

# **SOUTH AFRICAN LABOUR BULLETIN**

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## THE CODES OF CONDUCT

### AND TRADE UNIONS:

The emergence of employer codes of conduct has introduced a new issue into industrial relations in S.A. The first code of conduct was drawn up in 1973 by the British Government (see SALB vol. 1 No. 2 for discussion of the code). Since then a number of codes have been formulated, the most prominent being the EEC code, September 1977, the Sullivan Code, February 1977 and the Urban Foundation - SACCOLA Code (November 1977).

Why have employer codes emerged at this stage of our history? Codes were in the first instance a response to the Durban Strikes of 1973 and subsequent international exposure of the conditions of labour in South Africa. They represent an awareness on the part of management of the need both to provide for "African advancement", to meet the shortage of white "skilled" manpower and to provide some form of representation of black employees in the work place. Certainly with regard to the former it is no mere window-dressing - management is following its own enlightened self-interest. Above all, however, they are a response to the pressures abroad on foreign investors to withdraw from S.A. They represent the lobby of those unwilling to support the call for withdrawal of investment.

What is their relevance? The exercise of drawing up the Codes has been positive for two reasons. Firstly, it has forced employers to confront their responsibilities publicly. It has forced them to commit themselves in public to practice which many, such as the members of SACCOLA, have only preached abroad. Secondly, the Codes serve to make workers aware that they have certain rights and to legitimize the demands they are making.

The Codes do have severe limitations which have to be borne in mind. The Sullivan Code gives very low priority to the recognition of African trade unions by management and does not even mention freedom from victimisation for active trade unionists, although this is one of the great hazards facing African trade union members. The Urban Foundation - SACCOLA Code recommends "the recognition of the basic rights of workers of freedom of association" but needs to spell out exactly what this means. They have to state explicitly that this means according full recognition to African Trade Unions and that such recognition entails negotiating with union officials and elected representatives. On the question of migrant labour and the right to family life the Sullivan and EEC Codes and the Urban Foundation - SACCOLA Code are inadequate. The Sullivan Code and the Urban Foundation - SACCOLA Code do not even mention the migrant labour system while the EEC Code specifies only that employers should contribute towards freedom of movement of African workers and their families and alleviate the effects of the existing migratory labour system. Nowhere, in any of the Codes is the right to a stable family life near the workers' place of work emphasised or insisted upon.

This leads to a second limitation of the Codes. As the example of migrant labour illustrates, racial discrimination on the shop floor is not the only form of racial discrimination which affects the worker. The whole system of labour allocation through the labour bureaux and influx control system affects the way in which business operates in S.A. By narrowing down the debate to these aspects which management can change, the Codes obscure the extent to which *all* foreign companies benefit by the system of labour control in S.A.

However, from a labour perspective the significance and nature of the Codes must be quite clearly located. The codes are an interesting part of the general pressure group political activity aimed at change in South Africa. As such they are valid and useful in that they create a critical environment for improvements initiated by employers.

It is, however, important to understand that the Codes are not labour initiatives that are the product of bargaining in the work-place either here, in Europe or the United States. As a result the Codes are essentially a pressure on management from outside the workplace and cannot be seen as instrumental in building an independent labour movement. At best they can of course be used as an aid to this end by an organised labour movement.

These distinctions are important in situating the recent moves of diverse organisations towards monitoring the Codes, which has increasingly emerged as a bandwagon issue in South African politics. In this respect the Codes are an ideal platform for organisations such as Inkhatha and TUCSA who are concerned to gain the support of African workers. By monitoring the Codes they are seen to be concerned with African workers in an apparently concrete way. Such monitoring does have the general effect of increasing the publicity surrounding the Codes and may be said to be useful in that respect. However, organisations that are not actually organising Africans in the workplace are likely to have a fleeting interest, be issue oriented, and be badly informed in the face of management assertions. Consequently, any initiative undertaken in this area must be done only after consultation with the presently existing independent African unions. This is necessary both in order to prevent the Codes being used to pre-empt the existing worker organisation *and* to ensure that they facilitate the emergence of organization in the work-place.

For *labour* the question of monitoring Codes is not really the issue at stake. Their problem is to create independent labour organisations for all workers that will bargain for, and police, their own improved working conditions. In the light of this TUCSA'S concern to monitor the Codes is misguided and will not enhance their credibility as a trade union movement. Of course labour, and African workers in particular, are clearly entitled to use the support of overseas unions and the provisions of the Codes to facilitate organisation. However, they must not forget that the recognition of trade unions depends on organised workers and not the pressure group politics that the Codes can so easily lead to.

## NON RACIAL DEMOCRACY IN THE WORKPLACE

This issue of the Bulletin deals with the labour process, a topic of central importance to the labour movement.

The articles appearing here contain case studies of two firms, a general engineering firm and a dairy, in which the changes in the labour process are carefully traced over time, in the one case through two generations commencing 70 years ago. Another article examines the trends in the furniture industry. In addition we reprint an article sketching an alternative to the capitalist division of labour by Richard Turner. We do so not only because of the intrinsic worth of the work, but also in honour of Richard Turner who made a significant and valuable contribution to the labour movement. His tragic death from an assassin's bullet was a great loss to the country in general and to workers in particular. We, along with many others, mourn his death.

Although the contributions on the labour process are by no means representative of the economy as a whole and the conclusions in the furniture industry are somewhat tentative, they nonetheless confirm trends that have been observed in capitalist systems. These include the deskilling of occupations by means of the division of labour and mechanisation. What is noteworthy is that the deskilling in both the engineering firm and furniture industry did not take place because of a shortage of skilled labour, but apparently for economic and other reasons. Deskilling does not completely describe the changes adequately either. What is happening as the furniture industry article shows, is the debasement of labour whereby the conception of tasks is removed from the craftsmen by management and replaced by simplified mechanised jobs requiring very little skill and performed by operators.

Another trend shown up by the articles is the reduction in the size of the labour force as a result of mechanisation. This is clearly confirmed in the dairy and engineering firm where, in both cases, output rose over time while employment fell concurrently. This

underlines and confirms the argument in an earlier Bulletin (Vol. 4 No. 4 July, 1978) on structural unemployment in South Africa in which we identified capital-intensive investment as one of the causes of unemployment.

What are the implications of these changes in the labour process for the labour movement? The first is to be aware why they take place. There are basically two reasons why the debasement of labour has taken place in the capitalist system. The one is that management increases its control over labour by removing from the labourers the knowledge of the whole production process, As a result the workers become entirely dependent on management for their jobs and hence for their lives. The other reason is that it is more profitable for management to deskill jobs because they can employ workers at lower wages than before while obtaining a greater output from them. This has been confirmed in a previous article by Morris & Kaplan (SALB Vol 2 No 6 & 8) where it was argued that the reorganisation of the production process in order to allow for African advancement resulted in the deskilling of jobs and a reduction in the total wage bill."

The changing labour process also has consequence for trade union goals and objectives. It is wrong for craft unions to hang on desperately to their privileges as artisans and skilled workers. It only serves to divide workers as has been the case in the history of both the British and South African labour movements (see in this issue the Review of Hinton's *The First Shop Stewards Movement*, pg.77 where deskilled workers remained poised between their *craft privileges* on the one hand and their *working class interests* on the other). Besides that, the skilled workers are fighting a losing battle by trying to organise only a section of the workforce - bargaining must be on the basis of all workers, regardless of skill. However, while trade unions restrict collective bargaining only to negotiating over wages and working conditions they leave control over the labour process firmly in the hands of management. Trade unions therefore have to keep clearly in mind that their goal should be to extend the area over which workers have control in the work situation.



For the registered unions the complex historical forces in which they are located are becoming increasingly more threatening. The use of race protected their members for some decades in their craft position and did entrench their privilege.

The registered unions were responding to a real threat which was the erosion of skills and the deskilling of labour so as to make better use of the structurally cheap labour. However, it was a temporary victory which their leadership should have foreseen far earlier. The forces that erode the skills are too powerful for organisations on a craft and race basis to provide lasting protection of existing skills and privileges.

The real issue at stake for trade unions is to be strong enough to be able to bargain and exert a degree of control over the whole labour process so as to try and benefit all workers. This strength can only be achieved by a unified workforce that can override division and tensions of interest within the workforce so as to present a common front to management. For labour to perpetuate divisions within itself is only to further weaken their precarious position in the face of technology at the service of profit.

There are signs that some registered unions can see the reality of the situation. However, history is not easily cast aside and trying to unify a labour movement bedevilled by privilege and race will not be easy. It will however, be to the ultimate detriment of labour and their trade unions if the attempt is not made.

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#### ERRATA

SALB Vol 4 No 3 the following bibliography was omitted from J.K. McNamara's article "Migration Routes to the Gold Mines and Compound Accommodation 1889-1912":  
 Chamber of Mines of South Africa, 1889-1915, *Annual Reports*, Johannesburg and Cape Town.  
 Schapera, I., 1947, *Migrant Labour and Tribal Life*, Exford Univ. Press.  
 Thompson, L, 1971, "Great Britain and the Afrikaner Republics, 1870 to 1899", in Wilson, M., and Thompson, L., (eds)., *The Oxford History of South Africa*, Vol.2, Oxford Univ. Press.

## ARE THERE SKILL SHORTAGES IN THE FURNITURE INDUSTRY?

*by Charles Meth*

In countries such as South Africa, certain industries, which typically have low capital to labour ratios, can remain insulated from world developments for relatively long periods because of the nature of their products. Furniture making, for example, is a very old industry, the product has relatively high bulk and low value, thus the incentive to import is low, and as long as equilibrium conditions are not too violently disturbed, production along traditional lines can continue.

However, if one reasonably large manufacturer introduces new machines and techniques to increase labour productivity, others in the industry would eventually be compelled to follow. The generalized change which follows, often, but not necessarily always, accompanied by growth in output, is termed "modernization".

It is likely that such a change occurred in the South African furniture industry in the period after World War II, bringing in its wake important structural changes in the organisation of production.

A debate about the role of the skilled labour force in this process was begun many years ago and continues to this day.

One school argues that "modernisation" which essentially means "mechanization and fragmentation" takes place because of a shortage of skilled workers - the other argues that as modernization occurs, the skilled workers, craftsmen in the main, become displaced by machines. Both viewpoints can bring good economic arguments to bear - shortages of a particular input are an obvious hindrance to increased output and an important cause of price rises, whilst on the other hand the existence of a body of workers who monopolize the skills of production may likewise be a barrier to change in that the workers may exert a significant degree of control over both job content, work pace and the entry of new workers to the trade.

Specific skill shortages may thus be either cause or effect of modernisation. If they are the cause then the former of the two explanations offered above probably holds. If they are the effect, then it is likely that shortages of skilled workers will arise because these workers leave the industry for more satisfactory alternative employment. This compounds the difficulties of the craft unions to which these workers invariably belong and it is to be expected that the unions will insist on increasingly tighter job definitions as employers seek to fragment and mechanize.

Occasional shortages of the emerging grade of operators may occur as this process takes place but it is likely that the period of time required to train operators in many of the new fragmented or mechanized occupations will be so short, as not to constitute a serious bottleneck.

This study is an attempt to answer the question of whether skill shortages (1) are cause or effect of modernization (with or without growth) in the Furniture Industry in South Africa, and indeed whether such modernization has in fact taken place. The undertaking is considerably hampered by the way in which the available data is published, as will be made clear at several points in the study.

At this point, it is worth mentioning a few peculiarities of the South African labour market. Until comparatively recent times, discriminatory legislation and practice has for long excluded all except Whites from skilled occupations in most industries. One exception to this, there are few others, is the furniture industry.

These exceptional circumstances gave rise, it will be argued, to a situation in which the supply of recruits for many skilled positions in the industry could be regarded as almost unlimited because Coloureds and Indians had so few alternate avenues of employment. It is against this background that the demand for and supply of skilled labour will be discussed.

Before moving into the analysis proper, a brief digression on difficulties of data collection and interpretation, is necessary. These difficulties may be grouped into

three categories. The first of these is concerned with difficulties of measurement of the magnitude of the problem of skilled shortages and the possible impact of this on choice of techniques in manufacturing. The second of these difficulties is concerned with the possibility that certain reported skill shortages may be purely imaginary, which in itself leads to further measurement problems. The third set of difficulties relates to the impact of fluctuations in the overall level of economic activity on the demand for skilled workers and the problems of interpretation to which this gives rise.

Under the heading "difficulties of measurement of the magnitude of the problem", it is possible to distinguish two problem areas. These are:

- (a) Estimates of some existing shortage and
- (b) Projections of future requirements which suggest that skills are likely to be at a premium.

Estimates of existing shortages are likely to be misleading unless compiled on an industry-wide or in some cases even on a national basis. For example, if skill is wholly or partly transferable from one industry to another, the movement of workers between industries might show up as a loss to one industry and should be reflected as a gain to the other. It is clear therefore that a distinction needs to be made between particular and general shortages. Mobility within and between industries in response to changing relative rewards also needs to be distinguished from the skill loss which occurs when a skilled manual worker moves to, say, a clerical post.

The implications of this are twofold. Firstly individual firms making choices of technique on the basis of less than perfect information may display an inherent bias say, towards the introduction of techniques, which are less dependent upon skilled labour and secondly, subsequent analysis may be of limited value because of the inaccuracy of published data.

A similar difficulty exists with respect to projected requirements. Suppose for example a projection is made

in which growth rates of output and of demand and supply of skilled labour are extrapolated to show future trends. An apparent looming shortage, apart from promoting intensified efforts to train more workers, may also result in the selection of techniques which depend less on those particular categories of labour. Thus projections are capable of producing reactions within the system which modify the direction of the system. This may reinforce or invalidate the projections.

However, the basis on which projections are made is often shaky. Consider for a moment the relationship between labour turnover and labour requirements. A recent series of studies by the NPI has shown that amongst manufacturers, particularly in the furniture industry (2), very little knowledge of the size of or reasons for labour turnover was available to management.

A careful study by the NPI has shown that in the clothing industry more than twice as many replacement workers are required as are new entrants over the period 76-81 (3), therefore the emphasis in labour policy should clearly be on retaining rather than training. Thus what is often called a "skilled labour shortage" may in fact be a misleading description of a process in which skilled workers are actually expelled from an industry.

The second set of difficulties associated with data collection interpretation may be termed "imaginary" in the sense that they result from the attitudes of employers rather than from any real shortages.

An example of this was reported recently in the Financial Mail (4). A Furniture manufacturer claimed that there was a shortage of skilled Coloured journeymen in the industry - the industrial council secretary insisted that the manufacturer had merely to lift the telephone to obtain through the Union, all the journeymen he required.

It is possible to argue that manufacturers are reluctant to bear the search cost involved in finding workers, although this hardly seems likely. Alternatively the phenomenon may be indicative of dissatisfaction, with the restrictive nature of the Industrial Council

agreements. In this country it has become commonplace for commentators on labour affairs to wax lyrical whenever the subject of South Africa's industrial conciliation machinery is raised. Wiehahn, however, recently remarked that:

"Our system of labour relations is very much like the patient whose sporadic and periodic pains in the last number of years have been settled with painkillers but who now requires major surgery". (5)

The existing regulations, looked at from the manufacturers point of view, are a barrier to the "efficient" use of labour, the manufacturer in question reportedly being particularly unhappy about a clause in the industry's new agreement which prevents employers from training Africans for Grade (ii) work if there are Coloured Union members capable of doing the job. Some of the implications of this dispute will be picked up in the discussion on skill shortages and the role of the unions.

The third set of difficulties with data collection and interpretation is caused by cyclical fluctuations in the level of economic activity.

Skill shortages in the upswing of a business cycle are an important and predictable feature of the cycle. Although it may seem paradoxical at first sight that skilled labour shortages could exist in periods of low economic activity and high unemployment, a moment's consideration will suggest that it is reasonable to expect that workers who become cyclically unemployed might seek other less vulnerable occupations, particularly if they experience cyclical unemployment more than once.

Recent experience elsewhere confirms the existence of skill shortages through this very mechanism (6).

Theoretically this presents no difficulties - instability is the cause - skill shortage the effect. However, business cycles, although they have certain similarities are essentially unique events, they show an almost wilful lack of regularity. Thus whilst it may be possible to establish the extent of a particular skilled labour shortage in any particular cycle, it is very difficult

to estimate the significance of this for the future demand and supply of skilled labour. Added to this is the conceptual difficulty, raised earlier under the first heading in this section, of using one of the symptoms of an economic problem as the descriptive name of the problem i.e. the process of expulsion of skilled labour from an industry is simply called a skill shortage (which is of course perfectly true), as though what were being discussed were some minor breakdown of the market as an allocating device.

Obtaining the data necessary to make some sort of estimate of the significance of the three problem areas just discussed is difficult, but these points, particularly the first and third should be borne in mind in the analysis which follows.

In the introduction to this paper it was stated that there exist at least two different approaches to the problem of skill shortages and (7) growth. The first approach argues that growth takes place usually as demand increases until bottlenecks caused by shortages of various types, amongst the skill shortages, cause the rate of growth to decrease. A period of consolidation or slower growth follows during which changes in technique to replace the relatively scarcer input may be made. This is usually followed by a further growth spurt.

Suppose on the other hand that the rate of growth of demand is sufficient to attract a few hopefuls to the industry each year but not sufficient under existing prices and production methods to increase profit levels to those obtaining in the more dynamic sectors of the economy. A strong incentive for cost-reducing strategies exists and as argued earlier, the decision by one reasonably sized firm to "modernise" by redesigning products and fragmenting and mechanizing jobs, would probably start a chain reaction.

