HYPOTHETICAL CENTRE FOR INDUSTRIAL WORKERS
OSHOGBO

THESIS SUBMITTED TO

DEPARTMENT OF ARCHITECTURE

FACULTY OF ENVIRONMENTAL DESIGN

AHMADU BELLO UNIVERSITY

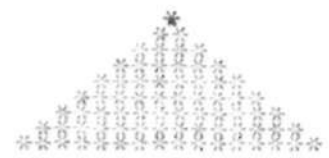
SAMARU - ZARIA

FOR THE AWARD OF THE DEGREE

M.SC.(ARCHITECTURE)

BY

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D E D I C A T I O N

THE THESIS IS DEDICATED TO THE FOLLOWING:

To GOD for making it possible in this very corrupt world.

To my father Pa OMOLOYE OYEBODE, for his special interest in education and for his moral and financial support up to this stage of my education.

To all those who are dedicated to improving the quality of life of the Nigerian Factory workers.



A C K N O W L E D G E M E N T S

My special gratitude and appreciation go to the following:

(a) My Mentor - Architect Jide Solanke and all the lecturers of the Department of Architecture most especially the Head of the Department, Dr. E. A. Adeyemi - for their able guidance and useful suggestions from beginning to the end of this thesis.

(b) Mr. Mosaku of the Department of Building for releasing to me some of his books on Ergonomics and industrial psychology and especially for his useful suggestions on the economical viability of the thesis.

(c) Mr. Bisi Kumapayi - an Urban and Regional Planner of the Western State Ministry of Lands and Housing, Ibadan for his suggestions at the data-collecting stage and for making his own Master's degree thesis on Inudstrial Environment available to me.

(d) Mr. Odetoyinbo - a Legal Practitioner at Oshogbo and Legal Adviser to Oshun Development Corporation for his advice on the choice of an "unquestionable site".

(e) All the industrial workers interviewed at Ikeja and Ilupeju Industrial Estates for their patience even at the very busy period of the day.

(f) My classmates and colleagues -- student-architects Asuzuo, Agunbiade, Edeki and Orbih for their very inestimable and constructive criticisms "on the drawing board".

(g) My Mothers -- Alice and Kehinde -- for their understanding and encouragement most especially at very difficult financial periods of my education.

(h) Mr. J. B. Afolabi -- for his financial and moral support especially at the very early stage of my University education.

(i) My Sola and Toyo -- for their individual contributions at one stage or the other.

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EXTRACTS FROM SOME NEWSPAPERS AND MAGAZINES

....."The factories produce goods and the goods bring money. The money should go to the workers who build the factory and not to the capitalists who grow more wealthy day-in day-out. Since the workers share in the establishment and running of the factory, they have put their human energy as a frozen capital and should gain from its investment".....

Extract from Communist Manifesto 1818.

....."Let our workers' leaders put the interest and the welfare of the entire working community and that of the nation over and above any other interest, and let them team up in fighting the cause of workers and the national cause".....

Extract from Daily Sketch Sept. 29, 1974.

....."The political strikes of the working class paved the way to the end of colonialism. The general strike of 1945 forced the hands of imperialism to grant the Richard's Constitution in 1946. The Burutu strike of 1947 and the coal miners' strike of 1949 compelled colonial masters to grant the Macpherson Constitution in 1951 which, for the first time, brought the Nigerian bourgooisie to the threshold of power. The general srikes of 1963 and 1964 fired the first cannon in the Revolutionary offensive that brought down the Balewa Regime.

From 1942 to 1967, the Nigerian working class has played a fighting vanguard role in the struggle for independence or democracy. Yet the share of the working class today is hunger, unemployment and poverty".....

Eskor Toyo: The working class and the Nigerian Crisis.

....."Strikes are not resorted to by workers gratuitously. They are not a pastime; they are the very last resort of HUNGRY, CHEATED, OPPRESSED AND FRUSTRATED PEOPLE".....

Eskor Toyo

....."About 100,000 workers, in all parts of the world, lose their lives and another 1,500,000 are permanently disabled because of accidents at work or by occupational diseases.

According to RECORDS, the numbers of chemical substances definitely known to produce occupational diseases is about 50. Today, there are 600,000 chemicals in industrial use and several thousands more are introduced annually. Many of THESE have been found to produce harmful side effects. For example, PARANITROANILINE - used in the dye industry - changes the complexion, bleaches the hair and destroys red blood cells. Enzymes used in detergents can produce allergic symptoms in workers, while acrylamide - the nonomer used to manufacture all acrylic-based paints - can cause strokes, paralysis, blindness and nervous breakdowns".....

Extract from Sunday Sketch April 13, 1975.

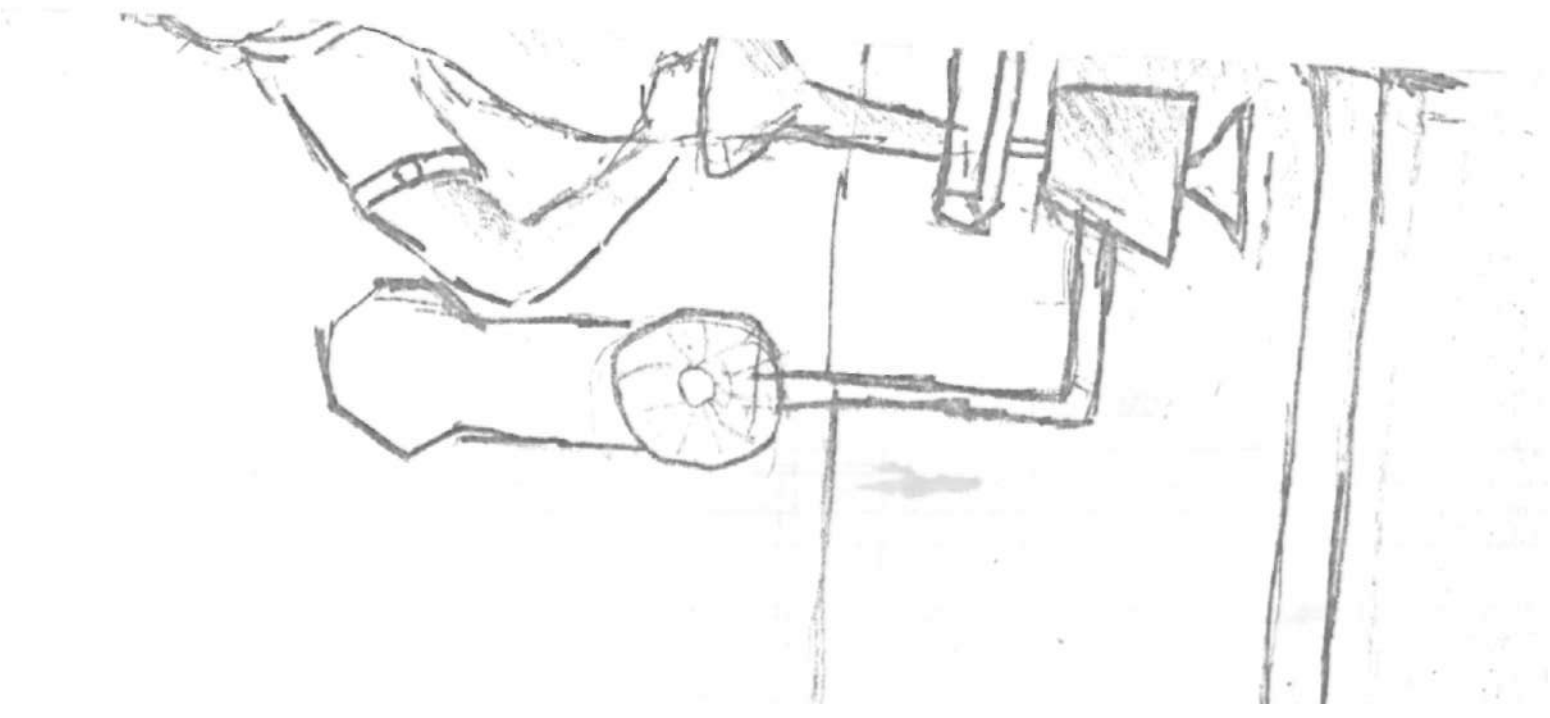
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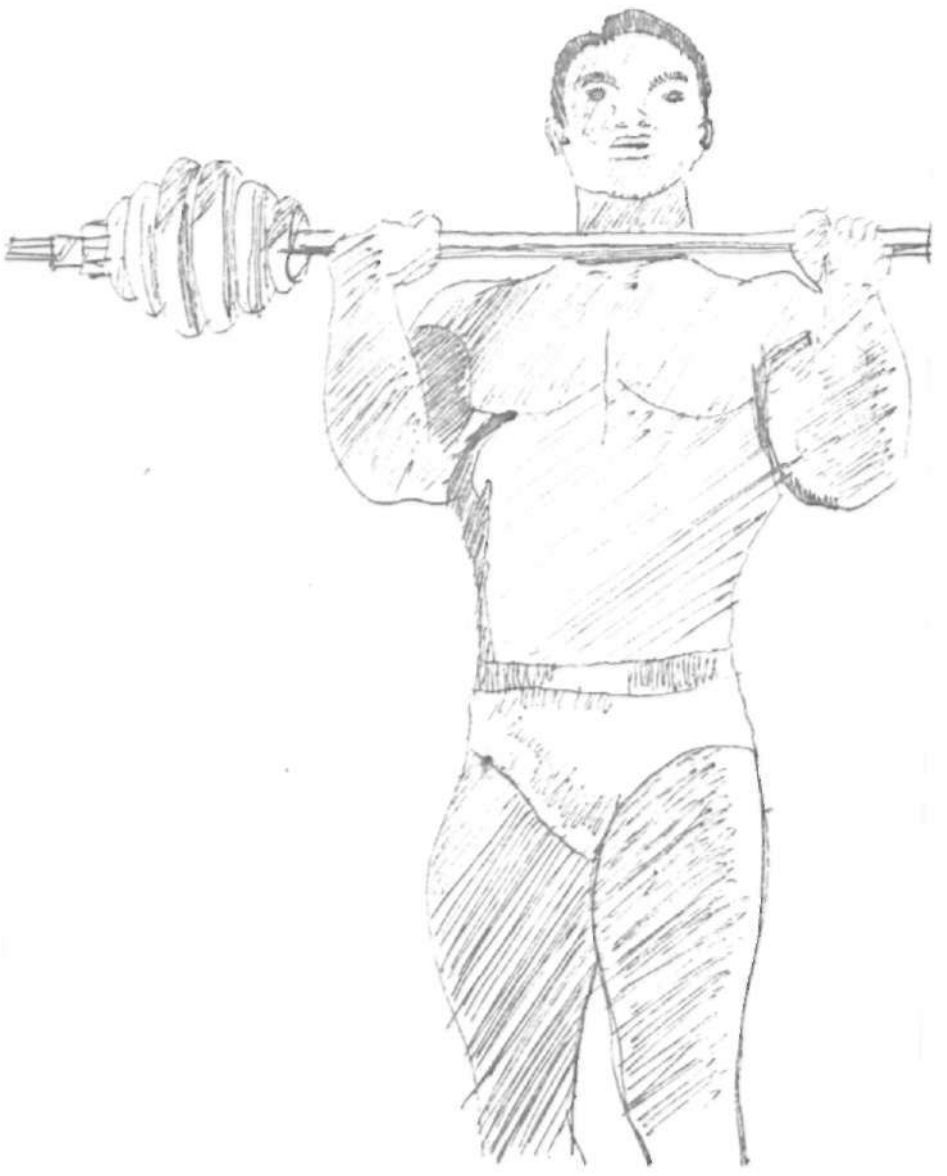
HYPOTHESIS

Hypothesis is, chronologically, the first consideration in a meaningful process of inducing general conclusions from scientific facts. At the beginning it does not provide sufficient evidence and remains, therefore, a tentative explanation. A hypothesis is tested in several ways, most especially by experiments. If it passes the test successfully and if it fits into a broader system of ideas, it becomes a valid hypothesis and may be accepted as a principle or law. This thesis is hypothetical at the take-off. After series of testing and succesful proofs, the word HYPOTHETICAL may be removed.

THE THESIS

Progress in scientific research coupled with progressing application of technological knowledge are changing the features of our immediate environment and are leading to the conquest of outer space. The home and environment of man have always adapted themselves to suit his ever-changing modes of living and the development of technological progress. Now, in the machine age, we are facing the problem of maintaining the best conditions for human life. In the developing countries, like Nigeria for example, where total industrialization has not taken command,





the problems of environmental planning, organization and reshaping of the economical and social structures are increasing considerably.

How can industrial complexes be designed? How and where is industry to be located? How should the millions of industrial workers, employees and technicians and their families be housed? What are their needs and what are the best means of caring for them without sacrificing compatible human and social relations?

One of the major problems now is how to reward the worker for his eight working hours of monotonous, mechanical work and his loss of individuality in the big space and the ebb and flow of humanity, not in terms of money, but with a better living environment during his remaining sixteen hours - comfort and calmness at home, HAPPINESS AND ENTERTAINMENT OUTSIDE in form of RECREATIONAL, HEALTH, EDUCATIONAL, SHOPPING and SOCIAL SERVICES.



THE WORKER AT PLAY



RECREATION

WE WORK SO WE CAN PLAY
WE PLAY SO WE CAN WORK MORE PRODUCTIVELY.

CHAPTER ONE

MY GOALS

GOAL I : Welfare and Economic

(a) Improvement in the workers' well-being. Industrial work is a frustrating experience.

(b) Increase in production - We work so that we can play and we play so that we can work mor productively.

(c) Increase in revenue - end to unnecessary exploitation of the working class.

(d) Solution to some unemployment problems.

GOAL II : Humanisation of the Environment

Architecture would be employed to bring close interaction between man - the machine man - and nature. This would be achieved by

(i) Provision of a conducive enironment as a passing through for an industrial worker either at opening or closing time.

(ii) Creation of a centre where man can derive some SATISFACTION - psychological or otherwise.

CHAPTER TWO

THE DEVELOPMENT OF INDUSTRIAL SOCIAL WELFARE

In most countries, the early development of industrial social welfare has been partial, fragmented and crisis oriented. Nigerian examples are the general strike of 1945, the 1949 Enugu coal miners massacre and of course, the crippling giant strike of 1964. This period may be summed up as employer paternalism on a limited and individual basis. The next stage has usually been that of active government intervention, supported by considerable legislation, usually laying down requirements for employer provision. The third phase experienced in many countries seems to be one where greater governmental involvement is required with more activity by the community itself; this has often been accompanied or followed by a rejection of some responsibilities by an increasingly cost - conscious industry. In general, these three stages seem to fit the majority of non-socialist countries. In Eastern Europe, and other socialist countries, the emphasis has been placed much more from the start, on an integrated acceptance of responsibility between the employer and the government, with much greater initiative on the part of the state.

Although many different factors account for variations in development nevertheless differences and changes in the basic economic, political and social structure of countries

seem to be particularly influential. The coming of independence in many countries has led to a new stage in industrial social welfare planning. Both the rate and stage of industrial development and growth tend to determine differences in the history of industrial social welfare. In industrialized countries, the main need has often been to rebuild old industrial stock and this has been exacerbated by the wartime destruction. In the less developed countries, the emphasis has been more on the introduction of industrial social welfare to stimulate industrial development. Particularly dominant industries have also been influential, making special demands on the worker and society as a whole. General demographic changes and shifts in labour force participation rates, particularly the increasing involvement in urban industrial employment of youth, women and rural workers, have led to other changes in industrial social welfare. Although the International Labour Organisation first became involved in industrial social welfare in 1924 nevertheless its role has become increasingly important since 1947, and the influence of such international agencies has been increasing. Finally, greater understanding of the need for integrated social policy planning and the recognition of new problems and needs have done much to increase development in recent years.

A. STAGE ONE : EMPLOYER PATERNALISM

In most countries, the first programmes of industrial social welfare were introduced by individual employers to meet particular needs of their industry on a limited basis. In most African countries, during early industrial expansion, the mines or plantations (rubber, tea, coffee and sisal) were the first industries to provide some form of basic social amenities for the workers. Companies of this type were usually established, owned and managed by europeans who were dependent upon a labour force unaccustomed to monetary employment and often needing to be attracted to the isolated location of the mines or plantations far from their families and tribes. In countries such as Botswana, where migrant labour was the rule, the majority of young men travelled in search of work, leaving the women and the old to cultivate the land. In order simply to keep going, such industries had to provide the most basic amenities such as housing, food and crude medical facilities.

In Brazil, until the 1930s, and India before 1948, there was little ogvernmental involvement or legislative action in the provision of industrial social welfare. Much depended upon the goodwill and paternalistic planning of the individual employer. The general standard of living was low and most action by employers was limited towards providing a basic degree of comfort while maintaing productivity.

There was little thought for long-term planning.

The role of enlightened philanthropists at this stage has often been stressed but has probably been overemphasised. Although, as in the United Kingdom, the ethical beliefs of movements forwards industrial welfare were often expressed in the highest and most far - ranging terms and their objectives directed towards idealistic ends - "all orangization is to the end of perfecting the individual and knows no other end" - the issues taken up seem relatively limited and very practical by comparison. For example, these included "ventilation, sanitation and lighting; working hours and rest pauses; canteens; medical care; libraries; profit sharing; sport and other leisure facilities". In general, these were not concerned with interfering in, or attempting to moderate, the basic worker - employer relationship and had little effect on the structural determinants of work. Even more important, the activities were confined to a very small number of employers in most countries.

B. STAGE TWO - LEGISLATIVE REQUIREMENTS CONCERNING EMPLOYERS

In most countries, there seems to have been a period of active governmental intervention in the industrial field, leading to considerable legislative requirements imposed by law on industry. Instances where this has also involved co-ordination with government and governmental action have usually been limited to the socialist countries.

While much of the legislation in the older industrialised countries came after a long and hard-fought struggle on the part of the workers, in many of the developing countries such programmes have been granted or imposed by the government with relatively little worker involvement. For example, in Brazil, after the new con-titutions of 1934 and 1937, severance pay, the right to paid vacations and rest periods, the minimum wage, the eight-hour workday, special protection for younger and women workers, medical and health care and social insurance were all introduced. Between 1932 and 1936 retirement and pension funds were extended in industry to provide for medical, surgical and hospital care and pensions for widows, as well as retirement and injury payments. In the next few years, other offices, often on a nation-wide basis, were set up in Brazil to help other groups of workers such as bank workers, office clerks, seamen etc. The legislation reached its peak with the consolidated labour laws of 1943. Several new programmes were established in 1946, including a social welfare office for industry as well as for rural areas. All declared, the objectives are for bettering the social welfare of the working class, stimulating mutual support and aid between employer and employee; raising the general standard of living and increasing the output of industry.

In post-independence India, the 1948 Factories Act, the Mines and Plantations Acts, and the workmen's compensation Act, as well as the Maternity Benefits Act, all provided some measure of protection from hazards to the workers. Although no comprehensive concept of industrial welfare emerged at this stage, there was a considerable increase in the provision of amenities in the workplace such as creches, canteens, drinking water and safety equipment. The Labour Welfare Officer was appointed under the 1948 Acts in all factories employing 500 or more workers to ensure the provision of these amenities.

