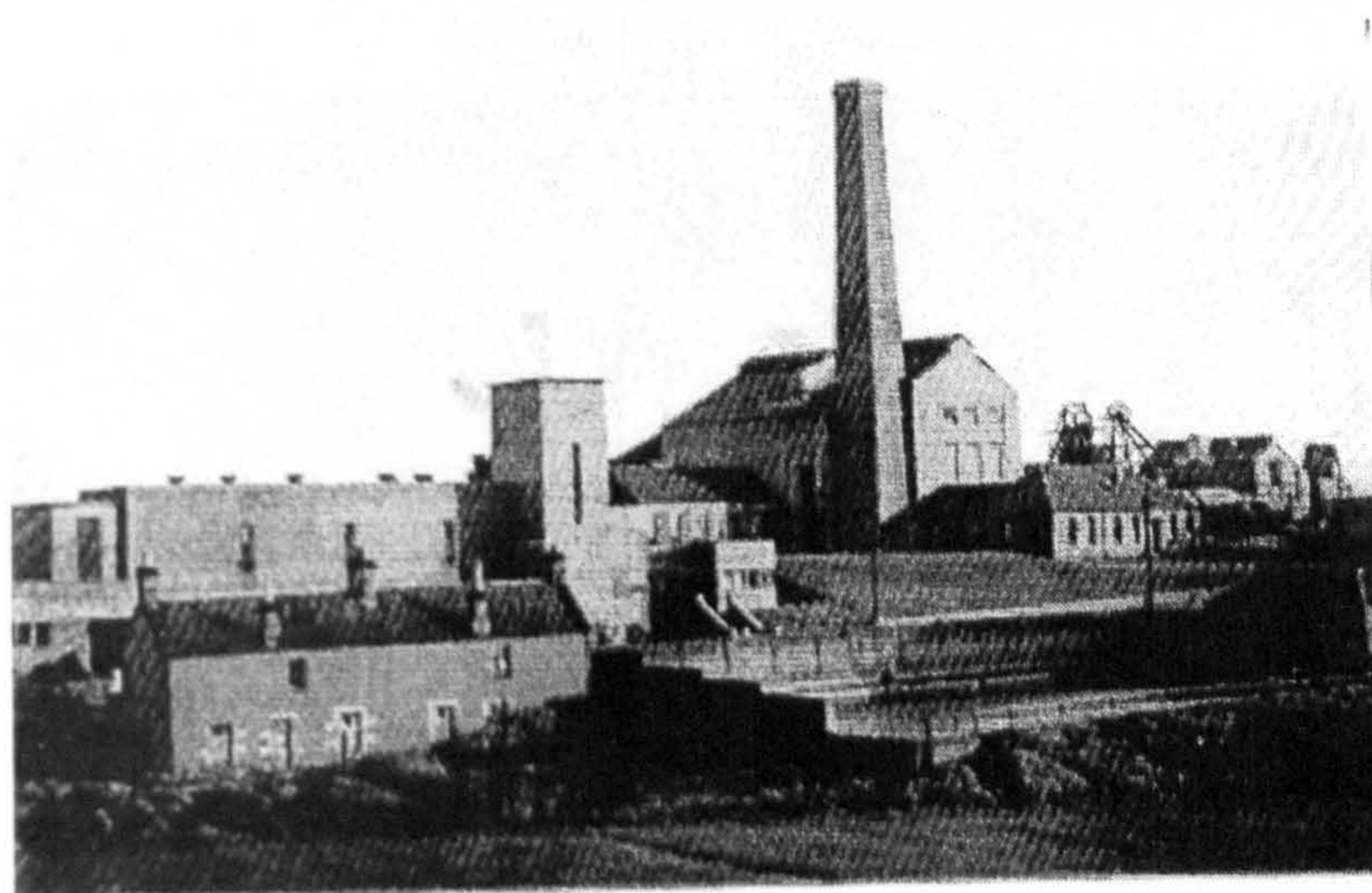


Illustration 9: Diagram of power-loaded face



Appendix 6

Illustration 10: Aitken Colliery, East Fife, c.1940s*Illustration 11: Bowhill Colliery, East Fife, c.1930s*