Skill shortages result, but not in the way outlined in the first approach. Firstly some of the existing skilled workers, whose jobs are mechanized or fragmented, are expelled from the industry - new entrants also become difficult to attract and secondly an intermediate

class of operators arises which is also occasionally in short supply.

Choosing between these two views necessitates having access to a great deal of reliable information. On the demand side, both retail price and income statistics (including the relevant elasticities) would be required, as well as information on the way in which the earnings of various groups have changed as growth has taken place.

As far as supply is concerned, it would be necessary at least, to know capacity utilization levels, overtime (or short-term) worked, the ratio of registered vacancies to unemployed workers by occupation, and the movements of the wholesale price index.

Armed with all of this it would still only be possible to perform a partial equilibrium analysis. However, most of the information required is not available for the whole and some not even for parts of the period.

To make best use of the available data in validating one of the other of the two hypotheses, above, the problem is approached by separating out some of the more important conditions usually associated with skill shortages "plugging in" as it were, the data in what is hopefully the best position. The conditions are clearly interlinked, which regrettably gives rise to some repetition but it is hoped that this repetition will enable some of the links to be made where these are not precisely spelled out.

It is argued that prior to 1945, the furniture industry in South Africa was predominantly craft-based and that "modernisation", if it has occurred has done so in the post-war era. Efforts will be concentrated therefore on the period 1945 to 1975.

Skill shortages may be associated with:

1. Legal or other barriers to the advancement of a significant section of the population.
2. Economic growth.



3. Business cycles.
4. Changes in technique of production.
5. Restrictive trade union practices.
6. Changes in pay differentials within and between industries.
7. Inadequate training methods and/or poor quality potential workers.
1. Skill Shortages and Customary or Legal Barriers:

Such barriers are by no means a peculiarly South African institution, they have simply been wrought here to a greater and hence, more odious precision. The purpose of the legal measures, which have earned this country opposition is to protect workers of one race group against "unfair" competition from members of another race group.

In terms of Section 77 (Safeguards against inter-racial competition) of the Industrial Conciliation Act, the Minister of Labour was empowered to request from the Industrial Tribunal, a report and recommendation in any industry where it appeared or was feared that inter-racial competition existed or may have arisen. The Minister, upon receipt of such a report and recommendation, was empowered, after consultation with the Minister of Economic Affairs to make a determination (commonly known as Job Reservation) by notice in the Government Gazette.

In April 1961, the Minister requested such a report for the Furniture Industry (8).

Furniture is one of the very few industries where artisans from race groups other than White were to be found in any significant numbers - both during and after the Second World War, the Government of the day channeled Coloureds and Asians into skilled and semi-skilled occupations in the industry. Indeed this process took place "in spite of the complaints of the employers" (9).

With the result that in each province except the Orange Free State, Coloured and Asian artisans out-numbered Whites as early as 1959 (10). By 1964 there were roughly 5 Coloured or Asian apprentices for every White (11).

The report and its recommendation led to a relatively innocuous determination reserving for Whites the occupation of foreman, chargehand, supervisor and maintenance fitter. This was more or less a simple recognition of the de facto status and occupations of Whites at the time.

In the report there is frequent reference to a shortage of "white" skilled workers, for a variety of reasons which will be discussed later, but not to a generalized shortage of skilled labour. Given the abundant supply of Coloured and Indian workers and the scarcity of alternative employment opportunities, it is difficult indeed to argue that there could have been a shortage of suitable candidates for employment and training in the industry, except in the very early days (during and before World War II) when there was a shortage of Coloured and Indians with the required entry qualification. However, even this problem could be overcome by the "unofficial" system of apprenticeship known as "improvership".

Choice of occupations for Coloured and Indians in industry until relatively recent times was between a few trades in Furniture, Printing and Construction.

Inter-racial earnings differentials in these 3 industries are remarkably low by South African standards. In the Furniture trade in the early 50's Coloured and Asian production workers earned nearly 2/3 as much as White production workers (12) - when it is considered that by the early 60's there were very few Whites actually engaged in production work in the furniture industry and that the bulk of apprentices were Asian or Coloured then it is clear that the disparities between the earnings of the 3 groups must have been negligible.

On these grounds it seems likely that in the case of the furniture industry, racial barriers have not been a significant causal factor in the skilled shortage

problem.

## 2. Economic Growth and Skill Shortages.

Demonstration that growth has actually taken place is something which is difficult to achieve with any great accuracy. Much has been written on the problems of the various indexes used as indicators of growth and the debate need not be enlarged upon here. From amongst the array of possible indicators, that of rate of growth of employment is possibly the most reliable in the case of the furniture industry. Using this criterion it will be found that the period divides quite neatly into 4 sub-periods. These are shown in Table 1 below:

Table 1: Rates of Growth of Employment in the Furniture Industry and in Total Manufacturing 1945-1975.

Period	Furniture (total employment)	Total Manufacturing (Total employment)
1945-46 to 49-50	3,7% (annual compound)	5,6%
1950-51 to 59-60	0,5%	1,6%
1960 - 1970	5,1%	4,9%
1970 - 1975	0,2%	2,7%

The change to International Standard Industrial Classification in 1950-51 produces discontinuities in the employment figures. See Statistical Year Book 1964. There was also a reclassification in 1970. See South African Statistics 1976 P 12.

Not suprisingly, changes in the level of activity in the industry reflect approximately, movements in the economy as a whole. Given the relative smallness of the contribution of the furniture industry to GDP it is perhaps superfluous to point out that skill shortages are unlikely to have been the cause of changes

in the rate of growth of the industry. This information will be more in the discussion on skill shortages and the business cycle. Its function like the rest of the evidence presented in this section, is simply to form part of the background to the discussions which follow.

An important change which occurred over the periods was that the proportional contribution of the furniture industry GDP in manufacturing fell significantly. (13) Although the output of the industry grew absolutely during the time, the fact of the relative decline could have an important bearing on firms decisions. This issue is explored at some length in a later section.

Returning to the question of changes in employment, it is found that two important and related changes occurred over the period.

1. The proportion of Whites, Coloureds and Indians in the workforce, who may generally be regarded as skilled workers, has fallen. Indeed the number of Whites in production has fallen absolutely.
2. The proportion of production, maintenance and related workers in the industry has fallen.

Table 2

Year	White, Col & Indian as % of Total Workforce	White, Col & Prod. Wkrs, as % Total Labour Force	White Production Workers. Number % of Total Workforce	Pro. Maint. & Related Workers as % Total Workforce
1950-51	55,5%	53,7%	3668 21,9%	91,4%
1959-60	52,7%	49,9%	2443 13,9%	89,7%
1963-64	53,9%	49,8%	2491 11,9%	85,6%
1970	51,8%	48,5%	2217 7,4%	87,9% (14)

Source: Report No 1C 25 Tables 1, 6b & 6d  
 Report No 10-21-01 Tables 6,1 & 6,2  
 Report No 10-21-26 Tables 1.6.1, 2.1, 2.2 & 2.3

The implications of these changes will also be examined at some length in later sections.

It has been suggested above that modernization has taken place in the industry - if this is so, one would expect to find evidence of increasing levels of output per man.

To show that the real value of output per man is rising, it is necessary to deflate the money values of output recorded in the Manufacturing Censuses. Unfortunately the Wholesale price Index does not stretch back far enough to cover the whole period (15). Attempts to use the Retail Price Index for this purpose produce some very curious results.

As a surrogate it is possible to use Net Value of Output per R1000 Salaries and Wages. Alternatively, Salaries and Wages of either Production and Related Workers or all workers may be expressed as a percentage of either Gross or Net Value of Output. Some indication of the way in which these variables have changed is given in Tables 3 and 4

Table 3: Net Value of Output Per R1000, Salaries and Wages.

Year	50/51	51/52	52/53	53/54	54/55	55/56	56/57	57/58	58/59
Furniture	1,687	1,686	1,666	1,668	1,790	1,706	1,676	1,708	1,675
Total Mfg	2,201	2,134	2,123	2,171	2,227	2,075	2,066	2,077	2,051
Year	59/60	60/61	61/62	1963	1964	1966	1968	1970	1972
Furniture	1,709	1,681	1,690	1,743	1,807	1,842	1,828	1,998	1,676
Total Mfg	2,099	2,106	2,142	2,201	2,204	2,108	2,103	2,181	2,129

Calculated from Statistical Year Book 1964 pp M. 7 & M-19 & South African Statistics 1976 pp 12,10 & 12.14.

It is interesting that the only strong trend which emerged was in the furniture industry in the period 1960-1970 - the apparent period of most rapid expansion.

Table 4. Salaries, Wages & Net & Gross Value of Output

1	2	3	4	5	6	7	8	9
Year	Sal & Wage (Prod)	Sal & Wage Total	Sal & Wage Afr.	Net Val of Outp.	Gross Val of Outp.	2 / 6%	3 / 6%	4 / 3%
1950-51	8673	10364	2251	17,633	34,650	25,0	29,9	21,7
1953-54	10575	12869	2854	21967	42,341	25,0	30,4	21,2
1958-59	11376	14517	3333	24,943	48,819	23,3	29,7	23,0
1963-64	-	19275	4722	34,835	66,055	-	29,2	24,5
1970	-	37378	9616	74,672	136138	-	27,5	25,7

Salaries, Wages & Value of Output in R1000 (at Current prices)

Source: Report No 1C 25  
 Report No 10-4-01  
 Report No 10-21-26

From this table it appears that wages represent a falling proportion of turnover. Part of the explanation has already been hinted at - increasing numbers of Africans - the lowest paid workers in the labour force, although the absolute amount paid to the slowly increasing total White working force continued to grow at a fairly high rate. The other part of the explanation is, increasing levels of mechanization.

Figures on this are a little hard to come by. Three measures, two of them obviously related, are available for the period 1950-1961 and these are

- (i) Number of air compressors in use
- (ii) Number and Installed HP of Electric motors
- (iii) Electric Power Consumed

In the later Manufacturing Censuses, no mention could be found of (i) and (ii), item (iii) is lumped together

with steam and gas whereas before it had been separate.

At any event, the following figures give some indication of the movements of these indicators over the period.

Table 5. Compressors & Electric Motors per Establishment

Year	No of Estab- lishments	Values given per Establishment			
		Compressors	Electric Motors		Elec Power Consumed
			Number	H.P.	
1950-51	475	0,46	14,6	59,9	R286,09
1959-60	509	0,57	18,8	74,4	R345,68

Source: Industrial Census 1950-51 to 1960-61. Report No 1C25  
Total employment over the period increased from 16,763  
to only 17632.

The 1959-60 figure for electric power consumed has been deflated using the Overall average selling price given on p 63 ELECTRICITY SUPPLY COMMISSION - ANNUAL REPORT 1976.

From the figures above it is clear that the rate of increase of power consumption exceeds significantly, the rate of growth of employment.

Given the somewhat meagre nature of the published data, the modest goal of this section was to show that growth, mechanisation and structural change had taken place. Causality is virtually impossible to show. Further consideration of the factors discussed above will be undertaken in the sections that follow.

### 3. Skill Shortages and the Business Cycle.

The pattern of business cycles experienced in South Africa between 1945 and 1975 has some very distinctive features. These relate broadly to the four sub-periods

discussed in the previous section.

Between 1945 and mid-1961, fairly regular short period cycles with an average approximate period of 33 months, an upswing of 18½ months and downswing of 14½ months were experienced.

From mid 1961 to the end of 1970, an interval of 112 months, only two downswings of 8 and 7 months duration respectively were experienced. (16)

In the interval from the beginning of 1971 to the end of 1975 there have been 39 months of downswing and 21 months of upswing (from Nov. 1972 to July 1974).

There is a strong connection between skill shortages and instability of employment.

Recent evidence from the U.K., using as an index of acuteness of labour shortage, the ratio of vacancies to registered unemployment by trade, reveals that present values of this ratio, for more than half of a selection of engineering occupations, exceed the December 1972 values when unemployment was less than half of its present value and when output was growing rapidly.

In part, this may be explained by erosion of pay differentials. However surveys conducted by the NEDO (National Economic Development Office) suggest that lack of job prospects and fear of recurring redundancy were major reasons (17).

Evidence that skilled White workers left the furniture industry permanently as a result of insecurity of employment is presented in the Report and Recommendation of the Industrial Tribunal referred to in the section of this essay on Legal and Other Barriers.

Paragraphs 15 and 16 spell out conditions in the industry. The period under discussion is 1950-1961, precisely that period in which fairly regular upswings and downswings were observed.



"15. The industry is subject to strong fluctuations in its output levels and consequent activity. On the one hand there are seasonal fluctuations repeated year after year and on the other hand there are fluctuations which correspond to economic boom or depressions and which thus do not show a fixed periodicity".

"16. Work in the industry is thus not stable. This leads to the introduction of short time and other retrenchment measures in times of slackness".

In paragraph 22 of the Report, (Representations of the Industrial Councils) it is disclosed that Whites chose jobs in other industries with higher wages, greater benefits and where job security existed.

It should be repeated at this point that Coloureds and Indians, the other group of skilled workers in the industry did not have the same freedom of movement. Therefore the fact that White skilled workers were in short supply in the industry is no indication of the level of scarcity, if any, of skilled workers in the industry in general.

A second aspect of skill shortages and the business cycle is that which is concerned with the responses of firms to periodic recessions.

In a downturn, price competition is likely to occur. If the downturn is of short duration, this need not be particularly significant, but when it becomes protracted, price cutting will become more severe as firms struggle to win orders. The larger the proportion of total costs represented by overheads, the more severe the cost cutting is likely to be. Also, price cutting as a means of stimulating demand is likely to be less effective, the lower the elasticity of demand for the products of the industry (18).

There is strong evidence, part of which has been presented above, that the furniture industry underwent frequent fluctuations in the level of activity in the period 1945-1961. There is also evidence, presented in Table 4 that salaries and wages declined as a proportion of total costs. What little is known of both

price and income elasticities of demand for furniture (19) suggests that they are fairly low. The rate of growth of retail sales of furniture during the period was sluggish, being very little more than the rate of growth of the White population & being significantly less than the rate of growth of motor car sales, for example. The industry thus appears to have had a very strong incentive indeed to increase labour productivity by "modernizing".

#### 4. Skill Shortages and Changes of Technique of Production.

Perhaps rather obviously one may say that capitalist manufacturers change techniques of production either when they are more or less compelled to or when they think it will be profitable for them to do so.

Some argument has been presented in the previous sections to suggest that changes were made for a combination of these reasons. Changes in technique may be caused by skill shortages, they may also cause skill shortages and that in different ways.

Suppose that a certain manufacturer introduces a new technique which requires new skills. If other manufacturers follow suit, this could lead to a shortage of workers in that particular occupation.

Had this occurred in the furniture industry, one would expect to discover in the Industrial Council Main Agreements, reference to a new body of skilled workers. With the exception of the Clause IV, Grade (i) workers, (21) the descriptions of the skilled occupations in the current agreement do not suggest that any radical change has occurred which might have led to skill shortages.

It is conceivable that high level skills are required to operate modern machinery and that suitable workers are difficult to find. Continued shortages are unlikely though, because of a tendency for machines to be designed for maximum ease of operation. At all events, the usual sources (22) of information on vacancies for different types of workers do not reveal any special category of machinists in persistent short supply.

Changes in technique may also cause skill shortages in the following way: a manufacturer introduces a new machine which greatly reduces the required manual skill input at the same time increasing output. Because their occupations are reduced to a mere vestige of their former content, the workers concerned gradually leave the industry as use of the particular machine becomes widespread. Industrial Council Agreements, however, stipulate the use of certain grades of worker in certain occupations and there may be a considerable lag in the response of the Council to the changed conditions - in fact it is likely that the very pressures generated by these changes are responsible for changes in the Agreements. In the meanwhile shortages of skilled workers are reported regularly.

There is evidence to suggest that something similar occurred in the furniture industry in South Africa, particularly in the period from 1950-1963. Consider for a moment these two paragraphs from the Report and Recommendation of the Industrial Tribunal, cited above around which the argument of the next few pages is conducted. These are part of a description of the Industry by the Tribunal.

17. "A strong factor in the industry is the phenomenon of dilution of tradesman's work which is now closely associated with the modernisation and the concomitant mechanisation of factories. Work which formerly consisted of a whole series of sequential processes and which were all grouped together as the work of *one* tradesman, is, as a *result* of the mechanisation process, subdivided into a whole series of separate processes which are done by machine and which demand little skill (*vaardigheid*). In the course of this process the tradesman concerned disappears."
18. "The process referred to in the foregoing paragraph (the consequences of which are described at greater length in the summary of the representations to the Tribunal) is the product of mutual negotiation between

employers' and employees' organisations. One result of this is that tradesman's wages are sometimes prescribed for machine operators who are actually only doing a part of the original tradesman's work with the help of a machine. Such operator' posts in the industry are sometimes called tradesman's occupations although the work is no longer tradesman's work, and African (Bantu) - operators who do such work are sometimes referred to as Africans in tradesman's occupations. This really does not mean that the Africans concerned are tradesmen."

Representations by the employers corroborate the substance of paragraphs 17 and 18. Throughout the Report there is no important disagreement on the actual labour process, the really contentious matter is the desirability or otherwise, for the different parties of Job Reservation.

It is clear from the above that craftsmen were leaving the industry because of the introduction of new techniques and not that new techniques were initially introduced because of a shortage of skilled men,

Furthermore, the changes and possibilities of further changes acted as a destabilizing force which discouraged White school-leavers from taking up apprenticeships in the Industry. Even a reported doubling of wages (23) for apprentices did not summon forth the necessary recruits.

