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Title:        From Reluctant Slavery to a Black Flood, Black Workers, Mass  
              Production and Cultural Formation in South Africa's Metalworks.

by:            Ari Sitas

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FROM RELUCTANT SLAVERY TO A BLACK FLOOD\*, BLACK WORKERS,  
MASS PRODUCTION AND CULTURAL FORMATION IN SOUTH AFRICA'S  
METALWORKS.

*Ari Sitas*

INTRODUCTION

In the first chapter of this thesis the problem of the transition from absolute to relative surplus-value extraction, of the changes in the social relations of production that bring about the mass production of commodities in South Africa's Metalworks, was discussed in some detail. There it was shown that South Africa's bonded accumulation and reproduction of capital, militated against such a transition: The local Metalworks, subordinate on the one hand to an international division of labour, on the other, to the needs of the local mining industry, faltered in all their efforts to *effect* this transition. Furthermore, through a discussion of the economic role of the South African State it was emphasised that the first pockets of mass producing Metalworks, like *Iscor* and the *African Metals Corporation* were created through State or para-statal corporations. This entailed a vast reorganisation of the industry by the late 1930s. Finally, despite the favourable conditions for growth engendered by the Union's 'war effort', the *dominance* of these new relations of production was shown to be tenuous and a continued juxtaposition of jobbing and mass forms of production defined the morphology of the industry by the 1950s.

The second chapter of the thesis addressed itself to the transition itself, located in the era after 1964 and consolidated by the crisis years of the mid-nineteen-seventies. Primarily through a rapid concentration and centralisation of the industry but also through the sudden large scale involvement of Mining Houses and Transnational Corporations, the 'universal worker' of machinofacture is created. The absolute increase of operative African workers turn from a quantitative flood to a qualitative presence. This present chapter is an attempt to examine the contradictory implications of this presence, in the words

of the author M. Diköbe a generation 'that is surprising the world, fast very fast', in its combativity and political consciousness<sup>1</sup>.

#### DEQUALIFICATION AND DESKILLING, THE PROBLEM OF DEFINING THE ISSUES INVOLVED

The history of capitalist mechanisation and of capitalist techniques of production can be read according to the French sociologist A. Gorsz as

"the history of the dequalification of the direct producers. The dequalification is certainly not linear: at the beginning of each technical revolution it seems partially inverted. But the general tendency immediately reasserts itself: the new qualifications demanded by the new techniques are redecomposed".<sup>2</sup>

Various names have been given to this tendency apart from 'dequalification' or 'decomposition': in the economic and sociological disciplines it is also referred to as: 'fragmentation', 'deskilling', 'dilution', 'homogenisation' and simplification of labour. All refer to a process of transformation, in the labour processes of capitalist enterprises, that reduces 'craft' or 'skilled', to a repetitive or simple expenditure of labour power.<sup>3</sup> Whatever the terminology used, in the by now voluminous literature on the subject, it can be asserted as a point of consensus that, the transformation of the labour process has two effects: Whilst on the one hand it increases the productivity of labour to an unprecedented degree, on the other, it heralds a state of universal, collective and undifferentiated labour, *operative labour*.

Whatever the consensus, problems arise because industrial sociology as a discipline is divided fundamentally on questions about what aspects of the process it need emphasise and what problems it should rank higher in importance than others: For the conventional school of sociology, from the pragmatic studies and experiments of E. Mayo<sup>4</sup> to the more theoretically informed studies of R. Bendix, A.L. Gouldner and R. Blauner<sup>5</sup> the focal point is the *cultural* significance of worker adaptation to the new regime of production. They have all to a greater or lesser extent focussed on the adaptation of newly imposed 'social roles' within production, and/or the 'value orientations' of working people to the 'formal organisation' of industry.<sup>6</sup> A rupture started occurring in the discipline when the work of industrial sociologists was accused of being partisan and ever-eager to provide new techniques of legitimate power over a labour force continuously disgruntled about its conditions of production. In summary, the critique asserted that after the transformation of the labour process to mechanical and monotonous functions, after the introduction

of 'scientific management' with its detail studies of worker performance to intensify the *pace* of production and to increase output, the micro-studies of the sociologists have constantly, whether consciously or unconsciously, been the 'servants of power', helping employers along to find ways of solving their problems: That is, to ensure the cultural adaptation of the workers, to ensure that new avenues of communication are found and to find structures for the institutional resolution of industrial conflict.<sup>7</sup> The critique of the conventional school which this thesis shares<sup>8</sup> started gaining momentum from the mid-nineteen-sixties through, among others, A. Gorsz, M. Bosquet C. Palloix in France, the work of H. Braverman and D. Montgomery in the U.S.A., of the Conference of Socialist Economists and H. Beynon in the United Kingdom.<sup>9</sup> These studies, whether of the changing forms of control in the labour process, of patterns of militancy, of forms of factory consciousness and resistance to the goals of capitalist enterprise, have reintroduced the *necessarily conflictual* nature of the capitalist relations of production.

Their impact has been two-fold: They achieved a corrective on the growing consensus amongst 'left intellectuals' influenced by the 'Frankfurt School' that the 'relations of production', the 'labour process' and "classes" were increasingly becoming archaic concepts once the transition from a *laissez-faire* to a *social welfare* society had been effected.<sup>10</sup> They also, intervened at a time when sociology was moving away from the relations of production as constitutive of class structure to the relations of exchange and/or status.<sup>11</sup> The concern here with the transformation of the relations of production in South Africa's Metalworks calls for three qualifications: Firstly, it is essential to *separate* the two habitually conflated words: 'fragmentation' and 'deskilling'. 'Fragmentation' here shall mean the breaking down of complex skilled processes of production and their 'dilution downwards' to a cheaper operative labour force. 'Deskilling' shall mean the transfer of already fragmented processes to a complex of *machines*.<sup>12</sup> In short a job is *fragmented* when a task is handed over to an ensemble of workers, whereas a job is *deskilled* if the skill is transferred to machines which in turn reduce the worker-operative to their appendage. Whilst the former marks an increase, the latter marks a relative decrease in living labour in any factory.

Secondly, although the tasks of operative labour were easily understandable in theoretical discourses about production, they present serious empirical difficulties. These arise from the fact that skill structures and the grading of workers on hierarchies of performance is a result of a constant struggle between workers and managements. In South Africa, there are two processes at work: On the one hand, as E. Webster has shown, craft

unions in their resistance against deskilling attempt to upgrade semi-skilled jobs that are a threat to them and give them artisan status if they can; on the other, semi-skilled jobs are often classified as unskilled and given over to lower paid, unorganized groups of workers.<sup>13</sup> The politics of skill and the struggles over skill demarcation need an independent variable outside both managerial and labour definitions. For the study, J.R. Bright's 'levels of mechanisation' have been adopted with little variation.<sup>14</sup> His 'levels' break-down what is regarded as operative labour into 17 levels starting from hand or hand-tool processes to automatic machinery that anticipates required performance and adjusts accordingly (see Appendix V). Through this model, an objective criterion is at least established through which both managerial and labour statements can be assessed as will be shown below.

Finally, the third clarification involves the entire first part of this chapter. It is argued that, however much the transformation of the labour process increases the productiveness of labour by heralding the stage of universal, collective and undifferentiated labour, forms of consciousness and forms of resistance to the new production relations differ markedly, and are irreducible to these relations alone. Having rejected the orthodox sociology of the cultural *significance* of worker adaptation it by no means implies the rejection of the significance of *culture* and cultural formations in society.