BOWHILL COLLIERY

Illustration 12: Glenraig colliery, West Fife, c. 1940s

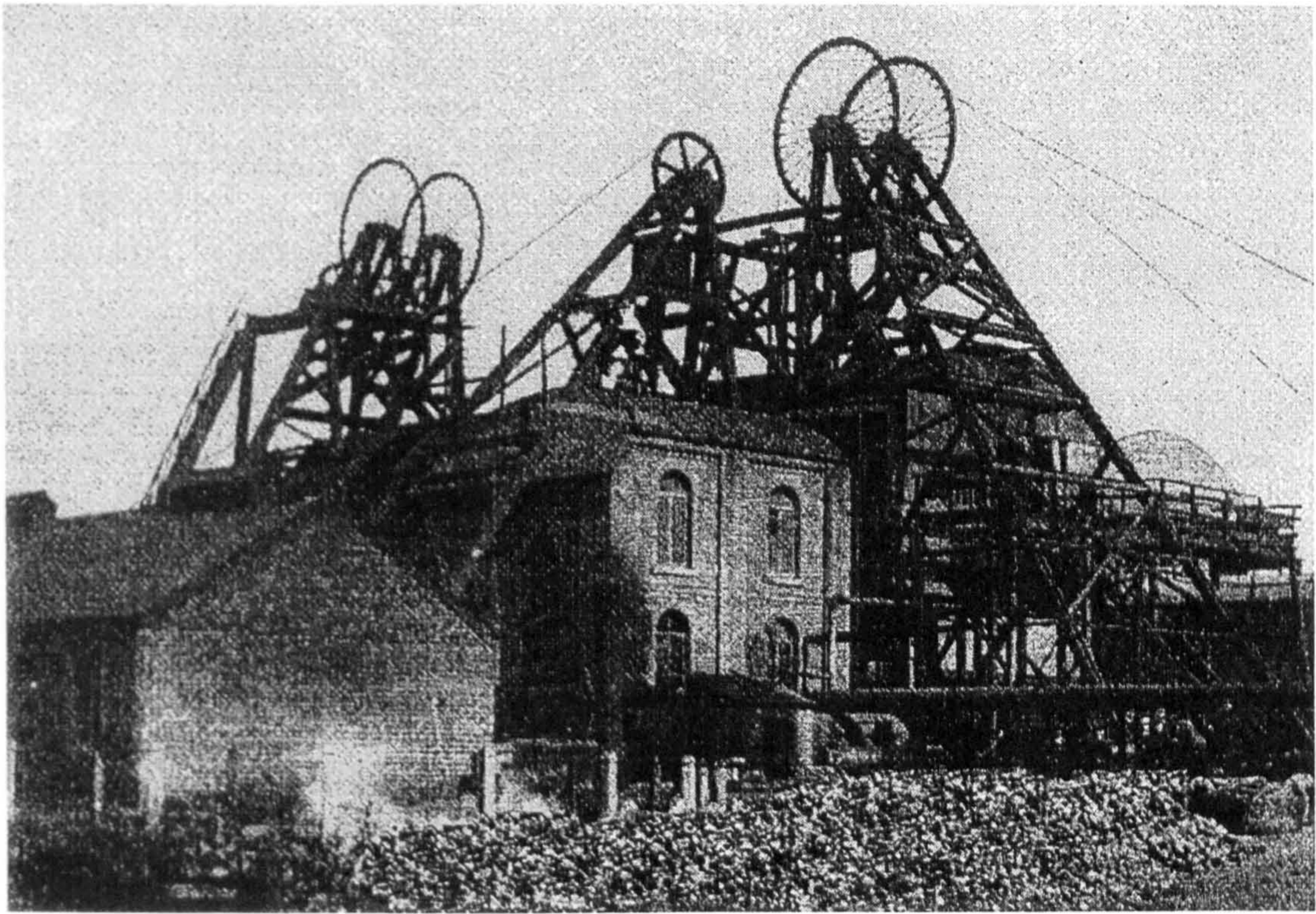


Illustration 13: Kinglassie colliery, East Fife, c.1960s