Some indication of the state of flux in the industry is given in Paragraph 63.

"Undoubtedly the process of dilution is at least co-responsible for the inflow of unskilled and semi-skilled workers (and thus mainly non-white workers) into the Industry. The end of this process has apparently not been reached and as it proceeds *more and more skilled work will be divided into separate sub-divisions on the lines of recognised mass production methods.* (Emphasis added). This means that work methods in the industry do not have a fixed pattern : as one factory has gone further

than another in the mechanisation process the work methods differ mutually. What a tradesman produces in one factory is produced by an operator elsewhere. Consequently there is no guarantee that the specific work divisions (classifications) will continue; which place serious difficulties in the way of possible recommendations about reservation of specific classes of work for one or the other groups".

As suggested earlier though, the difficulties experienced in obtaining White workers certainly were not repeated when it came to hiring members of the other race groups. This is clear from paragraph 27 of the Report:

"In contrast to members of the White race group, Asiatics are satisfied with repetitive handwork and are prepared to do such work for a lifetime,..."

The members of the Council do recognize, to their credit, that the then prevailing high rate of unemployment amongst Asiatics was connected with this willingness.

More attempts along the lines of those in paragraphs 17,18 and 63 will be found scattered through the Report. The evidence presented so far is however, sufficiently strong to suggest that skill shortages, such as they were, at a vital point in the history of the industry, were not the cause of, but were rather caused by changes in technique, introduced at the instance of the manufacturers.

##### 5. Skill Shortages and Restrictive Trade Union Practices.

Craft unions, because of the degree of control which they exercise over the job, constitute, as has been argued earlier, an important barrier to the process of "modernisation". However they face a dual threat in the workplace because of the development, usually in the most advanced capitalist countries, of machines increasingly capable of performing their work and also because of the existence of a reserve army, willing & able with some training, to operate these machines. The strategy which they decide to adopt in their negotiations with the employers is crucial to the ultimate outcome of the

conflict between them. If they opt for fighting a rearguard exclusivist action, it is likely that in the long run, they will prove less than a match for the combined forces of mechanization and fragmentation, since innovation and process design are now a function of management.

The nature of the threat which craftsmen face in the workplace is clearly evident in the following quotation from the Report. (24)

"It was further noted that in one establishment (in the Johannesburg area) Natives were employed on the most modern method of obtaining a high class polished surface by machine, but this would appear to be a contravention of the Industrial Agreement, as they were not being paid journeymen's wages as laid down, but a Machinesander's rate. According to the evidence given Natives are not employed on journeymen's work but are employed on semi- and unskilled work".

The formation of industrial unions as an alternative response is, however, problematic in this country because of the legal status of African workers. The existence of this reserve army has at times been successfully exploited by the employer in their struggle for increased control over the labour process. The added dimension of race in the conflict between workers and employers acts to a certain extent as a veil which obscures the true nature of the relations between them. Trade unionists however are conscious of what they perceive as a clear threat and there are numerous references to attempts by employers to exploit the divisions within the labour force. Small wonder then that certain White and mixed unions attempt to use racially exclusory practices to safeguard their positions.

To illustrate this, here is a comment by the Motor Industry Employee's Officer -

"(The employers) endeavour to dilute the work of the Artisan in order to create job opportunities, so they say, for the Bantu population. We like to believe that quite often the purpose is high profits.

Obviously, because these people are earning lower salaries than the white artisans". (25)

or this remark by the Building Trade Officer -

"They (employers) want to fragment. They want to do away with all the trades, water the trades down to where there is practically nothing left for the artisans. So it goes to the Bantu, goes to the cheaper rate of pay all the time". (26)

The Federation of Furniture and Allied Trade Unions at the time of the compilation of the Report cited in the previous section, which comprised the National Association of Furniture and Allied Workers of South Africa, a White Union representing approximately 1500 workers and the National Union of Furniture and Allied Workers of South Africa, a Coloured Union representing about 4 400 workers at the time, was convinced with reluctance, that Job Reservation was necessary for the protection of tradesmen (27).

The Furniture Workers Industrial Union (Natal) was convinced that it was not. As recorded earlier, the Job Reservation determination, when imposed merely formalized the de facto situation at the time and protected Coloureds from the competition of Africans. Responding to pressure from furniture manufacturers, industrial council secretary Phil Smit recently said that:

"Employers must think of the industry as a whole, not only their own needs. We can't let large numbers of Blacks into the industry - they're not allowed to belong to registered Trade unions and the union has a right to ensure that it remains representative". (27)

Industrial council agreements write in safeguards for union men - to quote Smit once more:

"These people have served the industry loyally for years and we have a duty to protect them. Any employer can find an excuse to fire a worker for 'incompetence' and we want to protect the people in these jobs already". (28)

It appears that control over the job is traded away for increased benefits. To quote the prophecy in Paragraph 63 of the Report once more "more and more skilled work will be divided into separate sub-divisions on the lines of recognised mass production".

#### 6. Skill Shortages and Changes in earnings Differentials within and Between Industries.

Looking first at the differentials within the industry, it will be recalled that the structure of occupations has undergone extensive change from the simple pre-war split into artisan and labourer, being complicated by the emergence of a class of operators of semi-skilled workers. There has been some narrowing of differentials particularly of specified minimum rates, but this does not appear to be very important. The ratio minimum wages of artisans to minimum wages of Grade (ii) workers has fallen from about 2,8 to 2,1. Most of the fall, however, has taken place in recent times.

From 1950 to 1963 the ratio fell only from 2,8 to 2,7; barely 1/4 of 1% narrowing of the differential in any year. (32) (33).

It is more difficult to evaluate the significance of the emergence of the group of relatively well-paid operators in the Grade(ii) occupations. Although as previously pointed out, the highest Grade (ii) wage is 76% of the minimum Grade (i) wage (34), it is not clear that Grade (i) workers feel threatened in view of the formal training which they are required to undergo. The discussion of the previous section, on change of technique, is relevant here though.

Differentials between industries are clearly important. Certain skills are transferrable between industries and there are certain employers e.g. the SAR & H who employ in practically every trade. Paragraph 41 of the Report suggests that Whites headed for the railways, the mines, the building trade and engineering (this last could only have applied to maintenance fitters).

Earnings for Whites in the furniture industry fell relative to such industries as Petroleum and Oil Products,



Although these safeguards, and others such as the increasingly detailed definitions of job categories do protect unionised workers, (29) there is evidence that trades have been steadily whittled away, both to reduce costs and to shake off the manufacturers dependence on craftmen. Occasionally workers have objected to fragmentation (or dilution). Here is a response to such a complaint from Paragraph 13 of Assessor Bolton's declaration for the employees in the Report:

"The Employers representatives made it clear that any dilution of Labour which was objected to now, had been agreed upon between the parties, and that with the introduction of modern machinery, many skilled operations must fade away. This was generally agreed to,....."

In negotiation, initiative and the balance of power ultimately lies with the employers. The furniture unions, appear to have been reduced in strength, to the point where much "bargaining" is pro-forma only. If this is not so, what is to be made of the following remark by a Furniture Worker's Officer. (30)

"We go out with the employer and have a drink. I know outside of South Africa, once you are seen with the employer, that's it. Now I am chairman of the Industrial Council at the moment. With our setup, you must be reasonable. You don't demand things. We sit in the lounge and discuss the terms of a new contract. Sometimes we have an agreement before we begin to negotiate."

Here are some results of such "bargaining" arrangements. From 1951 to 1959 in the Eastern Province dilution of tradesmen's work, mainly Whites, led to *reductions* in the wage scales in 31 job categories (werksaamhede). From 1959 to the date of compilation of the report (1964) this also occurred in other job categories, (number not specified). In the Transvaal from 1955, up until the time of compilation of the report - 1964, 30 job categories were taken away from Whites and Coloureds. A request by the employers for 18 further concessions of this kind was refused. (31)

Basic Metal Industries and Machinery, more or less maintaining their relative position near the bottom of the earnings table (35). The higher wages in other industries helps explain the acute shortages in the industry of White apprentices in the 50's and 60's.

For Coloureds and Indians apparently the only significant alternatives were the construction industry, which offered shorter hours and higher rates of pay, and to a lesser extent the printing trade where however, entrance qualifications are relatively high. This barrier probably partly accounts for the fact that there are fewer Coloureds and Indians in printing than in furniture.

Effectively this leaves construction as the other major employment avenue for Coloureds and Indians in earlier times, when skill shortages might have been said to be responsible for modernisation. In view, however, of the very small differentials between White, Coloured and Indian earnings in the furniture industry, it is difficult to believe that a sufficient labour supply from these latter two sources, was not forth-coming.

#### 7. Skill Shortages and Inadequate Training Methods and/or Poor Quality Potential Workers.

There is a vicious circle which operates in certain industries, it goes like this - poor training, poor worker, dissatisfied worker, dissatisfied employer, worker resigns or is dismissed; poor selection process, poor training and so on. The study of the Furniture Industry by the National Productivity Institute (NPI) in 1975 revealed the existence of such a state of affairs in many of the firms surveyed.

Several ways exist for a worker to become qualified in the industry. It is not intended to enter into much discussion on this, other than to remark that apprenticeships which previously lasted 5 years, now last 3. Looking on the positive side this means 2 year less cheap labour, but it also probably means that the worker is unlikely to be as competent as the old style craftsman - indeed if machinery is doing much of the work there is no reason why he should be.

The NPI survey team found ample evidence of negative or indifferent attitudes of qualified employees towards machines or job variation and this they attributed largely to quality training during learnership or apprenticeship (36).

The survey team found no "proof of journeymen requesting training or willing to train themselves on a different or new machine during their spare time". Only 7% of the sample firms used comprehensive in-company training programmes for journeymen. In 89% of the sample companies, training (unplanned) was done on the job. It was reported that 28% of journeymen were not competent, yet little was being done to rectify the matter (37). Fully 64% of the firms surveyed used only the "sit-by-Nelly" method of training apprentices (38), the remaining 36% providing some type of planned in-factory training.

In the survey, the NPI divides the industry into 3 groups, Upholstery, Solids and Reproduction, and a group called "Flats". These groups are arranged in ascending order of possible mechanisation, Upholstery being relatively resistant to mechanization.

In the firms surveyed, the percentages of apprentices who passed their trade tests of the first attempt were as follows:

Upholstery	79%
Solids & Reproduction	38%
Flats	8%

There were proportionately more apprentices in the operations requiring greater skill (39).

Labour turnover is a serious problem in the industry. Its causes are complex and its symptoms often contradictory e.g. low wages is cited by 67% of the sample companies as cause of labour turnover (40) but the five firms which paid the highest wages had labour turnover rates which were significantly higher than those for the five lowest paying firms. (41) Journeyman/operator labour turnover rate (42) for the industry as a whole at the time of the survey was 53%, 33% of which occurred in the 1st year of service (43).

Increased productivity is recognised as being unlikely if the "human factors" involved in labour utilisation are omitted. To improve "motivation", the NPI present a barrage of eminently "sensible" recommendations. (44) These involve improvement of

- . Competence of workers (selection, placing and training)
- . Opportunity to work effectively (job organisation, welfare environmental facilities - this includes the use of music to combat fatigue - however "only music especially composed for certain types of industries should be used") (45)
- . Recognition for achievement.
- . Job enrichment and opportunities for advancement.

Some of these proposals merit debate at considerable length, "job enrichment" for instance. Unfortunately space does not permit. Increasing specialisation creates as many problems as it solves "job enrichment" may provide a partial solution to some of these. Frederick Herzberg, one of the leading practitioners of the art says that "indolence, indifference and irresponsibility are the correct attitudes towards absurd work". (46) However "job enrichment" creates further difficulties - the interested reader is referred as a start to (47)

This section closes with an example of the contradictory forces at work in the drive to increase productivity. The argument has been that the worker is competent because of the nature of the job and the training he receives. To overcome this, the proposals above are made. Yet these are undermined by the need of the manufacturers to reduce their dependence on skilled workers, as the following quote makes clear. The authors of the report are discussing means of improving the methods of fitting drawers and they end their proposal with the following comment:

"The result is that the operation of fitting drawers is deskilled and an improved drawer movement is provided which is not dependent on the ability of the cabinet makers". (48)

## CONCLUSION

Reports of skill shortages need to be treated with circumspection. For a variety of reasons the magnitude of such shortages is extremely difficult to determine. Short-term forecasts of trends in employment, on which such reports are often based and particularly those forecasts using the "employers opinion" method have elsewhere been found to be seriously deficient (49)

It is difficult to quantify the skill shortage problem, it is even more difficult to pinpoint the cause or causes. Although such shortages are invariably associated with changes in technique and changes in the structure of the workforce. The precise nature of the relationship between these variables is the subject of considerable debate.

In this essay it is argued that conditions in the industry during the important earlier half of the period under consideration were such as to have encouraged, nay, necessitated, cost-reducing changes in the technique of production. Amongst these conditions were; apparent sluggish growth; declining relative contribution to the output and an overlarge labour component in the cost structure. On balance it would appear that the combination of these conditions, the last mentioned being particularly important, and *not* an initial shortage of skilled workers is what has given rise to changes in technique of production. Advanced technology, readily available from overseas (one large manufacturer sends design personnel overseas at least once a year) has significantly reduced the required skill levels in many occupations and with it the ability of unions to exert some control over the quality of workman produced. Skills, it has been argued, are difficult to import and their possessors, difficult to control, hence there is constant pressure to reduce this dependence. However the very act of doing so tends to down grade the workforce - this in turn spawns the alarmed analysis which recommends "job-enrichment" and 'humanization' of the workplace.

If skill shortages are a problem in the industry then changes made to solve the problem which concentrate on

symptoms rather than underlying causes are likely to be a somewhat less than a resounding success.

- (49) Blaug M *An Introduction to the Economics of Education*  
Penguin, Harmondsworth, 1970 p147 ff.

#### ACKNOWLEDGEMENT

I would like to thank my colleagues in the Dept. of Economics at Natal University, Durban, who have suffered through earlier versions of this paper and have offered much helpful advice and constructive criticism. Alec Erwin has been a constant source of encouragement and guidance. Needless to say, the errors which remain are my own.

#### References:

1. "Shortages" here is used in the strict sense that there do not exist within the area concerned sufficient trained workers to fill the vacant posts at some reasonable wage level.

2. *Productivity of the Furniture Industry in South Africa, 1975.* National Productivity Institute.
3. *The South African Clothing Industry; Proposals for an Integrated System of Manpower Training and Development.* NPI, Sept., 1976.
4. *Financial Mail*, July 28, 1978.
5. *South African Journal of Labour Relations.* Vol. 2 No. 1, Fe. 1978 p6.
6. See the Section on "Skill Shortages and the Business Cycle" below.
7. Industrial Council Agreements for the Furniture Industry distinguish 3 types of worker: Grade (i) occupations which are 'skilled' and which correspond to the old craftsman type grade. Grade (ii) workers who range from semi-skilled operators, the highest of whose minimum wage is currently 76% of Grade (i) worker, to much lower-skilled workers whose minimum wage is the same as the rate for the third grade, namely labourers, who perform a variety of unskilled tasks. These grades will be used throughout the essay as operational definitions of skill levels.
8. *Verlag en Aanbeveling Deur die nywerheidshof oor die reservering van werk in die meubelnywerheid in die Republiek van Suid-Afrika.* (original mainly in Afrikaans - Translations by author). This "Document is referred to hereafter as "The Report".
9. See para 43 of the Report.
10. See Table lll of the Report.
11. See Table Vl11 of the Report.
12. Calculated from Table 6 (e) of Report No 1C25 Industrial Census 1950-51 to 1960-61. The value of this ratio fell to about  $\frac{1}{2}$ , as the number of White production Workers declined.
13. See South African Statistics 1976 p12.22 & Statistical Year Book 196 p m -0.

14. Employment figures are presented in an odd way-for some reason, employees in partnerships & other organisations have been omitted from Table 2.2 (Production & Related Workers). It has been assumed that the 2590 workers involved are all in production which may account for the reversal of the trend.
15. The series for Furniture and Household Requisites commences in April 1966 - see "Business Cycles in South Africa during the Post-War Period, 1946 to 1968" by D.J. Smit and B.E. Van der Walt in South African Reserve Bank, Quarterly Bulletin, Sept. 1970., however there is another series given in South African Statistics 1976 p. 87 which starts in 1961.
16. D.J. Smit and B.E. v. d. Walt, "Business Cycles in South Africa during the post-war period, 1946-1968," South African Reserve Bank *Quarterly Bulletin*, Sept. 1970.  
  
and D.J. Smit and B.E. v.d. Walt, Business Cycles in South during the period 1968-1972, South African Reserve Bank *Quarterly Bulletin*, June 1973.
17. Bank of England, *Quarterly Bulletin*, Vol. 18, No. 2 June 1978, p. 159.
18. *Industrial Organisation*, Kenneth D. George Allen and Unwin London, 1971, p. 128.
19. An attempt to estimate the elasticity of demand for furniture was made by I. Ostbey (Univ. of Natal, Durban-unpublished mimeograph). Income elasticities may be estimated from the Surveys of Family Expenditure. These appear to low & relatively constant both amongst the different income classes and also over time.
20. Using the CPI for all items (an admittedly hazardous procedure) to deflate retail prices, the apparent rate of growth of sales of furniture was 1,9% p.a. (compound). See Statistical Year Book 1964 pp N-14 & I-11. During the period 1946 - 1960 the White



population grew on the rate of 1,8%. See Statistical Year Book 1964 p A-12. New motor car registrations grew at the rate of 5,2% during the period 1947-1960. See Statistical Year Book 1964 p P-19.