#### CULTURE AND PRODUCTION NORMS

Since the Second World War with the gradual redivision of the world economy that ensued, since the change in peripheral economies to increasing *manufacturing* activity made possible by the 'third technological revolution' and the rise of the multinational corporation, mass production and collective labour in its modern sense, become universal phenomena.<sup>15</sup> Relationships in industry between workers and machines, between workers and employers are homogenised at a global scale; whether in Japan, in Taiwan, in Brazil, in South Africa or the United States workers of whatever colour, sex or belief- systems begin to perform similar and commensurate tasks.<sup>16</sup> Silicon manufacture in Taiwan, automobile assembly in Brazil and Detroit, U.S.A., electric motor manufacture in South Africa, *Steelworks* in India and Egypt, create conditions of work experience and skill that are universally comparable. Yet, for both historical, cultural and ideological reasons, responses by workers to mass production differ and so do managerial strategies. It is by now well documented how the 'old' and the 'new' relations of production stand opposite each other as a radical rupture in social life. For instance, E.P. Thompson's work in *Time, Discipline and Industrial Capitalism*<sup>17</sup> shows how production norms are transformed from a task-orientated organisation of working time to a new discipline of continuous intensive labour with the rise of the manufactures.

Similarly, H.G. Gutman's work<sup>18</sup> in late 19th Century America, demonstrates that local differences in the historical constitution of community structures, political relationships, union traditions, fundamentally affect the outcome of class struggles and the habituation of the working class to new production demands. Finally, sociological works like H. Beynon's *Working for Ford* and J.A. Geshwender's *Race, Class and Worker Insurgency*<sup>19</sup> indicate that similar conditions of 'Fordism' in production, produce different social responses: a militant 'factory consciousness' in Britain and a 'black revolutionary league' in Detroit.

The concern here with class culture, is to show that each major transformation in capitalist production is accompanied by a whole range of processes and struggles over the 'habituation' of the worker to the new organisation of production. Whether through religious doctrine, political persuasion, force, 'human relations in industry', the history of capitalism can also be read as the history of struggles over working class norms; as the history of attempts of 'stabilization' of working classes to new production norms. 'Stabilisation' however, vague a term, is a favourite word with employers, not least in South Africa. Broadly it entails two facets: (a) That the working population arrives to work and (b) Workers accept the parameters of work and hierarchical structures and the demands of factory life as natural. Part of the former is fulfilled through the non-ownership of any means of production by the workers which compels them to seek employment for a wage. As K. Marx graphically describes the situation

"... It is contained in the concept of the free labourer, that he is a pauper: virtual pauper ... He can live as a worker only in so far as he exchanges his labour capacity for that part of capital which forms the labour fund" ...<sup>20</sup>

The above though, is a necessary, but never a sufficient condition. The manner of a worker's availability is equally important. As an employer asserted

"... a man who comes to work, starved, stoned drunk ... who collapses on the job... who comes to-day and says bye-bye tomorrow .. an absentee by habit .. who also comes late is an irritation to us and is unacceptable to batch production"....<sup>21</sup>

A 'stable' worker arrives at work and conducts his activities 'responsibly', he or she must be 'responsible' workers. The latter condition though is contingent to creating the necessary personality structures that at the same time meet the demand of (b) above, that find the authority and command structures in industry legitimate. Whereas the former is a material condition of existence,

the latter is a cultural, ideological condition of adjustment. It is here that the various ideological state apparatuses or independent ideological apparatuses, ideologists, the clergy, teachers, pedagogues etc. get entangled more or less in a struggle over the habituation of the worker and its contradictory attempts at normative transformation, the 'moral machinery' of class.<sup>22</sup> The idiosyncratic work of M. Foucault is useful here and so is his interesting assertion that in capitalist society: 'the soul is the chain of the body'...<sup>23</sup> As he argues,

"... discipline produces subjected and practiced bodies, 'docile' bodies. Discipline increases the forces of the body (in economic terms of utility) and diminishes the same forces (in political terms of obedience). If economic exploitation separates the force and the product of labour, let us say that disciplinary coercion establishes the constricting link between an increased aptitude and an increased domination..."<sup>24</sup>

It is asserted here that the 'constricting link' is the 'soul' of the industrial worker, which is a contested terrain of *cultural* struggle. The creation of the 'responsible worker', the 'stable worker', the 'obedient worker' has taken many forms. For instance, Fordism in the U.S.A. created a *social consumption norm*<sup>25</sup>, it institutionalised higher rewards for the effort expended within production, linking leisure with satisfaction. Mayo and his followers discovered that workers imported a distinct and autonomous culture in the factory that had to be integrated within company policy in a system of communication, viz. 'human relations'. 'Responsible autonomy' links satisfaction with working environments and so on.<sup>26</sup> All of them are so many disciplinary 'constricting links' between attempts at increased aptitudes for work and at length at ever-newer forms of domination. The 'soul' of the worker is a terrain of struggle for *hegemony*. As E. Laclau stresses,

"... A class is hegemonic not so much to the extent that it is able to impose a uniform conception of the world on the rest of society, but to the extent that it can articulate different visions of the world in such a way that their potential antagonism is 'neutralised' ..." <sup>27</sup>

To ensure stability punctuality, hard work, respect of property, loyalty, etc. a set of normative orientations, values have to be internalised by the working class. The production norms and cultural configurations in South Africa's metalworkers and the drive for the creation of an African semi-skilled and stable labour force cannot but be stressed in the light of the above discussion.

## TWO URBAN AFRICAN CULTURAL FORMATIONS

Two cultural formations of urban Africans constantly haunted manufacturers and commercial interests in South Africa from the mid-1920's onwards.<sup>28</sup> Whilst churchmen and liberal intellectuals were discovering urban and rural black poverty, in these discourses of the 1920s and after, manufacturers discovered part of their 'productivity' problems and some of their industrial strategies. Through the latter, some were responsible for various ideologies of 'improvement', 'pledges for better times' and arguments for the stabilization and permanence of the 'urban Native'. By now it is commonplace to argue that the interest in the 'urban Native' was predicated on attempts to undermine highly paid white workers, protected by the 'Civilised Labour Policy' in the Union's manufacturing industry.<sup>29</sup> However much linked to the cheapness of, as opposed to a genuine interest in the welfare of urban blacks<sup>30</sup>, local capital's attempts to argue for stabilisation must also be seen as part and parcel of a political response to the abovementioned cultural formations.

The squalid conditions of both the slums and the factory, were responsible for the rise of a slumyard or slum culture and a *resistance culture* that intertwined in complex ways in the life of urban workers. The relative autonomy afforded to urban Africans through segregation, the little interest of 'white' South Africa of integrating urban Africans through assimilationist policies and finally their inability to sincerely struggle over the 'soul' of African workers had important repercussions.