In many countries that have recently reached independence, the structure of services available in the old colonizing country has often tended to influence the new legislation. In Africa, for example, nearly all programmes introduced into Africa were based on those already existing in England, France, Belgium or Portugal. This was perhaps to be expected during the period of colonial government when the owners and managers of the firms establishing this provision were themselves europeans living in Europe or expatriates. But much of this colonial influence persisted after independence and there appears to have been remarkably little innovation in industrial social welfare.

In the United Arab Republic, after the 1952 revolution, there appares to have been more systematic planning and an attempt to involve industry and the community, although

often, community action did not follow till later, when it was seen that industry, particularly smaller firms, could not make adequate provision. Welfare services in industry were established, not only to supplement the community services, but explicitly to compensate for the lack of them. In order to raise standards of welfare as rapidly as possible, government deliberately involved industrial management in the provision of those services regarded as appropriate and necessary for industrializing countries. At the same time, pressure from the trade unions was an important factor leading to the increased provision of welfare facilities. There has again been a shift away from the older paternalistic attitudes towards welfare, and the current aim of welfare services is seen as improving relations between management and labour and helpint to promote the right conditions for increased production.

In the United Kingdom, the construction of the post-war "welfare state", as it is called, probably had a some-what diverting influence on the development of industrial social welfare. While the benefit of hindsight enables one to see the inadequacies and weaknesses in practice of post-war policy, in the first decade following the legis-lation, the state was believed to have met most basic welfare needs successfully and employers must have felt little obligation to provide additional services at the workplace.

With inflation, a general rise in wages, and the belief in a prosperity shared by all classes, social welfare activity was more likely to find its expression in conspicuous provision such as sports, clubs and recreational facilities, with little attention to the more basic determinants of industrial welfare. This shift away from employer provision of industrial welfare programmes seems to have been experienced in a number of other european countries since the end of the second world war.

In Eastern European Socialist countires where the industrial social welfare services are integrated into the overall framework of national social policy to a greater extent, the distinction between industrial social welfare and other programmes is much less clear. Since public sponsorship of any kind of social service is an essential feature of the political and economic system, it has become a basic objective in most of these countries to ensure "that the social welfare services should, on the one hand, admit individuals, groups and communities to participate in the production of material and cultural goods of a society at a certain stage of development and on the other hand, give them the opportunity to benefit from it".

Social welfare provisions in industry are seen as one part of what the worker is entitled to as a function of his work output.

The material level of living or real income of the workers is not determined by the amount of their cash wages alone. The whole range of industrial social welfare services and what is often described as "fringe benefits" in Western countries are elements which go to determine, and are regarded as a basic part of, the level of real wages. The particular patterns of financing and administration emphasize this close degree of integration. To a large extent, much of the welfare provision within industry is financed through work funds of a prescribed proportion of the profits earned by undertakings. "Excess profits earned over the level of planned profits shall be used to give the workers extra remuneration in cash as additional welfare emoluments". Trade unions here, are seen as providing a basic part of the social welfare administration and particular stress is laid upon the whole range of social security programmes.

C. STAGE THREE - COMMUNITY RESPONSIBILITY

In many countries, there has been a recognition of the need to promote more collective activity because of the failure or inability of the smaller employers to provide adequate facilities. In Japan in particular, government-sponsored industrial estates have opened up another method of solving the technical financial difficulties encountered in the provision of welfare facilities for workers in the smaller units.

There has been similar development in Ceylon, India, Pakistan and other Asian countries. Much the same difficulties are being faced in the countries of the near and middle East and the United Arab Republic in particular, has introduced arrangements to provide welfare facilities for all workers living in a common neighbourhood and working in small - size industries. The setting aside of 10% of the net profits of all enterprises for central social services is a particular important aspect of this.

CHAPTER THREE

FUNCTIONAL APPROACH TO INDUSTRIAL SOCIAL WELFARE

A. Definition of Industrial Social Welfare

Industrial social welfare is a range of programmes, operations and activities carried out at any level or by any group which promotes or preserves the welfare of the worker and protects him and his family from the social costs of the work process and work setting.

Welfare amenities as defined by Rourkela Steel Plant in India include:

(i) Statutory Amenities: drinking water, washing facilities, public conveniences, safety, fire brigade, first aid, canteens and creche.

(ii) Voluntary List: housing, medical amenities, education, co-operatives, clubs and cultural associations, community centres, sports and games, library, parks and horticulture, fringe benefits including bonus, contributory provident fund, gratuity, insurance scheme, leave travel concession, distinguished workers' award, house keeping competition, transport and workers' education.

Welfare amenities such as these raise the real income of employees considerably above their monetary income, and they add considerably to labour costs. Provision of welfare services to the employees has been an increasingly common feature of employment conditions in highly industrialized countries in the last two decades. Enlightened employers have realised the returns which such expenditure bring to themselves.

"Welfare" is not a matter simply of a given amount of expenditure; it is measurable only by the results it produces on the workers concerned, or on their families. There are two (not incompatible) aims which should probably be in the minds of employers - that of maximizing the benefit to the workers of a given amount of expenditure, and that of maximizing its benefit to the employer:-

(i) training + retraining = productivity + industrial peace

(ii) production + consumption + recreation = efficiency.

Luckily, it often happens that the expenditure which brings in the greatest returns to the employers is often that which is appreciated most by the men.

Several points may be made in illustration of some of these matters.

Firstly, there is a general point which is probably applicable, given the different circumstances, to many large, rather paternalistically inclined employers in the tropics. The industry has sometimes appeared to be almost too conscious of the fact that an obligation to provide facilities for the welfare and social life of its employees is written into its constitution. Hence, "welfare" seems sometimes, to have been put into a special category of costs which had to be incurred, but which were different in nature from all other expenditure, to be subtracted from profits after they were earned rather than being, as are other production costs, designed to bring in the maximum return for each pound of expenditure. Sometimes, the material results (the amount of housing expenditure, the number of houses built, the number of sports fields in use) has become more important than the effects produced by the provisions.

Another aspect of this is the comment made fairly frequently at all levels of management (and repeated in many other contexts in tropical Africa), that the labourers do not appreciate or are not grateful for welfare expenditure. In so far as this is true, it may imply criticism of the form which the expenditure takes - one aim of this expenditure should be to

satisfy wants which are present and actually felt. On the other hand, express gratitude should, from the management's point of view, be almost irrelevant, for the objects have been obtained if the workers are in fact benefited and if well-being and morale are being raised, whether they appreciate this or not.

B. Conditions of Employment and Welfare Facilities

Any industry is required by its constitution to pay attention to the welfare of its employees, and also has legal obligations under the Labour Code, most especially under the Regulations for Labour Health Areas, which require that certain facilities, as listed below, be provided for the employees.

(i) Provision of comprehensive medical service : sick bays and aid stations.

(ii) Provision of welfare hall as a meeting place and for recreation, open air cinema shows, dances, football matches etc. to be arranged periodically.

(iii) Encouragement of tribal dancing - annual or periodical competition.

(iv) Workers' shops - selling hardware, textiles, clothes and staple food.

Hany will experience within short periods of tino, •iMftE *of* hcrio and onploynent with lt£.tl.> ^jc.rxcurfcee of a ncre pen:ianent Ho»wity, Their ocanonic and political power, their social honour, nay renain at best uncertain; at worst they lose all bolongings, together with any sense *o-f* belonging.

The needs of these people nay he presented along two dinensions - participation in social growth and compensation for sooial cost;;. In both ocononically advanced and industrializing oountrios, workors nay nocd tho benefits of wolf ".re, not as increnonts to their standard of living but as :I partial oonponsation for dis—Gorvicee, for sooial costs and sooial insecurities which aro tho products of a rapidly ohangingj indust-rial - urban society11 At the sane tine, access to welfare services nay redistribute tho ''new property" of health, education and social security• Their standard of living nay bo lifted by the development of their conxmnity with social rxvl ocononic growth.

Tho concept of social costs as ''part of the price wo pay to sono people for bearing part of tho costs of another people[f]s progress" soens particularly useful for considering the social effects of the industrial process and on a wider scale industrialization - tho adjustnonts to technological change, the shifts of

population, the dislocation of established communities and the exchange of rural poverty for urban insecurity. Recent studies have started to spell out the importance of analysing the human effects of such changes in society and the need to provide some compensation.

This, it is argued, is a community responsibility in which industry should bear its full share in paying for the "diffusion of dis-services - the modern choleras of change. We have, as societies ..... either to provide social services, or to allow the social costs of the system to lie where they fall". The multiplicity of causes may prevent the identification of casual agents but this should not impede the compensation of those suffering the costs.

CHAPTER FOUR

THE PROBE: NEEDS - THEIR FRUSTRATION AND ADJUSTMENTS

(1) Failure to Satisfy Basic Needs

Are the results of a failure to satisfy our non-material needs so obvious and straight-forward? To a certain extent, this is so, for when an individual is denied companionship, either by being placed in solitary confinement or otherwise deprived of the opportunity for interaction with other human beings, he finds it a distinctly unpleasant experience in the short term. This can be illustrated by the fact that this kind of deprivation is widely used as a punishment, for a punishment is by definition an unpleasant experience utilized for its deterrent effect. In the longer term also, a plausible case could be made for the proposition that a child or adult who is denied opportunities for what we consider normal interaction with other individuals will fail to develop as a person. He will not learn to adjust to the minor frictions of day-to-day intercourse with other people, to respect their property, to tolerate opinions and attitudes which conflict with his own and to live peaceably in a group of diverse personalities.

lacking the skills necessary for living among other people and finding means of expressing himself in interaction with them, he may develop the kind of stunted personality which is a counterpart of the stunted physique of the underfed.

This could be carried further, for the individual must find his means of ego-satisfaction mainly from other people. If he fails to find in his way of life some feeling that he is liked and respected by his associates, that they take some notice of him or that he has some kind of impact on them, he will be very unhappy. And, remembering the urgent and fundamental nature of these needs, if he cannot gain these satisfactions by one kind of activity, he will be driven to try to obtain them by another. Thus, the individual who cannot make himself liked and accepted by fitting in with the normal and constructive activities of a group may be driven to make others take notice of him by CHALLENGING, AGGRESSIVE and UNCONSTRUCTIVE BEHAVIOUR. This may not gain him the kind of COMPANIONSHIP and EGO-SATISFACTIONS that he really needs, but it will give him satisfactions of sort, just as chewing some unpalatable vegetation with no nutritive value might appear to do something to assuage the hunger pangs of starving man.

(ii) Characteristics of Frustrated Behaviour

1. Aggression or hostile acts associated with the emotion of anger - these may take the form of direct physical assaults on a person or take the shape of abuse or verbal assaults; and they may be directed against substitute objects or scapegoats.

2. The Second Characteristic of Frustration - instigated behaviour is Regression or the "breakof constructive behaviour and a Return to childish action". A very frequent example of this is bed-wetting which is accepted as natural in small children who have not yet acquired control of their sphincters. Older children who have got over this difficulty in the normal way, not infrequently begin to wet their beds again when a new baby arrives to share their parents' attention and affection, while in some cases, adults whose "frustration-tolerance" is low show the same childish symptom.

3. The third characteristic of frustration-instigated behaviour is fixation or the "compulsion to continue a kind of activity which has no adaptive value". Many of the casualities in panic situation arise from

frightened people pushing against barred exits even though other means of escape are available. Frustrations also show themselves in attitudes and those who stubbornly resist change, who cling to method that are outdated and ineffective, whose favourite theme in conversation is "Things are not what they used to be" may be showing frustration symptoms.

4. The fourth and last characteristic of frustration is Resignation or "giving-up". The individual feels that nothing is any use trying; one might as well put with it and wait until the very end.

(iii) Industrial Work as a Frustrating Experience

It is always dangerous to put forward facile explanations for complex situations and any one who suggests that no strike is anything more than a frustration - symptom is talking nonsense. On the other hand, it is difficult to believe that all strikes are reasoned, and deliberate protests against the conditions of work or calculated moves in a bargaining process. It seems justifiable to suggest, however, that some strikes have characteristics which appear very like frustration - symptoms and it is a fact that some factories have many more strikes than others.

In a highly organised modern factory, it is possible to find men working on tasks which require less than sixty seconds work, which are done repetitively without variation throughout the whole of the working day, where the speed is determined by the movement of a conveyor belt on which the product is carried past them, and where they are supplied with everything needed for the task in such a way that they have only to stretch out their hand and pick it up. No matter how well paid they may be, such jobs have a frustrating aspect. Men earning fifty pairs a week, who feel that the job they are doing could be done just as well by an intelligent ape and who are surrounded by bosses who do not give two damns whether they live or die, can be more difficult to deal with than a crowd of hungry men at the factory gate begging for a job which will keep them just above the bread line - particularly if the former are part of a carefully integrated production system where each process is closely linked to the one before and after. This situation can be dealth with in two ways - One is the attempt to remove as many of the frustrations from the job as possible and the other to provide spaces of expression for frustration - instigated behaviour

which will not seriously disrupt the working of the organization e.g. establishing a centre where workers can have some fun.

(iv) Need Adjustment

The individual worker requires on-the-job protection of health, life and limb. This need falls within the traditional sphere of work protection and includes such questions as safety, accident prevention, industrial illness and disorders arising from long-term exposure to physiologically unsuitable job operations or work environments.

Other needs are psychological and are linked to the nature of job and working situation. One of these is the need for variety and achievement. This would include the need for change of pace, diversity and variability in the job as well as the opportunity to display one's ability and develop one's capacities through its performance. This would also encompass the need to perform a job that earns external respect and internal self-esteem and provides an opportunity for greater self-realization. Currently, working life consists of many job operations characterized by either extreme monotony or extreme variability and in consequence offering relatively little opportunity for workers

to fulfil many of their needs. One such extreme case is repetitive assembly work that only engages a small fraction of the individual personality. Another case is the type of job that continuously changes its contents and/or confronts the job holder with excessively difficult work assignments, perhaps with extensive overtime and resultant stress.

The individual requires some degree of social contact and communication in his work. Social interaction at the work place is of great importance too, because it can compensate the individual psychologically for the lack of influence over his own work task and the absence of opportunity for stimuli from and involvement in the actual performance of the job.

Empirical research has taught us that employees attempt to safeguard themselves against the requirements of technical systems and shortcomings in the formal organization of the firm by the formation of informal work groups. Trade union organizations are also important in this context; an effectively functioning union organization offers opportunities for members to enjoy greater social contact and exchange a higher degree of responsibility for and influence in the moulding of the work environment.

(v) Physical Adjustment

Changing technology has generally entailed a lowering of the requirement of physical strength in job operations. Materials handling and work consisting of lifting and transporting goods, have become largely mechanized. Of course, this trend has not been uniform throughout all sectors. Some industries still require the ability to perform physically heavy work despite extensive technological changes.

Moreover, even within other industries where changing technology has been accompanied by an extensive decline in heavy manual work, within each firm new work assignments can be found that require considerably increased physical effort. For example, new job operations may have to be performed at higher temperatures, increasing the physical strain associated with the operation, because new equipment has been installed in existing and not entirely suitable sites. As well, the higher speed of operation of new machinery necessitated by cost considerations may increase the physical load of the operator.

(vi.) Psychological Adjustment

Psychological disturbances are often based on anxieties and fears about the consequences of changes for the individual. Doubts can be had about how the individual's job operation will be altered, how the individual's work-group will be changed or how his relationships with supervisors will develop in the future. Industrial doctors have almost invariably found that the stream of patients with psychosomatic illness increases with the in-ternal re-organizations of the firm. The crucial preventive measures would appear to be advance warning and comprehensive information of impending changes together with continuous consultation during the period of implementation.

(vii.) Job Involvement

One case is when the individual derives much satisfaction in performing the work effectively and when he identifies himself with work organization and its goals. The opposite case is when the worker views the job largely as a means of earning an income and otherwise finds it meaningless and uninteresting and in extreme cases, distinctly repugnant.

(v.ii.) SUMMARY

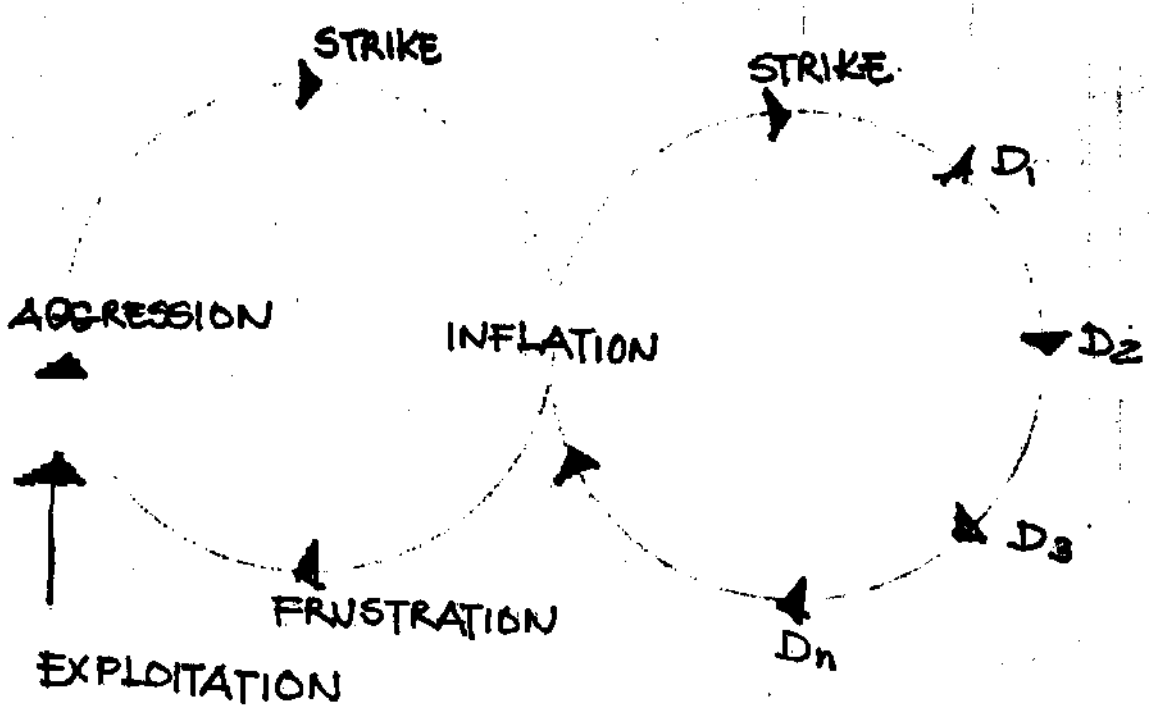
(a) There is need for some degree of independence and control over the job; frustration leads to a feeling of powerlessness.

(b) There is need for an interesting and meaningful job; frustration leads to a feeling of meaninglessness.

(c) There is need for more social interaction and the opportunity to accept and identify with existing rules, norms and patterns of behaviour; frustration leads to feelings of social isolation and lack of normative guidelines.