21. Clause (iV) (i) reads as follows:

"Furniture machining means any operation or process performed by using any type or class of machine in the manufacture of furniture, either in whole or in part, but which ~~excludes~~ the operators mentioned in Subclause (ii)" (i.e. Grade (ii) or Semi-skilled occupations)

22. These include amongst others, the Manpower Surveys conducted regularly by the Department of Labour.

23. See paragraph 23 of the Report,

24. Paragraph 12 of Assessor Bolton's Declaration for the Employees.

25. Greenberg S.B. *Open & Closed Unionism in South Africa* South African Labour Bulletin, Vol. 1 No. 8, p17.

26. ditto p18.

27.and28. Financial, July 28, 1978, p. 316. The Manufacturer in question in the FM article is reportedly particularly unhappy with the clause in the agreement which can effectively prevent an employer from training Africans for Grade.

(ii) Work they are now allowed to do. This attitude represents a considerable advance on the viewpoint aired in the manufacturers Representations of the Report. Paragraph 37 informs us that "Bantoes" are hired for heavy and monotonous work for which they are more suitable than members of other race groups". Although the attitude is not out of line with the view expressed in paragraph 28 that

"If industry could however choose freely between Coloureds & Bantu for repetitive work

which can be learnt within half-an-hour, Bantu will be chosen for simple repetitive tasks because they have a stronger resistance against the frustration of such work".

29. From a short simple document listing half-a-dozen or so trades for which an apprenticeship was mandatory and a few unskilled labourer type occupations, the agreements have grown to voluminous, highly detailed and complex working papers. The present agreement for the Furniture Manufacturing Industry for Natal and its amendment runs to 37 pages, lists at least 77 'Grade (ii)' operations for which 6 different minimum rates apply. A further 31 operations are classed as 'labouring' for which a single rate applies. Absence of the safeguard of a precise job definition permits manufacturers to employ more Africans, as paragraph 58 of the Report as
 

"In the Transvaal as a result of the reported complications (changing job categories) more & more Africans enter the industry by way of jobs for which no provision is made in the industrial agreements (such as electric press attendant, foam rubber workers etc.)"
30. Greenberg, op cit p7.
31. See paragraph 57 of the Report.
32. Calculated from Statistical Year Book 1964 pH-62.
33. The most recent wage increases give the lowest paid workers the highest percentage increases.
34. R44,14 for occupation VI(ii) (b) as opposed to the Grade (i) Rate of R58,32. See Government Notice No. R1531.
35. See the Report on the Measurement of Employment and Labour Turnover in Manufacturing and Construction. Special Report No 215.

36. NPI Report p. 106
37. NPI Report p. 106
38. NPI Report p. 105
39. See Tables 40 & 41 of the NPI Report.
40. NPI Report p. 120.
41. See Table 49 of the NPI Report.
42. LTO Rate = 
$$\frac{\text{Number of Leavers over past 12 months (Excluding holidays)}}{\text{Average Number Employed during same period}} \times 100\%$$
43. NPI Report p. 125.
44. NPI Report p118.
45. NPI Report p117.
46. Brighton p14 Ref. to Gorg Technology, Techniques & the Class Struggle.
47. Nicholas T & Beynon H. *Living with Capitalism* Routledge & Kegan, Paul. London, 1977.
48. NPI Report p63.

THE CHANGING TECHNIQUES OF MILK

DISTRIBUTION INDUSTRY OVER THE PAST 30 YEARS

AND THE CONSEQUENT LABOUR IMPLICATIONS.

CASE STUDY: CRONS DAIRY, FISH HOEK.

*by Rodney Crowwright*

INTRODUCTION

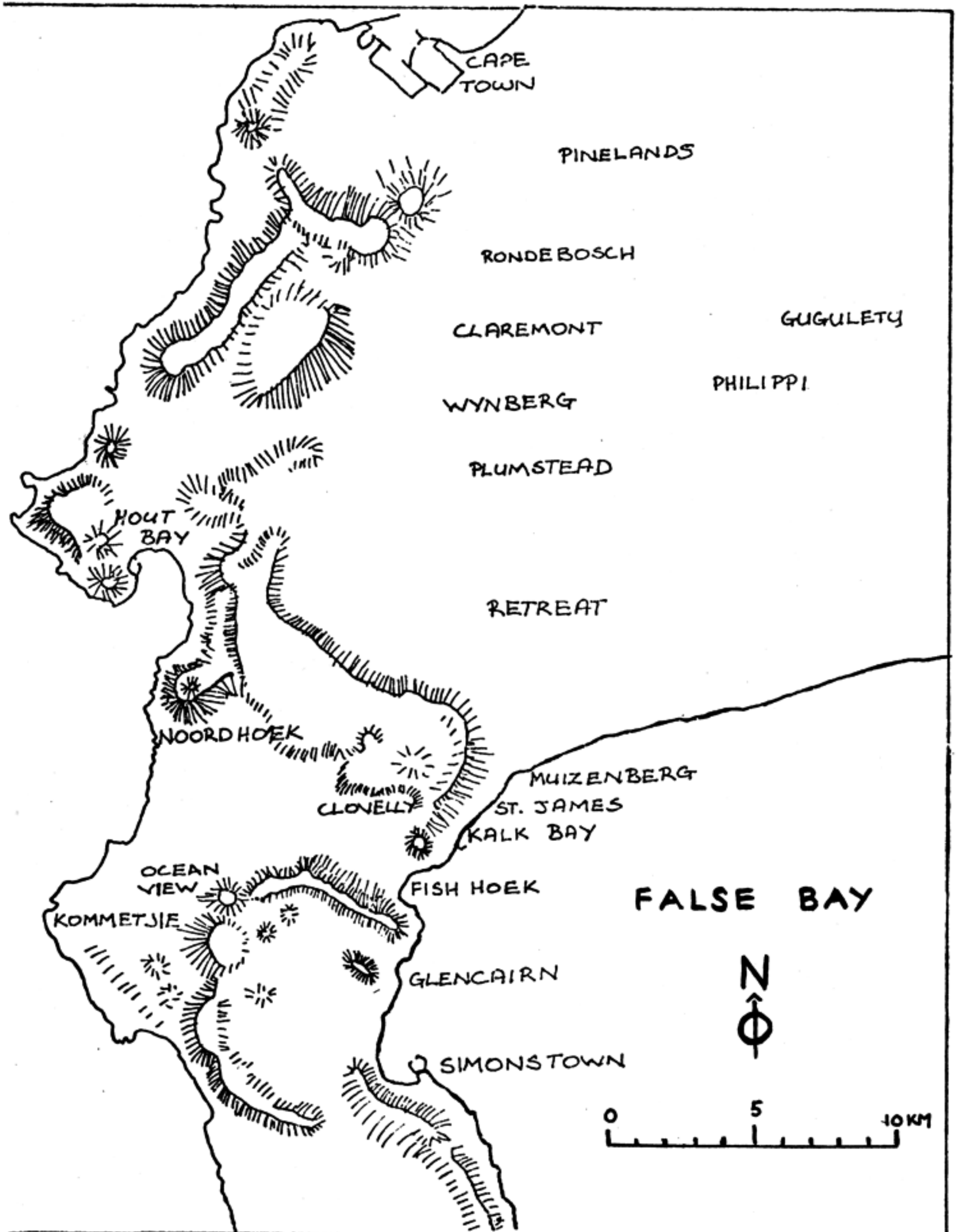
In 1908 Peter Crowwright a father of eight children, decided to buy a cow. Very soon his neighbours at Kalk Bay also wanted milk and another cow was purchased to supply their needs. This was the start of Crons Dairy. By 1920 the herd had grown to such an extent that the cows had to be moved to Fish Hoek, where more land was available.

At this time Fish Hoek had a population of 2 000 and served as a popular sea-side resort for the population of Cape Town. Holiday-makers from the northern suburbs developed a taste for the Fish Hoek milk and wanted it delivered to their homes. Thus in the 1920s Crons Dairy was producing and distributing milk to areas as far distant as Pinelands. (Figure 1).

Such a range of distribution could not be maintained due to competition from dairies in the northern suburbs as well as the high costs involved in delivering a small volume over large distances. By 1930 distribution was concentrated in the southern suburbs with other small dairies competing.

Peter Crowwright's son Louis, entered the trade in 1935 and around this time the dairy was forced to relocate further up the Fish Hoek valley due to residential expansion of the town. At this stage milk was

CAPE PENINSULA



produced, bottled and distributed in Fish Hoek.

When his father died Louis continued running the dairy and expanded its scale of operation by purchasing existing small-scale dairy farms in the Fish Hoek valley. The area of distribution at this time included Fish Hoek, Glencairn, Simonstown, Kalk Bay, Kommetjie, St. James and Muizenberg. In 1951 the residential growth of Fish Hoek was such that the herds had to be moved yet again to another farm purchased in Philippi, 25 km from Fish Hoek. Louis Cronwright's son Morthland ran the production side on the farm at Philippi while Louis controlled the bottling and distribution in Fish Hoek.

With Louis Cronwright falling ill in 1955 Morthland was forced to leave the farm at Philippi and run the dairy from Fish Hoek. Although production had ceased, milk was still purchased from other dairies and processed, i.e. pasteurized, homogenized and bottled in Fish Hoek. From 1961 Crons Dairy closed down its processing plant, purchased its milk processed and bottled, and functioned purely as a distributive agent. Technological requirements create a threshold to producing and processing milk. Thus with the specialization of the milk industry, i.e. by-products, fruit juices, etc. threshold levels were raised and the scale of operation of Crons Dairy was not sufficient to warrant continued processing of its own milk.

Crons Dairy has continued its distributive function from this date until the present. The only remaining structural change to the dairy occurred in April 1967 when all the dairies of metropolitan Cape Town were zoned to specific areas. Prior to this up to four dairies, including Crons, were distributing in the Muizenberg area. This pattern occurred in many parts of the Peninsula and the Cape Dairyman's Association decided that by zoning it could increase the productivity of the industry as a whole.

Crons Dairy was zoned to the areas of Fish Hoek - with the highest population concentration - Glencairn, Kommetjie, Clovelly, Noordehoek, Kalk Bay and St James. (Figure 1). The steep topography of the area and the distances involved in travelling to the areas outside

Fish Hoek will be seen to have imposed restrictions on the techniques of distribution utilized.

#### THE DIFFERENT TECHNIQUES OF DELIVERY

Because milk is perishable the dairy industry tends to be labour intensive. The dairy operator seeks to find the cheapest and most efficient means of distributing a large quantity of milk to many households, in the shortest possible time.

During the 1930s the technology of the industry was at such an underdeveloped stage that two deliveries per day were required. With improvements in refrigeration single daily deliveries by horse & cart, became a feasible proposition in 1939. Labour productivity was very limited with this form of transport because four delivery men were required per cart. An additional shortcoming was that one person was required to attend to the horse and cart at all times. Thus with the labourers working a long 16-hours for a monthly wage of R6, then productivity was limited to 90 litres delivery per man per day. Milk at this time sold for 2 cents a pint.

In 1952 a two ton truck was purchased to disperse metal crates of milk to the delivery men at various points in the distribution area. Milk was dispersed at the top of the avenues in Fish Hoek, i.e. on the mountain slopes, and from here the roundsmen delivered down the avenues with push carts. The weight of the cart and the metal crates, however, prohibited delivery up the slopes of the mountain. Two workers per push cart were used and 120 litres delivery per day per worker was possible. The total workforce of the dairy at this stage was 20 and then wages ranged from R18 to R26 per month. A total 2 740 litres a day was being distributed by the dairy. Coupled with the use of push carts in Fish Hoek was the use of three-wheeler bicycles for distribution to the outlying areas. The bicycles were dropped at their appropriate points and at the end of the day the truck would return to pick them up.

With two workers working together on the rounds it was found that considerable time wastage occurred. In 1963 it was decided that in order to try to increase

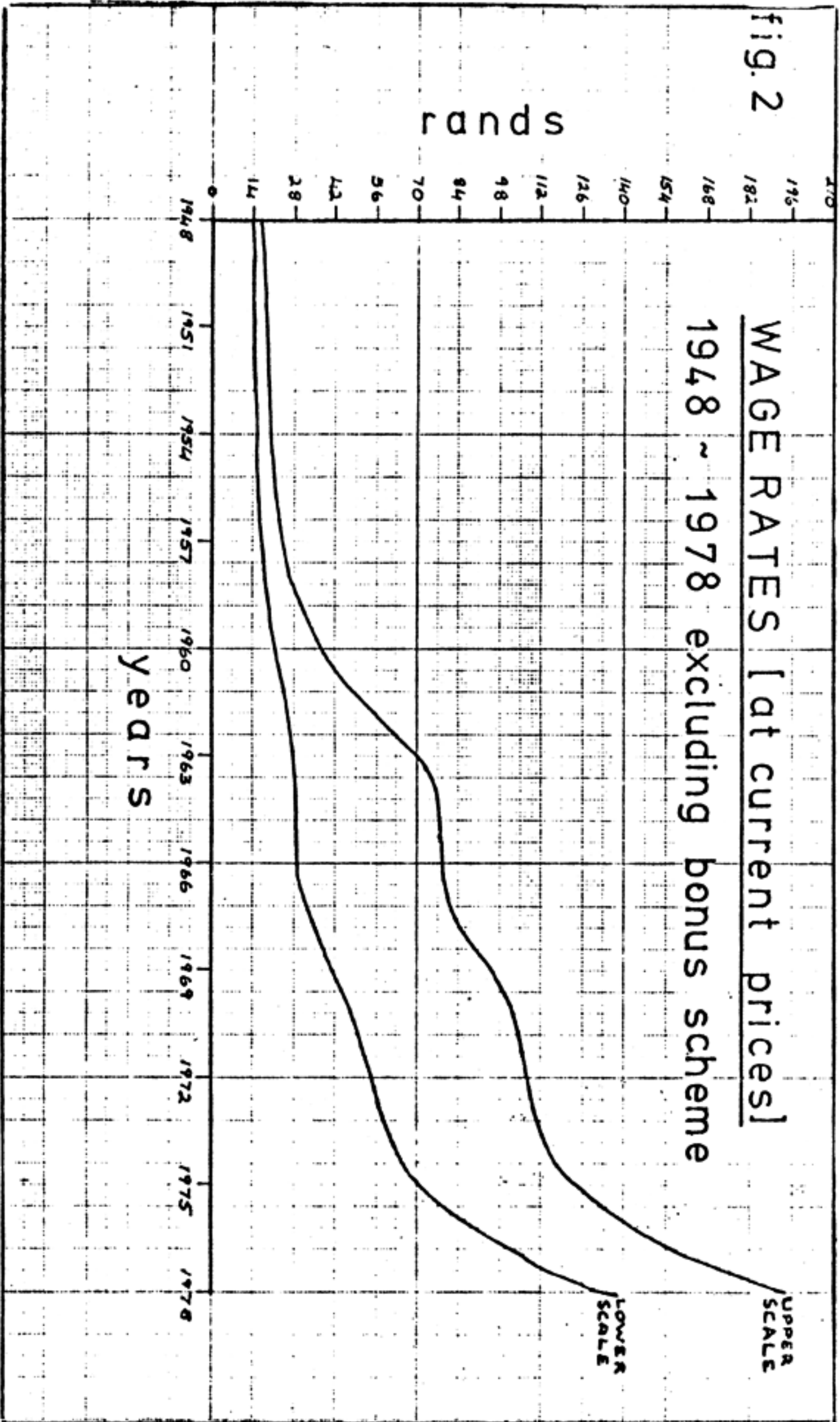
productivity the workers would be responsible for their own cash and milk quota. Productivity soared to 180 litres of milk delivered by each worker per day, sales increased by 20% and the workforce was reduced to from 20 to 15 workers.