A. Nzula, the black communist leader and secretary of the *African Federation of Trade Unions* partly responsible for the non-racial unemployment marches in Johannesburg during the depression years, described the conditions of the African proletariat in the 1930s in the following terms,

"The living conditions of workers who live in the towns are no better (than the mines, A-S). There they live in special black quarters on the outskirts of the town. In such quarters the black proletariat live in corrugated iron shacks, which are full to capacity due to the peasants moving to the towns and continually swelling the population of the black quarters. The interior of the shacks inhabited by the blacks defy description - they are cold in winter and suffocatingly hot in summer. Two or three families live in a cramped, tiny room without a floor or a ceiling, with bare corrugated iron walls. Along these walls there are low shelves, arranged one above the other, on which the members of the various families sleep. Epidemics sweep through the huts as they do through the compounds. In many black quarters the infant mortality rate is 900 per thousand. Rents for these shacks are extortionate"...<sup>31</sup>



Liberal academics in the 1920s and 1930s and later more radical social historians have more than validated Nzula's description.<sup>32</sup> After the work of A. Proctor and T. Lodge on Sophiatown; M. Dikobe and E. Kcch on Doornfontein; J. Cohen on Twatwa, studies of slum housing, labour histories, studies of wage-structures and literary work like M. Dikobe's and E. Mphahlele's the condition of squalor and deprivation of Africans in the urban milieu of South Africa emerge distinctively.<sup>33</sup> But equally do the forms of working class association and the vibrant culture that they gave birth to in the slums and the interstices of the city. This cultural formation provided people with many ways of defending themselves against the harsh conditions of the city: Brewing, which was prohibited, mutual aid and burial associations new common-law marriages, all night parties, were part of its elements. Here, the lumpen, the unemployed and the proletarian interacted in a web of activities defying legality, participating in a *culture of survival and escape*.

But from the same conditions sprang associations organised around social grievances: of resisting permit impositions and controls, rent increases, removals, unemployment, trade unionism, and national organisations.<sup>34</sup> On this axis of interaction, an educated black elite, an urban petit bourgeoisie cohabited in those segregated locations, now radical, now reformist, that provided a second tension, a second cultural formation, as *resistance*.<sup>35</sup> Most prominent here are organisations like the Industrial and Commercial Workers' Union, the A.N.C., the Communist Party of South Africa, the League of African Rights that, through mass meetings, campaigns, night schools and cultural events brought people together and spread the seeds of dissent.<sup>36</sup>

From the late 1920s to finally after the Second World War a certain missionary zeal can be ascribed to urban centres, a zeal for Social Reform as the first substantive arguments for permanence and stabilisation of the African labouring classes, take root. In summary, the discourse for *improvement* runs as follows: 'The Urban Areas Act and the State's Civilised Labour Policy' created a situation of *extreme* poverty in the urban areas which was supplemented by all kinds of lumpen activities, drinking etc. and a deterioration of health which worked against the firmness of mind and body in industry. Family budgets were low, diets insufficient so the easing of the colour bars and the ability of the detribalised African to sell his labour, would create the maximum good for all concerned. The fostering of industrial (modern or westernised) standards was necessary and 'cultural lags' could be overcome through education.' The concert consisted of clergy, joint councils, liberal whites and liberal middle-class blacks, 'race relations' intellectuals, some businessmen and sometimes local authorities. Manufacturing, at least through the Chamber of Industries and its spokesmen in the *Manufacturer*

was attentive to the problems raised by the situation of the 'urban native', despite the fact that all this was contemporaneous to a low participation of Africans in the manufacturing sector.

The two cultural formations of urban Africans were recognised as such by churchmen alarmed by possible implications to their congregations amongst black communities. The political responses were seen as a promise of future disruption. The Rev. Ray Phillips, the great social reformer of the joint councils and the Bantu Men's Social Centre had either C. Kadalie or A. Nzula and E. Roux in mind when he was propagating practical Christian activism amongst the clergy.

"Attend a meeting of Natives held on the Market Square, Johannesburg. Perhaps a thousand Native men are present. The speaker is a young Native man who speaks perfect English. Through interpreters he enumerates the wrongs of his race in South Africa. He attacks the employers and the Government, mentions the low wages and the Colour Bar. Then he pours scorn on the missionary and the Clergyman - white and black. 'Comrades' he cries, 'we must kick out the missionary and the clergyman. I know what I am talking about. What is the missionary doing for us? Nothing! He educates us and leaves us to starve! He points us to the sky and tells us, 'Bye and bye, after you're dead you'll have enough to eat and fine clothes to wear". That's not good enough for us! We want food to eat and clothes to wear today! Am I right?"... Back comes a thunderous response, 'Right you are!" Then kick out the missionary and the missionary's God. They have never done anything for us. While the missionary was preaching to our fathers and their eyes were turned to heaven, other white men came along and stole our land. Join the Communist Party which is the only organization in South Africa which is interested in our rights. Join the party, which is out to smash the rich men who are crushing us and which will bring you higher wages and decent places in which to live". The meeting dissolves and a few join up. But the seed of discontent, already dormant in the heads of the listeners, has been watered, albeit with vinegar, and the fruit will be a rank growth.

Another meeting, this time a white speaker. 'Are you happy?' he asks his audience. 'Have you got all the freedom that you want?"

The answer comes, 'No we are all not happy!" "Well", says the speaker, "if you will do what the Russian workers have done, and what the Chinese workers are doing, you will be able

to secure freedom. We have got to be prepared not merely with demonstrations but also if it proves necessary - with far more drastic action. Build up your organization so to take possession of this country."

... Now all this sort of appeal meets with a sympathetic response from a large number of Native workers"...<sup>37</sup>

Apart from the political responses that were a cause of worry, the churches and missions who had played a great part in their 'civilising' history, were in a new crisis because the *values* of civilization and Christianity were in threat vis-a-vis emergent slumyard cultures. The Rev. A.A. Kidwell, in great alarm reported after an extensive investigation on congregations on the Reef that

"Our children dance through Saturday night and all day on Sundays. They drink, gamble and fight and become angry and rebellious if we talk of religion or churches"...<sup>38</sup>

The basic issue facing the churches, was:

"... one of a sort that politicians are not accustomed to handle. And this question is: What kind of a Native race is emerging from the present chaos? What are the Native people adopting of this civilization of ours? Are they choosing that crass, materialistic, communistic outlook in life which rejects all religious or moral idealism and seeks to redistribute through revolt, if necessary, the material goods of life? .... the greatest fear is that the great mass of the Native people should be taught to worship the Golden Calf of Materialism"...<sup>39</sup>

Consideration of the challenge of the two cultural formations transformed substantial groupings of clergymen in alliance with liberalism to seek a 'practical Christian practice' that fought for improvement and stabilisation.<sup>40</sup> Their meeting point with manufacturers was over the issue of the potential of the 'Native race' as industrial workers and hence the productivity of the 'Native' ... "The whole progress of South Africa is impeded by the low productivity achievement of the Native people"...<sup>41</sup> "The government must recognise 'that, in order to gain the maximum productivity of the Native, a stable Native force is required and that facilities should be created to give that stability to the detribalized urban Native"... "Low wages, high cost of living and especially of clothing, poor water supplies in towns, locations, all militate against cleanliness and favour typhus fever. The hopelessness of the general outlook and the difficulties in the way of establishing civilized homes take the heart out of even the most enlightened and progressive of the young people".<sup>42</sup>