(d) There is urgent need for emergence of GOD-FATHERS OF THE SOCIETY who would really give some preference to long-term investment rather than short-term, satisfaction of the workers en masse rather than selfish desire to satisfy individual purses.

(e) All told, there is need for establishment of centres for industrial workers and this is what my thesis is proposing.



1. Exploitation of the workers leads to aggression or frustration. Strike follows and eventually there is INFLATION which if not immediately curtailled, may lead to HYPER-INFLATION. The cycle thus continues.

2. Short term investment cum short-term profit lead to accumulation of debts (D_1; D_2, D_3 ...D_n) and eventual INFLATION or HYPER-INFLATION. The cycle also continues.

SOLUTION

1. Emergence of GOD-FATHER OF THE SOCIETY.
2. Long-term investment cum long-term profit
   I_1 = FACTORIES
   I_2 = CENTRE FOR WORKERS

CHAPTER FIVE

THE SURVEY CARRIED OUT TO DETERMINE EXISTING CONDITIONS AND USERS' REQUIREMENTS

How much leisure do industrial workers have and how do they spend it? These questions lie near the heart of any consideration of services concerend with leisure provision. In this chapter, I try to answer these questions so far as the 18 - 30 year-old in Ikeja/Ilupeju industrial Estates are concerned. The basis of these answers is a survey which I conducted in these areas in form of questionnaire and face-to fact interview.

One of the assumptions I made when I attempted this survey is the common-sense one that there are enormous variations in the amount of leisure available to workers and in the ways in which they spend it and that in general, terms, there are local as well as individual variations.

(i) The Survey

The survey itself was designed to find out how the 18 - 30 year old workers of the Estates spend their out-of-work time. This has been used to determine some users' requirements and existing conditions. As a basis for the interviews, I used a two-page written interview schedule consisting of 14 main questions concerned with work and out-of-work activities.

[illegible] questions were largely of a factual nature but I must stress that I was not over-rigid in their use. Supplementary questions were asked and extraneous comments were taken note of. The best of the interviews were conducted as conversations and these produced a picture of the leisure lives of the people interviewed which was both colourful and factually detailed.

(ii) The Workers

The actual 18 - 30 age range was taken since most of the workers interviewed fell to this age group. Altogether, 98 workers who work in 12 different factories, were interviewed. They have been broken down into six groups which I have used in most of the following tables:

Table 1 - Classification By Marital Status

Single women	19	
Married women	7	
Married women with children	9	
		35 women
Single men	47	
Married men	5	
Married men with children	11	
		63 men
Total interviewed	98	

For most purposes, this division by marital status proves more than useful than division into age groups. The age bracket 18 - 30 covers a period which for many people encompasses dramatic changes in their way of life. On balance, marriage and the arrival of a family of one's own bring greater changes than does the passage of a few years. The unmarried 18-year-old woman may well have more in common with the unmarried 24-year-old than she will with the married woman of her own age with a young baby.

The years within the age bracket 18 - 30 were, by no means, evenly represented in the group interviewed. This is illustrated in the following table 2.

Table 2 - Details of the Ages of the 18 - 30s interviewed at the Estates

Age	Single Women	Married Women	Married Women with children	Single men	Married Men	Married men with children	Total	
18	5	0	0	11	0	0	16	
19	5	1	0	4	0	0	10	
20	4	0	0	7	0	0	11	54
21	2	1	0	5	0	0	8	
22	1	0	0	4	0	0	5	
23	1	0	0	2	1	0	4	
24	0	1	0	5	1	0	7	
25	0	2	2	3	0	1	8	
26	1	0	2	3	2	1	9	44
27	0	1	1	1	0	2	5	
28	0	1	2	2	0	2	7	
29	0	0	2	0	1	3	6	
30	0	0	0	0	0	2	2	
	19	7	9	47	5	11	98	

Table 3 - Classification of the 18 - 30s according to Socio-Economic Groups

GROUP	General Classification	Single women	Married women	Married women with children	Single men	Married men	Married men with children	Total
1-3	Employers and managers							
4	Professional workers						2	2
5	Intermediate workers	8		2	2			12
6	Service workers	7	5	4	1			17
7	Foremen and Supervisors				8	3	3	14
8	Skilled manual workers				8	2	6	16
9	Semi-skilled manual workers				16			16
10	Junior unskilled workers	4	2	3	12			21
	Total in each category	19	7	9	47	5	11	98

Table 4 - Ethnic Composition

	Single women	Married women	Married Women with children	Single men	Married men	Married men with children	Total
Yoruba	9	5	8	21	4	8	55
Ibo	7	2		15	1		25
Edo	1		1	3		2	7
Tiv	0			2			2
Urhobo	2			6		1	9
Total	19	7	9	47	5	11	98

Table 5 - Travelling time from home to place of work

Time Taken Each day travelling to work	Single women	Married women	Married women with children	Single men	Married men	Married men with children	Total
Under 1/2 hr.	12	6	8	32	1	9	68
1/2 hr. - 1hr.	7		1	13	3	2	26
1 - 11/2hr.		1		2			1
Varies				2	1		3
Total in Group	19	7	9	47	5	11	98

Table 6 - Means of getting to work

Means	Single women	Married women	Married women with children	Single Men	Married Men	Married men with children	
Walk	14	6	8	34	2	10	74
Bus	3	1	1	9	1		15
Lorry	0			2			2
Car	2				1	1	5
Combination	0			1	1		2
Total	19	7	9	47	5	11	98

Table 7 - Eating Before Work Starts

Place of Eating	S.W.	M.W.	M.W. W.C.	S.M.	M.M.	M.M W.C.	Total
At home	3	5	6	2	0	1	17
Chop bar	11	0	1	1	1	1	15
Factory Canteen	5	2	2	10	2	3	24
Street shelter	0	0	0	34	2	6	42
Total	19	7	9	47	5	11	98

Table 8 - Frequency of week-end work

	S.W.	M.W.	M.W.W.C.	S.M.	M.M.	M.M.W.C.	Total
No regular week-end work	6	4	4	10	2	5	31
Work every saturday morning	1	2	5	1		2	11
Work all day every saturday	3						3
Work every saturday and Sunday				1	1		2
Work some part of week-end) once a month or more often) but less often than weekly)	7			35	2	4	48
Work week-ends less than once a month	1	1					2
Some seasonal week-end work	1						1
Total	19	7	9	47	5	11	98

Table 9 - Number of Evenings per week on which 18 - 30s always try to go out

Number of Evenings	S.W.	M.W.	M.W.W.C.	S.M.	M.M.	M.M.W.C.	Total
None		4	6				10
One		3	3			1	7
Two				2	1	1	4
Three	5			1			6
Four	3			8	1	2	14
Five	7			6		4	17
Six	2			7			9
Seven	1			2	1		4
Varies	1			21	2	3	27
Total in each category	19	7	9	47	5	11	98



PRESENT CONDITION –
→ UNHEALTHY CATERING

Table 10 - Number of Workers more likely to be out than at Home on each evening of the week

Days of the week	S.W.	M.W.	M.W.W.C.	S.M.	M.M.	M.M.W.C.	Total
Monday					1		1
Tuesday					1	1	2
Wednesday							1
Thursday	1			1			2
Friday	3			5			8
Saturday	6	2	3	10	2	6	29
Sunday	5	3	2	17	1	4	32
Never go out	0	0	1	0			1
Varies too much to say	4	2	3	14			23
Total in each category	19	7	9	47	5	11	98

To tables 9 and 10, it is possible to add another factor. At a later point in the interview, the workers interviewed were asked to say how they had spent their time during the morning, afternoon and evening of the previous seven days. From this, one can see how many evenings they spent out during that week.

In table 11, I have compared the information from table 9 with the number of evenings the interviewees actually went out in the week previous to their being interviewed.

There are some interesting minor variations between the two sets of figures, but overall, they follow each other very closely.

Table 11 - Number of Evenings 'Out' - Assessed and Actual

Number of Evenings	S.W.	M.W.	M.W.W.C.	S.M.	M.M.	M.M.W.C.	Total
None	0	4	6	0	0	0	10
	0	3	7	1	0	0	11
One	0	3	3	0	0	1	7
	0	1	1	0	1	0	3
Two	0	0	0	2	1	1	4
	0	0	1	1	0	0	2
Three	5	0	0	1	0	0	6
	4	0	0	0	1	0	5
Four	3	0	0	8	1	2	14
	4	0	0	10	1	1	16
Five	7	0	0	6	0	4	17
	9	2	0	13	2	5	31
Six	2	0	0	7	0	0	9
	2	1	0	14	0	4	21
Seven	1	0	0	2	1	0	4
	0	0	0	8	0	1	9
Varies too much today	1	0	0	21	2	3	27
Total no. in each category	19	7	9	47	5	11	98

Note: Top line of figures repeat table 9. Bottom figures are actual for previous week.

Table 14 .. Time spent visiting friends in their Homes

Number of hours per week	S.W.	M.W.	M.M. W.C.	S.M.	M.M.	M.M. W.C.	Total	(%)
1 .. 3	2	5	8	19	0	5	39	40.0
4 .. 6	3	1	0	7	1	2	14	14.3
7 .. 9	5	1	0	6	0	1	13	13.3
10 or more	8	0	0	2	0	1	11	11.0
No visiting	1	0	1	13	2	4	21	21.4
Total	19	7	9	47	5	11	98	100

Table 15 . Time spent being visited by friends at home

Number of hours per week	S.W.	M.W.	M.M. W.C.	S.M.	M.M.	M.M. W.C.	Total	(%)
1 .. 3	5	6	5	17	0	0	31	31.6
4 .. 6	4	1	1	12	0	0	18	18.4
7 .. 9	0		1	13	0	5	19	19.4
10 or more	10			3	5	6	24	24.5
No time spent being visited by friends	4	0	2	2	0	0	6	6.1
Total	19	7	9	47	5	11	98	100

Clubs and Public Houses

Table [illegible] Frequency of visits to Public Houses

Frequency of visits	S.M.	M.W.	M.W. W.C.	S.M.	M.M.	M.M. W.C.	Total
Seven times/week or more often	0	0	0	1	1	0	2
Six times/week	0	0	0	1	0	0	1
Five times/week	1	0	0	1	0	0	2
Four times/week	1	0	0	4	0	0	5
Three times/week	2	0	0	3	1	0	6
Two times/week	3	1	1	17	3	2	27
Once a week	8	4	3	18	0	4	37
Three times/month	1	0	[illegible]	[illegible]	0	1	1
Two times/month	1	0	2	1	0	2	6
Once a month	2	0	1	1	0	1	5
Rarely (less often than once/month)	1	2	1	0	0	1	5
Never	0	0	1	0	0	0	1
Total in each category	19	7	9	47	5	11	98
No. of interviewees who visited a public house in the week before they were interviewed.	16	3	2	39	5	6	71

TABLE 15 - Frequency of Cinema Attendance

Frequency of attendance	[illegible]	[illegible] W.C.	[illegible]	N.H.	M.H. W.C.	Total
More often than once/week	0	0	0	9	0	0	9
Once/week	6	0	0	22	2	4	34
Three times/month	4	0	0	3	0	0	7
Two times/month	2	1	2	8	0	1	14
Once per month	7	3	3	3	3	2	21
Between six times/year and [illegible] times/year.	0	1	3	0	0	0	4
Between once/year and five times/year	0	0	0	2	0	0	2
Never	0	2	1	0	0	4	7
Total in each enter[illegible]	19	7	9	47	5	11	98
No. of interviewees who [illegible] visited the cinema in the week before they were interviewed.	7	1	0	30	3	3	44

Table 16 - Frequency of going dancing

Frequency of dancing	S.W.	H.W.	M.W. W.C.	S.M.	H.M.	M.M. W.C.	Total
More than once/week	0	0	0	5	0	0	5
Once/week	3	1	0	17	3	4	28
Three times/month	0	0	0	6	0	1	7
Twice/month	7	3	3	15	2	5	35
Between six times/ year and eleven times/year	4	2	3	0	0	0	9
Between once/year and five times/year	3	0	1	0	0	0	4
Never	2	1	2	4	0	1	10
Total in each category	19	7	9	47	5	11	98
No. of interviewees who went dancing in the week before they were interviewed.	4	2	0	33	1	2	42

Table 17 - Sum of money spent on entertainment (Sports,'night-out') each week.

Sum of money	S.W.	M.W.	M.W. W.C.	S.M.	M.M.	M.M. W.C.	Total
1 Naira or less	6	0	0	17	1	2	26
About 1 Naira	7	3	1	25	3	4	43
" 2 Naira	5	3	2	5	1	3	19
" 3 Naira	0	0	4	0	0	2	6
" 4 Naira	0	0	2	0	0	0	2
" 5 Naira	0	1	0	0	0	0	1
Definitely more than 5 Naira	1	0	0	0	0	0	1
Total No. in each category	19	7	9	47	5	11	98

(iii) Findings from the Tables

Table 4

Workers come from different tribal groups around the area where the industrial complexes are established.

Tables 5 and 6

Industrial workers most especially the junior ones, tend to live very close to the factory sites so as to be able to reach their place of work on time.

Table 7

More than 40% of those interviewed eat along street canteens.

Table 8

About half of the women do not work regularly at week-ends.

About 50% of the men, work some parts of week-end once a month or more often but less often than weekly (shift workers).

Table 9, 10, 11

A great number of the workers (more than 70%) interviewed are interested in going out more often on week-ends than other days -'every body loves the Saturday Night' - but shift work does not often permit this. Friday, Saturday and Sunday are the most popular nights for going out.

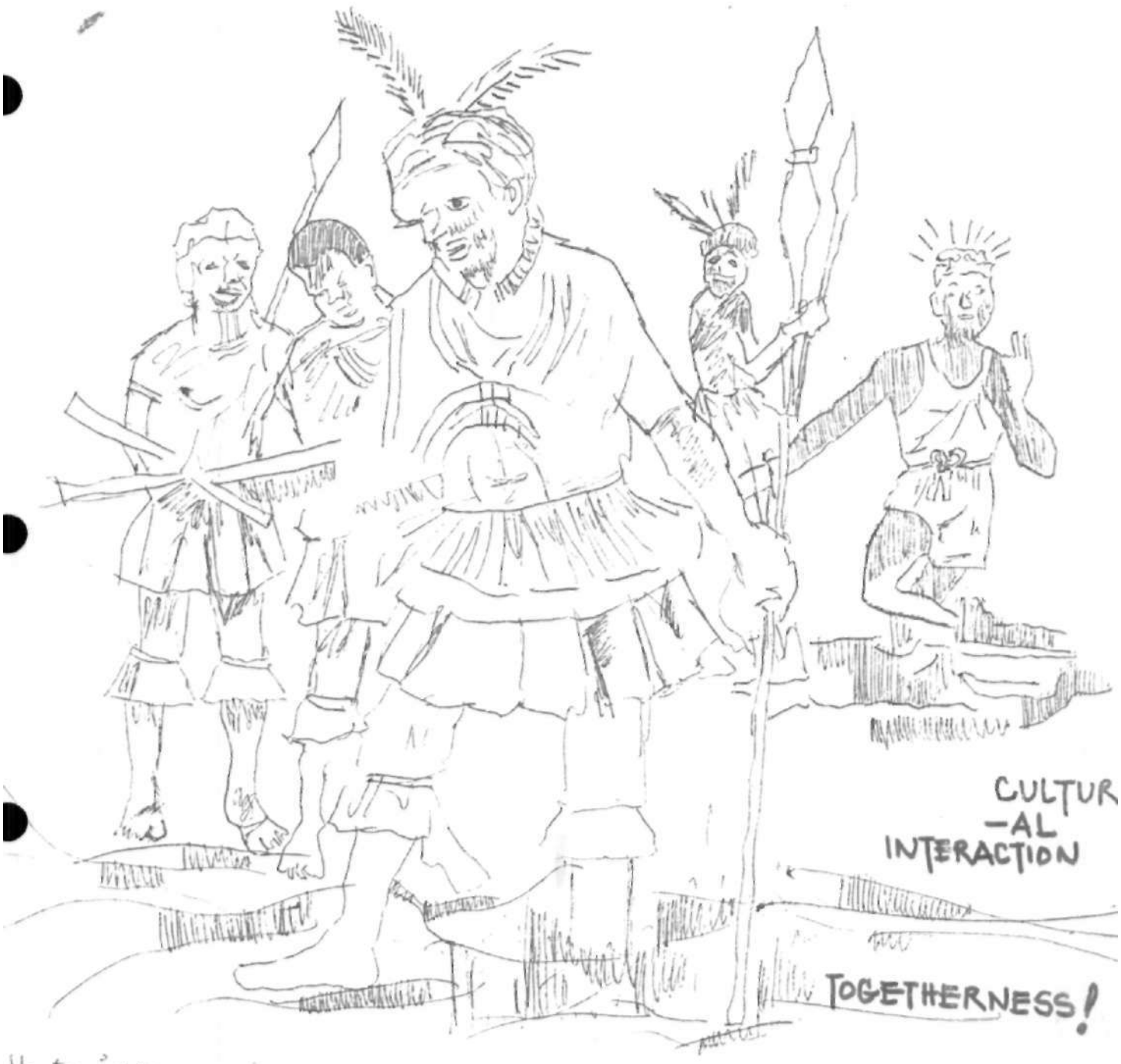
Tables 12 and 13

Much of the visiting was casual and irregular. 'He comes round and we go for a drink.'

Table 14

More than 70% of the workers interviewed visit pub houses once or twice a week. This figure closely follows the total number of workers who visited pub houses in the week before they were interviewed.


TIME OFF TO ENJOY



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Table 15

Majority of the workers interviewed (about 36%) most especially the single men, attend cinema once a week. A great number (about 20%) also attend once a month (salary payment time).

Table 16

About 65% of those interviewed attend dancing either weekly or fortnightly.

Table 17

Majority of the workers interviewed spend about one naira a week on entertainment - sports, 'night out' etc.

(iv) Synthesis From Findings - Needs

(i) Place to spend week-ends - drinking, dancing, cinema etc.

(ii) Place of relaxation - sports etc.

(iii) Need for space for some cultural performances - interaction among the workers.

(iv) Spaces for open-air enjoyment.

CHAPTER SIX

CASE STUDIES FROM OTHER COUNTRIES

In order to understand the urgent need for such a centre as this, in a country like Nigeria which is fast developing industrially and otherwise, it is essential to look into the state of industrial social welfare in some developed countries. In this chapter, therefore, I have delved into such and drawn conclusions.

A. MEDICAL CARE

(i) U. S. S. R.

Today, Soviet industrial enterprises have at their disposal over 1,200 medical and sanitary posts, almost 20,000 first aid posts headed by medical assistants and approximately 2,000 overnight sanatoria.

In the Soviet Union, every year about 90 million people are involved in prophylactic examinations. This system can bring to light signs of diseases hitherto unsuspected by patients who consider themselves absolutely healthy and so do not go to any doctor. The system is very important for working people most especially the

population of industrial areas because it helps to prevent or treat various kinds of occupational and other diseases originating in the impact of industry on the health of the workers.

The prophylactorium or, as it is also called, after-work sanatorium, is a special type of medical establishment providing an opportunity for workers to build up their health while continuing to work.