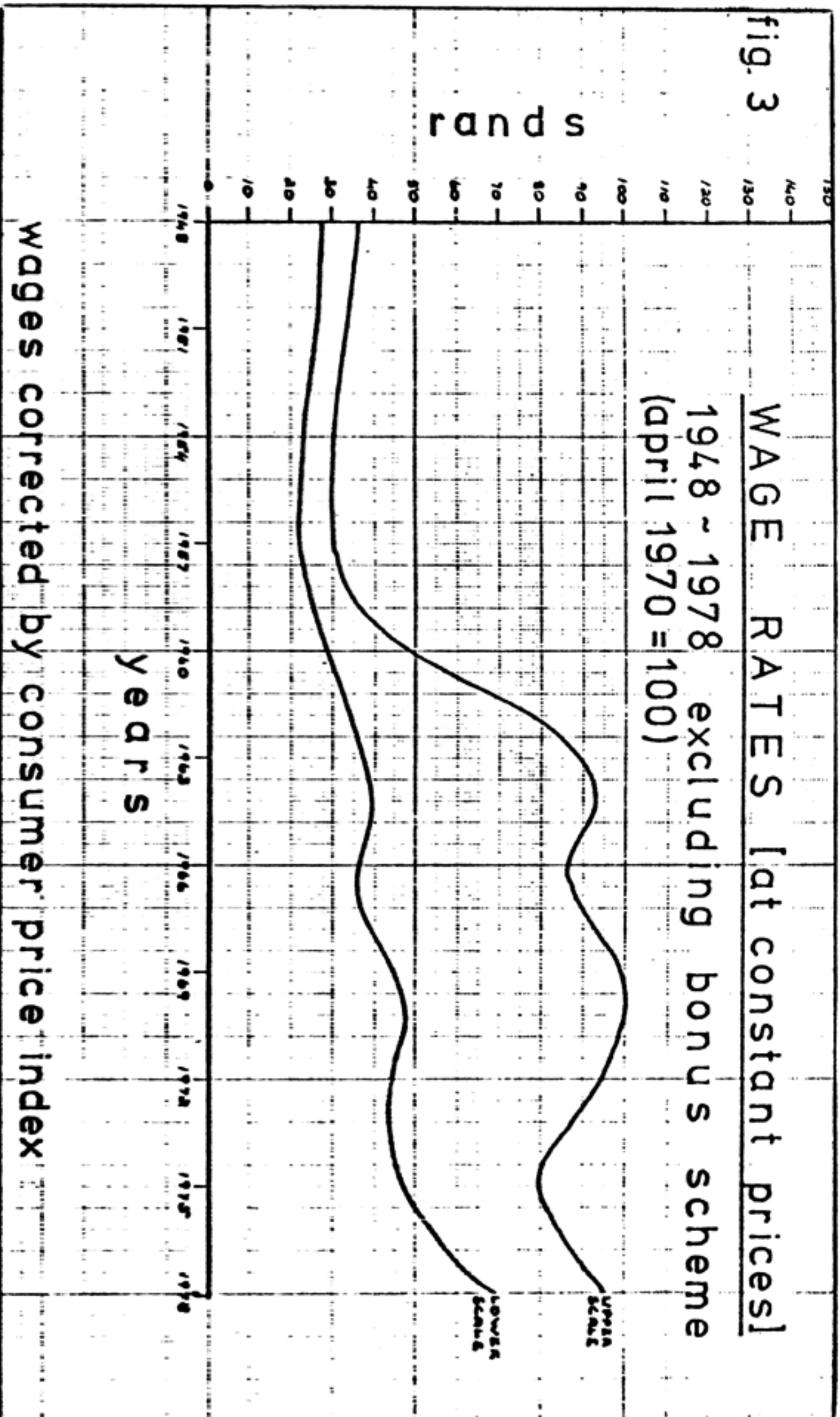
Push cart delivery remained restrictive, however, and in 1964 came a decision to experiment with two electrically - propelled prams costing R750 each. These pedestrain controlled prams proved lucrative, for not only could deliveries take place up and down the avenues of Fish Hoek, but these prams were also insulated thus increasing the life-span of the product. A worker could now deliver up to 450 litres per day with an electric pram. A further major effect of this technique was that with an electrically-propelled pram the worker did not need to be physically strong. Thus the ability of a worker to maintain good relations with his customers became a significant factor in the type of labour employed. It is also significant to note that labour turnover dropped with the introduction of this technique, indicating an increase in job satisfaction.

By 1968 electric prams were being extensively used but the outlying areas of distribution were not being effectively serviced. Two hours of the 10 hour working day were being wasted merely travelling to the point of the first delivery. This problem was coupled with the fact that at this time there was extensive pressure from the labour force for increased wages. Workers were earning R45 per month, and those delivering to the outlying areas were only delivering 200 litres per day each. A decision was taken to increase capitalization by the purchase of electrically-driven vehicles for the outlying areas. These cost R1 500 each in 1968 and had a range of 48 km at a speed of 24 km per hour. (The equivalent vehicle costs R8 200 in 1978). This technique allowed for a reclassification of job skills with the drivers of the vehicles earning R85 per month and the pedestrain controlled pram operators R65. Productivity in the outlying areas was now up to 250 litres delivery per day per man and the total workforce of Crons Dairy was 16 delivering a total of 4 000 litres per day.

Up to 1972 deliveries were carried out on the basis of







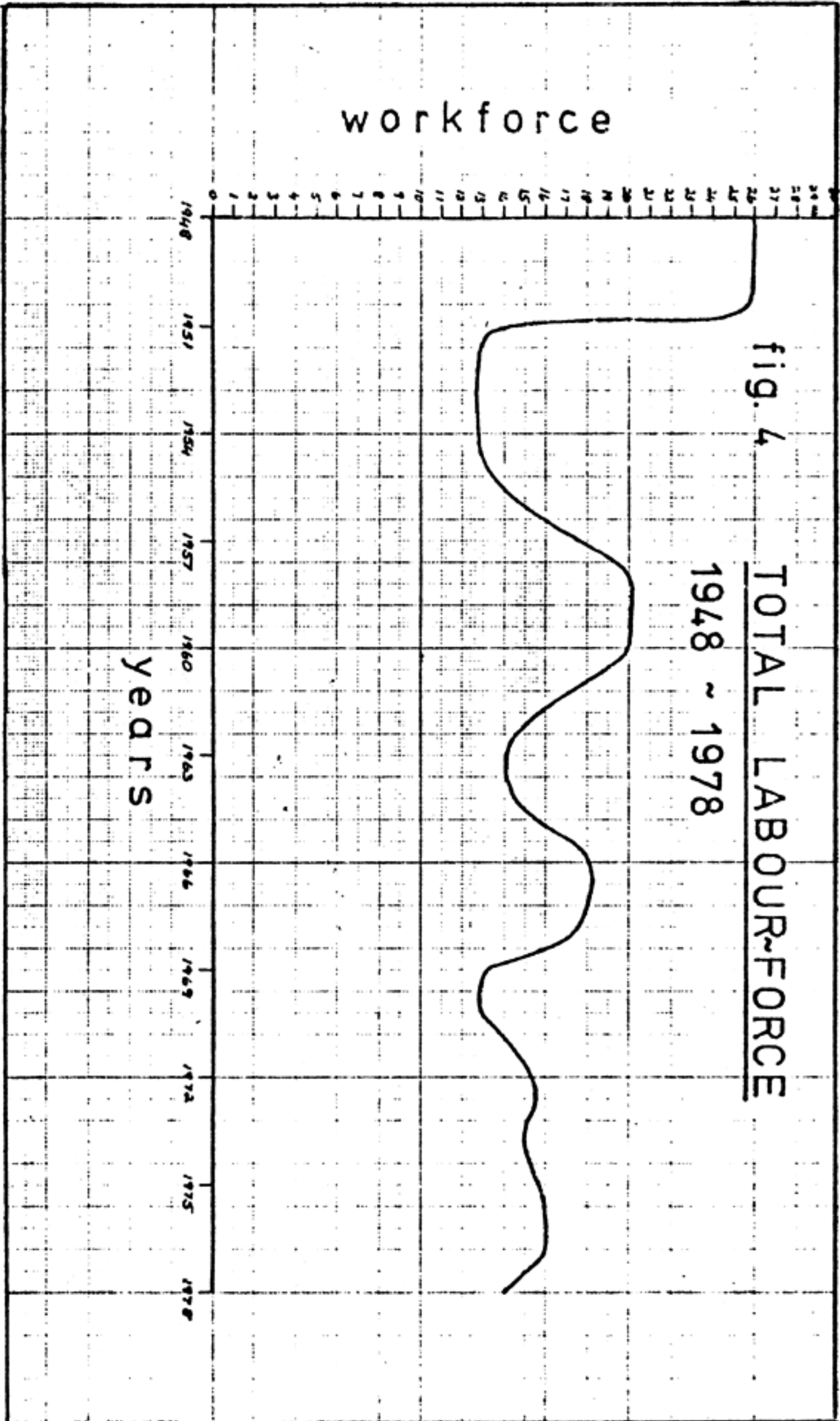


fig. 4 TOTAL LABOUR-FORCE  
1948 ~ 1978

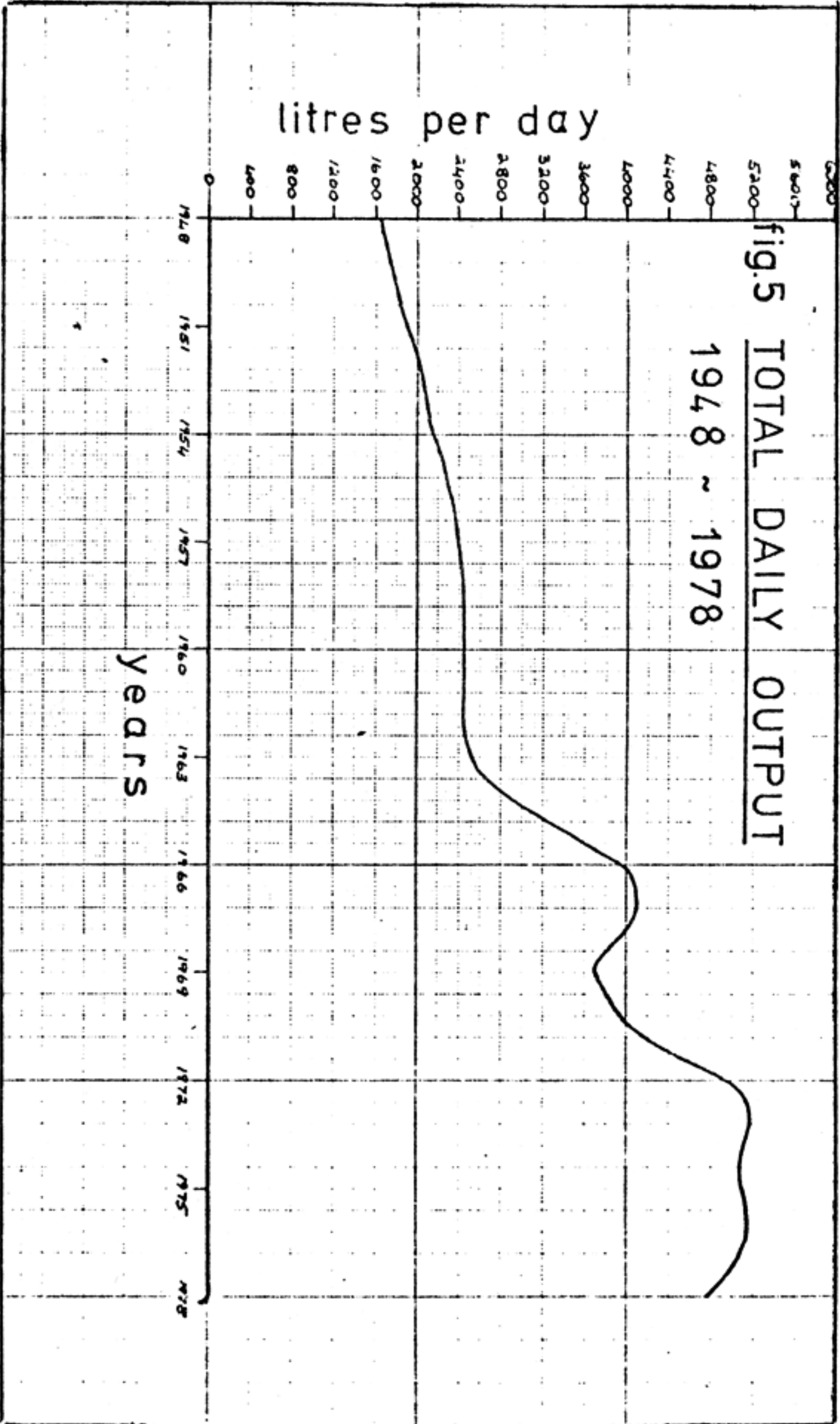


fig.5 TOTAL DAILY OUTPUT

1948 ~ 1978

litres per day

years

a 7-day week with the labour enjoying no time off. Faced with an imminent milk shortage distributors decided to stop deliveries on Sundays instead of implementing an awkward rationing scheme. It was interesting to note that labour wanted to work on Sundays as they were paid double time. With the increased workload on Saturdays, resulting from eliminating Sunday deliveries, came to a decision was made to cut wages by an 1/8 and work time by 1/7. The labourers could seek part-time employment on Sundays, if they so desired. Sunday deliveries, with the exception of those to the Coloured town of Ocean View, were permanently discontinued by Crons Dairy. Patrons in ocean view do not generally have refrigeration facilities for storing milk over the weekends which explains why Sunday deliveries are continued in this area only. The two workers who delivered there are paid double wages on Sunday.

In 1972 a 14-ton refrigerated trailer was purchased to transport Crons Dairy's daily milk quota from Van Riebeck Dairy in Parow, where it is processed and bottled, to Fish Hoek. The daily milk supply - excluding by-products - at this stage numbered 5 050 litres and the driver of the new heavy duty vehicle was the most highly skilled worker in the dairy labour/force.

Increased turnover and specialization of delivery vehicles since then has resulted in a structure of skills evolving at Crons Dairy ranging from the driver of the heavy duty truck to three drivers of medium duty (up to 8 tons) vehicles, to five light delivery drivers. The remainder of the workforce involved in deliveries use electrically-propelled prams which travel at 6 km per hour. The corresponding wage structure in 1978 for the workforce of 14 ranges from R123 per month to R194 per month basic salary excluding any forms of bonus.

Increased capitalization in the milk distribution industry has resulted in significant increases in labour productivity with a relative decline in the labour intensity of the industry. At present the most productive worker delivers 560 litres per day in Fish Hoek. Crons Dairy who were the first to institute the system of a worker delivering his own round alone have the most productive labour force of all the dairies in metropolitan Cape Town. Figures released by the Cape Dairyman's

Association bear this out.

DAIRY A :	469	litres	delivery	per	day	per	man
B :	352	"	"	"	"	"	"
CRONS :	527	"	"	"	"	"	"
D :	398	"	"	"	"	"	"
E :	353	"	"	"	"	"	"
F :	300	"	"	"	"	"	"
	<hr/>						
WEIGHTED							
AVERAGE	408	"	"	"	"	"	"

It is interesting to note that if one compares the relative costs involved in using a horse and cart and in using modern vehicles then the use of the former is relatively more expensive due to the expense of its upkeep.

#### RECRUITMENT

In 1955 statutory control of African Labour recruitment began to be tightened but at this stage the dairy experienced no problem in obtaining labour. The coming to power of the Verwoerd government saw the introduction of the Eiselen Line, which confirmed the Western Cape as a Coloured employment preference area, and resulted in controls being more stringently applied. African Labour then had to be authorised by the City Council and Crons Dairy still experienced no problem in obtaining labour. The establishment of the Bantu Affairs Administration Boards in 1972 brought about stricter control with a rigidly enforced one-year contract labour system. The restrictiveness of the present system of labour recruitment is exemplified by the control introduced in June 1977 whereby unless a worker has worked for the same employer previously he may not be re-employed, It was alleged that this measure was introduced due to the large scale of unemployment among Blacks "qualified" to be in the Western Cape.

The tightening of control which the introduction of the B.A.A.B. boards brought about compared with the Africanization of administration in the Transkei, has resulted in delays of up to 3 months for obtaining clearance for workers to return to the dairy. This has necessitated

that labour be personally fetched from the Transkei, in times of labour shortages in the industry. From 1908 to 1977 Crons Dairy never had to use the local Labour Bureau for recruitment purposes. All labour was obtained by word of mouth, with a waiting list. This pattern stopped with the restrictive legislation introduced in 1977. Recent recruitment policies have brought problems for the dairy and indications for the future are that the type of labour traditionally used in the industry is being cut off. With no new blood coming in and urban Blacks and Coloured not interested in an early morning shift-work system, the future of household milk deliveries looks doomed to extinction.

#### CONDITIONS OF WORK

Traditionally Crons Dairy has employed Africans from the Ngamakwe district near Butterworth in the Transkei. The entire workforce at present, with one exception, comes from this district and up until 1965 the workers stayed on dairy premises. The introduction of group areas saw the removal of workers to Guguletu, 25 km away. A permit for 6 Blacks to remain on the premises was granted by the authorities.

The morning shift starts at 4 o'clock and transport is provided for those travelling to and from Guguletu. Workers return from their rounds between 11 a.m. and 1 p.m. The nature of the business, punctures, shortages, etc., means that over-time payment is very difficult to implement. In addition to the basic wage levels mentioned the workers get a pro-rata bonus system. This includes:-

- A bonus for service which increases each time the worker returns to the dairy up to a ceiling of R5 per month after 5 years service.
- A basic monthly bonus equivalent to 1/6 of their monthly wage, ranging from R21 to R32 per month.
- A daily ration allowance of milk equivalent to R4,25 per month.

- A specialized bonus is paid to workers with responsible positions. The drivers qualify for this bonus and receive from R10 to R30, depending on the vehicle driven.
- An incentive bonus for selling milk equivalent to being 10c per litre per day average over a month compared to the corresponding month the previous year.
- A profits bonus. Depending on the profits earned in a year a percentage is paid back to the workforce 6 months after the end of the tax year. Such a form of bonus is unique to Crons Dairy in Cape Town and up to R2 500 has been paid out to the workforce in one year.

This bonus scheme is paid in addition to the statutory wage level. Other fringe benefits enjoyed include:-

- the lending of money
- hot and cold water
- washing facilities
- cooking facilities
- lights
- telephone for emergencies

An enriched feeding scheme was started in the early morning before the shift started but this was not utilized and was discontinued.

A feature of the Crons Dairy workforce is its low labour turnover. Figures from a sample of 18 show:-

<u>LENGTH OF SERVICE (years)</u>	<u>WORKERS</u>
1 to 4	5
5 to 9	1
10 to 14	3
15 to 19	2
19 to 24	1
25 to 29	3
30+	3



The Labour turnover figures of the dairy are the lowest of all dairies in metropolitan Cape Town, according to the Cape Dairyman's Association.