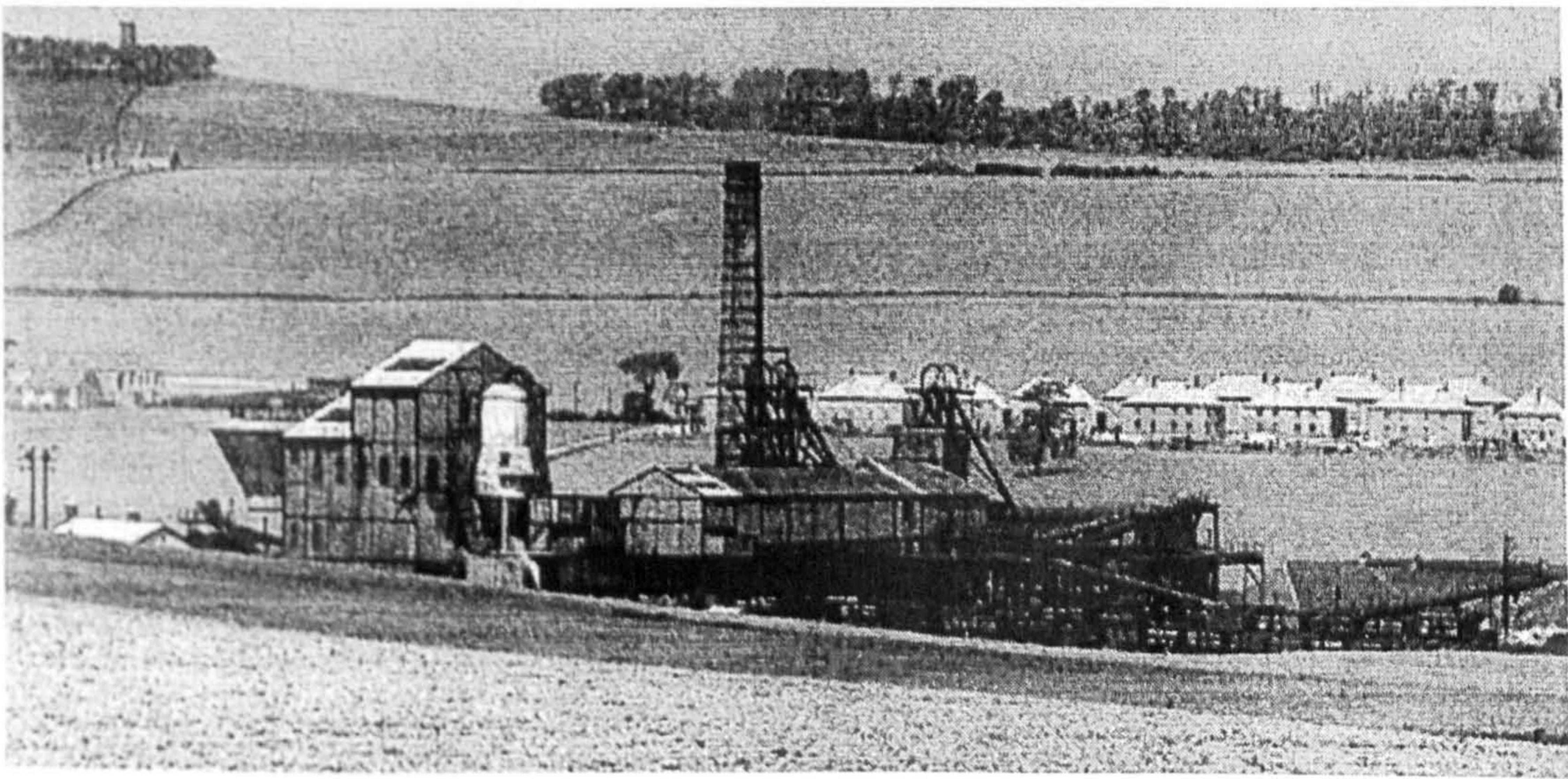


Illustration 14: Michael colliery, East Fife, c.1960