(ii) UNITED KINGDOM

There is an inadequate supply of competent doctors to fill the post of industrial medical officer which already exists in industries. There are fewer than 3,000 medical men and women involved in one way or the other in industrial medicine and only some 250 devote their whole time to it.

In 1956, there were some 250,000 factories in the United Kingdom, 230,000 employing less than 250 persons each, many as few as 25 persons. Only one-half of factories with no more than 250 workers employed a doctor, and only 4% of factories with less than 100 workers. It has been argued, "as social mindedness developed, a better industrial medical service will be demanded", but clearly the unmet need in one of the earliest industralized and now most developed western countries is still very great.

In the United Kingdom, there has been specific government encouragement to small industries to set up common industrial health services such as those that exist in Slough and Harlow. The Slough Group Service started in 1947 and covers about 300 firms -- some 30,000 employees.

(iii.) POLAND

In Poland, in 1966 there were some 4,653 industrial clinics. There has been considerable attempt to link the development of industrial medicine with preventive health measures to make working conditions both healthier and more pleasant, reducing industrial injuries and occupational diseases.

B. STORES, CO-OPERATIVE AND CONCESSIONS

(i.) UNITED ARAB REPUBLIC

400 consumer co-operatives are now operating successfully under the General Co-iperative Organization for consumer goods with a membership open to all factory workers. Items such as household goods, fresh and preserved groceries and meat are bought direct from the producer and sold at cost price, thus also helping to control price levels.

(ii) INDIA AND PAKISTAN

The value of workers' co-operatives has been increased by their success in keeping the cost stable. As a result, there has been moves by the governments to encourage employers to provide financial assistance for the establishment of co-operatives in all the larger industrial firms. Labour welfare officers are encouraged to involve workers in the organization of co-operatives.

C. EDUCATIONAL AND CULTURAL ACTIVITIES

(i) U. S. S. R.

Cultural and educational activities in industrial enterprises play a significant role in the education of the workers, their families and the general population of industrial areas. Their object is to raise the general cultural level of the workers and to meet their varied cultural demands. For example, a leading role in the organization of public lectures is palyed by the All-Union Society of Knowledge which has branches in every industrial enterprise.

(ii) HUNGARY

In 1968, there were 3,888 trade union libraries with a stock of books amounting to 6.3 million. There are also 11,393 non-professional art groups with 240,000 members.

(iii) POLAND

In order to organize holiday facilities for employees and their families an Employees' Holiday Fund was set up at the Central Council of Trade Unions under an act of 4 February, 1949. It was thereby invested with a legal personality and its responsibilities and tasks were specified as organizing rest and recreation facilities during vacation periods and after work, organizing and running holiday homes, hiking and sports camps and excursions, and conducting and supporting research into the organization of holidays.

All employees with at least one year's union membership are entitled to employees Holiday Fund holidays at special reduced rates. The charge they pay covers only a part of the actual costs. The size of the reductions is differentiated and graduated according to monthly earnings.

Another type of leisure amenity consists of various kinds of community centres and clubs organized by the state with the help of the unions, work places and co-operatives. Their number is continuing to grow. From 11,563 in 1960, it is more than doubled in 1968 to 24,839.

Various special types of holidays are provided for children of the workers: Summer camps, camping tours, training camps, town holidays, village nurseries etc. These are run either by work places, which receive government subsidies for this purpose, or by local authorities. The number of children who used these facilities was 617,600 in 1955, 964,800 in 1960 and 1,748,000 in 1969.

D. CATERING FACILITIES

(i) UNITED KINGDOM

In 1964, the largest expenditure on subsidized services in industry was for canteens, restaurants and other food services, which took over 50% of the budget for subsidized services in the British government's 1964 inquiry - nearly four times as much as medical and health - the next most expensive subsidized services in industry.

(iii) U. A. R.

Legislation in the United Arab Republic in 1959 provided that factories employing workers in isolated or rural areas should provide a specific number of meals daily at no more than one-third of their cost (or a specified maximum charge, which was less). The quality of the meals is also laid down in the Regulations.

(iii) POLAND

There are 5,000 canteens in the industrial plants and they comprise one-third of all the canteens in the country.

(iv) U. S. S. R.

There are dietetic canteens at many larger industrial enterprises and diet departments in the canteens of smaller factories and plants on or outside the territory of the undertaking. Those workers who need a special diet are served breakfast and lunch in accordance with a doctor's prescription. Diet-therapy is organized by the trade unions and management. One-fifth of the workers receive special diet food free; others pay only 30% of the actual cost.

(v) JAPAN

Trained dieticians are required in all canteens which serve 300 or more at a time, or more than 500 meals a day.

B. SYNTHESIS OF CASE STUDIES

1. After-work sanatorium can be established for a group of small factories.
2. It is better to send people to sanatoria in the same climatic zone as their work place - course of treatment is undergone while work continue - health building also continues.
3. By establishing a co-operative shopping sub-centre within the proposed hypothetical centre, price would become stabilized.
4. Retail shops would be prevented from establishing unnecessary monopoly and so fix their prices at a particularly profitable level.
5. Provision of well-organized feeding facilities leads to improvement in nutritional standard of the work-force and this has a favourable effect not only on productivity but also on industrial relations and peace.
6. Trade Unions could also find canteens useful because they could provide an opportunity for increasing worker's solidarity and for promoting discussions and contacts among the industrial workers.

CHAPTER SEVEN

LOCATION AND SITE REQUIREMENTS

A. WHY OSHOGBO?

Our present urban industrial life is a source of filth, homelessness and frustration. The Federal Military Government has long foreseen this and thought it wise to decentralise our industries. To achieve this invaluable objective, the FMG has, therefore, declared Oshogbo in Western State, Zaria in North Central State and Owerri in East Central state as prospective industrial centres. The FMG has therefore been allotted over 90 hectares of land at Oshogbo to carry out her objective. Secondly, the Western State Government has already purchased about 142 hectares of land at Oshogbo solely for erecting factory buildings and workers' housing. Feasibility studies have been carried out on this project. Thirdly, Oshun Development Corporation has also got more than 900 hectares of land to be developed specially for agriculture-oriented industries. Feasibility studeis on this are also in progress.

Apart from the reasons stated above, in locating this hypothetical centre for industrial workers at Oshogbo, I have considered the following reasons:

(i) Availability of cheap electricity and water supply.

(ii) Market requirements -- population of Oshogbo and the environs - Ife, Ilesha, Iwo, Ogbomesho, Ilorin etc.

(iii) Raw materials.

(iv) Climatological factors.

OSHOGBO

B. COMMERICAL ACTIVITIES

Although commerical activities have primarily developed in a linear form along station/Catholic Mission Roads, nevertheless there is gradually emerging conscious attempts to create nucleated shopping and commercial precints.

The linear shopping and commerical area stretches from the Dugbe Market area around the motor park along the Station road over a 1.2 kilometer distance to Oja Oba. The shopping district can be classified into two:

(i) Dugbe - Gbojumo - Adenle market and shopping complex.

(ii) Stretch of shops lining the main road from the Station road/Fagbewesa intersection to the Oja Oba area.

(i) Dugbe - Gbajumo - Adenle Shopping Complex

The contents are major shops, departmental stores, banks and offices. Dugbe around the motor park has 105 lockable stalls. Ori-ummibare market which is newly established has 42 lockable stalls. It links Dugbe to Gbajumo - Adenle market with 275 lock-up stalls offering comparable goods most especially textile and household goods. Dugbe and Gbajumo cannot be conveniently expanded because of adjoining development despite the apparent necessity. As a result of this, unsightly stalls and kiosks continue to litter all roads in the town. This has actually necessitated the existence of (ii) above. The intrusion of incompatible commercial activities is being encouraged into the residential precint with a room or two or even a garage being converted to shop.

(3) INDUSTRIAL USES

As in most Nigerian towns, Oshogbo has no industrial base. This is to say that Oshogbo has no such factories and industrial houses characteristic of Lagos or western countries.

There is, however, an abundance of crafts and traditional industries ranging from local dye-works to shoe making, tailoring, upholstery etc. These activities are not separated from other land-use types. Rather, they occupy shops and the front rooms of houses along the main roads. Unlike Ogbonosho, Ife and Ilesha, there are only a couple of sawmills. This is primarily because Oshogbo is strictly not inside the timber belt.

D. PUBLIC AND SEMI-PUBLIC USES

These cover 1,393 hectares and form about 19% of the total developed part of the town. These areas are mainly government and semi-government institutions, medical, religious and educational establishments. Except for government offices and the specialist hospital, all the other broad-acre institutions are located at the town's periphery.

E. OPEN SPACES

Oshogbo has little or no organised open spaces. Although pockets of open spaces may be found within the town nevertheless they are always associated with schools and institutions, and are therefore private to such institutions. What can be termed the only organised public open space is the Association

Football ground located very near the Railway Station. Altogether, Oshogbo has less than 10.30 hectares of public open spaces. The inadequacy of organised open spaces is more pronounced within the core areas of the town.

F. POPULATION

By 1963 census, Oshobgo has a population of 152,424. It is however, estimated that by now, the population must have reached about 200,000. There has been tremendous degree of growth since the onset of "self-government". This growth is still height-ened with the present level of economic development.

G. URBAN LABOUR FORCE

Oshogbo has a relatively higher percentage of urban labour force that would have been expected from a town of its size. 51.5% of the population happens to fall within the labour force bracket. This is reflective of Oshogbo's importance as a major commercial centre and a first stage migration point before a secondary movement to the state or national capital.

Reference: (i) Nigeria Census 1963

(ii) Oshun Central, Oshun South, Oshun North and Oshun North-East division.

This rather large number of people within the labour force reflects not only urbanization trends but also the increasing rate of youth migration to the urban areas. For Oshogbo, her educational, socio-cultural, administrative and commercial position seem to contribute immensely to her position as a major labour force attractor. The resulting problems not only include scarcity of jobs but also those of housing and increasing inadequacy of services - my design would be one of the solutions to such problems. These problems are even aggravated when one considers the prospective state, local and national development programmes. These are catalysts to the economy of the town and are undoubtedly, population attractor.

H. SOCIAL SERVICES

(a) Water Supply

Oshogbo depends on Erinle waterworks. Erinle is a fairly perennial river having a catchment area of over 400 square kilometers and receiving the water of various other rivers and streams like Otin, Aleri and Ewi rivers. The lake behind the dam is over 1.6 kilometers long. The waterwork was constructed in 1953 and has a design capacity of about 12.8 million litres per day.

It was supposed to serve 386,000 people.

Presently Oshogbo and Ede consume 4,095,000 litres per day while Ife and Gbongan consume 5,460,000 litres a day.

The estimated rate of consumption per head per day is still very low:

Rural area 22.73 litres

Urban area 45.46 to 68.19 litres per day.

With improved living condition, increasing installation of water systems in homes, 90.92 litres per head per day will be the minimum demand.

Possible alternatives being explored by the Western Nigeria Water Corporation are through Oshun, Oyile and Ona rivers.

(b) Electricity

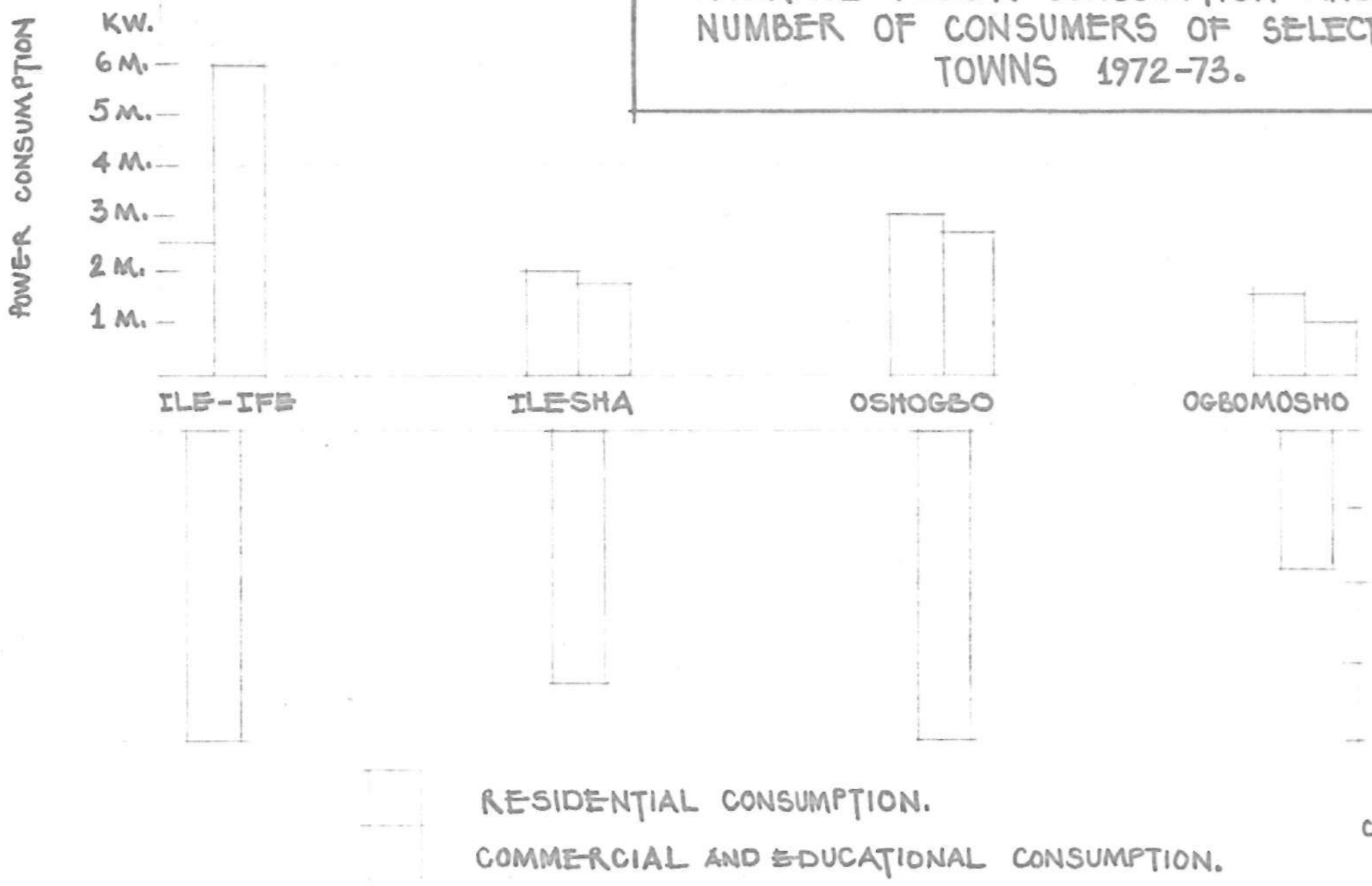
Power problems are centred on reticulation and distribution like all other Nigerian urban centres. Substation of the main national grid from Kainji exists. Hence there is easy linkage with this national power grid.

Oshogbo's consumption ranks next to that of Ile-Ife whose consumption is fairly influenced by the existence of the University of Ife.

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* Source WRMC Ibadan.

AVERAGE POWER CONSUMPTION AND NUMBER OF CONSUMERS OF SELECT TOWNS 1972-73.



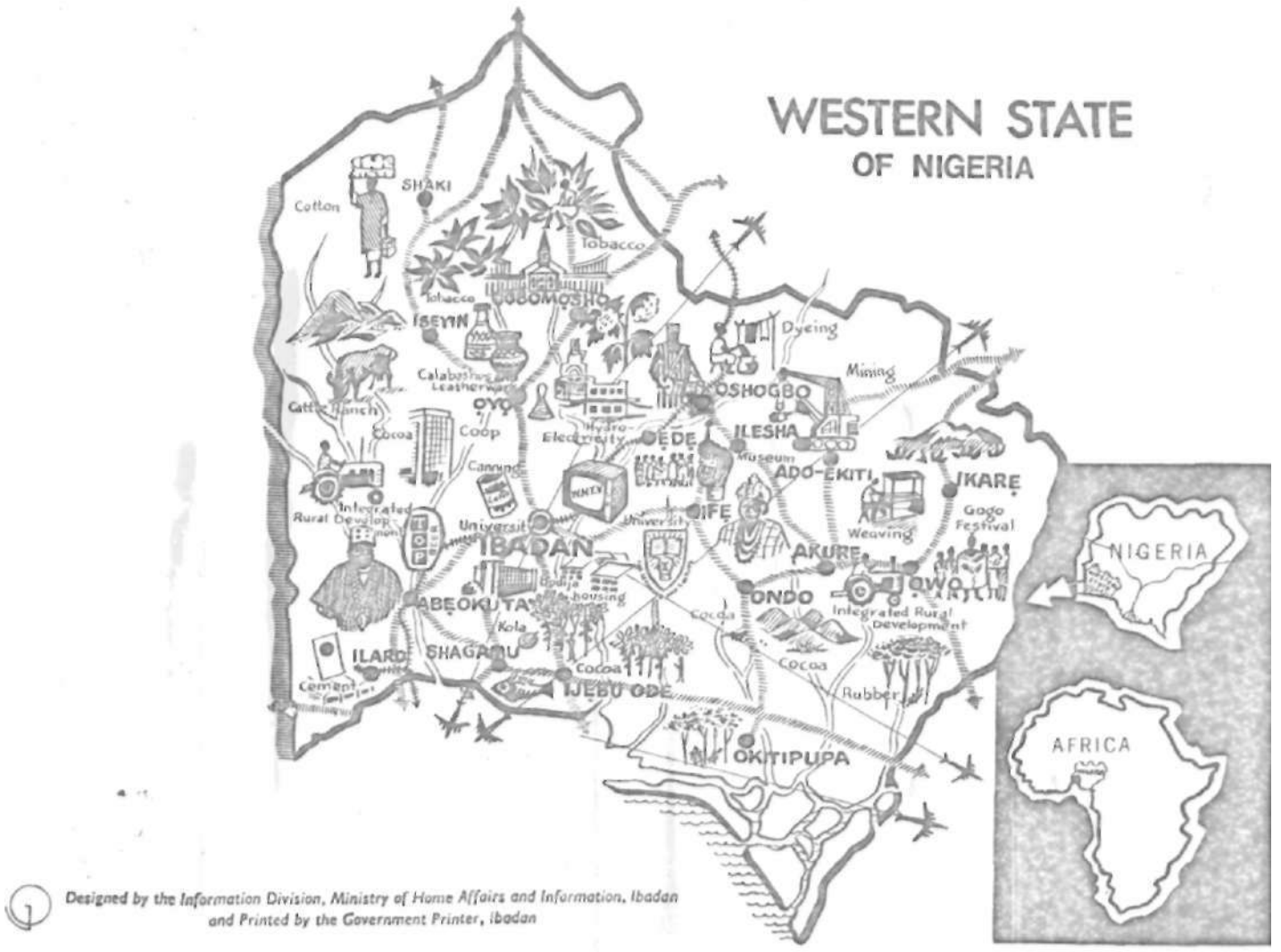
Between 1962 and 1973 consumption rose from 2,079,303 kw. to 4,378,093 kw. units per annum. Per capital consumption during the same period rose from 13.6 kw. to 22.4 kw. units per annum. There is extremely low figure, obviously, related to total number of houses having electricity supply.