#### CONCLUSION

Increased capitalization in the milk distribution industry has resulted in significant increases in productivity. It is interesting to note, however, that in the 1960s prior to the growth of the supermarket concerns productivity levels were higher than at present. The supermarkets have claimed a large share of the daily milk market and thus the proximity of customers to each other has declined resulting in decreased productivity levels. Further evidence of the impact of supermarkets is provided by their milk price in 1969. As a result of this total daily output of Crons Dairy fell temporarily (Fig. 5).

The technology of the techniques utilized has increased in sophistication resulting in a structure of skills evolving amongst the labour force. Figure 2 and Figure 3 give an indication of how the wage structure has responded to the trends of increased specialization and productivity.

The labour intensity of the industry has shown a relative decline, as can be seen from Figure 4, with more productive techniques available. Daily output levels have an upward trend over the past three decades as the techniques of delivery have increased in efficiency (Figure 5) yet such a relationship must not be regarded as absolute due to the influence of other variables; namely population increase, milk price rises, the availability of substitutes and so on.

THE CHANGING LABOUR PROCESS  
AND ITS CONSEQUENCES  
A CASE STUDY OF A  
GENERAL ENGINEERING FIRM IN NATAL

*By I.D. White*

### INTRODUCTION

M&M is a medium sized structural and general engineering firm situated in Glencoe, Northern Natal. It produces equipment mostly for the local mining industry. The company had a good growth record until 1977/8 during which it experienced financial problems i.e. liquidity crisis. The company has changed ownership and is to start operating again in August under the same management. The past growth record was exceptional when one considers the slack economic period from the end of 1974 and the fact that the engineering industry was badly affected by economic recession. The reasons for their growth period 72 - 77 are firstly, the dynamic nature of management and secondly the fact that it is located in a growth area.

### INVESTIGATION

#### METHOD

This investigation took the form of a personal interview with the managing director and more informal interviews with some of the Indians and African staff.

#### FINDINGS

The aspects that were investigated are the following:

1. whether the changes have been labour-saving or labour-creating.
2. what type of labour is required.
3. whether the labour will have to be more or less skilled.

The findings are discussed in the following three sections; 1 changes, 2 reasons, 3 results and then the conclusions are presented.

### 1. Changes

- a) They have installed cranes wherever possible or necessary throughout the entire workshop and make use of mechanical hoisters and tractors, wherever overhead craneage is not available for materials handling.
- b) They have installed highly sophisticated welding machines.
- c) They have replaced all older methods of cropping and cutting and off-cut saws.
- d) Some three years ago, they embarked on what "was considered a highly dangerous venture" namely that of moving the entire drawing office physically away from M & M Engineering. This doubled the technical and drawing staff, thus placing them in a position where they could produce drawings, templates etc, in far greater detail.

### 2. Reasons:

- a) At one time all material handling in the stockyard, off rail-trucks and within the workshop itself was undertaken manually by employing about 40 Africans who at that time could adequately cope with the planned production. But continuous staff problems, such as "absenteeism, drunkenness, many trivial accidents (missing fingers and toes) and the necessary supervision of Africans." warranted this change.

- b) At one time welding was "very definitely a highly skilled trade" and qualified, protected artisans were employed to undertake this aspect of engineering. Because of the protection afforded through legislation to skilled white artisans they found themselves continuously "harrassed by Union members, work-to-rule situations and, in most cases total lack of initiative, responsibility and loyalty." They therefore replaced the older type welding machines with highly sophisticated modern types in which all of the skill previously required from the artisan is now built into the machine itself. Therefore they promoted the employment of semi-skilled labour, who with minimal training could produce work equal in quality to qualified artisans working with older less sophisticated welding machines.
- c) Marking and cutting of material in previous years also required the services of highly skilled artisans. By installing modern sophisticated cropping and sawing machines, the services of skilled artisans became of less importance, because with the "application of stops, jigs and fixtures, a semi-skilled person, African or otherwise", is capable of handling this aspect - also with minimal training.
- d) They found because of "traditional White protection" they could no longer rely on any of the "finer human qualities in artisans, because they consider themselves 'royal game' and continuously held management to ransom." In most cases draftsmen and self-educated artisans were found to be much more reliable i.e. "loyal, self-motivated and with a sense of responsibility". It was for this reason that they increased the technical staff to provide highly detailed drawings to enable the lesser skilled workshop staff to undertake work previously handled by skilled artisans.

### 3. Results: (Economic and Physical)

- a) Because material is now handled by cranes and other mechanical items, the number of staff employed in this area has been drastically reduced i.e. from 40 to 7 Africans. "Greater efficiency and fewer

staff problems are experienced. "However, mechanical breakdowns can create chaos throughout the works, a problem which does not occur when handling manually. Careful selection of Blacks to operate the mechanical items must be followed because of the cost of these items."

- b) The installation of modern welding machines eliminates the dependence on protected white artisans and affords them a far greater choice of personnel.
- c) Cutting and cropping of material by modern methods has similar results to the above.
- d) They can "rely with more confidence on the better class of person which one finds in a drawing office", but they have found that these people now realise that the company is highly dependent upon them, because of the absence of the more skilled artisans, and demands for higher salaries, company benefits etc are made.
- e) There were some disadvantages found with these changes. Because the technical staff cannot cope with every aspect of work received by a general engineering company such as M & M, it had become necessary to be more selective in the type of work undertaken to ensure that semi-skilled workshop staff can handle work which is not management intensive.

#### CONCLUSIONS

1. Changes - these have been towards a more capital intensive form of production.
2. The type of labour required on the shop-floor is generally less skilled. On the other hand, the technical staff in the drawing office is more skilled. There has been a move away from White artisans to semi-skilled Black workers (See Table 1).

TABLE 1

Year	Draftsman	White Skilled Artisans	Semi-Skilled Asiatics+ Coloureds	Semi-Skilled Africans	Unskilled Africans	Steel Tonnage	Rand Turnover	Profitability Net Profit in Rands
1972	3	25	5	3	100	100	+ 600 000	(3930)
1973	4	20	8	5	100	100	+ 800 000	33644
1974	6	15	12	5	80	120	1 000 000	102288
1975	8	10	15	8	70	150	1 200 000	(3559)
1976	10	6	20	8	60	180	1 500 000	29785
1977	12	4	20	12	55	180	2 000 000	(66760)

1. Note: Brackets indicate a loss.

3. To determine whether the changes have been labour saving or creating we again look at Table 1. From this we can get the total employment figures, which are as follows:

Year	Employment (Monthly coverage)
1972	136
1973	137
1974	118
1975	111
1976	104
1977	103

Thus we could conclude, that as the figure is declining, that the changes have been labour saving although the amount of labour 'saved' is not *that* great.

If, however we make allowances for growth we see that these changes have very definitely been *highly* labour saving. This can be done by multiplying the 1972 figure for total employment, i.e. 136, by a factor reflecting the amount of growth, firstly with respect to the ratio of 1977 to 1972 steel tonnage and secondly the ratio of 1977 to 1972 Rand turnover (at constant 1972 prices).

(1)  $\frac{\text{Steel Tonnage 1977}}{\text{Steel Tonnage 1972}} \times 1972 \text{ employment figure}$

$$\frac{180}{100} \times 136 = 245$$

(2) Price Deflators

70	100,0
71	106,0
72	112,5
73	126,7
74	153,3
75	190,5
76	224,3
77	256,0

Source: South African Reserve Bank: Quarterly Bulletin  
 June 78 Rand Turnover 1977 = R2 000 000 x  $\frac{112,5}{256}$   
 (to give cons. 1972 prices)  
 = R878 906

Rand Turnover 1977 (at cons. 1972 prices) x 1972 employ-  
ment Rand Turnover 1972

$$= \frac{878906}{600\ 000} \times 136 = 199$$

Because of the approximation of the 1972 Rand turnover figure I will illustrate this trend again using the 1974 as base

$$\begin{aligned} \text{Rand turnover 1977} &= 2\ 000\ 000 \times \frac{153,3}{256} \\ \text{(price deflated to base year 1974)} & \\ &= 1\ 197\ 656 \end{aligned}$$

$$\begin{aligned} \frac{\text{Rand Turnover 1977}}{\text{Rand Turnover 1974}} &\times 1974 \text{ employment} \\ &= \frac{1\ 197\ 656}{1\ 000\ 000} \times 118 \\ &= 141 \end{aligned}$$

Thus if there had been no changes in technology (and no economies of scale as regards labour) with the rate of growth of the company as measured by steel tonnage of rand turnover, the employment figures would possibly have risen as high as 245 but at the very least to 141 instead of dropping to 103. This constitutes a very significant labour saving change of production techniques.

4. In connection with Table 1, the reader should not be misled by the fact that while the turnover has risen considerably and the total employment figure had dropped, that this means that the difference financially is profit. "African salaries over the last 5 years have gone up 200%, artisans' rates about 20% (the absolute monetary increase is probably larger for the artisans than the Africans) and draftsmen's salaries are about R12 000 p.a. minimum" and the proportion of draftsmen has risen considerably. If one takes the inflation rate into account it can be seen that the artisans have suffered a loss in



real income). Another reason for the Rand turnover increase is escalating prices; thus I deflated these figures using the price deflator).

5. The net profit figure (before taxes) varies considerably mainly because of the method of job costing and charging so that no trend can be determined as to whether the technological changes have resulted in greater profitability or not.

D. White

PARTICIPATORY

DEMOCRACY

*by Richard Turner*

We reprint this chapter from "The Eye of the Needle" in memory of the late Dr Richard Turner struck down on the night of January 6th 1978 by an assassin's bullet. To his pioneering work on the nature of South African society and his guiding inspiration we all owe a priceless debt of gratitude. Had he not been a banned person he would have been an editor of the Bulletin.

A Christian Society is one in which we prefer people to things, a society based on freely expressed love. Our problem is to work out what kind of institutions, social, political and economic, would be needed for such a society. In answering this question it is obviously going to be necessary to theorise, for such institutions do not as yet exist. But it will be useful to look at those societies which have tried non-capitalist ways of life, even if all we learn from them is what not to do. We can thereby discover some of the problems specific to post-capitalist societies and thereby give the theorising at least some practical reference points.

In building an ideal possible society, let us start from the individual and her/his needs for freedom and love, as postulated by the Christian model. In terms of this ideal human model, I need to be free from hidden conditioning processes, I need to be free to be open to

other people. I need to be free from external social coercion, and I need meaningful and creative work, work that is an expression of my own autonomous being, and not something I do unwillingly and without understanding what my particular job is for. Thus the social system required for the satisfaction of human needs must be one which (a) enables the individual to have the maximum control over her/his social and material environment and (b) encourages her/him to interact creatively with other people. These two ideas are combined in the idea of *participatory democracy*.

The essential problem is - how can we design a set of institutions which will give all individuals power over their own lives without permitting them to exercise power over other people? How can we design political institutions which will give people the maximum freedom to choose what to do with their own lives?

In what circumstances do people come to exercise power over other people? In any contemporary society the most vital area of a person's life - the place in which she/he spends the largest part of her/his waking hours, uses up her/his energy and around which she/he organise the rest of her/his life - is the work place. What are the power relationships at the workplace? Our society is one of private ownership of the means of production. To own something is to have power over it.

Because the owner of the factory has power over the factory and over its product, he/she can control the people who are dependent on these things - the workers. As a worker, I have no power over what I produce, where I produce, how I produce, or why I produce. The only power I have (assuming I am not an African in South Africa) is the power to remove myself from the control of one owner and to place myself in the control of another owner. The owner has power over me. It may be delegated to a board of directors, a manager, executives, and foremen, thus creating a whole hierarchy of power, with the worker at the bottom - power-less on his/her own.

An economic system is a system of power relationships. And power within the economy gives, as we shall see, power in other spheres of society as well.

The first essential for democracy is that the worker should have power at her/his place of work - that is, that the enterprise should be controlled by those who work in it.

The trade union is a first step in the direction of power for the workers. Through organisational solidarity they are able to begin to assert some control over wages and over working conditions. But by the very nature of the case the trade union places merely a negative check on management, which retains day-to-day control. Furthermore, control over the product - that is, essentially over the profits - remains in the hands of the owner. As worker I can, with the aid of the trade union, make my work situation more comfortable, but I cannot make it more meaningful. This is manifest in the whole issue of restrictive practices. My job remains a means to satisfy personal ends external to it. My interest lies purely in more pay and shorter hours. I have no intrinsic interest in the job, because it is not something in which I can exercise my human autonomy.

Only full workers' control can permit this. How do workers run an enterprise? Do they have the skills necessary to do so? How are decisions to be made? An enterprise in a capitalist system contains two intertwined hierarchies - a hierarchy of control, and a hierarchy of technical knowledge. The boss has to have a means of ensuring (a) that the workers are actually working - this involves a hierarchy of control, and (b) that what they are doing is what is required for the efficient running of the factory - this involves a hierarchy of technical knowledge. The hierarchy of control is only necessary because of the basic conflict of interest between workers and employers. But the hierarchy of technical knowledge, and hence, to a certain extent, also of decision-making, will be necessary in any sort of enterprise. How can workers' control handle this problem? Not all decisions can be taken by the mass of workers together. And if each worker is to be allowed to make her/his own decisions chaos will result. To solve these problems, the following institutions will be necessary.

1. Regular meetings of all workers where together they can discuss and fix certain basic priorities: wages and wage-scales, hours and times of work, and what to do with profits. It would be necessary to decide whether profits should be reinvested, distributed or spent for purposes of collective consumption, either by improving conditions within the enterprise beyond the level dictated by sheer profitability, or by other local improvements not directly connected with the enterprise.
2. An elected workers' council, whose members would continue as full-time workers during their terms of office. The council would have final responsibility for the regulations governing labour relations in the factory, for hiring and firing, for the annual balance-sheet and for the distribution of surplus. It would prepare the annual plans, and appoint and supervise the director and the other executives. The director would look after the day-to-day running of the enterprise. He/she would be accountable for his/her decisions to the workers, and might ultimately be dismissed by them.

At the other end of the scale from the director, the enterprise could be broken up into smaller units, each having a degree of autonomy over the organisation of the work it was required to do in the context of the enterprise as a whole.

To prevent a new bureaucratic hierarchy arising the elected posts should not be renewable indefinitely. This would mean that there would always be both new and experienced members on the Workers' Council and management committees, and informal power cliques could not easily develop. Such a system (a) ensures the maintenance of the necessary hierarchy of knowledge through the appointed director and his/her staff - that is, it ensures that people actually know how to do the jobs they are appointed to do; (b) ensures that the workers retain ultimate control through the Workers' Council and General Meetings; and (c) ensures that as many people as possible participate actively through the rotation of office based on popular vote.

As we have seen, in capitalist society there is little relation between effort and reward or between social contribution and reward. Reward is usually based either on property ownership or on educational level, which is in turn to a very great extent a function of social and economic privilege. But the problem is that in any society with a complex division of labour it is very difficult to estimate exactly how much each individual contributes to the final product. If I work twice as long as you at the same job, then I contribute twice as much. But if I have special skills acquired through education - if I am an engineer and you are a factory hand? On the one hand my work probably contributes more than yours to the social product. But on the other hand, my work is perhaps intrinsically more satisfying than yours, the skills I have acquired were themselves the product of a whole common cultural history, and my education was paid for by the community. Taking all these factors into account, it is impossible to lay down hard and fast rules, or simply to let market forces, which take no account of social cost, set wages. The workers themselves must decide, through discussions in the concrete situation, who deserves what and why.

The major objections always raised to such a system, obviously by employers and other members of the middle-classes, but also sometimes by workers themselves, is - 'But the workers don't have the competence to choose intelligently. They will choose the nicest guy, not the most qualified person. They will always vote for higher wages and for distributing rather than investing the profit, thus running down and finally ruining the business'.

This argument seems *prima facie* silly. After all, the idea that it is in the workers' interest, and in theirs alone under such a system, for an enterprise to stay in existence and to run efficiently, isn't really very difficult to grasp. And at elections they are not choosing between two impersonal candidates talking about abstractions on television, where perhaps all they have to go on is which one smiles more convincingly. They are choosing between individuals with whom they work day in and day out, and whose worth and reliability are made clear to them in many different situations. And the issues being dealt with are ones with which they are thoroughly

familiar, and which affect them immediately and obviously and personally.

From where, then, comes the argument that workers are incompetent and couldn't possibly understand or operate such a system? It comes from 'commonsense thinking' and the 'human nature' argument. In capitalist society the workers are not interested in the enterprise itself - why should they be, since it does not belong to them? They have neither opportunity nor stimulus to see it as a whole and to understand how what each individual does is related to the rest. Their situation is one in which they are told what to do, given little opportunity for the exercise of their initiative or intelligence, and so do not develop initiative or intelligence. One writer compares the situation of the worker with the situation of the child: 'The main thrust of the autocratic organisation is to drive the mature adult back into childhood. The mature individual strives to take an active part in his world, but the chain of command renders him *passive*. He seeks to be independent and to control his own behaviour, but as an employee he is rendered *dependent* and essentially lacking in control over his own behaviour. The mature individual strives for the long time-perspective, but as he does not possess or have access to necessary information at work which would permit this, his *time perspective* is consequently *shortened*. He seeks to achieve relationships based on equality, but as a *subordinate*, he becomes just that, once again as in childhood'. (Blumberg: *Industrial Democracy*, p. 131).