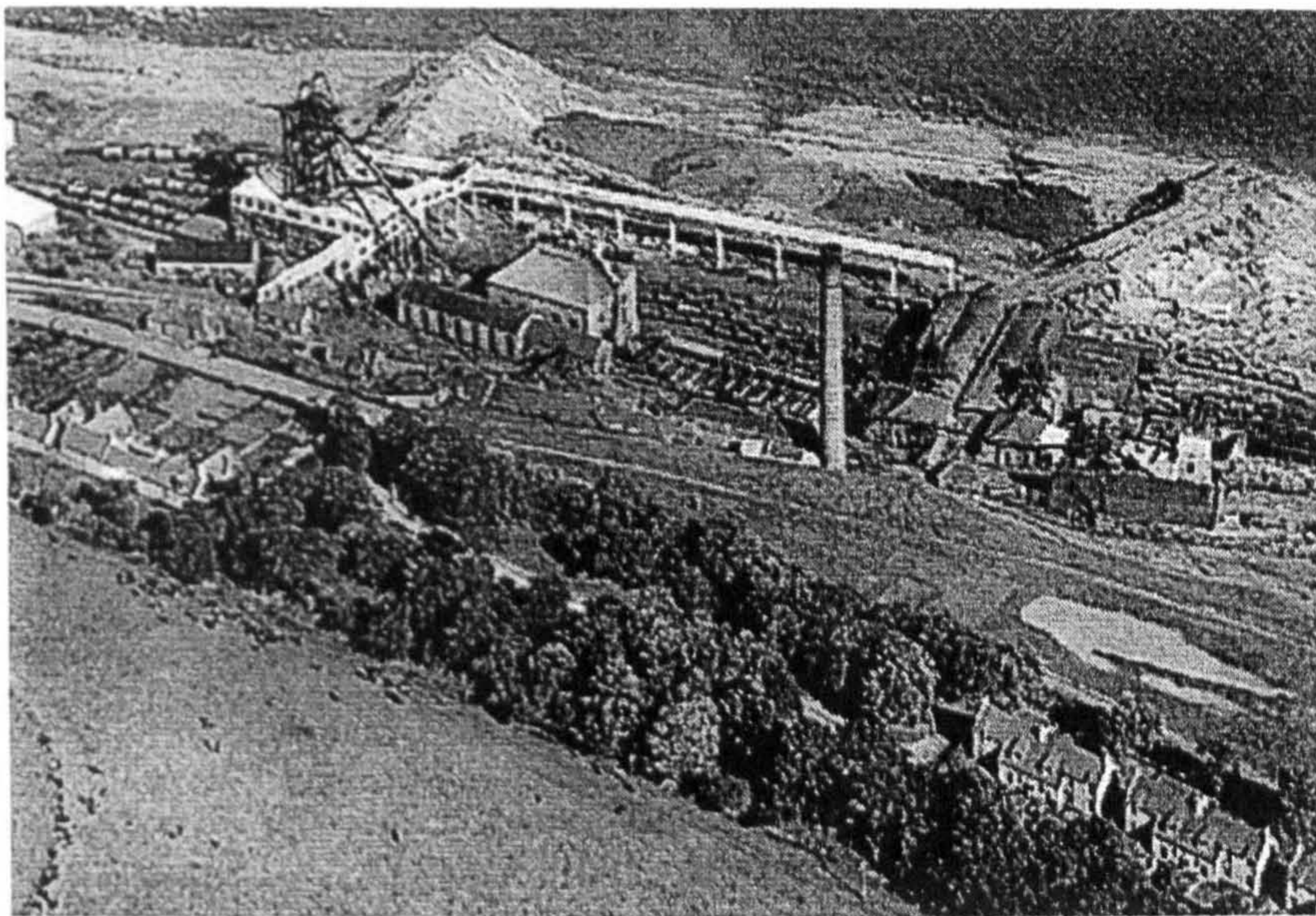
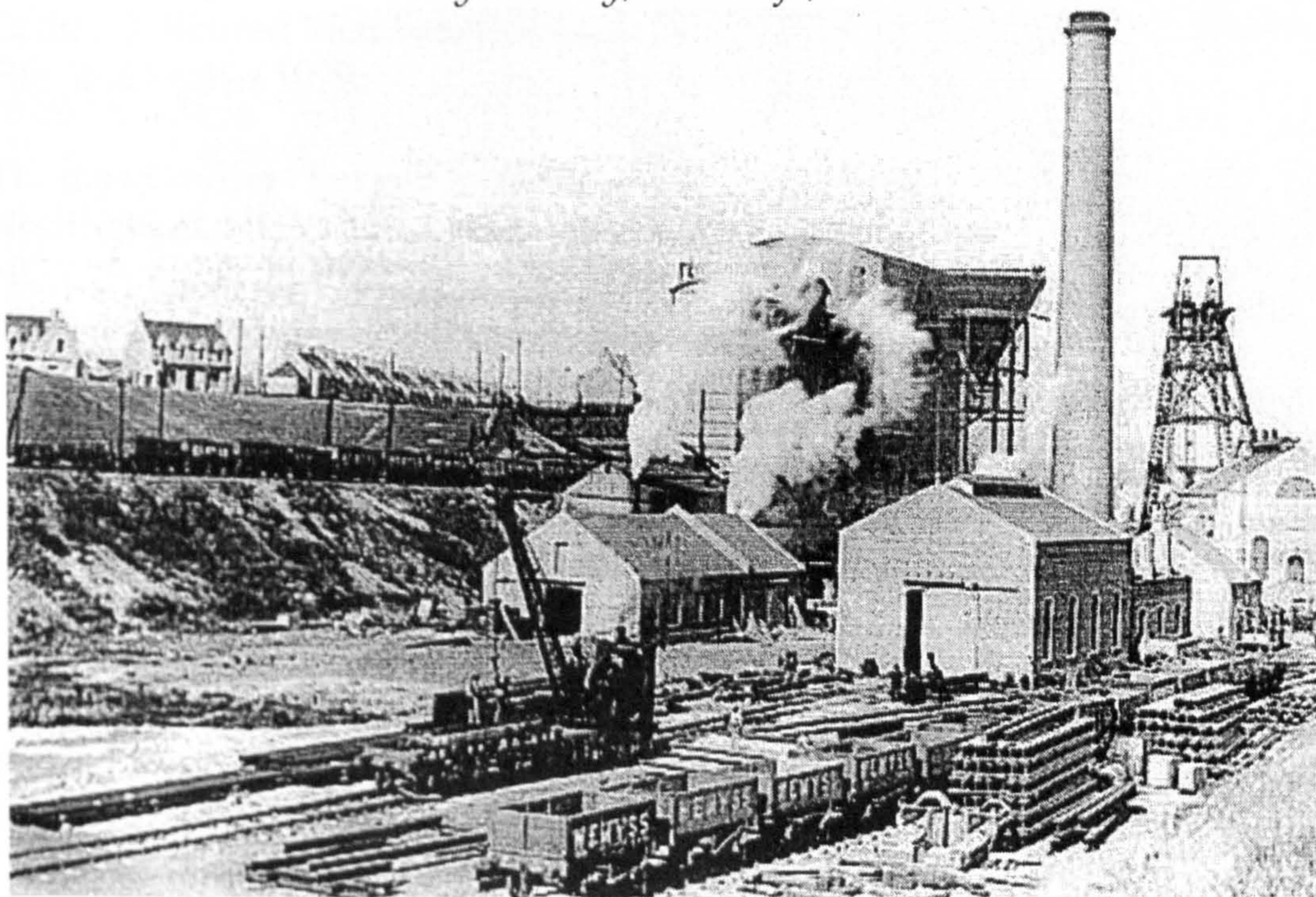