(c) Posts and Telecommunications

Posts and Telecommunications yard in Oshogbo accommodates main telephone exchange station for Oshun division (presently Oshun Central, South, N.E. and N.W. divisions). It has an automatic telephone system with over 400 local subscribers. There is no single public telephone box except within the Post office, the main building of which is not in good condition.

(d) Fire Fighting

Fire station exists with basic fire fighting equipments such as fire engines. There are also many fire hydrants within about 415 metres of one another.



Designed by the Information Division, Ministry of Home Affairs and Information, Ibadan
and Printed by the Government Printer, Ibadan

(c) Refuse Disposal

This has no adequate care. There are no well maintained public toilets.

I. COMMUNITY FACILITIES

(a) Education

On the whole, there are 28 primary schools and 14 post primary schools. Note that post primary schools embrace secondary, modern schools, secondary grammar and commerica school, teacher training colleges and vocational schools. 60% of children within the primary school age are, at present, attending school.

(b) Health

There are two well-maintained hospitals. These are the state hospital and Catholic (Jaleyemi) hospital. There are however, a host of private clinics and maternity centres. Some of these are run by the local council. There is a dental centre which is supposed to serve the four Oshun Divisions.

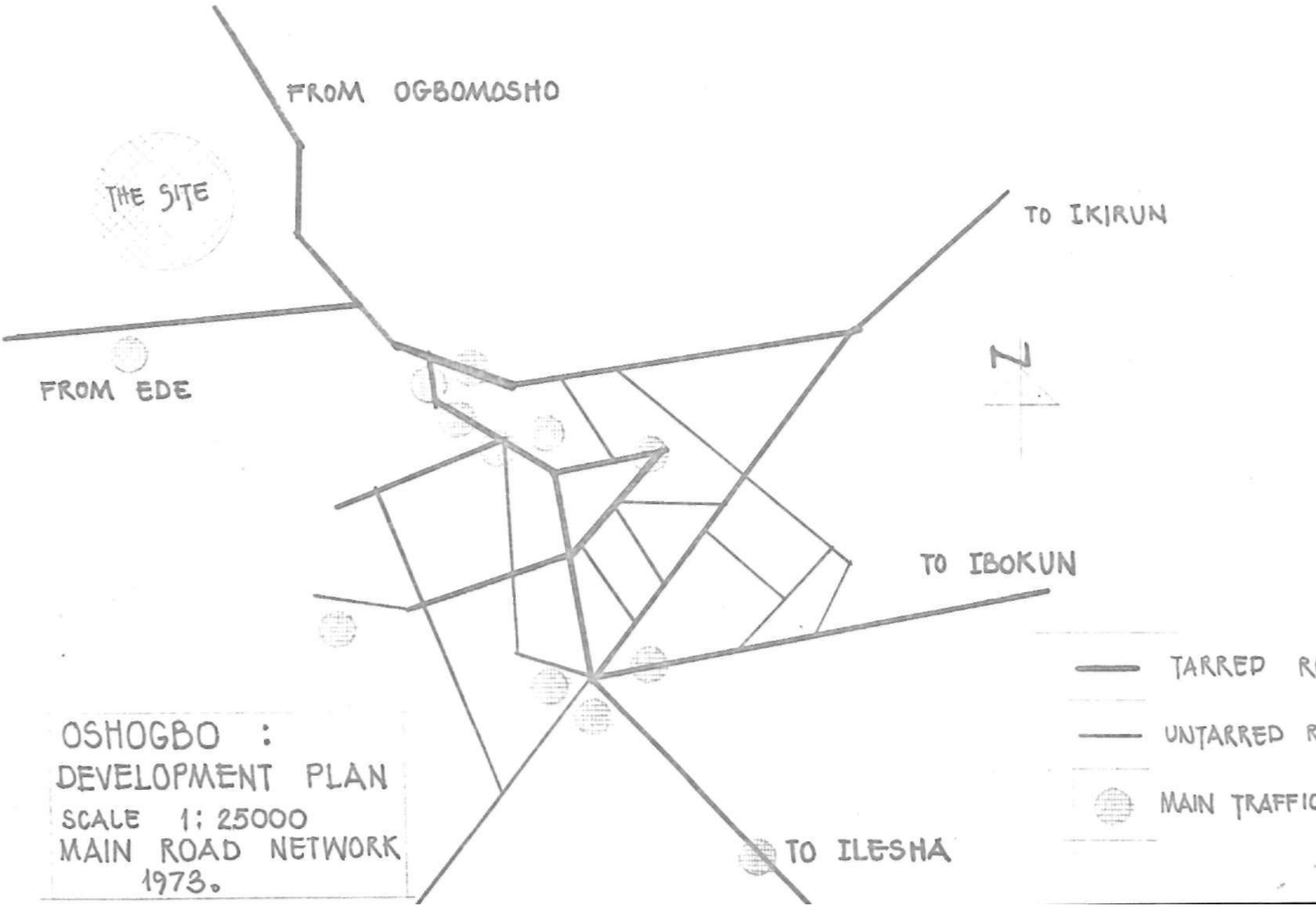
(c) Cultural

Despite Oshogbo's traditional importance culturally, well-organised cultural centres are still very lacking.

However there are the Oshun shrine which is renowned for her sculptured and intorwoven archways, Oshogbo museum which is partially attached to the University of Ife Institute of African Studies and the Mbari Mbayo well-known also for its traditional paintings. There are many churches and mosques. A reasonable percentage of the people most especially the old ones are still pagans workshipping masquerades, statutes, trees and so on.

J. LAND - USE PROPOSALS

Land allocation has been influenced by the availability of suitable land, desirable densities of development, accessibility and performance standards which have been adjusted to suit local economic and socio-cultural demands. In Oshogbo, it is recognised that the primary concern is the establishment of basic and definite land-use zones of RESIDENTIAL, COMMERCIAL and INDUSTRIAL within a framework of well-integrated major and distributor roads. By this, the present unsatisfactory interminglings of the several types of development and the ribboning of shops and offices along the major traffic routes will be at a minimum if not prevented.



OSHOGBO :
DEVELOPMENT PLAN
SCALE 1: 25000
MAIN ROAD NETWORK
1973.

K. OSHOGBO DEVELOPMENT PLAN

Before adopting the most functional in terms of the present structure of the town, four types of growth plans were considered.

(i) Finger Plan

This emphasizes continuous growth along the major roads - see diagram.

(ii) The Concentric Growth Plan

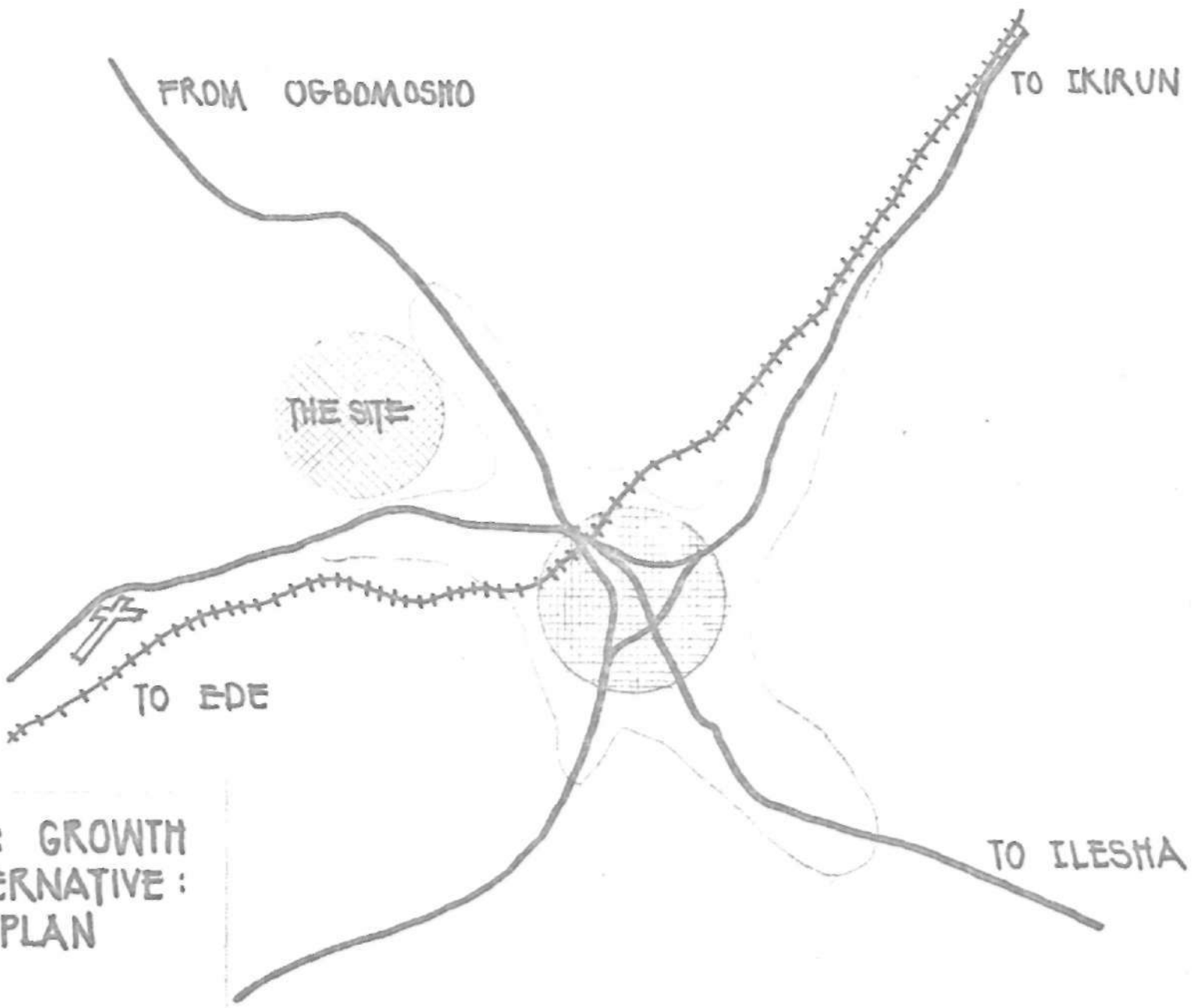
This stresses physical development to all densities in all directions except where topography presents obstacle. This amounts to general multi-directional scatteration of development. See sketch.

(iii) The Satellite Town Plan

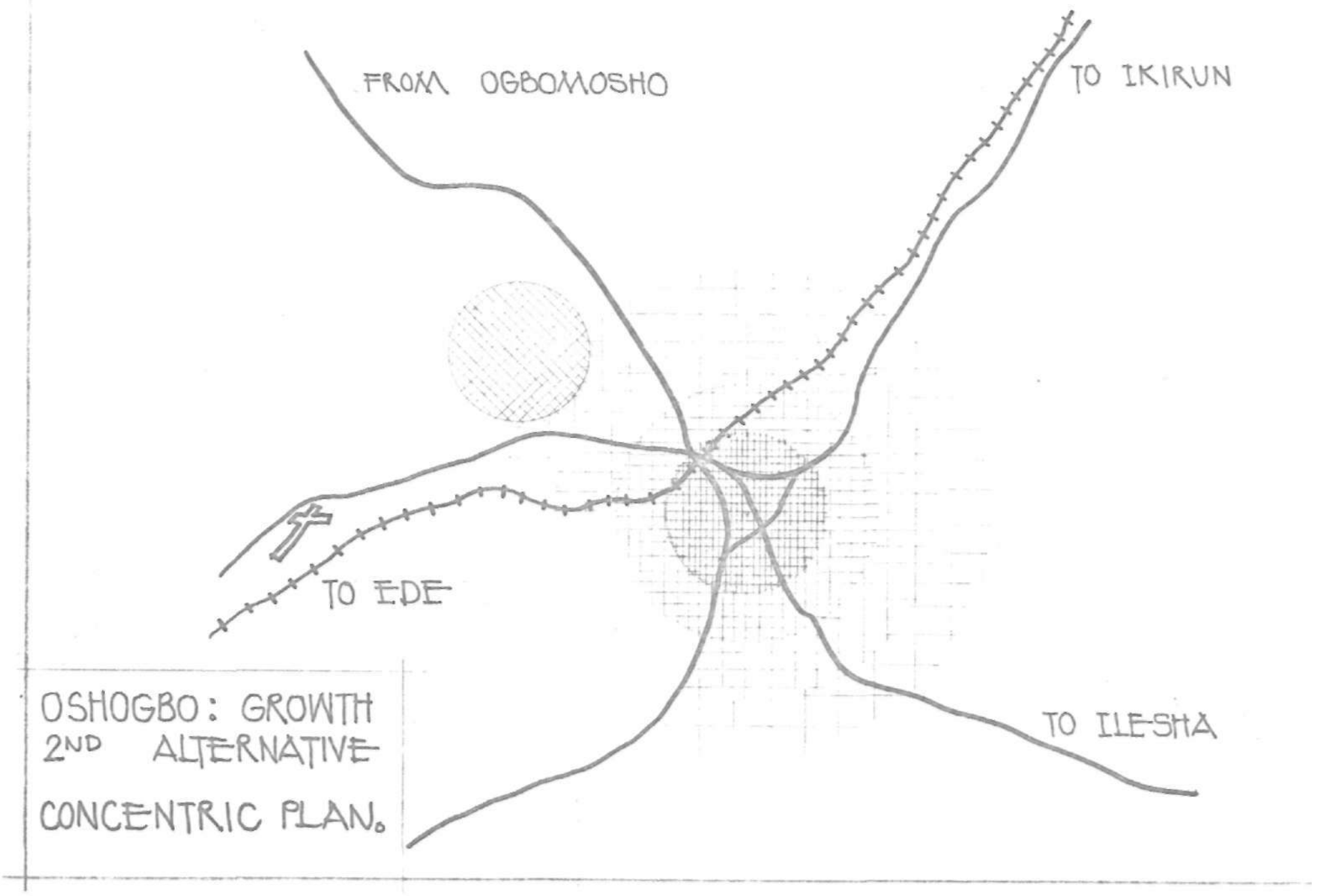
This emphasises totally leaving the present structure of the town as it is and then establishing small new towns surrounding the major urban centre.

(iv) The Multi-Sectoral Growth Plan

This plan considers controlled physical development in three main sectors. These are:

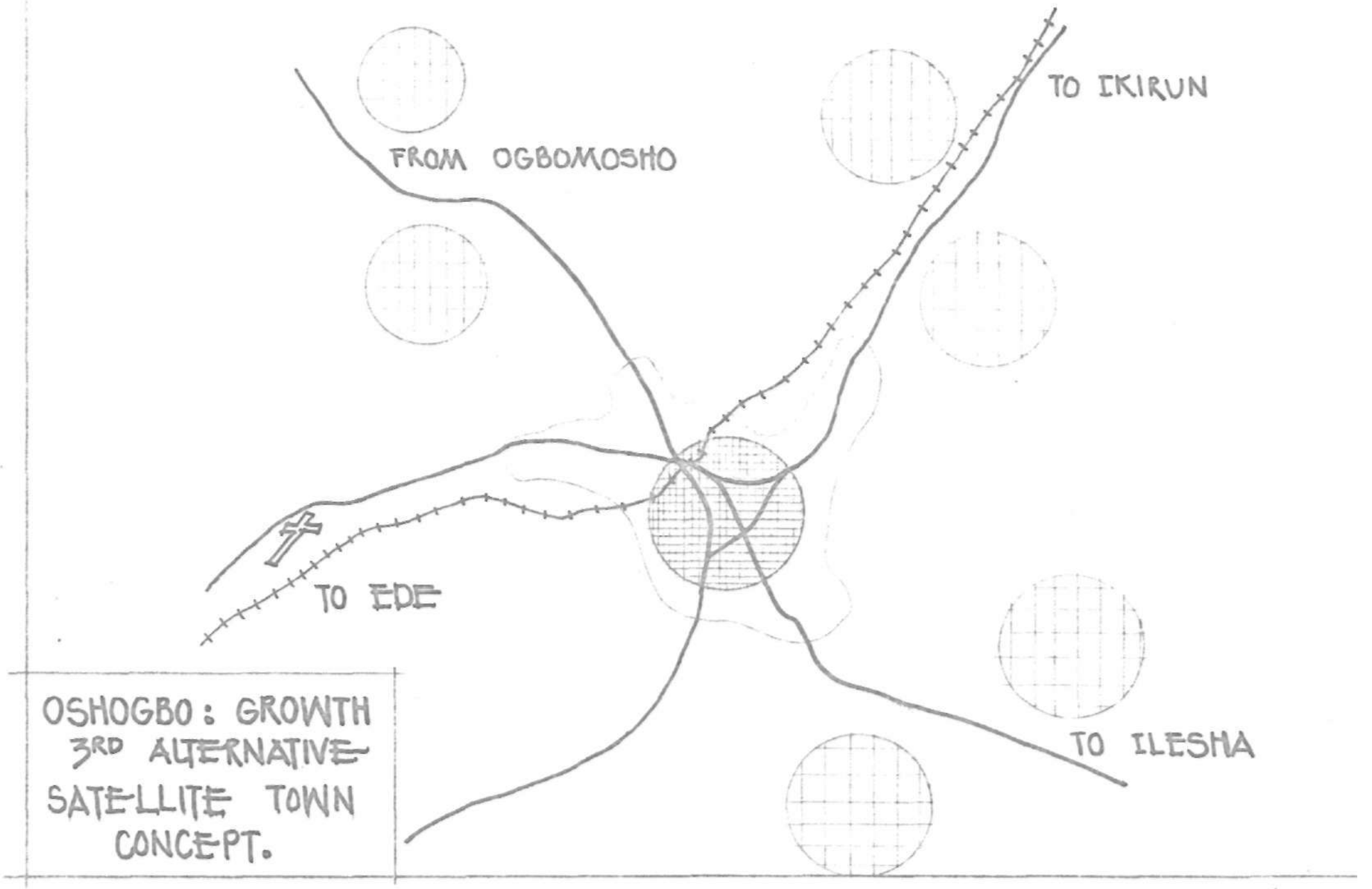


OSHOGBO : GROWTH
FIRST ALTERNATIVE :
FINGER PLAN

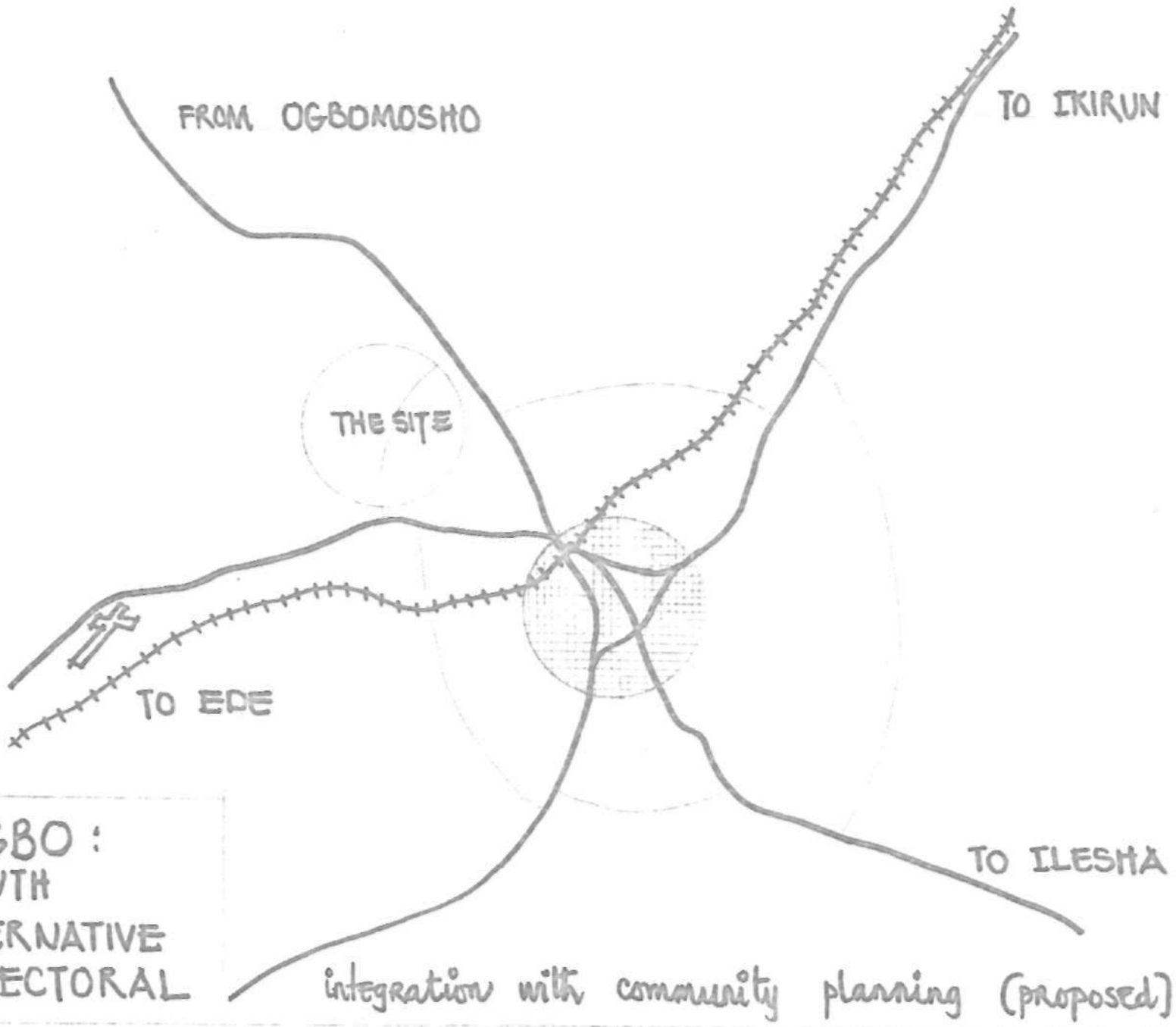


OSHOGBO: GROWTH
2ND ALTERNATIVE-

CONCENTRIC PLAN.



OSHOGBO: GROWTH
3RD ALTERNATIVE
SATELLITE TOWN
CONCEPT.



OSHOGBO :
GROWTH
4TH ALTERNATIVE
MULTI-SECTORAL

(a) The Ilesha - Ibokun Road Sector

(b) The Ibokun-Iragbiji Road Sector and

(c) The Ogbonosho-Ede Road sector.

This type was adopted for the following reasons:

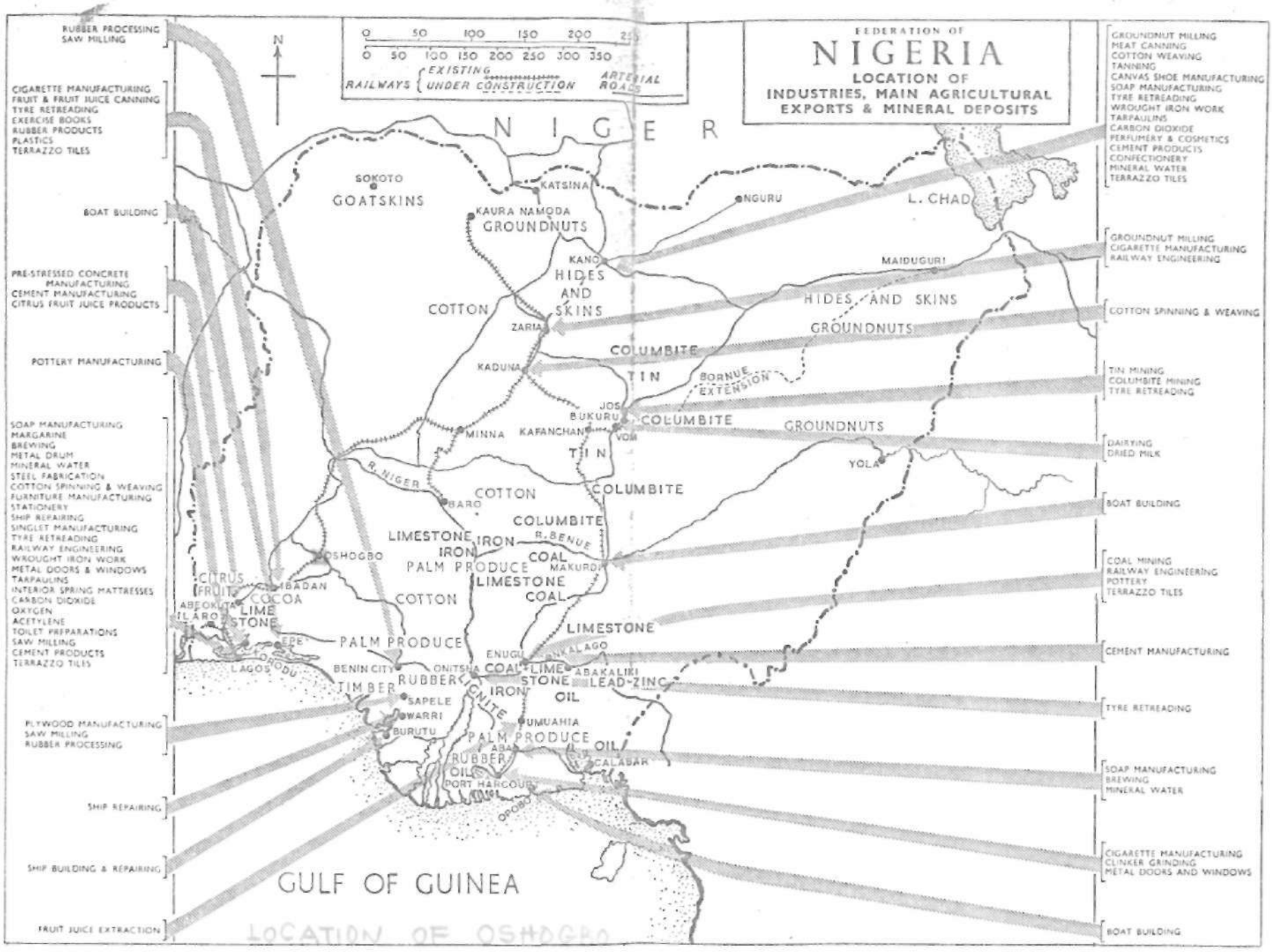
(a) Land-use is maximized and there is drastic reduction in cost of servicing which a linear growth or scateration will impose.

(b) The positive character and form of the town would be preserved. Development would be spread in a fairly even fashion around the town so that no sector suffers at the expense of the other.

(c) There would be compromise in terms of distance factor in relation to existing and proposed transportation pattern on the one hand and living plus working areas on the other. See sketch.

L. GEOLOGY AND SOIL

The soil is primarily derived from coarse grained gneiss and granitic rocks which form part of the basement complex. Soils are fairly deep and rich.


FEDERATION OF
NIGERIA
LOCATION OF
INDUSTRIES, MAIN AGRICULTURAL
EXPORTS & MINERAL DEPOSITS
0 50 100 150 200 250
0 50 100 150 200 250 300 350
RAILWAYS EXISTING UNDER CONSTRUCTION
ARTERIAL ROADS
N
NIGER
SOKOTO
GOATSKINS
KATSINA
KAURA NAMODA
GROUNDNUTS
NGURU
L. CHAD
KANO
HIDES AND SKINS
COTTON
ZARIA
KADUNA
COLUMBITE
TIN
BORNUE EXTENSION
MAIDUGURI
HIDES AND SKINS
GROUNDNUTS
JOS
BUKURU
COLUMBITE
GROUNDNUTS
MINNA
KAFANCHAN
VOM
TIN
YOLA
R. NIGER
BARO
COTTON
COLUMBITE
COLUMBITE
LIMESTONE
IRON
R. BENUE
IRON
COAL
MAKURDI
OSHOGBO
PALM PRODUCE
LIMESTONE
CITRUS FRUIT
IBADAN
COCOA
COTTON
COAL
ABEOKUTA
ILARO
LIME STONE
LIMESTONE
EPE
PALM PRODUCE
ENUGU
NKALAGO
BENIN CITY
ONITSHA
COAL
LIME STONE
ABAKALIKI
LEAD-ZINC
LAGOS
IJEBU ODE
TIMBER
RUBBER
IRON
OIL
SAPELE
WARRI
BURUTU
LIGNITE
UMUAHIA
PALM PRODUCE
OIL
ABA
CALABAR
RUBBER
OIL
PORT HARCOURT
OPOBO
GULF OF GUINEA
LOCATION OF OSHOGBO
RUBBER PROCESSING
SAW MILLING
CIGARETTE MANUFACTURING
FRUIT & FRUIT JUICE CANNING
TYRE RETREADING
EXERCISE BOOKS
RUBBER PRODUCTS
PLASTICS
TERRAZZO TILES
BOAT BUILDING
PRE-STRESSED CONCRETE MANUFACTURING
CEMENT MANUFACTURING
CITRUS FRUIT JUICE PRODUCTS
POTTERY MANUFACTURING
SOAP MANUFACTURING
MARGARINE
BREWING
METAL DRUM
MINERAL WATER
STEEL FABRICATION
COTTON SPINNING & WEAVING
FURNITURE MANUFACTURING
STATIONERY
SHIP REPAIRING
SINGLET MANUFACTURING
TYRE RETREADING
RAILWAY ENGINEERING
WROUGHT IRON WORK
METAL DOORS & WINDOWS
TARPAULINS
INTERIOR SPRING MATTRESSES
CARBON DIOXIDE
OXYGEN
ACETYLENE
TOILET PREPARATIONS
SAW MILLING
CEMENT PRODUCTS
TERRAZZO TILES
PLYWOOD MANUFACTURING
SAW MILLING
RUBBER PROCESSING
SHIP REPAIRING
SHIP BUILDING & REPAIRING
FRUIT JUICE EXTRACTION
GROUNDNUT MILLING
MEAT CANNING
COTTON WEAVING
TANNING
CANVAS SHOE MANUFACTURING
SOAP MANUFACTURING
TYRE RETREADING
WROUGHT IRON WORK
TARPAULINS
CARBON DIOXIDE
PERFUMERY & COSMETICS
CEMENT PRODUCTS
CONFECTIONERY
MINERAL WATER
TERRAZZO TILES
GROUNDNUT MILLING
CIGARETTE MANUFACTURING
RAILWAY ENGINEERING
COTTON SPINNING & WEAVING
TIN MINING
COLUMBITE MINING
TYRE RETREADING
DAIRYING
DRIED MILK
BOAT BUILDING
COAL MINING
RAILWAY ENGINEERING
POTTERY
TERRAZZO TILES
CEMENT MANUFACTURING
TYRE RETREADING
SOAP MANUFACTURING
BREWING
MINERAL WATER
CIGARETTE MANUFACTURING
CLINKER GRINDING
METAL DOORS AND WINDOWS
BOAT BUILDING

The brownish red and fairly clayey soil is quite capable of supporting vegetation in areas where consistent weathering and erosion have not carried away the top soil to leave harsh lateritic surfaces.

M. CLIMATE

Oshogbo is located at 7.46^{oN} of the equator and 4.26 ^{o}E of Greenwich. The climate is fairly tropical. The annual rainfall is about 50 inches - 84% of which falls during the months of April to September when the Southern part of the country is under the influence of the rain-bearing tropical maritime air mass.

Table

OSHOGBO - ANNUAL MEAN WIND VELOCITY BASED ON 3 - HOURLY RECORDS JULY 1956 - JUNE 1961

N.E.	E.	S.E.	S.	S.W.	W.	N.W.	N.	Speed Range In Knots
-	-	-	-	-	-	-	-	calm *
4.2	2.7	5.0	9.7	33.5	22.3	4.8	2.4	1 - 10
0.5	0.2	0.4	0.3	1.7	1.0	0.2	0.1	11 - 21
0.1	tr.	tr.	-	-	tr.	-	tr.	22 - 33
-	tr.	-	-	-	-	-	-	34 plus

Remarks: 2 or 3 tr. is counted as 0.1

* 10.7% of the total wind flow is under a speed of 1 knot.

Source - Nigeria Meterological Department, Lagos.

Table OSHOBGO - RAINFALL IN INCHES 1939-72

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1939-72 (20 years) Total Rain-Fall	15.91	25.99	85.33	125.33	147.36	161.37	155.44	133.75	180.98	173.98	40.96	12.26
Mean	0.64	1.04	3.41	5.01	5.89	6.45	6.22	5.34	7.22	6.96	1.64	0.49

Table OSHOGBO - AVERAGE TEMPERATURE 1951 - 65

°F	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Yearly Average.
Max. Temp.	90.7	94.0	93.5	89.8	88.2	85.8	82.2	81.2	83.6	86.0	88.2	89.4	87.6
Min. Temp.	67.4	68.6	72.2	71.8	71.4	70.6	69.6	68.6	69.6	69.4	69.8	67.9	69.7

Table OSHOBGO - RELATIVE HUMIDITY (%)

Time	J.	F.	M.	A.	M.	J.	J.	A.	S.	O.	N.	D.	Yearly Average
0700	92	91	95	97	97	97	96	96	97	98	97	96	96
1000	75	71	77	81	83	85	87	88	88	84	81	77	82
1300	50	45	56	67	70	73	76	78	76	72	62	53	65
1600	43	36	47	62	66	69	73	74	72	68	58	48	60
1900	61	49	63	77	83	85	87	86	87	87	81	72	77

Table PERCENTAGE WIND DIRECTION SUMMARY BASED ON 3 - HOURLY RECORDS JULY 1956 - JUNE 1961

N.E.	E	S.E.	S	S.W.	W	N.W.	N.	Not Specific
4.8	3.0	5.4	10.0	35.2	23.3	5.0	2.5	10.7



At the foreground is part of maize plantation presently existing at the site. Towards the background is part of site vegetation which is thick evergreen forest.



The proposed site showing the interior vegetation. Some of the palm-trees, as at background would be preserved.



At the ~~fore~~ fore-ground is part of one of the 2 rivers to be dammed.

N. SITE ANALYSIS

In choosing the site, I have, among others considered the following basic points:

- use of natural features
- water: waterbody for landscaping
- integration with community planning
- safety and feasibility of approach.

Natural features on the site are to be carefully designed most especially for bringing man - the machine man - and nature together. The confluence of two streams that border the site would be enlarged and dammed to create a fish pond to serve the industrial workers' community. The dam would also be properly and economically developed to serve as a river-side recreation resort.

The cost of drainage shall be greatly reduced as use will be made of the gentle slopes towards these streams and the proposed dam.

Large evergreen trees and palm-trees cover the site (see photographs). As many as possible of them would be preserved most especially those that do not act as a threat to route of telephone and electricity wires and poles. This will give a sense of harmony between man-made objects on one hand and natural objects on the other.

CHAPTER EIGHT

SCOPE OF THE SCHEME

The hypothetical centre will be a centre consisting of centres:

(a) Educational/Cultural Sub-Centre

This will consist of three basic wings: instructional, exhibitional and entertaining wings.

(i) Instructional wing:

Activities here will embrace dissemination of political and scientific knowledge; popularization of the achievements of science technology, innovation, art, literature; development of scientific and technical work and running of periodical seminars and workshops.

(ii) Exhibitional Wing

This involves full community participation. Activities will include publicizing new factory products to the consumers and exhibiting of medical posters to the factory workers.

(iii) Entertaining Wing

This will be for some tribal dancing and performances.

(b) Prophylactorium Sub-Centre

Emphasis here is on preventive rather than curative aspect of medicine. It will consist of two wings, which will basically be for the promotion and maintenance of the highest degree of physical, mental and social well-being of industrial workers; the prevention among industrial workers of departures from health caused by their working conditions; the protection of workers in their employment from risk resulting from factors adverse to health e.g. industrial pollution; the placing and maintenance of the worker in an occupational environment adapted to his physiological and psychological equipment and, to summarise, the adaptation of work to man and of each man to his job.

(i) Testing Wing

This will be for prophylactic examination which may be done by an individual worker after work or before work commences. Another aspect will be a sort of job conformation for new workers. This will somehow give job satisfaction.

(ii) Instructional Wing

This will provide:

(i) basic health instruction.

(ii) health demonstration

(iii) Basic living guide

(iv) instructions on health-oriented games

(v) prescription of necessary food for the workers.

(c) Co-operative Shopping Sub-Centre

This will be solely for provision of food items and some other basic necessities to workers at cost prices.

(d) Catering Sub-Centre

This will be for feeding and drinking.

(e) Recreational Sub-Centre

This will have two wings: Active and passive.

(i) Active Recreation

This will solely be to promote mental stability and to provide a change from setting and pace from this highly competitive world of work. It will also be for organization of workers' recreational activities, particularly sports.

(ii) Passive Recreation: To foster appreciation of the outdoor activities.

(f) Administrative Sub-Centre

This will be the main satisfying force around which the others will be revolving.

CHAPTER NINE

DESIGN PRINCIPLES

1. CONTEMPORARY CONSIDERATIONS

The Architecture must be current. It must portray our technology. In such a case as this, one would expect to see:

(i) free flowing spaces

(ii) long span buildings

(iii) factory products

(iv) time-saving devices -- automation.

2. CONSTRUCTIONAL CONSIDERATIONS

The architecture must be honest and simple. He must portray the way of life of an "ordinary" factory worker. One would expect to see:

(i) flexible spaces

(ii) orderly structures

(iii) repetitive elements.

3. PERMANENCE AND ECONOMIC CONSIDERATIONS

The architecture must be within a reasonable budget. It must, at the same time, possess a SATISFYING attitude. One would, in this case, expect:

(i) solid and durable materials

(ii) simple and effective details.

4. EMOTIONAL CONSIDERATIONS

The architecture must, at a glance, forecast the desired response from the beholder. In addition to the fabric of the building, the hypothetical centre must set out to provide the ambience and atmosphere that attract the workers. One would then expect:

(i) elegance
(ii) on-the-spot satisfaction
(iii) moderation in scale
(iv) sympathy with landscape (natural features)

5. DISCIPLINE CONSIDERATIONS

The centre must show concern for the 'neglected' worker - his social, physical and intelectual features. It should reflect:

(i) nobleness
(ii) kindness
(iii) gentleness.