"Manpower" must be within easy reach of our factories and we must therefore recognise that the Native, who forms the bulk of the labour force of the country, must be given a permanent niche in our industrial centres" ... "The realisation that Natives possess a natural aptitude for the performance of repetitive tasks, which are the basis of mass production manufacture. The facts of monotony and consequent fatigue, so important a problem in mass production is virtually non-existent as far as the Native is concerned, especially if he is employed on machines with rhythmic motions".<sup>43</sup> In his comparative study of economic development and racial orders, S. Greenberg is critical of manufacturing's rhetoric

"The ideological commitment to 'economics' over 'politics' and the insistence on 'free access' to African labour supplies, however, has not under ordinary circumstances brought secondary industry and commerce into a serious clash with the racial order. On a narrow range of issues, where the costs of continuing race discrimination are high and where the interests of primary producers are minimal, businessmen have challenged selected racial practices. They have, for example, opposed union- and state-imposed 'job colour bars', insisting on the right to hire and train African workers in a limited range of occupations. *But the resistance to job discrimination has been subsumed by a pervasive accommodation to custom and the needs of primary producers.* That accommodation has come in two areas: the reproduction of racial segregation and hierarchy in the work place and, more important, the adaptation to the labour repressive framework, after initial halting efforts to create or stable and urban African proletariat"<sup>44</sup>

This study cannot generalize about the entirety of 'manufacturing', what it can do is throw some light on its largest sector, second only to *Heat Power and Electricity Generation*, in the pre-2nd World War years and show how South Africa's Metalworks were by no means opposed to the 'racial order'. In fact, had S. Greenberg looked at the concrete material conditions and patterns of accumulation in South Africa's metalworks he would have been able to see clearly why it is that only *some* sectors of manufacturing and commerce did make noises of 'stability' when in periods of high social conflict and returned to customary practices when the repression of dissent occurred, whereas others would have favoured 'repressionist' policies throughout.

The Union's Metalworks by 1936 numbered 1116 firms employing 62226 workers of all colours. Approximately 55% (618) were located in the Transvaal, 28% in the Cape and 14% in Natal. On the average, for the industry as a whole, a firm employed 62 workers with an expenditure of

£11634 in fixed capital. (This excludes government, local authority and railway workshops). A factory amounted\* for £188 of fixed capital investment per employee. Railway workshops, the biggest employer in the governmental sector, employed on the average more workers and more capital per workshop than 'private' industry. The average workshop employed 269 workers with a £335 per capita fixed investment, a total of £90065.<sup>45</sup> The following table breaks down the industry in its constituent parts, providing a better measure of industrial development.

TABLE I, 1936, AV. EMPLOYMENT, FIXED CAPITAL AND PER CAPITA FIXED CAPITAL IN SOUTH AFRIC'S METALWORKS

Type of Activity	Average Employees (No)	Average Fixed Capital (£)	Per Capita Fixed Capital (£)
1. Engineering Works, iron Foundries, & Steel Works	65	18842	290
2. Mine Workshops	162	12755	79
3. Galvanized Iron & Plumbing	28	2456	38
4. Electrical apparatus & Repairs	18	2751	153
5. Other Industries	12	2974	248
6. Coach Building Wagon and Upholstery	7	960	137
7. Cycles and Motor Vehicles	11	2571	234
8. Ship and Boat Building and Repairs	30	2721	91
9. Railways Workshops	269	90065	335

(From, Census of Industrial Establishments) 1936/7  
Department of Statistics.

\* on an average

The immediate impressions that the table provides are of a rudimentary production process in South Africa's Metalworks. The largest employers (44,7% of the total labour force) were the engineering workshops, the iron foundries and steelworks, followed by the mine workshops (37,7% of the total labour force). The rest of the sector with the exception of two motor vehicle firms in Port Elizabeth<sup>46</sup> employed very few workers. The fact that the 'other industries' classification, including locksmiths, gunsmiths, jewellers, cutlery shops, typewriter repairers, scale repairers and sewing-machine repairers, has almost as high a per capita fixed investment as the biggest employers, is not a reflection on their modern organization of production. Rather, it is on the low level of development and mechanisation of the *former*.

The biggest sector, that includes the first five classifications of the table, is illustrative of the above: 81% of the firms employed less than 50 employees and the majority, 45% less than 10. Approximately 18% of the firms employed four people or less. Furthermore only 1% of the firms were large in any sense, that is employed more than 500 employees. A sum total of 19 firms. In the Motor Vehicle and Cycle Sector, 88% were less than 50 and out of these 69% employed less than 10 workers. Only two firms employed more than 500 workers whilst no firm in 'shipbuilding and repair' employed more than 100 employees.<sup>47</sup>

The larger firms, that were possible to enumerate through records of the time, involved 9 mining workshops and 10 metalworks. Mining workshops fell within the ambit of the mining industry: they were on-site workshops for immediate repair needs of the mines and their low fixed capital had to do with the preponderance of small equipment for such work. At all levels, whether employment practices, wages or ownership they do not belong to the metal industry and the jobbing nature of their operations is particularly marked.<sup>48</sup> The ten Metalworks are, *Iscor*, *Stewarts & Lloyds*, *African Metals Corporation*, *Dunswart Iron and Steel Works*, *Union Steel Corporation*, *Union Construction Company*, *Hume Steel*, *Alphens Williams and A.G. Douse*, *James Brown Ltd.*, and *Premier Gate and Fence & Wire Co.*<sup>49</sup> Together with the *Ford Motor Company of S.A.* and *General Motors Ltd.* they are thinly distributed all over the country.

As was discussed in the first chapter, *Iscor* was by far the largest enterprise and a mass producer of billet and structural steel. USCO that by now was under majority *Iscor* ownership was producing on the one hand a lighter and smaller range of steels and rod from scrap metal from its two plants in Vereeniging. It also continued as a foundry on a jobbing basis. The *African Metals Corporation* in Newcastle was again under *Iscor* ownership, beneficiating Ferro-manganese which was essential for *Iscor's* steel production and pig iron for the industry as a whole. *Dunswart Iron and Steel* was the largest founder (it was not a steelwork) and miller, using scrap-metal or pig iron

for its processes. The availability of steel in South Africa made it possible for the local production of tubes and pipes for South Africa's waterworks, irrigation, construction, sanitary and industrial needs. The *Stewarts & Lloyds* concern in Vereeniging using Iscor and USCO steel or iron was a mass producer of a limited range of piping and tubing. The *Hume Steel* company in Germiston in contradistinction, specialized in welded piping and therefore its production was more of a jobbing nature for they would cut and weld a comprehensive range of pipes.<sup>50</sup> The four remaining firms were more on the general engineering side, which meant that standardization was limited. The *Union Construction Company* a subsidiary of *Dorman Long U.K.* started by erecting the *Iscor* works and later established itself as the largest structural engineer in the Southern hemisphere, *James Brown Ltd*, in Durban were also a general engineer and founder whilst *A. Williams & A.G. Douse* was a general engineer linked specifically to mining and particularly to headgear construction. The *Premier, Gate Fence and Wire Co.* of the Western Cape were what the name implies, linked to the construction and farming businesses.<sup>51</sup> The motor plants of Port Elizabeth, in contradistinction, were not manufacturing factories: they were assemblers of already manufactured CKD (knocked-down parts from their mother companies in Canada and the U.S.A. The automobiles would arrive semi-assembled (the engine) and the function of the plants was to weld the body together and insert the parts.<sup>52</sup>