Illustration 15: Wellesley colliery, East Fife, c.1950s



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1.1 ORAL TESTIMONY

List of respondents (summary of selected posts held along with venue and date of interview)

Jim Bowden Bevin Boy (1942- 1945). Wages clerk, Hassockrigg Colliery, Lanarkshire and Shotts Sub- Area office (1947- 1948). Assistant to Area Chief Accountant, Central East Area (1959- 1960). Area Capital Expenditure Accountant, Alloa Area (1960- 1968). Area Finance Officer, Alloa Area (1968- 1970). Area Financial Accountant, Scottish Area (1973- 1979). Area Chief Accountant, British North Area (1986-1990). BACM member. Interviewed Bridge of Allan, Stirlingshire, 9 August 2003.

Archie Campbell Former faceworker in Fife. NUM Branch Delegate (Comrie Colliery). Retired Members Delegate. Interviewed at Kelty Miners' Welfare Club, Fife, 25 October 1999.

Thomas Coulter Former faceworker in Lanarkshire, Alloa, Argyll and Nottingham. NUM Branch Delegate (Manor Powis); Executive Council member, NUM, Scottish Area (1978- 1985); Vice- President, NUM, Scottish Area (1985- 1989). Interviewed at Stirling Miners' Welfare Club, 7 February 2000.

Jim Dickson Bevin Boy (1942- 1945). Ventilation Officer, various collieries in Lanarkshire [including Auchengeich 1957- 1960](1948- 1960). Safety Officer, Cardowan Colliery (1960- 1961). Assistant Area Ventilation Engineer, Central West Area (1961- 1968). Various special duties, production department, Scottish Area (1969- 1987). NUM and then BACM member. Interviewed in Kirkintilloch, East Dunbartonshire, 14 August 2003

Frank Gibb Underground worker, Fife (1947- 1957). Safety Officer, Fife (1957- 1962). Assistant Superintendent of Mines Rescue Station, Cowdenbeath, Fife, (1962- 1976). Superintendent, Mines Rescue Station, Newtongrange, Lothians, (1976- 1982). Superintendent, Mines Rescue Station, Cowdenbeath (1982- 1988). NUM and then BACM member. Interviewed in Cowdenbeath, 24 August 2003.

George Gillespie Faceworker and junior official, Lanarkshire (1937- 1943). Undermanager, Ayrshire, Lanarkshire and Lothians (1943- 1955). Colliery manager, Lanarkshire and Lothians (1956- 1962). Group Manager, Lothians (1963- 1967). Deputy Director and Director of Scottish Area (1976- 1992). Interviewed at the Scottish Mining Museum, East Lothian, 14 August 1999.

Jim Goudie Underground electrician, Alloa and Nottinghamshire (1975-). Interviewed in Glasgow, 18 June 2004.

James Grant Oncost worker, brusher and powerloader (1958- 1971), and Deputy (1971- 1983) Bedlay and Cardowan collieries. NUM member (1958- 1971) and NACODS (1971- 1983), Interviewed in Moodiesburn, Lanarkshire, 3 April 2000.

Robin Howie Scientist for the Institute of Occupational Medicine (1969-). Interviewed in Glasgow, 28 May 2004.

John Hamilton underground worker (oncost, mine driving, faceworker and powerloader) and NUM inspector, Bedlay colliery, Lanarkshire (1955- 1965). Shotfirer, deputy and colliery oversman, Bedlay (1966-1982). Colliery oversman, Bogside, Alloa (1982- 1984) and Solsgirth, Alloa (1982- 1986). NUM member (1955- 1965) and NACODS member (1966- 1986). Interviewed in Moodiesburn, Lanarkshire, 3 April 2000.

William (Bill) Marshall Surface worker and then underground worker (oncost and power loader), Frances colliery, Fife (1956- 1965). Colliery deputy at Frances (1965- 1971) and Seafield (Alloa) collieries (1971- 1975). Colliery oversman (1976- 1978) and under manager (1979- 1988) at Seafield colliery. Deputy manager at Longannet colliery (1988- 1992). NUM member (1956- 1964), NACODS (1965- 1978), BACM (1978- 1992) and associate member of the Mining Institute of Scotland (1978- 1992). Interviewed in Kirkcaldy, Fife, 21 April 2004.

Alistair Moore Apprentice Mines Surveyor and Assistant Mines Surveyor, Lady Victoria colliery, East Lothian (1949- 1960). Chief surveyor, Wellesley colliery, Fife (1960- 1963). Surveyor (special duties), Kinneil colliery, Alloa (1963- 1965). Area Assistant mines surveyor, Alloa Area, (1965-1967) and Scottish North Area (1967- 1978). Planning and building control officer & closure surveyor, Scottish Area (1978- 1987). Special duties (1987- 1992). BACM office holder and representative of the Scottish retired branch. Interviewed in Bo'ness, West Lothian, 12 March 2004.

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