The enterprise is not only a work-place - it is also a socialisation process. Once the worker has been through this process, it is scarcely surprising that he/she does not appear to have the competence to run an enterprise. What the capitalist system has made the worker into is then produced as evidence for the impossibility of any other social system. But in fact it is one of the strongest arguments for the absolute necessity of an alternative social system. For, as we have seen, it is only if the worker participates in the control of the central part of his/her life - his/her work - that he/she can develop the personal qualities of autonomy, initiative and self-confidence necessary for our human model. Workers' control is not only a means whereby I can control

a specific area of my life. It is an educational process in which I can learn better to control all areas of my life and can develop both psychological and inter-personal skills in a situation of co-operation with my fellows in a common task. There is ample sociological evidence that participation in decision-making, whether in the family, in the school, in voluntary organisations or at work, increases the ability to participate, and increases that sense of competence on the part of the individual which is vital for balanced and autonomous development. Participation through workers' control thereby lays the basis for love as a constant rather than as a fleeting relationship between people, and is thus the basis for Christian community in the work situation.

There are experiments in workers' control in a number of different countries. In each country, of course, workers' control within enterprises has to be seen within the overall social context. Various factors can complicate the operation of workers' control, such as the level of economic development, the political system, the type of enterprise in which workers' control occurs, and the mode of introduction of workers' control. In the following brief survey I can do no more than indicate which of these factors is relevant. I shall make no attempt at complete evaluation. These are examples from whose problems we can learn, rather than models we should imitate.

In most advanced capitalist countries there are small numbers of firms run by the workers in them, either as the result of a decision by the original owner, or because they were started by a group of workers with egalitarian intentions. Units such as these, where members are self-selected, and hence highly motivated, and of a relatively high standard of education, are probably the most immediately successful. The Kibbutzim of Israel, communally owned and run farms, are in a similar position, often with the added advantage of a strong religious and nationalistic cement.

In some countries particular social sections are worker-controlled. In the Soviet Union one form of collective farm - the Kolkhoz - is supposed to be run by the workers through general meetings and an elected management board.



Although there is more real worker autonomy in the Kolkhoz than in the Sovkhoz, or state farm, with its state-appointed director, nevertheless the presence of a bureaucratic and highly centralised Communist Party means that even the Kolkhoz is not really an example of workers' control.

In Tanzania, the Ujamaa village schemes are the most impressive African examples of workers' control. Julius Nyerere outlines the organisational principles as follows: '... a really socialist village would elect its own officials and they would remain equal members with the others, subject always to the wishes of the people. Only in relation to work discipline would there be any hierarchy, and then such officials would merely be acting for the village as a whole.

'Let us take an example. It would be a meeting of the villagers which would elect the officers and the committee, and a meeting of the village would decide whether or not to accept or to amend any detailed proposals for work organisation which the committee had drawn up in the light of general directions given by earlier meetings. Let us assume that a forty-member village agrees to a cotton farm of 40 acres and a food farm of 40 acres. It would be the committee's job to propose where in the land available these different crops should be planted, and to propose the times and the organisations of joint work on the land. At the same time the committee would have to make proposals for the other work which had been decided upon - perhaps the digging of a trench for a future piped water supply, or the making of a new road, or the improvement of village drainage. These detailed proposals they would bring to the next village meeting, and once they had been accepted it would be a job of the officers to ensure that all members carried out the decisions, and to report to a general meeting any problems as they occurred. As the village became more established and the need for a village carpenter, or a village nursery, or a village shop became more pressing, the committee would work out proposals as to how these could be organised, and run by a member for the common benefit. The village officials would also be responsible for liaising with other villages

and with the general machinery of government' (*Uhura na Ujamaa*, p.354).

In the Ujamaa villages the organisational problems seem to be very simple ones. But there is one very difficult problem which the Ujamaa villages are designed to cope with, and seem to be coping with at least more successfully than are other institutions. This is the problem of introducing new agricultural techniques, whether they be organisational or technological, to a naturally conservative peasantry.

The government can either simply give these techniques, or command that they should be adopted. It is only if these techniques relate to a felt need of the peasants, and can be shown to them to be relevant to that need, that they will be adopted. And only if they feel that they have themselves really participated in the decision, will the peasants maintain the machinery or keep up the organisation. The participatory structure of the Ujamaa village is ideally suited to this. The system is in its early stages yet. Moreover, by its very nature it cannot make for rapid *economic* development. But it does seem to be laying the foundations for all-round social and political development, by drawing the peasants into a change process without disrupting their lives or their value-systems and self-concepts, and by giving them the skills of organisation and initiative which are vital to personal autonomy. Thereby it is also laying the foundation for long-term solid economic development.

In Eastern Europe the idea of workers' control is deeply embedded in the Marxist ideology, although obscured by Communist Party practice. However, it tends to emerge in moments of crisis, as in Poland in 1956, and again at the end of 1970, with the fall of Gomulka as a result of workers' protests. In Czechoslovakia workers' control was one of the most important developments in the later reforms of 1968, and in some industries even continued to spread for a while after the Soviet invasion.

Workers' management of a kind also operates in China. My information on the actual working of the system is inadequate, but the principles of the organisational structure are clear: Prior to the Cultural Revolution,

there were two forms of management. In the major industries the leading managing role was played by a committee elected by all Communist Party members in the factory, rather than by all the workers. This committee was supposed to represent the Party, rather than the workers. But it was supposed to work in consultation either with workers' representatives, or with mass meetings of workers. It had control over day to day running, but no financial autonomy. This is certainly not an example of workers' control.

However, in the countryside there was a different organisational structure, which seems to have been maintained since the Cultural Revolution. Each 'commune' averages about 8 000 people, and includes a variety of agricultural activities as well as some light industry. It is run by a committee which is nominated by a meeting of representatives of all the inhabitants of the commune. This committee both runs the business affairs of the commune and is the organ of local government. The commune has a considerable degree of financial autonomy, in respect of distributing or reinvesting income. It is subdivided into brigades and teams, with the team, which might vary from 10 to 60 families, as the basic work unit and accounting unit. The team enters into production contracts with the higher organisational levels, and the profits are distributed by the team among its members, usually on the basis of work-points. Alongside this organisational differentiation, there are also different types of property ownership: personal property in the house and garden; team property in certain farming materials; brigade property in agricultural land, draught animals, and farm buildings; commune property in workshops, heavy machinery, transport, and marketing co-operatives; and family state property in enterprises created with State aid.

This is a fairly flexible system, with a number of different levels of social integration and of participation. To what extent the existence of the strong Communist Party offsets these decentralising tendencies is not clear. However, one of the main objectives of the Cultural Revolution was to decentralise control by destroying the bureaucracies of the Communist Party and of the State, and to replace them with much greater

workers' participation, both in industry and in the communes. Most observers seem to agree that this has in fact occurred, though they disagree on the extent. Most observers also seem to agree that the system is working fairly successfully in economic terms. But, as I have already pointed out, there have been no detailed studies of its workings.

In Peru, the present military government has instituted workers' control in some of the large plantations, confiscated in recent land-reforms. There have been serious political problems, connected, on the one hand, with the fact that there is conflict between the military government and the trade unions in these areas, and, on the other hand, with the fact that it is only the hitherto most productive sector which is worker-controlled, and there is an almost total absence of a party or an ideology which could integrate this sector of society with the rest in a common development project.

Yugoslavia is the only country in which workers' control (a) is applied in all sectors of society, (b) has been in existence for a considerable period of time - now about 20 years, and (c) has been fairly closely studied by sociologists, and therefore can give us some reliable conclusions as to how it works in practice.

First let us look at the possible complicating factors.

1. The existence of a strong party, the Communist League, may limit the reality of participation. The League certainly does not play the same centralising role as does the Communist Party of the Soviet Union. There are nevertheless limitations on political freedom which must affect the democratic working of the system.
2. The fact that, although the system has been in existence for 20 years, the actual detailed workings have changed frequently. This could be expected to make the system more difficult to understand, and hence to discourage participation.

Studies indicate (a) that of necessity there is a very high degree of participation in elected office, since there are, on one estimate, about 1 000 000 elective offices, and regulations to ensure that there is a rapid turnover in office, and (b) that the level and competence of participation has increased over the years, as would be expected, given the educative effect of participation. Initially, the workers tended to concentrate on 'welfare' issues, leaving the more important technical decisions to the management. As the system has developed they have come to spend more time on higher management issues and less time on peripheral issues.

The major dangers in the system are those that beset any organisation.

1. One or a few individuals may informally take control of and monopolise the elected positions, since once they are elected they have control over the flow of information, over procedure in meetings, and so on. If the other workers do not really know what is going on they cannot defend themselves adequately. This danger is of course minimised when offices are rotated, but this cannot rule it out entirely.
2. The greater danger is that the managers, who have direct access to all the information, and who draw up plans, will be able to impose their wishes and dominate the elected members. There is considerable evidence of this happening in Yugoslavia.

How can these problems be handled? We must distinguish between two different issues:

- (i) does a division into decision-makers and non-decision-makers tend to arise?
- (ii) is the system such that a group of decision-makers consciously or unconsciously, use their special positions to acquire material privileges, and so become a new 'ruling class'?

The second case would obviously be much more serious than the first. However, given the high level of interest

in salaries and work conditions displayed by the workers, they probably would not let it happen. At least it seems safe to say that there is nothing *in the work situation* which would encourage the rise of a new privileged class.

A number of measures are possible to counteract tendencies towards oligarchy.

1. The organisational and electoral system must be as simple as possible. In Yugoslavia candidates are usually presented by the trade unions, rather than directly by the workers. If the workers wish to present their own candidates they have to go through a complicated and discouraging procedure.
2. Within the enterprise decision-making should be as decentralised as possible. If the worker in a very large factory is told to make decisions about the factory as a whole, with no experience of decision-making at intermediate levels, he/she is unlikely to be able to relate the problems of the whole factory to his/her own experience, and so is not likely to understand them. The more intermediate levels of decision-making there are, the easier it is for the individual to get a meaningful view of the whole.
3. There must be an adequate information flow, and adequate grievance mechanisms. Here the trade union could play a role, first by making sure that all available information is placed before the worker in as digestible a form as possible, and, secondly, by representing the interest of the individual as against the interest of the group as a whole, which is watched over by the Worker Council.
4. The process whereby no elective post can be filled for more than two or four years needs to be reinforced. It seems reasonable that the managerial staff should spend a period each year working on the factory floor. This would serve the social role of preventing the growth of class differences and antagonisms, and the practical economic role of making sure that the managers do not get out of touch with the level at which their decisions have to be implemented, that

they know from experience the practical problems of the factory floor and the level of skill and involvement of the ordinary workers.

None of these measures is finally going to eliminate all trace of hierarchy and all trace of skill differences. But this is not at issue. We are trying to decrease hierarchy and dependence and increase autonomy as much as is possible, rather than trying to reach an impossible perfection. We are trying to ensure that those hierarchies which exist do not place barriers between people, and do not require patterns of authority and deference.

The usual argument brought against these proposals is that they would be inefficient, that valuable trained manpower would be wasted, that rotation of office prevents the best people from staying at the top, and that meetings and elections waste work-time. There are two counters to this:

1. The argument assumes a particular criterion of efficiency, the one used in capitalist society. It is assumed that the *only* purpose of an enterprise is to produce goods in such a way as to produce the maximum possible profit for the owner. So something is 'efficient' if it helps in this process, and 'inefficient' if it does not. However, in our Christian model the enterprise is not designed only to produce goods as cheaply as possible. The enterprise is also part of the life of each worker, and one of its products is educated and autonomous individuals. The criteria for 'efficiency' in such a system are obviously going to be in some respects different.
2. But even if we concentrate only on 'economic' efficiency, the argument has a major weakness. It rests implicitly on the hoary old distinction made by capitalist economists between 'initiative' and 'labour' as factors of production. This almost racist idea assumes that the world is divided up into those who have 'initiative' and those who have 'labour'. But to the extent that this is a true description of reality it is, as we have seen a product of capitalist work relationships. Workers' control is likely to release the creative initiative of workers and thereby to increase rather than decrease production.

A Review of:

James Hinton:

THE FIRST SHOP STEWARDS MOVEMENT

(George Allen & Unwin, 1978)

With the transformation of war from an institutionalized duel between combatants to an industrial-cum-technological enterprise, the traditional focus of attention on the "men at the front-line" has become increasingly anachronistic. There are two sides to war: the men who fire the guns and the men who produce them. It is important to ask, therefore, what effect a war economy has on industrial relations. James Hinton on *The First Shop Stewards Movement* focuses on this neglected area of scholarship through an analysis of industrial relations in the munitions factories during the War. Dr. Hinton argues that the militancy of the engineers was primarily a product of the breakdown under war conditions of their traditional security as a privileged section of the working class. The influx of women and semi-skilled men into the munitions factories and into jobs previously performed only by craftsmen ("dilution") appeared to undermine and render worthless the means by which skilled engineers had habitually sought to defend themselves.

Dr. Hinton goes on to show how out of this militancy, a national shop stewards movement emerged led by revolutionary socialists and committed to the goal of 'workers' control'. After the war, when the power of workshop organization on which the movement was based rapidly evaporated, these revolutionaries were to play a central part in the foundation and leadership of the early British communist party. How, he asks, was it that a



movement based on a privileged stratum of the working class became the central growth point of the revolutionary movement. His answer lies in what he calls the 'craft tradition'. "The argument is not that the craft tradition contained any spontaneous aspiration to working-class hegemony, to the abolition of wage slavery. Not only would this be to neglect the central role of politics, of socialist and syndicalist propaganda, in spreading ideas of workers' control, it would also be to forget that exclusiveness of the craft tradition which necessarily limited its political horizons. The argument is, rather, that the tradition of craft control, embodying as it did a tenacious resistance to capitalist rationality - the 'Capitalist ideal' - provided a more fruitful soil for the growth of revolutionary aspirations to worker's control than would the more purely instrumental attitude to work characteristic, for example, of a semi-skilled production-line worker in a modern car factory" p. 99. Hinton's comparison with war workers is consistent with Beynon's *Working For Ford* (reviewed in SALB Vol. 1 no. 3), where he stresses the essentially *instrumental* attitude of these workers. "They hate the car plant and they hate the system that produces it but they see no clear way out of it. They vaguely articulate the notion of worker's control, but the slogan of the "car plants for the workers" makes no sense to the lads who work on the line. They hate the car plant in a way that the miners never hated the pits. They see no salvation in the nationalization of the car industry, be it under the workers' control or not" (Beynon p. 314)

Part two deals with the wartime practice of the shop stewards' movement. Shop stewards' organization within the workshops spread rapidly during the war, but the shop stewards' *movement*, local Workers' Committees based directly in the workshops and capable of leading the mass of the workers independently of the existing trade union authorities, became established in only a handful of the largest munitions centres. Through a series of local comparative studies Hinton reveals two main conditions for the emergence of a successful local Worker's Committee during the War. Firstly, the status and privileges of the craftsmen in the area concerned should be intact when war broke out - the advanced technology of the Midlands motor car industry, for example, had substantially undermined the craft status

before 1914, and Workers' Committees were not successful in the Midlands. Secondly, the threat to this status should be experienced as both sudden and acute. It was in the Northern centres of more or less archaic engineering technology that these conditions were most fully met, and that the national shop stewards' movement was most firmly based.

Hinton argues that the explosive force of militancy released by the challenge to the craftsmen's status and economic security remained, for the revolutionary leaders of the shop stewards' movement, a double-edged weapon. While this militancy contained germs of a revolutionary spirit on which they could build, it also contained germs of a merely sectional struggle for the restoration of lost status. The development of the movement hung between these two possibilities, the leadership pulling towards revolutionary politics, the craftsmen at one moment following, at the next retreating into a militant exclusiveness. In the end craft conquered class goals among the rank and file of the movement, and the anticipated strike against the war in January 1918 collapsed into a sectional struggle in defence of the novel craft privilege of exemption from military conscription.

Part III examines the contribution to revolutionary theory, made by the shop stewards' movement. Hinton's central argument here is that it led revolutionaries to conceive of an agency of transition to socialism that was neither the Industrial Union of syndicalist theory, nor the parliamentary party of social democratic theory, but the workers Committee (or soviet). Here Hinton is challenging the conventional interpretation of the Workers' Committees - the orthodoxy, stated succinctly by G.D.H. Cole in *Workshop Organisation* (1923) was that their committees were an arbitrary imposition of quite alien categories on a movement whose own potential was intrinsically and unalterably non-revolutionary. Hinton does not deny the obvious influence of the Russian Revolution, and, particularly the work of the Communist International during 1919-1920, in persuading British revolutionaries to base their perspective on a struggle for soviet power. 'Sovietism', he argues, was not simply an alien import. The First World War precipitated an international revolutionary crisis. Reasonable men could anticipate the Hungarian, Austrian, German, Italian,

French and even the British revolutions, that characterized the international crisis.

All history is written from a standpoint and it is in Part III that Dr. Hinton's distinctive standpoint is made clear. He believes that this neglected area of British labour history demonstrates that "the post-war victory of the theory of soviet power over both syndicalism and parliamentarianism rested upon the authentic, if ambiguous, experience of a section of the British working class movement during the war years". However he qualifies his position by saying "The argument of this book is not that this revolutionary potential of the shop stewards' movement was ever realized, nor indeed came very near to being realized, but that such a development existed as a *possibility* and was perceived as existing by the revolutionaries" (p. 15).

This book is important contribution to the growing literature on the capitalist labour process. In particular it shows that the process of 'deskilling' did not proceed without opposition from the skilled workers concerned. It underlines the fact that capitalist development is the outcome of continuing struggle on the part of capital to improve its control over every aspect of the labour process.