Yet, in a whole number of smaller firms, certain small departments of production were becoming standardized and small-scale mechanisation was taking place. On the East Rand one can name the *Seaw Works* (370 employees) *Afrox* (140 employees), the *East Rand Engineering Company*, (120 employees) *African Iron & Steel Products* (130 employees) in Germiston.<sup>53</sup> Further east, the *Standard Brass and Iron Foundry* (280 employees), *Delfos Ltd.* (300 employees), and the *Benoni Steel and Engineering* and the *Wright Boag works* (398)<sup>54</sup>. Also the *Rowe, Jewell & Co.*, (310 employees), the *West Rand Engineering Works* (70 employees) *J.K. Fulton & Co.* (?) *African Cables & McKinnon Chain* in Vereeniging and the *City Engineering Works* in Pretoria. In Natal, the *Umgenti Iron Works* and the *Falkirk Iron and Foundry*, in the Eastern Cape, *Mangolds Ltd.* and *Morris & Martin Ltd.* and in the Western Cape, *Geurings Ltd.* and *Globe Engineering*<sup>55</sup>. The iron and steel and engineering sector employed over 30000 workers. Racially it amounted to 37.9% Whites, 4.8% Coloured and Asian and 57.3% African<sup>56</sup>. The skill gradation amounted to an approximate 22% in skilled positions, 20% in semi-skilled and 58% in unskilled.<sup>57</sup> All skilled and anything between 98.5 or 99% of the semi-skilled positions were the domain of white workers with a sprinkling of 'coloured' workers. The preponderance of white operatives continued through the 2nd World War and by 1946 only 5% of the semi-skilled

positions were held by African workers.<sup>58</sup> Of course some down-grading of skills is operational here especially in the large steelworks that were predominantly mass producing, but still African labour force participation was minimal in semi-skilled categories. The pattern of employment in the motor firms of Port Elizabeth was even more marked. Up to 80% of the workers were white, of whom 40% were seasonal workers recruited from the agricultural hinterland in times of high demand.<sup>59</sup>

The 2nd World War as was shown in chapter one, marked a rapid increase in engineering activity due to the war effort: The increase of the more-than-500-employee-firms was phenomenal during the war, numbering 45 to drop to 39 by 1946/7 accompanied by large-scale retrenchments. *Gearings Ltd.*, an example, was employing 1248 workers during the war years with a decline to 425 in the year 1946/7.<sup>60</sup> On the one hand, the rapid increase of African workers, encouraged also by the easing of influx control regulations during the war period were employed in unskilled and low-paid occupations. On the other, 'diluted' or standardized tasks were 'wo-manned' by white women.<sup>61</sup> White operatives earned six times the amount African workers earned and indeed they were seen by employers as 'expensive' labour, but as was shown above<sup>62</sup> their position in the industry was secure until well after the 2nd World War. It is only *Scaw Metals* that struck an ingenious plan before its colossal growth during the war:

"A noteworthy feature of the firm's employment policy is the fact that it makes every effort to find work for people suffering from some disability which precludes them from obtaining work elsewhere, an example which might be followed by other industrialists in the country .. It is interesting then to observe the number of cripples employed" ...<sup>63</sup>

In 1940, the *Engineer and Foundryman* was still able to discuss 'rationalisation' in a speculative way:

"At first sight the introduction of rationaliation, with its resultant employment of a certain number of semi-skilled men on semi-skilled jobs (i.e. on jobs which tend to make the trained man tired of life) would appear to be the enemy of the skilled man. If this country was fully developed and industrialised there would be reason for this fear. But this country is not fully developed and industrialised yet."<sup>63</sup>

Given the discussion so far, it is easy to infer that the Union's Metalworks could not be interested in the 'stabilisation' or the 'hegemony' over the soul of the African worker through liberal reform. In fact, as the



following section will attempt to show their main interest was one of furthering control over the African labour force. The mass producers and mass employers of black labour like the *Iscors*, *Dunswart*, *African Metals Corporation*, and *USCO* were already in an advantageous position by herding African workers in closed compounds<sup>64</sup> the direct replica of the mining industry. It was in essence, the rest, the plethora of jobbing forms that had to rely on 'location' labour over which they could exercise in comparison very little influence. As opposed to any 'pledge for better times' they were in need of a 'pledge for stricter measures.'

## VI PRODUCTION NORMS IN THE METALWORKS

Two documents, the one from 1946 the other from 1959 stand opposite each other in interestingly contrasting ways squeezing in-between them a tumultuous era of South Africa's metalworks. The most useful aspect of them is that they arise from the same firm's experience, a founder and engineer in Alberton.<sup>66</sup> The first, in an amusing acuteness captures the totality of the interface of struggles in production between management and the African workers' cultural formations. The section involved will be quoted in full with its narrative broken down in ways that will be useful for commentary in the pages that will ensue.

### a. The need for control:

"The Native in industry is an incredible problem. In the past one of my favourite sayings has been that the only way to bring a native into industry was to put him on a conveyor belt, when if he stopped working for a moment something red hot fell on his foot."

### b. The failure of wage-incentives:

"This seemed all very well to me until a few months ago, when I had to admit that even that doesn't apply, because I now find that if you attempt to make a native work hard even with an increased financial incentive, then once you have nailed him down and he finds that he cannot wriggle any longer out of his work, then gentlemen, he simply walks out to find an easier job ..."

### c. Soldiering in production due to 'cultural' factors

It is my opinion that 90% of native labour to-day is not interested in financial inducement in return for hard work, he merely wants a minimum living wage for the minimum possible amount of

work that he can get away with without being sacked. As things are today, 90% of native labour employed would be very expensive even if it were paid only 3d. an hour. As to the solution well honestly I don't know. Admittedly, a long term policy education would help and the possibility of his attaining a higher standard of living and more personal comforts would, after about three generations, come to the surface with the consequent desire to earn more money. That however, does not give us any immediate help.

d. Unreasonable Politics in Production

In addition we are at the moment faced with the apparent getting together of the natives, and quite understandably perhaps, their unreasonable demands for increased earnings when no consideration whatsoever is given to their contribution to industry in return for the increased earnings. So far as our own factory is concerned, we are seriously considering an increase in percentage of white operatives, and a reduction in the number of natives employed."

e. Uncontrollable nature of African workers

Even though the white production people will do far more work per unit number employed, this actually will not make up for the cheaper native wages, but on the other hand there will be reductions in supervisory labour, less of the perpetual hunts around the lavatories and the slag heaps to find when the natives have got to, and above all, with anything like luck, the abolition for good and for all of the Monday morning hangover when the factory literally comes to a standstill.

f. Absenteeism

Furthermore with natives there is the question of the frightful absenteeism which seems to occur due to obscure illnesses which invariably arise when the Native has done about three weeks continuous work and has enough money laid by to be able to afford a five or six day illness"...<sup>67</sup>

In short, the African worker was too undisciplined for the purposes of hard work, for the purposes of becoming the universal worker of machinofacture. The argument above admits that the necessary personality structures could come about provided an educational policy takes effect with long-term results far into the future. That the cultural

formation of the African worker was an irritant to a foundry in its transitory phase towards mass production is clear enough. The hidden agenda of the above argument though is not only the unsuitability of the African for mass production, or just a racist understanding of industrial relations. It was the desire for stricter control, that would link somehow the benefit of cheaper wages with a compulsion to work under new production norms, as will be shown in the next section.