6. SECURITY CONSIDERATIONS

The hypothetical Centre must portray concern for whatever activity would take place within it. One would expect: (i) functional grouping for easy control
(ii) communication aids for easy contact
(iii) visual and spatial continuity.

CHAPTER TEN

SEARCHING FOR DESIGN CONCEPT

A. NEEDS AND THEIR SATISFACTION

In considering the motivational or goal-directed side of human personality, one could put forward the hypothesis that needs do not change considerably throughout the life of an individual or the community. They can be roughly classified into three categories:

(i) material needs on which the physical survival of the individual depends

(ii) companionship or social needs on which community life depends

(iii) ego or status needs on which higher standards of achievement and progress depend.

(i) The maintenance of life and health depends upon an adequate supply of food drink, of warmth, shelter and protection. Bodily mechanisms or tensions warn us when we are failing to keep up this supply - hunger and thirst when the intake of nourishment is falling short, shivering and other unpleasant feelings when we fail to maintain the conditions on which comfort depends.

"(ii) Human being universally seek each others' company, live in groups or communities and feel lonely and deprived when they are separated from their associates. It is essential to make the point that these needs are quite as fundamental as the material needs on which individual survival depends. The satisfaction of companionship needs has quite as much survival-value, for while the individual might succeed in keeping himself alive while living entirely by himself, though he would have a full-time job doing so and would only survive on a very low standard indeed, biologically speaking, he would be a dead-end. He could not reproduce himself and carry on his species, for obvious reasons. We make the point, therefore, that while the satisfaction of material needs is a biological necessity for the individual, the satisfaction of companionship needs is just as biologically necessary for the race or species. This point has been belaboured a little in order to give emphasis to the fact that interaction with other people is not something which we can either take or leave alone.

It is a basic need in human personality which makes demands quite as insistent though not in such an obvious and comprehensible form as one's need for three square meals a day and a safe place to sleep.

(iii) This category is, perhaps, less widely realized or accepted in everyday thinking than the other two. Nevertheless they are quite as universal and fundamental. Each one of us wants to be an individual, to be taken notice of as such, to have some sort of impact on other people as ourselves. If we get what we feel is a fair share of attention and regard from other people, we are reasonably happy, but if we feel we are being overlooked, disregarded or taken for granted, then we react at once. A great deal of the minor unpleasantness in ordinary life arises from bruised egos, and the "who do you think you are talking to?" or "I will soon show you who I am!" kind of remarks which one not infrequently hears, are overt protests against being denied what we regard as our fair share of ego-satisfaction.

It is plain that the individual who really feels that nobody pays any attention to him, that nobody gives a damn whether he lives or dies, is in a very dangerous situation indeed. This is the suicide pattern. The satisfaction of ego, therefore has survival value just as the first two categories.

B. METHODS OF SATISFACTION

Corollary

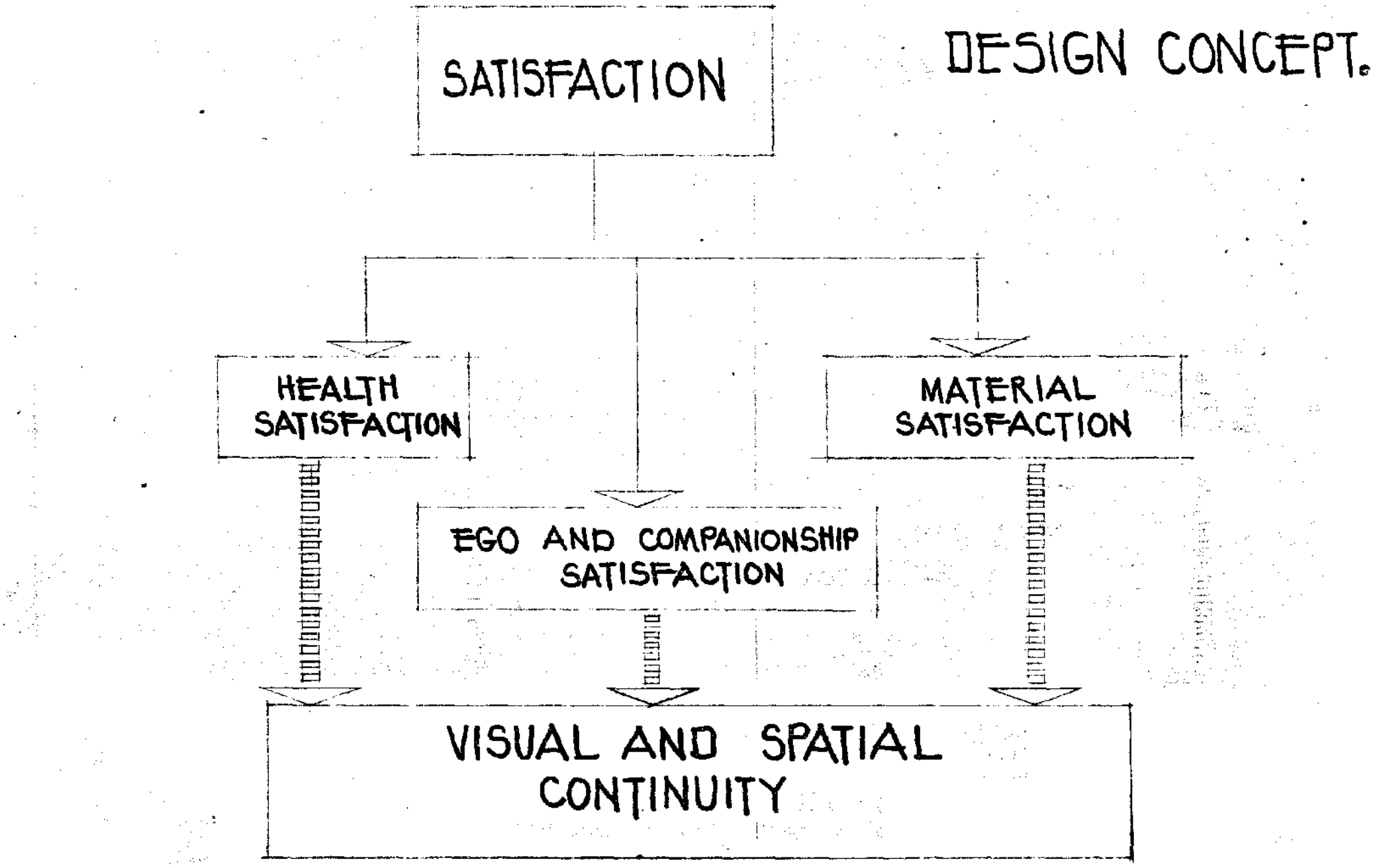
The degree of enthusiasm or support which an activity or an institution engenders is directly proportional to its effectiveness as a method of need-satisfaction.

Illustration

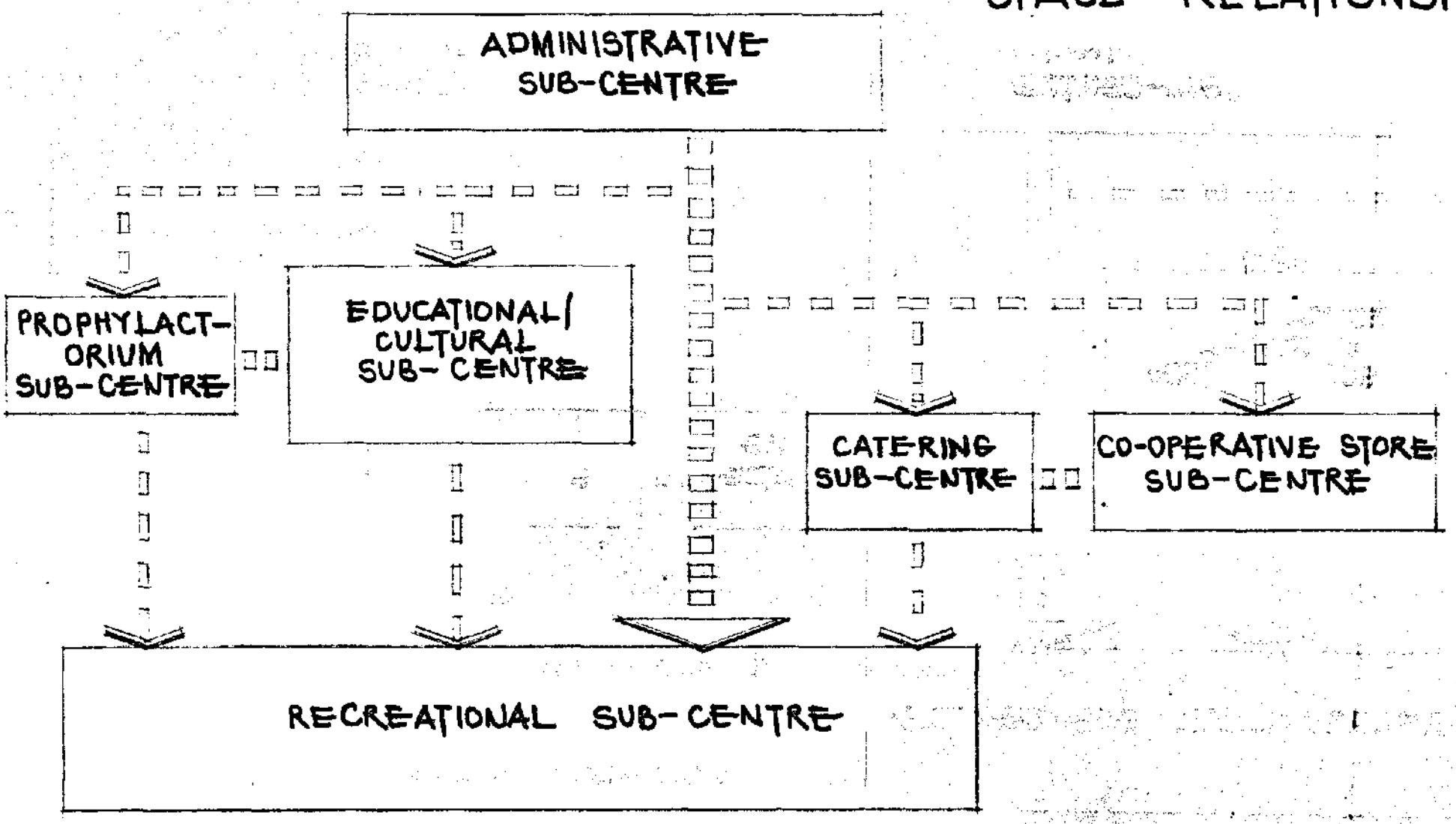
In our present way of life, games play an important part, and if the above propositions are valid, they must owe their existence to their effectiveness in satisfying human needs. But what needs do they satisfy? Obviously none in the material category, for one has to pay to use the facilities which are required to play them, to join a club or purchase the necessary clothing and equipment. But they do satisfy companionship needs, for every game involves interaction with at least one other human

club activities over and above the tensed-up interaction with other members of the team in passing the ball around during the actual game. He is also gaining ego-satisfaction, for as well as feeling some sense of identification with the national prestige figures, he may score a goal or creates an opening, or his team may win by outplayingtheir opponents in this artificially created competitive situation. This very ample dividend of companionship and ego satisfaction calls forth the maximum physical effort of which he is capable during the period of the actual game and it may also call forth additional effort in practice and training activities at other times during the week. The satisfaction he is drawing from this activity, in fact, is engaging a very high proportion of his available energy partly because he is interpreting it in terms that facilitate this and partly because his physical and other capacities make this activity possible for him.

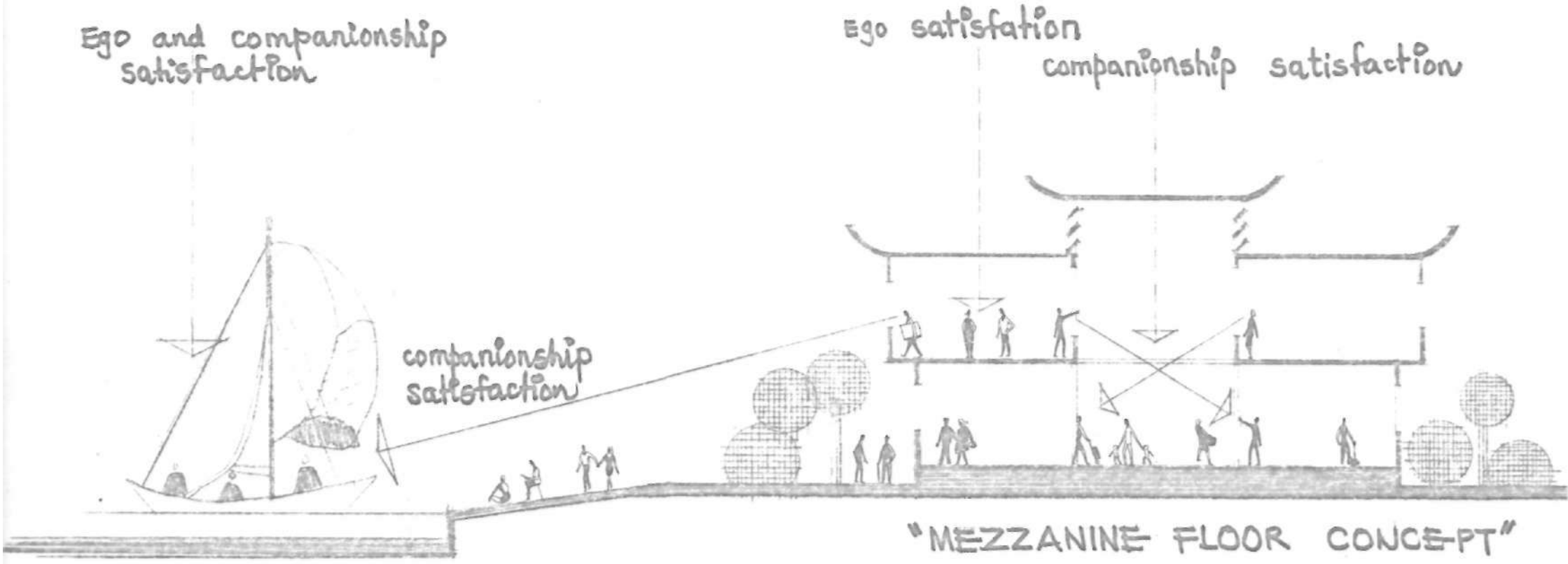
DESIGN CONCEPT.



SPACE RELATIONSHIP.

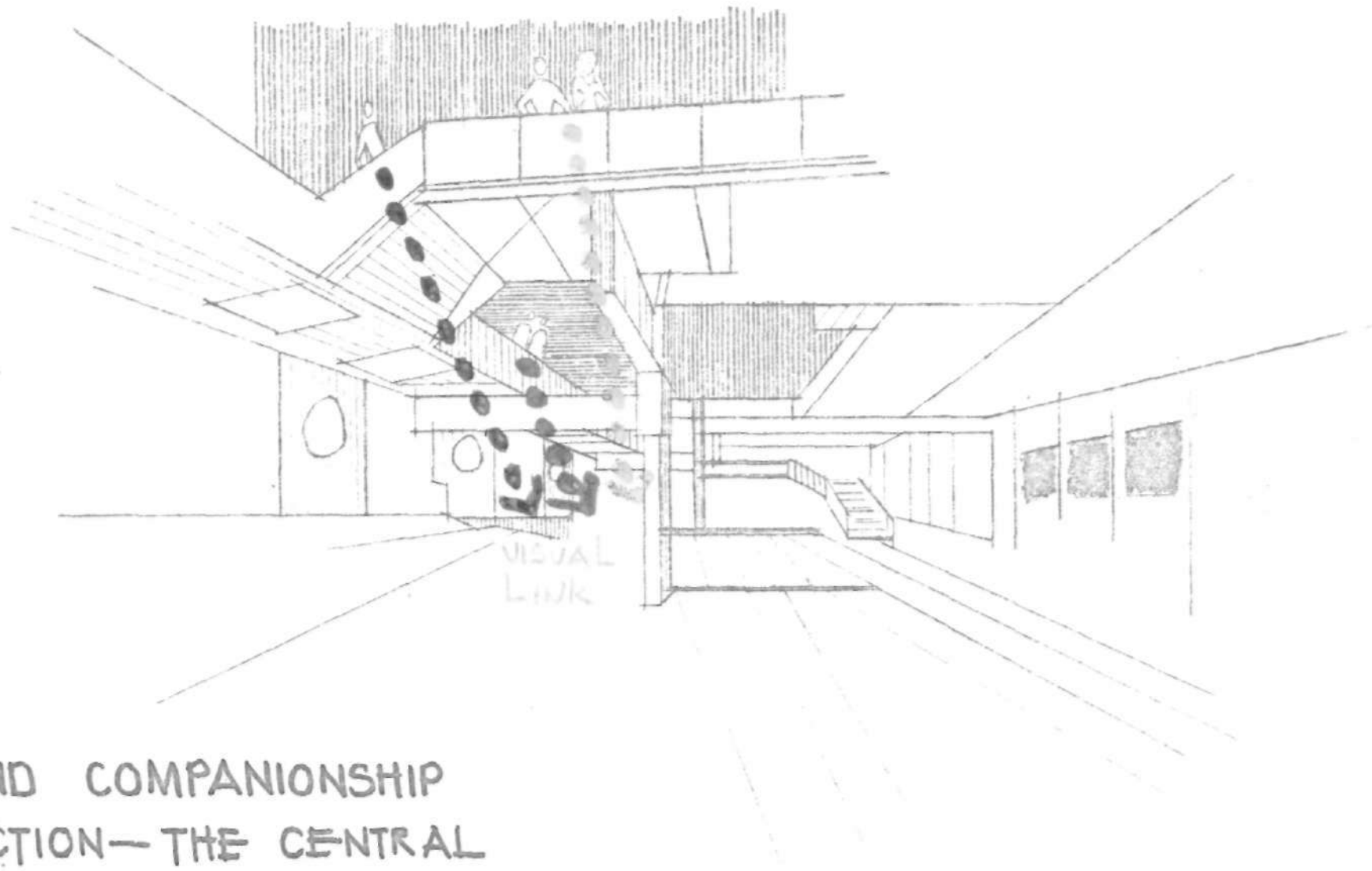


CONCEPTUAL OVERLAPPING OF SUB-CENTRES



RECREATIONAL SUB-CENTRE
EGO AND COMPANIONSHIP SATISFACTION

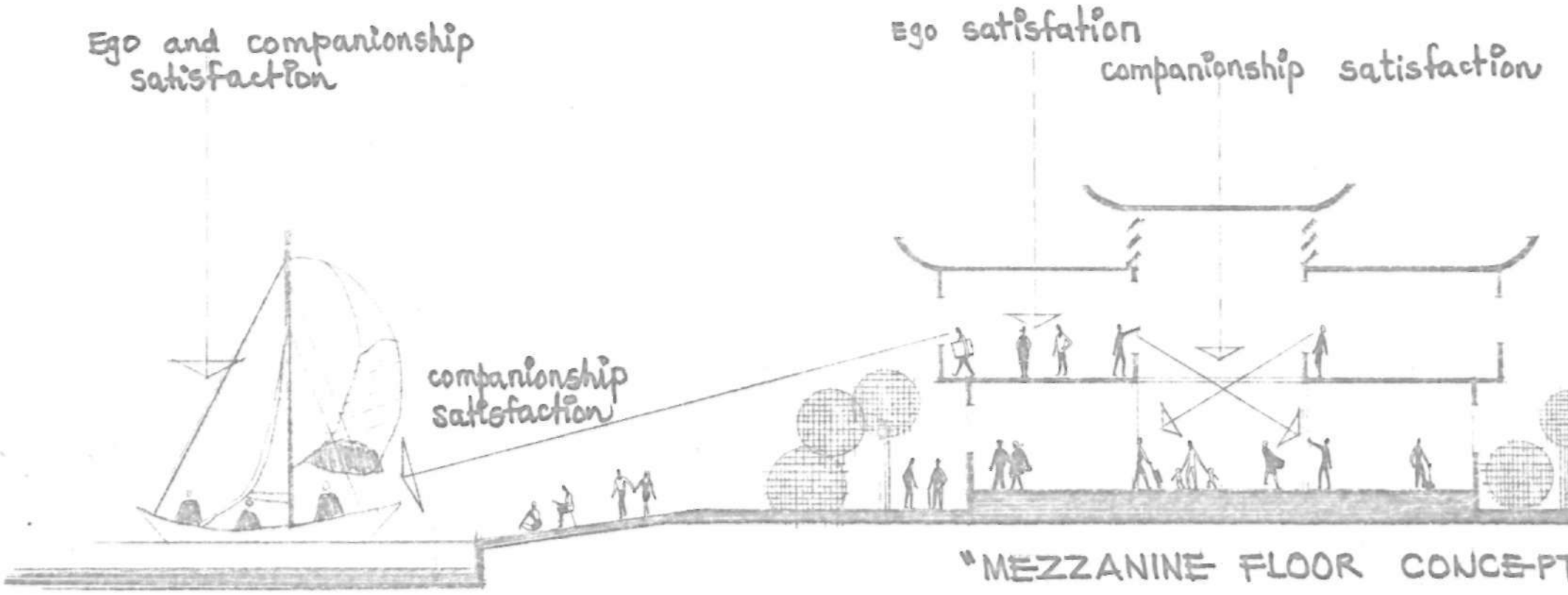
"MEZZANINE FLOOR CONCEPT"
CO-OPERATIVE SHOPPING SUB-CENTR
MATERIAL SATISFACTION.