A Review of:

CLASS STRUGGLE AT WORK

by Johann Maree

Andrew L. Friedman, *Industry and Labour, Class Struggle at Work and Monopoly Capitalism* (macmillan, London, 1977);  
 Theo Nichols and Huw Beynon, *Living with Capitalism, Class Relations and the Modern Factory* (Routledge and Kegan Paul, London, 1977);  
 Theo Nichols and Peter Armstrong, *Workers Divided, a Study in Shopfloor Politics* (Fontana, Glasgow, 1976).

These three books all examine the labour process. They provide valuable comparisons and contrasts with Harry Braverman's *Labour and Monopoly Capital* (reviewed in SALB, vol. 4, no. 3) and Huw Beynon's *Working For Ford* (reviewed in SALB, vol. 1, no. 3). Friedman's *Industry and Labour* considers the capitalist labour process over two centuries in Britain and is a good complement and corrective to Braverman. The two books by Nichols, Beynon and Armstrong contain in-depth studies of a chemical plant (given the pseudonym ChemCo by the authors) in the South of England and lays bare the labour process in a similar way to Beynon's exposition of the Ford plant at Halewood. Given the nature of the books, I shall first consider Friedman and then deal with the two books on ChemCo together.

In *Industry and Labour* Friedman is concerned with two problems. The one is empirical and concerns establishing why a small area in Coventry's city centre, Hillfields, has persistently remained an area of deprivation alongside areas of prosperity. The other problem is theoretical and consists of the author's search for a framework which allows the links between industrial development and the relative prosperity of small areas to be explored. He opts for the Marxian framework and a major portion of the book is devoted to the development of the theoretical framework concentrating on the labour process. Although the theory is developed in order to examine the microeconomic problem of persistent

deprivation, there is nonetheless a clear thematic break between the theoretical and empirical sections of the book. I shall concentrate on the theoretical aspects as Friedman's insights on the labour process is of most relevance to this review.

Friedman takes issue with Marx and subsequent Marxists on the labour process. He argues that Marx did not deal systematically with changes within the capitalist mode of production which were the outcome of class struggle. For Marx the importance of worker resistance lay in its potential for overthrowing capitalism, but worker resistance had clearly forced accommodating changes *within* the capitalist mode of production. (p.4) Later Marxists have tended to follow Lenin's separation of worker resistance into two categories. The one is "spontaneous" resistance arising from "trade union consciousness" and based on the struggle directly between workers and employers within the labour process. The other is informed by a "socialist consciousness" and develops from the relations between all the various classes and the state and government. This distinction, Friedman maintains, has reinforced Marx's emphasis of worker resistance as a force for changing the mode of production, rather than a force which also causes accommodating change within the mode of production. (p.50)

#### DIRECT CONTROL AND RESPONSIBLE AUTONOMY

An important change within the mode of production as a result of worker resistance is the development of different strategies by management aimed at maintaining their authority over workers. Friedman identifies two major types of strategies - Direct Control and Responsible Autonomy. (p.78) In the Responsible Autonomy type of strategy top managers give workers leeway by granting them status, authority and responsibility. They try to win the worker's loyalty and to co-opt their organisations to the firm's ideals. The Direct Control type of strategy tries to control the use of labour power by means of coercive threats, close supervision and minimising individual worker responsibility.

Friedman criticises Braverman for assuming that Taylorian scientific management *is* the fundamental practice of management in twentieth-century capitalism instead of seeing it as a *particular strategy* for exercising managerial authority. This criticism on the part of Friedman seems well-founded as Braverman fails to take cognizance of the power of organised worker resistance and its ability to force changes in the methods adopted by management to retain control over the labour process.

On what basis does management decide whether to adopt Direct Control or Responsible Autonomy strategies? Friedman states that Responsible Autonomy strategies have been implemented only under extreme pressure from workers because managers have feared the loss of their authority should they grant workers more direct control over the labour process. Once one type of strategy has been adopted, it is difficult and time consuming for management to switch to another type. Management however requires a degree of flexibility in order to cope with fluctuations in product demand or changes in technology or labour power markets. A major method whereby flexibility is gained and the capitalist mode of production itself maintained consists of splitting workers into various groups and applying different types of managerial strategies towards those groups. Friedman postulates that two groups of workers can be distinguished from top managers' point of view - central workers and peripheral workers.

#### CENTRAL AND PERIPHERAL WORKERS

Central workers are those who, through their skills or their contributions to the exercise of managerial authority, are considered essential by top managers to secure high long-run profits. Alternatively, central workers are those who, by the strength of their resistance, collectively force top managers to regard them as essential. Peripheral or expendable workers do not contribute to the maintenance of managerial authority and will not cause disruption among the remaining workers when laid off because of lack of solidarity with them. In addition they are workers who are easily replaceable and can be made redundant by

top management when demand for the product falls. Generally groups of workers considered by top management to be peripheral are unskilled and semi-skilled manual workers and lower level clerical and secretarial workers. Although Blacks, women and immigrants in Britain are generally also peripheral workers, Friedman makes it clear that the centre-periphery distinction is not simply a function of different attributes of workers, but that it arises out of struggle, out of a combination of differential worker resistance and managerial strategies for counter-pressure.

Top managers maintain their authority by encouraging Responsible Autonomy among central workers while deepening Direct Control over peripheral workers. As a result central workers will generally have more direct control over their labour in consequence of the Responsible Autonomy strategy. They are also paid more than peripheral workers and have greater employment security. (pp.107-17)

The centre-periphery relationship exists not only between workers within firms, but also between firms. Friedman contends that firms in an industry may be considered central or peripheral on the basis of their relative monopoly power. In a manner reminiscent to A.G. Frank's model, it is maintained that peripheral firms are squeezed first when there is a slump in demand. They, in turn, squeeze their labour force to keep costs down. But the centre-periphery dichotomy extends even further: Friedman separates central and peripheral countries on the basis of their relative strengths of their organised worker resistance and reserve armies. (pp.114-8 and ch.9)

#### THE HISTORICAL ANALYSIS: 1780'S - 1870'S

Two historical chapters examine workers' resistance and managerial counter-pressure in Britain over a period of two centuries broken up into different stages of capitalism. During the transition to the Machinofacture period (this period is usually called the Modern Industry Period, but Machinofacture is a more apt term) from the 1780's to 1840 the labour force was characterised by a distinct dualism. On the one hand were the craftsmen

who, by virtue of their skill and their craft union organisation, maintained seven-year apprenticeships which ensured closed shops and perpetual conditions of near full employment. On the other hand was the mass of unskilled workers which included a flood of women and children who all frequently experienced high levels of unemployment. They were poorly organised at the place of work and their main expressions of worker resistance were machine breaking and riots or, alternatively, mass demonstrations and meetings. They earned on average about half as much as skilled craftsmen. Management adopted a Responsible Autonomy approach to craftsmen who were still imbued with self-respect and a pride in retaining certain standards of workmanship. Direct Control was adopted towards unskilled labourers and the setting up of factories, which was primarily aimed at the enforcement of discipline, contributed towards this strategy.

In the Machinofacture period from 1850 to the 1870 the gap between well-organised and non-degraded artisans and the growing mass of less skilled and poorly organised workers grew. This was because mechanisation often did not degrade all skilled work and dual labour power market clearly emerged during this period.

### 1870's - 1970's

The following period, described by Friedman as the transition to monopoly capitalism period, from the 1870's to 1914 saw the emergence of new unions as a mass of semi-skilled labourers who worked machines came to occupy the gap between artisans and common labourers. The new unions built up funds for strikes and lock-outs instead of relying on "friendly benefits" such as sickness and burial insurance as the older unions did. After a few decades the new unions shifted significantly towards the conciliatory attitude of the old unions. This was partly because it became easier for all unions to win substantial concessions within production without flexing their muscles and partly due to the fact that the new unions focused on national agitation at the cost of neglecting local issues and struggles. As a result unofficial and spontaneous strikes grew among



trade unionists. In this period it became clear that level of skill was no longer the factor which divided the labour force.

Contrary to expectations this rise of new unions did not result in management switching significantly to Responsible Autonomy strategies. Friedman attributed this to the development of Taylorian scientific management, an advanced form of Direct Control via the division of labour, through which management assumed control over both the way and rate at which labourers had to work. Management did, however, also adopt Responsible Autonomy strategies due to worker resistance by accepting trade unions as a permanent reality and introducing Procedure with the co-operation of the bureaucratic elements of unions. The aim of Procedure was to forestall a work stoppage while a lengthy process of negotiations occurred.

During a further transition period to capitalism from 1914 to 1945 the leaders of trade unions were drawn into clear collaboration with management and the Government. As a result, unofficial worker resistance grew. The proportion of unofficial strikes and the importance of shop stewards in shop-floor agitation increased. Large general unions emerged with undemocratic structures and these exercised a conservative influence on the trade union movement. These factors plus trade union movement setbacks, long years of high unemployment and the introduction of flow production popularised by Henry Ford, all led to an increased use of Direct Control strategies by management.

The period of monopoly capitalism from 1945 to the 1970's heralded a period of near full employment in nearly all advanced capitalist countries with the rate of unemployment never rising above 10 per cent whereas it never fell below 10 percent during the 1921 to 1938 period. Differentials in wages between men and women have widened and in Britain the unions have discriminated against immigrant workers by trying to exclude them from certain job categories and getting them dismissed first in the event of redundancy. The Direct Control-Responsible Autonomy mix of strategies of the earlier period became less effective with the

drying up of the active reserve army of labour. Management switched more consciously to Responsible Autonomy strategies under the guidance of industrial psychologists and sociologists with Elton Mayo of the human relations school playing a leading part. The introduction of group technology by large car firms in which small working groups assemble entire components or sub-assemblies together is the best known example of major technical changes imposed to quell worker resistance and specifically to impose Responsible Autonomy. The small groups reduce resonance between workers by encouraging stratification and competition between them and by making them perform parallel tasks rather than ones that feed into each other.

#### LESSON FOR SOUTH AFRICA

The lesson this history holds for analysis of South African labour relations is that the duality existing between African workers on the one hand and White, Coloured and Asian workers on the other hand is not necessarily the result of racial discrimination, but of the class struggle and constitutes a strategy on the part of capitalists and the state to retain control over labour. The probability that the Wiehahn Commission is going to recommend the recognition of African trade unions could herald the era in which management finds it necessary to switch their strategy with regards to African workers to a Responsible Autonomy type of order to ensure the maintenance of managerial authority. Reasons for this could be the ever-growing dependence on African labour in numbers and due to acquisition of low-level skills, and the fear resulting from being out of touch with the grievances and aspirations of the workers. African Trade unions could be seen by management and the state as a means of co-opting African workers into the capitalist system.

#### CRITICISMS OF INDUSTRY AND LABOUR

*Industry and Labour* makes a valuable contribution to our understanding of the labour process. It is rich in ideas and remarkably comprehensive, but therein maybe lies some of its weakness. The complexity of history as expounded in the book does not fit into the theoretical

model presented by Friedman. The distinction between central and peripheral workers as the key factor which determines whether top management adopts a Direct Control or Responsible Autonomy type of strategy does not appear to be confirmed by the historical accounts. Economic conditions, for instance, played a major role at times in determining managerial strategies. In a later chapter on the history of the car industry in Coventry for instance management switched from Responsible Autonomy towards a Direct Control strategy starting in the late 1960's because of falling profits due to increasingly severe foreign competition which led to stagnating output with increased male unemployment. This phenomenon also contradicts the general trend towards Responsible Autonomy after 1945 which Friedman puts forward.

Although Friedman introduces many refreshing theories and concepts, the division between central and peripheral workers is unsatisfactory. By making this distinction between workers as he does, he groups together both supervisors who perform a managerial role and powerful workers with well-organised shop-floors or trade unions as workers. But this has the effect of concealing a vital central distinction between these two groups of workers. Friedman should rather have used a more sophisticated class analysis to explain why management adopted a Responsible Autonomy strategies towards workers occupying different class positions. It is also remarkable that Friedman does not attribute greater significance to immigrant workers in Britain as constituting part of an international reserve army of labour that British capital can draw on. Instead of that he seriously argues that the reserve army of labour in Britain had dried up after 1945 and that it played a role in determining managerial strategy.

#### CHEMCO MANAGERIAL STRATEGIES

In contrast to *Industry and Labour*, the two books by Nichols, Beynon and Armstrong, *Living with Capitalism* and *Workers Divided*, deal with a single chemical plant, ChemCo producing fertiliser and cement. The books contain in-depth studies of the labour process at ChemCo and tease out the social classes, the relationships

and struggle between them and the contradictions in the system. Because they are so concrete, the books provide the reader with valuable insight into social classes and class struggle and are therefore highly recommended for those who have difficulty coming to terms with these concepts when reading highly and abstract theoretical works.

Between them these two books explain the sophisticated methods used by a large modern corporation to keep workers docile and retain "peaceful" industrial relations. The strategies used by management are carefully exposed and reveal the ingenuity of capital in retaining control over the labourers' efforts. The initial method lies in the very design of the plant. It represents process production and works as an integrated whole with continuous production. The production rates were designed by management, but by workers they appear to be automatic;

"Well actually you don't need a man to keep you working here because when you go out there to take over the work, you have *got* to work...."  
(Nichols and Beynon, p.134)

At peak rates Zap (the pseudonym for fertilizer) is produced at the rate of 60 tons an hour and stored in a hopper that can only store 60 tons. The packer thus has to pack 60 tons an hour by loading one hundred weight bag every three seconds. One packer at the "band end" has to catch and drop these bags when they are going by rail:

"Catch and drop...catch and drop...every *three* seconds a hundredweight bag. Warm bags that burn your shoulders; leaving it red raw."  
(Nichols and Beynon, p.14)

The location of the plant at Riverside (again a pseudonym) in the country away from a town in the south of England was another part of managerial strategy. Except for the foremen that they brought down from the North, they recruited "green" labour with virtually no experience of large-scale factory production. This is itself already served to divide the workers, but many

other factors also served to fragment them. The bulk of men worked on the Continental shift system so that only one quarter of the workers on a plant was there at any one time. Workers in the different plants did not know each other and even those working together lived in different parts of the area.

Management's far-sightedness did not end there. They saw trade unionism as a functional part of the corporation and adopted an incorporationist strategy. The closed shop was enforced at Riverside by an agreement between the Company and the national union with a check-off system of collecting union dues from members (an automatic deduction from the workers' pay slips). A foreman, well schooled in union politics, commented:

"After the closed shop was introduced I would say the union collapsed completely". (Nichols and Beynon, p.114)

It ensured that no widespread, active, recruiting campaign ever took place on site and that union organisers and shop stewards would have little reason to make regular contact with members.

The New Working Arrangement (NWA) deal set the seal on limiting the scope of worker action at Riverside. Central to it was the establishment of a *national* wage rate negotiated between remote union officials and the Company at head office. This served to remove from the workers many of the issues over which disputes could arise on the shop-floor. The only issues that remained for workers to take up locally were "conditions money" which is a compensation payment for bad conditions of work in the chemical industry, and appeal against the grading of jobs.

#### CHEMCO WORKERS' RESISTANCE

Because of the inexperienced nature of the bulk of the ChemCo workers, the shop stewards were unable to fulfil their role as workers' representatives. In four out of six cases in the fertilizer plant they were approached by the foremen to become shop stewards and two of them soon became the "deputy foremen". This contrasts

strongly with the shop stewards in the Ford plant at Halewood where they felt a sense of obligation to the people who had elected them. (Beynon, E.P. Publishing Limited, pgs.119-124).

It is clear that the initiative has come from management who took active steps to introduce a Responsible Autonomy strategy. The workers' resistance against managerial authority has tended to be covert and individualistic. At the loading end of the plant as well as in the control room individual acts of resistance often involved a deliberate breaking or fouling up of the system. None was more dramatic than the act of a control room operator who was pushed to his limit by a new manager: who came into the control room one morning.

"and said 'Do this. Do that.' And I *knew* that if I did it, then that would be it. Well, we were all a bit fed up with this particular manager so I said to myself: 'If that's what you want, that's what you'll have.' And over she went - a couple of hundred tons of shit on the floor." (Nichols and Beynon, p.139)

But workers also experience immense alienation at ChemCo and simply do their work because they have to for the sake of the money. Many expressed a fatalism that there was nothing else they could do and therefore they just had to bear it, but not all workers could stand the working conditions. One former control room operator described his night shift as follows:

"Fifteen foot by nine. That constant hum. The darkness outside. No one. No one there at all. All that responsibility. You don't know what's going on outside. It got me. Is it *really* going right? It worries you." (Nichols and Armstrong, p.75)

He ended up walking right off the site in the middle of the night.

CRITICISMS OF LIVING WITH *CAPITALISM* AND *WORKERS* DIVIDED.

This brief account of ChemCo does not do justice to the books. *Living with Capitalism* is a more enterprising and analytical book than *Workers Divided* and considers *all* the social classes and their relationships, whereas *Workers Divided* only looks at the working class and the factors accounting for its division. It is not clear what the aim of *Workers Divided* is. The authors seem to be arguing against various other schools of thought, and hitting out in different direction.

*Living with Capitalism* does not suffer from that weakness. The authors do have an objective in mind, which was to show that things as they were, were just not right. In that they succeeded, but whether they have succeeded in explaining satisfactorily why they are "just not right" I am not sure. The last part of the book which is aimed at achieving a wider setting and explanation does not have the clarity of purpose and cogency of the earlier parts.

In spite of my criticisms these three books are indubitably of value in gaining a deeper understanding of the labour process. What we now require is for somebody to do comparable work here in South Africa.