The experience, graphically described above, of the African worker in South Africa's metalworks has its obverse side: namely, the experience of black metalworkers of their conditions of production within the two cultural formations as abovementioned. The investigation of these social relations in industry involves here the memories of four workers from the East Rand who during the late 1940s and the 1950s were employed in metal firms in the area and one by a trade unionist of the time. Their memories although partial, are sufficient to build the parameters of the social presence, management found to be insubordinate.<sup>68</sup>

The two cultures although linked in the conditions of life of urban workers were also experienced as acute moments of tension. As unavoidable as it was to live and work on the East Rand, so was it to participate in the *slum culture*, the mode of interaction of life itself after working hours. But similarly the 1940s and 1950s were a period of extended political activism on the East Rand, combining grassroots politics with broader political campaigns and a degree of social solidarity unparalleled since those days.<sup>69</sup>

The emerging broad consensus viewed factory and mine-work as *slavery*. "We were telling them" comments the trade unionist "to get together and break their chains of slavery, to stop being treated like slaves, to improve themselves."<sup>70</sup> Work and slavery as a metaphor for oppression was alive in most political discourses throughout the century: The I.W.A., the I.C.U., the A.N.C. and the S.A.C.P. used this metaphor arising from Afro-American history to link extreme oppression, labour practices and underpayment.<sup>71</sup> But the emerging slum culture seems to have creatively broadened both its sense and reference, to include the *totality* of factory experience. E. Nkadimeng who worked in the 1950s in three consecutive jobs in the metal industry:

"Mabuye (a militant community leader) and Monare were talking of slave-ships, of chains of slavery; factories were bad places, evil places. Work was disgusting, wages were disgusting we were all slaves. We need money that's what made us work in those places; if we were rich we would never work there. They are evil and dirty places, they kill you" ...<sup>72</sup>

According to Petrus who only in the 1970s got involved in trade unionism and claims to understand situations better now:

"I am sure Monare did not mean that factories were slavery. He meant that we workers were treated like slaves and unless we fought we would remain slaves. He didn't say we should not work in factories."<sup>73</sup>

According to M. Mahlatji

".. Working in a factory then was bad. It was an insult to *dignity*. I have come to hate bosses, the whites there .. you worked in the metal firm knowing that you will work for a short time and then run away to another one. I was married to my wife not to the metal firm".<sup>74</sup>

Yet, if the *totality* of factory experience was seen as slavery, the necessity of the wages and the preponderance of metalworks on the East Rand made the workers into reluctant slaves, seeking for wages to redress the injuries to dignity. The consensus here again is that the redress involved 'cunning', 'being smart' and doing to the other what the other does to you, *invisibly*. "They bragged a lot too", claims the trade unionist "if all the things they claimed they did were true to the white workers, to the bosses, to the police, to machines, to products, the economy would have been in serious trouble." ..<sup>75</sup>

According to Nkadimeng

... " God or if you want, your ancestors, never came with you to work. In the factory you are alone, so your whole day's job is to get away with the least of trouble by doing less and less work. They paid 4 pence an hour, I think, those days and you expect to work for that?"<sup>76</sup>

According to Petrus,

"the smartest people were those that didn't even have to dirty themselves in factories, in dust in noise. Like me. You know, people behind the fences at Dunswart. Metal was as bad as the mines. I thought, I am not stupid like the rest of them. I was a good soccer player so I made most of my money playing for Indian teams who would bet. I used to live on the shopkeepers during the week. They would pamper me. On the week-ends I would make £3-£4. Metal? £1 a week! I am smart then,

but later I also had to work" .. <sup>77</sup>

The despotic jobbing firms with their small number of workers, skilled and unskilled are seen in the industrial sociological literature as organizations that do afford inter-personal communication. All interviewees though, report assaults by supervisors or white workers and a readiness of all whites in the factory and some 'impimpi' ndunas to resolve problems with beating or kicking and swearwords.<sup>78</sup> Seen as interchangeable units of production a complete mercenary relation to one's job developed amongst African workers. The absenteeism, and loitering reported by management is admitted to be a normal strategic behaviour by all four interviewees. Mahlatji notes, "If my father treated me like that, I would run away from home. But the dompass, the wage, food keeps you going back". The trade unionist differs in his interpretation:

"It is the drinking , the night-life of the location, the brawling and womanizing and the poverty that influenced absenteeism, made people too tired or too ill to work"... <sup>79</sup>

J. Sepamla disagrees:

"Your brother's family brews, you have to come and drink and pay so they can save. Then it is your turn, then your neighbours turn, it is good that we look after each other, adding merriment and music to our pain" ..<sup>80</sup>

Petrus:

"There were lots of tsotsis too, what do you expect of poor places, but if you want to be with your brothers after work, you go to the shebeen or the stokvel and there is music and even the blanket people from Dunswart and the municipal compound would come and enjoy everything. So what if you were late for work?"<sup>81</sup>

There is also a clear hierarchy of work and its preferences: According to the four workers here, the best jobs were messenger and shops, 'but they always took the educated ones', followed by factories like food or furniture, 'where you could take home useful things', followed by metal factories, followed by construction or the big steel mills or the mines.<sup>82</sup>

Yet, the relations of power within the factory were as constitutive of 'culture' as were the social relations of the locations. According to J. Sepamla

"Most of your brothers that you associated with in the location are the good people you work with

At home everyone is eager to participate in the merriment, it is at work that you find who will stand by you day to day. It is these brothers of yours that usually help you in need. Perhaps I am wrong, what I mean to say it is these brothers as much as all the others in the location that you need and they need you.<sup>83</sup>

Everybody admits of extensive racism emanating from the relations in the factory by white employees. But the whole mode of interaction according to Petrus and Nkadimeng is underlined by an equilibrium of dependency:

"The boss was always at the white workers for doing things too slow. 'Time is money' said the boss, 'right' said the white workers to each other, 'we know that'. The longer they took on finishing a job, the more overtime and more money. They told us to go it slower, we didn't need telling. We would shovel the sand slowly and take it to them, take a breath and go again. When the boss was screaming at them, they would say, 'It's the kaffirs', 'they work too slow', so the boss would give us hell. This didn't happen many times, because we would start working like being possessed and work would pile up for them and they would get into trouble if they didn't work fast. They would swear but they knew, there was an understanding"..<sup>84</sup>

.. "When there was a bonus because of a job that had to finish by a certain time, then we would work fast and finish in half a day and take it easy. It was very funny. On this there was again understanding with the whites"..<sup>85</sup>

Furthermore, all of them admit to be playing the fool a lot of the time, in fact most bragging after hours involved the theatrical reenactment of how time was cheated out of the supervisors and the bosses. But simultaneously most of the tasks were arduous and a lot of the time loitering the workers claim were 'breathers' after hours of carrying, shoving, lifting, holding and hammering the sine-qua-non of unskilled work.

"I worked all my life and fought in any way I could to improve our situation. We were together then, Christian soldiers on the march, and we knew that God didn't make people without rights, ..we were without rights, without enough money, carted around from Twatwa to Daveyton, taking Wattville with Mabuye, but it was a different world then. It was a different time. We saw slavery clearly but practiced it ... I worked hard... if we were lazy the white wouldn't be rich".<sup>86</sup>

NOTES

\* This is the first part of the first draft of the third chapter of my thesis, "Metalworkers: A study of social transformations in South Africa's Metalworks 1960-1980," to be submitted sometime soon (hopefully) to the Sociology Department of Wits. As such it is a disconcerting exercise, for a number of reasons: Firstly, elements of the argument are developed but can only be taken up seriously in the second part of the Chapter e.g. the clarificatory section about *skills* in Part II, the argument about the Metal Industry's role in reform or control in S.A.'s Manufacturing, Part IV etc. Secondly, the footnotes involve a lot of *op.cit.*, see above which irritatingly refer to previous chapters. Thirdly, the manuscript stops abruptly and also irritatingly with a quote by a worker about working life.

1. M. Dikobe, *Research Notes*, n/d, mimeo, p.79.
2. In A. Gorsz (ed) *The Division of Labour*, Hassock, 1978, p. 57.
3. cf. H. Braverman *op. cit.*, p.200, D.A. Landes *op cit* especially the second chapter, K. Marx (1974) *op cit* p. 336 ff. A. Gorsz, *op cit.* An interesting philosophical discussion of the 'labour process' and 'abstract' expenditure and labour power can be found in A. Schmidt's, *The Concept of Nature in Marx*, London, 1973 p. 63 ff.
4. E. Mayo, *Social Problems of Industrial Civilisation*, London, 1959.
5. R. Bendix *Work and Authority in Industry*, New York 1954 A.L. Gouldner, *Patterns of Industrial Bureaucracy*, Glencoe, 1954 and R. Blauner *Alienation and Freedom*, Chicago, 1964.
6. See the editorial discussion in T. Burns (ed) *Industrial Man*, Harmondsworth, 1973.
7. The most thorough critique of industrial sociology, a step by step account of its partisanship is to be found in L. Baritz, *The Servants of Power* New York, 1965. Similar issues are raised as regards the *raison d etre* of 'social engineering' in sociology in C.W. Mills, *The Sociological Imagination*, Harmonds-  
worth, 1969. (especially the chapter on the 'Bureau-  
cratic Ethos'). See also H. Braverman *op cit.* and M. Bosquet, the Prison Factory, in *South African*

*Labour Bulletin*, vol. 3. No. 7. 1977.

8. cf. The discussion on the labour process in *Introduction*, p. VI-IX of this thesis.
9. *All op cit.*
10. cf. H. Marcuse's *One Dimensional Man*, London, 1964 and J. Habermas' *Knowledge and Human Interests* Boston/London, 1971 Chapters II and III, and *Towards a Rational Society* Boston/London, 1970.
11. cf. The critical discussion provided in the introduction, and the first three chapters of A. Giddens', *The Class Structure of Advanced Society*, London, 1974, pp. 1-82, and J.H. Westergaard, *The Myth of Classlessness in Blackburn*, (ed). *Ideology in Social Science* Glasgow, 1975.
12. cf. M. Aglietta, *op cit*, p. 113.
13. cf. E. Webster (1981) *op.cit* and A. Sitas (1981) *op.cit.*
14. J.R. Bright *Automation and Management* Boston, 1958, p. 41-45.
15. cf. the discussion of these issues by E. Mandel (1976) *op cit.*
16. This is not to suggest that the economies are similar, or that the level of sophistication and technique is similar. Rather, that assembly workers in whatever country confront similar production realities.
17. E.P. Thompson in *Past and Present* no. 38, 1967.
18. H.G. Gutman, *Work, Culture and Society in Industrial America: Essays in American Working Class and Social History*, Oxford, 1977.
19. H. Beynon *op cit* and J.H. Geshwender, New Yor, 1977.
20. K. Marx, *Grundrisse*, Harmondsworth 1974, p. 604.
21. Interview W E. Rand employer 3/10/10/1981.
22. cf. E.P. Thompson, "The Transforming Power of the Cross", in *The Making of the English Working Class* *op. cit.*
23. M. Foucault, *Discipline and Punish: The Birth of the Prison*, Harmondsworth, 1977, (for criticism of the work of Foucault, cf. Poulantzas, *State Power and Socialism*, London 1980).



24. Ibid., p. 138
25. cf. M. Aglietta, op. cit.
26. cf. C. Palloix, op. cit. for an overview of the shifting strategies.
27. E. Laclau, op. cit. p. 101.
28. The whole problem of culture and class culture will be discussed in chapter V of this thesis.
29. cf. M. Lacey's *Working for Boroko*, especially the chapter on 'Africans in Town'. Johannesburg, 1980; M. Legassick, *The Rise of Modern South African Liberalism; Its assumptions and its Social Base*, I.C.S. Seminar Paper, 1973.
30. See on this, M. Legassick "Gold, Agriculture and Secondary Industry in South Africa 1885-1970: From Periphery to Sub-Metropole as a Forced Labour System, p. 191 in R. Palmer and W. Parsons, *The Roots of Rural Poverty*, London, 1977.
31. A. Nzula (et. al.) *Forced Labour in Colonial Africa* p. 81, London, 1979.
32. cf. E. Hellman, *Native Life in a Johannesburg Slum Yard*, *Africa VIII*, January 1935, E.K. Krige, *Some Social and Economic Facts Revealed in Native Family Budgets*, pg. 94 *Race Relations Journal* vol. 1 No. 6, Oct - Nov. 1934; *Proceedings at the 4th Ordinary Meeting and 2nd Annual General Meeting of the Council*, in *Race Relations Journal* pp 30 ff, vol. 1, No. 3 March/April 1934, R.E. Phillips, *The Bantu in the City: A Study of Cultural Adjustment on the Witwatersrand* pp 52-58, Alice, n/d and H.Pim, in *South African Outlook*, p. 211, November 1st, 1929, S.H. Frankel, *The Position of the Native as a Factor in the Economic Welfare of the European Population in South Africa*, *Journal of the Economic Society of S.A.* vol.3, n, 28.
33. For an overview cf. D. Welsh, *The Growth of Towns in Oxford History of South Africa*, Vol II, Oxford, 1975, and inter alia A. Proctor, *A History of Sophiatown 1905-1940* in B. Bozzoli (ed) *Labour, Townships and Patterns of Protest*, Johannesburg, 1979. T. Lodge, *The Destruction of Sophiatown*, *History Workshop Paper*, Witwatersrand University, 1981. M. Dikobe *Research Notes*, op. cit., J. Cohen, *A Pledge for Better Times*, B.A. Hons. Dissertation, Witwatersrand University 1982. E. Koch, *No Visible Means of Subsistence* *History Workshop Paper*, Witwatersrand University 1981. M. Dikobe, *The Marabi Dance*, London, 1979, E. Mphahlele, *Down Second Avenue*, London, 1959.

34. cf. H.J. & R.E. Simons, *Class and Colour in South Africa 1850-1950* Middlesex 1969, E. Roux, *Time longer than Rope*, Wisconsin 1978, cf. the pieces of R. Cohen, A.W. Stadler, A. Proctor in B. Bozzoli (ed) *Labour, Townships and Patterns of Protest*, Johannesburg 1979.
35. Cultural formation is used (as opposed to 'ideologies') because of the broadness that this resistance encapsulates: This involves many ideologies e.g. national, black/jacobin, school, red, workerist etc. The reason for this will be explored in chapter V.
36. cf. H.J. and R.E. Simons op. cit., E. Roux, op. cit. also M. Legassick, *Class and Nationalism in South African Protest: The South African Communist Party and the 'Native Republic' in Eastern African Studies*, 15, 1973 P.L. Wickins, *The I.C.U. of Africa* Cape Town, 1978, E. Webster (ed) *Essays in South African Labour History*, Johannesburg 1978. On the League: cf. *South African Outlook* 1st October, 1929; L. Kuper, *African Nationalism in South Africa, 1910-1964*, in Wilson and Thompson (ed) op. cit vol. 2. A. Bird, *Black Adult Night School Movement on the Witwatersrand 1920-1980 Africa Perspective* no.17, 1980.
37. *ibid*
38. Rev. Ray Phillips, *Communism or Christianity*, Address delivered to the Natal Missionary Conference, *South African Outlook*, 1 August 1929, p. 148.
39. Rev. A.D. Kidwell *South African Outlook* November 1st 1929, also E. Koch, op. cit and J. Cohen, op. cit.
40. Rev. Ray Phillips, op cit. p. 148, p. 152.
41. Also D.E. Kaplan, *Class Conflict, Capital Accumulation and the State*; Sussex, D. Phil. Thesis, 1977. E. Webster, *Servants of Apartheid?* p. 7/8 *Africa Perspective*, no. 14, 1979.
42. Editorial in *South African Outlook*, 1st October, 1979.
43. The Federated Chamber of Industries, quoted in S. Greenberg *Race, State in Capitalist Development*, Johannesburg/Yale 1980, p. 191.
44. *ibid*.
45. S. Greenberg *ibid*, p. 178.
46. Calculated from Dpt of Statistics, *Census of Industrial Establishments*, 1936/7, Pretoria, 1938.

46. Ford Motor Company of South Africa: History of Ford South Africa, undated, mimeo, Port Elizabeth; Ford Motor Company of South Africa: Establishment and Development in South Africa, n/d mimeo Port Elizabeth, General Motors: Birthday Press Package, News Release, October 1976, Port Elizabeth, pp. 4 and 50 years of GMSA, May 1976 Port Elizabeth.
47. From Department of Statistics, *op cit.*
48. Anonymous, The Growth and Organization of South Africa's Metal Industry in *Engineer and Foundryman*, p.36, Dec. 1957.
49. From, C.S. Richards, *op cit*, *Engineer and Foundryman*, 1936-1940, vols. 1-V.
50. USCO, cf. *Engineer and Foundryman*, Sept. 1937, C.S. Richards *op. cit.* *Iscor News*, December, 1937, Iscor cf. C.S. Richards, *op. cit.*, *Iscor News*, 1930s, *Engineer and Foundryman* March 1938, Stewarts & Lloyds, *Engineer and Foundryman*, Sept. 1936; Dunswart Iron and Steel, cf. *Jubilee Edition*, *op. cit.* Johannesburg 1963, *Engineer and Foundryman*, December 1936, C.S. Richards *op. cit.* Hume Steel, cf. *Engineer and Foundryman* January, 1937;
51. A. Williams and A.G. Douse, cf. *Engineer and Foundryman*, January 1938; Union Construction Co. cf. *Engineer and Foundryman* August, 1936.
52. Information on the Motor Industry *op.cit.* and *Board of Trade and Industries*, *op. cit.*, 1949.
53. See also D. Humphriss and D. Thomas, *op. cit.*, J.H. Cockhead, *op. cit.* G.F. Drake, *op. cit.* for regional distribution of the industry and in the case of the latter, of the metal industry on the PWV.
54. Afrox. cf. *Engineer and Foundryman*, October, 1937, African Iron and Steel cf. *Engineer and Foundryman*, June 1936; Wright Boag, *Engineer and Foundryman*, November 1936, Standard Brass, cf. *Engineer and Foundryman* April 1937; Delfos. *ibid*, June 1937.
55. Rowe, Jewell & Co., cf. *Engineer and Foundryman*, February 1938; West Rand Engineering, cf. *Engineer and Foundryman*, July 1936; J.K. Fulton, cf. *Engineer and Foundryman*, September 1936; C.E. Works, cf. *Engineer and Foundryman*, October 1936
56. From Dept. of Statistics, in *Engineer and Foundryman* June 1938, *op. cit.*, cf. also *Engineer and Foundryman* p. 13, October 1936.

57. *ibid.*
58. *cf.* R. Lagrange, *op. cit.*
59. *cf.* Ford Motor Company of S.A. *op. cit.*, General Motors of South Africa, *op. cit.* Board of Trade and Industries, *op. cit.*, 1949.
60. From Department of Statistics, *Census of Industrial Establishments*, 1946/7, Pretoria 1948.
61. See inter alia J. Lewis *op. cit.* R. Lagrange, *op. cit.* and 'Women Operatives Make Good' in *Engineer and Foundryman*, October 1942 and *Engineer and Foundryman*, August 1940.
62. *cf.* Chapter I, of the thesis.
63. In *Engineer and Foundryman*, July 1937.
64. In *ibid* p. 151, October, 1940.
65. *cf.* Ch. I, and discussions on migrant labour Chiv. of this thesis.
66. K. Brecknel, A Comparison of the Economics of Production Foundries and Engineering Establishments in South Africa and England as at January 1946, in *Engineer and Foundryman*, April 1946 *c.f.* also A.C.P. Westhorpe, in *Engineer and Foundryman*, March 1959, p. 27.
67. K. Brecknel, *ibid* p. 1127.
68. Our trade unionist, Mr. E. Petrus, M. Mahlatji, E. Nkadimeng, J. Sepamla, are pseudonyms in order to avoid any discomfort to people that have some of the most tumultuous campaigns of the 1950s well behind them. Whatever the partiality of the interviews the fact that (a) worked in jobbing firms in the same area. (b) changed altogether 16 jobs amongst them in the 1950s with only 2 coincidences in employment means that they can with relative authority account for 9-10% the metal factory conditions in the area of Benoni. (c) that they all participated, save one in union and one in political organisation, in the resistance culture of the time, means that their experience of politics is valid. Of course, these interviews barely scratch the surface and more research although imperative is not necessary for the narrative of this thesis.
69. *cf.* T. Lodge, The Parents' School Boycott: Eastern Cape and East Rand Townships 1955 in *Africa*

*Perspective*, No. 17, 1980. For the 1930s, cf. J. Cohen, *op. cit.*

70. Interview, February 7/1982.
71. cf. F.A. Johnstone, the IWA on the Rand in B. Bozzoli (ed.) *op. cit.* P. Wickens, *op. cit.*, A. Nzula, *op. cit.* D. Harries, Daniel Koza: A Working Class Leader in *Africa Perspective*, no. 19, 1981.
72. Interview Oct./13/1981.
73. Interview Oct./14/1981.
74. Intefview Oct./23/1981.
75. Interview Feb./7/1982.
76. Interview Oct./13/1981.
77. Interview Oct./14/1981.
78. Interviews, *op. cit.*
79. Interview Feb./7/1982.
80. Interview Oct./14/1982.
81. Interview Oct./14/1982.
82. All interviewees asked this question, save E. Nkadimeng through whose interview the problem and idea of further questioning, first arose Oct.13/1981.
83. Interview Oct./14/1981.
84. Interview Oct./14/1981.
85. Interview Oct./13/1981.
86. Interview Oct./23/1981.