EGO AND COMPANIONSHIP
SATISFACTION— THE CENTRAL
LOBBY CONCEPT.

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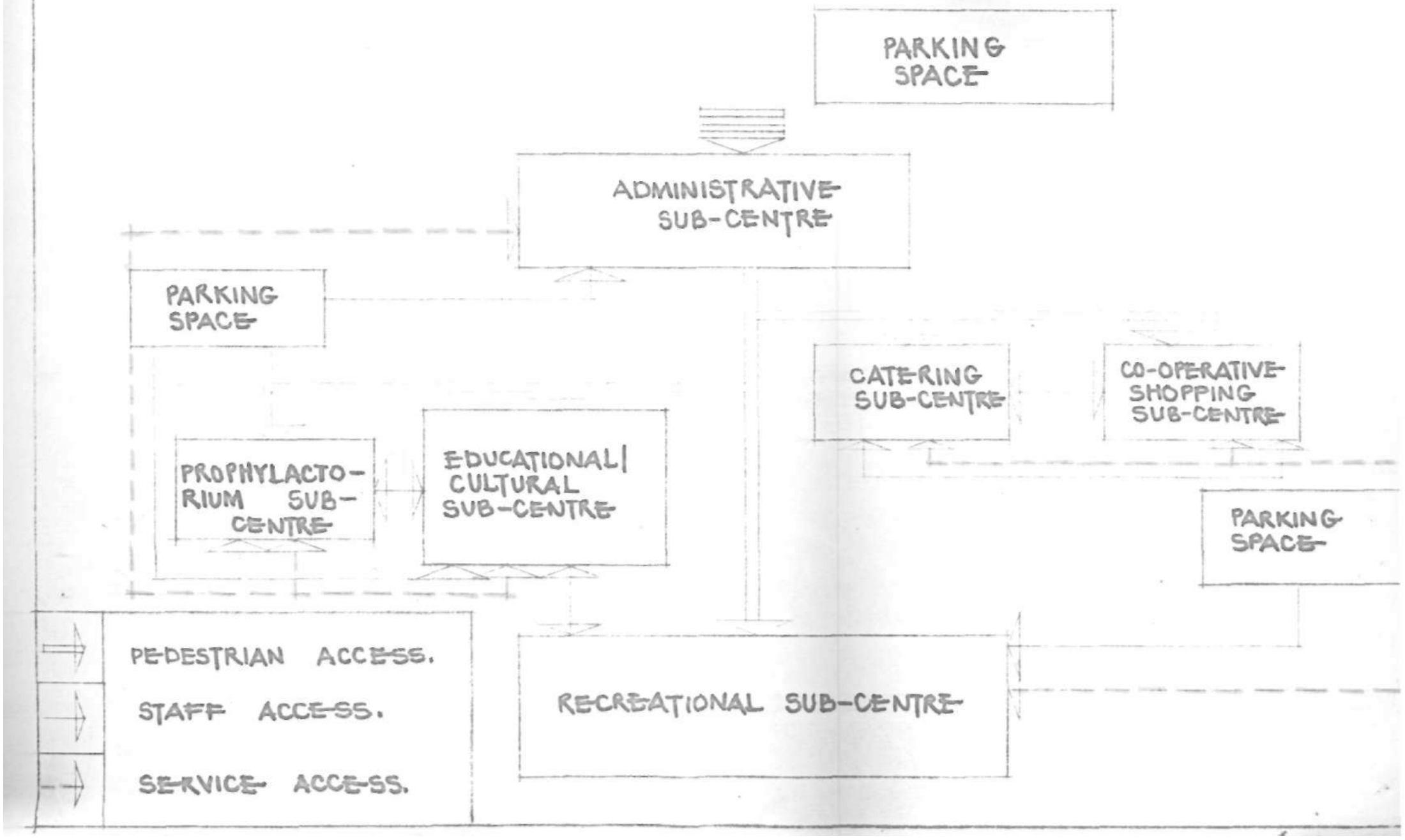
CONCEPTUAL OVERLAPPING OF SUB-CENTRES



RECREATIONAL SUB-CENTRE
EGO AND COMPANIONSHIP SATISFACTION

"MEZZANINE FLOOR CONCEPT
CO-OPERATIVE SHOPPING SUB-C
MATERIAL SATISFACTION.

CIRCULATION DIAGRAM.



CHAPTER ELEVEN

OPERATIONAL AND ADMINISTRATIVE CAPACITY OF THE HYPOTHETICAL CENTRE

A. ADMINISTRATIVE SUB-CENTRE

(i) General Administration

General Manager	1
Assistant General Manager	1
Assistant Secretaries	2
Secretaries	6
Clerks/Receptionists	5
Typists	5
Messengers/Cleaners	5
Total	25

(ii) Central Accounts Section

Bursar	1
Deputy Bursar	1
Chief Accountant	1
Accountants	2
Income Officers	4
Expenditure Accountants	2
Cashiers	4
Clerks	8
Typists	8
Cleaners/Messengers	6
Total	37

(iii) Post Office Section

Post Master	1
Assistant Postmaster	1
Supervisors	4
Assistant Supervisors/Enquiry Officers	4
Counter Clerks	6
Typists/Receptionists	3
Cleaners/Messengers	4
Total	22

(iv) Mortgage Bank Section

General Manager	1
Accountants	2
Cashiers/Tellers	6
Accounting Officers	2
Security Officers	2
Clerks/Receptionists	2
Typists	3
Cleaners/Messengers	2
Total	20

(v)	Maintenance Section	
	Chief Maintenance Officer	1
	Maintenance Fitters	1
	Technicians	2
	Electr/Physics	2
	Mechanics/Drivers	2
	Total	8
	Total for the Sub-centre	112

D: PROPHYLACTORIUM SUB-CENTRE

Secretary to the Sub-centre	1
Assistant Secretary	1
Medical Technicians	6
X - Ray Specialists	2
Medical Laboratory Technologists	2
Ear Testing Specialists	2
Eye Testing Specialists	2
X - Ray Technicians	4
Medical Record Keepers	4
Receptionists	4
Typists	3
Cleaners/Messengers	5
Other helpers	2
Total for the Sub-centre	38

C. EDUCATION/CULTURAL SUB-CENTRE

Educational/Cultural Officer	1
Assistant E/C. Officer	1
Instructors	8
Secretary to the Sub-centre	1
Librarian	1
Assistant Librarian	1
Ticket Collectors	4
Film Projector Specialists	3
Exhibition Officers	8
Receptionists/Typists	6
Messengers/Cleaners	6
Total for the Sub-centre	40

D. RECREATIONAL SUB-CENTRE

Chief Recreation Officer	1
Recreation Officer	1
Secretary to Sub-centre	1
Record Officers	4
Instructors/Coaches	8
Storekeepers	3
Maintenance Officer - Swimming Pool	1
Clerks/Receptionists	4
Typists	4
Cleaners/Messengers	6

Boat-Racing (Quay Jetty)

Boat Repairers	2
Instructors	5
Boat-Store-Keepers	2
Informal Bar girls	2
Cleaners/Messengers	4
Total for the Sub-centre	48

E. CO-OPERATIVE SHOPPING SUB-CENTRE

Sales Manager	1
Assistant Sales Manager	1
Market Researchers	3
Item Importing Officers	3
Sales Supervisors	4
Sales Assistants	12
Store Keepers	2
Supply Trailer Drivers	6
Clerks/Typists	6
Cleaners/Messengers	8
Total for the Sub-centre	47

F. CATERING SUB-CENTRE

Catering Officer	1
Assistant Catering Officer	1
Secretary to Sub-centre	1
Money Collectors	6
Cooks	10
Servers	8
Washers (Plates, Cutlery, Cups)	12
Other Helpers	8
Clerks/Typists	3
Cleaners/Messengers	6
Total for the Sub-Centre	56
Grand Total	341

CHAPTER TWELVE

COMPUTATION OF NUMBER OF FACTORY WORKERS TO BE INVOLVED IN THE USE OF PROPOSED CENTRE

The initial assumption is that there would be eight factories to one hypothetical centre. I have computated number of workers in a typical factory as follows:

SECTION	OPERATION	No. of Workers: Workers/ Shift	No. of Workers: Total No. of Workers
A. OPERATIONAL STAFF	Foremen	11	33
	Operators	21	63
	Helpers	20	60
	Clerks	4	12
	Lift drivers	2	6
	Sub-total	58	174
B. MAINTENANCE STAFF	Laboratory Supt.	2	4
	Lab. Assistants	4	8
	Lab. Attendants	4	8
	Technicians	8	24
	Draftsmen	5	10
	Storekeepers	3	6
	Craft foremen	4	12
	Skilled foremen	10	30
	Maintenance Technicians	6	6
	Janitorial services	10	30
	Clerks/Store-Keepers	5	10
	Sub-total	61	148

	SECTION	OPERATION	No. of Workers: Men/ Shift	No. of Workers: Total No. of Workers
C.	POWER SERVICE AND UTILITIES	Foremen	6	18
		Operators	9	27
		Helpers	11	33
		Sub-total	26	78
D.	MISCELLANEOUS	Truck drivers	3	6
		Guards and Security men	6	18
		Others	5	10
		Time-Keepers	2	6
		Sub-total	16	40
	TOTAL		160	440

It is assumed there will be 160 administrative workers from a typical factory. Hence:

Factory workers	440
Administrative workers	160
Total	600

At a shift, therefore, there would be roughly one-third of this total number of workers from a typical factory who would branch to use the facilities at the hypothetical centre. This gives 200 workers. Since there would be eight factories as indicated above, the total number of users at the centre for one-third of a day gives 200 x 8 = 1,600.

The factory workers are assumed to be permanent users while the administrative workers are temporary users.

On the whole, there would be about 6,000 users, the breakdown of which is as follows:

Permanent Users	3,520
Temporary Users	1,280
Hypo-centre workers	341
*Community	859

* Community refers to a percentage of the total population of Oshogbo (about 1%) plus industrial workers' families and their dependants.

CHAPTER THIRTEEN

SCHEDULE OF ACCOMMODATION REQUIRED

All the given figures are in square meters.

A. ADMINISTRATIVE SUB-CENTRE

(i) General Administrative Section

General Manager's Office + Toilet	54
Reception/Clerks or Typists/Waiting Room	54
Board Room	108
Committee/Conference Rooms (2) (108 x $2m^2$)	216
Assistant General Managers' Office	36
Reception/Waiting/Typists' Room	36
Administrative Secretaries (2) (2 x $24m^2$)	40
Reception/Waiting/Typists' Room	24
Secretaries' Officer (6)(24 x $6m^2$)	144
Common Typing Pool	36
Stationeries' Store	36
Senior Staff Toilet :	
Male	15
Female	15
Junior Staff Toilet:	
Male	20
Female	20
Total	860

(ii) CENTRAL ACCOUNTS' SECTION

Bursar's Office + Toilet	45
Reception/Typists/Waiting Room	42
Deputy Bursar's Office	42
Reception/Typists/Waiting Room	42
Committee Room	42
Chief Accountant's Office	36
Accountants' Offices (2)(24 x 2m^2)	48
Typing/Waiting Room	42
Pay Office	72
Income Officers' Offices (4) (24 x 4 m^2)	96
Clerks' Offices 2 (24 x 2 m^2)	48
Total	545

(iii) MAINTENANCE SECTION

Chief Maintenance Officer's Office	36
Reception/Waiting/Typist's Room	36
Maintenance Officer's Office	24
Reception/Waiting/Typist's Room	24
Technicians' Office	24
Maintenance Store	36
Total	180

(iv) BANK

Main Bank Floor (Workers + Tellers)	480
Industrial Workers' Lounge	48
Bank Vault	24
General Manager's Office + Toilet	36
Reception/Waiting/Typist's Room	72
Accountants (2) (36 x 2)	72
Waiting/Typist's Room	36
Staff Changing Rooms + Toilet:	
Male	12
Female	12
Total	792

(v) POST OFFICE

Main Public Space + Counter	252
Telephone booth	6
Enquiry Room	12
Delivery Room	28
Post Boxes' space	8
Despatch Room	20
Superrisers' Offices (3)(3 x 36)	100
Postmaster's Office + Toilet	40
Waiting/Typists Room	36
Total	510

(vi) Main Lobby

Reception Space	96
Public Toilet :	
Male	24
Female	24
Magazines' Stand + Sitting Space	48
Permanent Exhibition of Factory products	48
Informal Bar	48
Total	288
Sub-centre's grand total	2,995.

B. PROPHYLACTORIUM SUB-CENTRE

Industrial Workers' Waiting Room	96
Toilet: Male	12
Female	12
Reception/Records' Room	64
Film, Filing Room	28
Clean linen store	14
Dirty linen store	14
Sub-waiting area	56
Testing Room 1 + changing cubicles and dark room	100
Testing Room 2 + changing cubicles	120
Laboratory	96
Equipment Store	60

Chief Radiographer's Office + Waiting Space	64
Instructional Rooms 3 (3 x 96 m^2)	288
Staff Common Room + Toilet	96
Equipment Store (Demonstration)	60
Conference Room	64
Secretary to Sub-centre's Office	36
Assistant Secretary's Office	36
Typists'/Waiting Room	36
Subcentre's grand total	1,344

C. <u>EDUCATION/CULTURAL SUB-CENTRE</u>

Exhibitional Rooms Convertible to classrooms (10) (10 x 80 m^2)	800
Exhibitional Rooms Convertible to stores (4) (4 x 40 M^2)	160
Public lobbies (2) (2 x 40 m^2)	80
Flexible Class rooms (9) (9 x 96 m^2)	864
Cloakrooms + Toilets: Male	48
Female	48
Staff Common Room	96
Reference Library	108
Librarian's Office + Waiting space	64
Educational/Cultural Officer's Office	40
Assistant Educ./Cult. Officer's Office	36
Secretary to the Sub-centre's Office	36

<u>Open-Air Theatre</u>:		
Seating space		400
Stage		48
Dressing Rooms + Toilet:	Male	50
	Female	50
Industrial Workers' Toilet:	Male	16
	Female	16
Informal Bars (2	(2 x 16 m^2)	32
<u>Gymnasium + Swimming Pool</u>:		
Changing Rooms + Toilet:	Male	200
	Female	120
Treatment and Plant Room		108
Swimming P	+ Diving boards	325
Seating arrangement		360
Workers' lobby/reception		144
Workers' Toilet + Cloakroom:	Male	40
	Female	40
General/Equipment Store(s)		72
Gymnasium		432
Terrace Lounge/Viewing Hall		144
Seating space for gymnasium		72
Bar + Store		48

* <u>Quay - Jetty</u>		
Storage space for mooring facilities		96
Rack and Land storage for boats		480
Control Office		150
Changing Rooms:	Male	150
	Female	120
Repair Shop(s) to accommodate 6 boats at a time		240
Space for display and sales of boatmen's hardware and gear etc.		120
Space for about 400 spectators		440
Spectators' toilet :	Male	16
	Female	16
Informal Bar		16
Grand total for the sub-centre		4,763

E. <u>CO-OPERATIVE SHOPPING SUB-CENTRE</u>

Storage Room(s)		200
Goods' lift		32
Mechanical Plant Room(s)		24
Staff changing rooms + toilet:	Male	30
	Female	30
Storekeeper's Office		16
Stand-by Storage space		32
Display/Sale's space		480
Sales Manager's Office		24

* Figures under quay-jetty are tentative.

Reception/Typists/Waiting Room		24
Assistant Sales Manager's Office		16
Typist/Waiting Room		24
Secretary to the sub-centre's Office		16
Typist/Waiting Room		16
Market Researchers' Offices (3)(3 x 16)		48
Typists' Office		24
Item importing officers' offices(3) (3 x 16)		48
Typists' Office		24
Store		16
Senior Staff Toilets:	Male	12
	Female	12
Junior staff toilets :	Male	12
	Female	12
Grand total for the sub-centre		1,172

F. CATERING SUB-CENTRE

Dining Space		480
Workers' Toilets :	Male	16
	Female	16
Drinking Space		300
Kitchen		120
Store + Storekepper's Office		160

St[illegible] changing rooms + toilets: Male	36
Female	36
Catering Officer's Office	36
Typists/Waiting Room	36
Assistant Catering Officer's Office	24
Secretary to sub-centre's Office	24
Bar + Bar storage space	36
Grand total for the sub-centre	1,320

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CHAPTER FOURTEEN

DESIGN APPRAISAL

1. THE DESIGN

The architecture is physically, psychologically and socially relieving, adding to the reduction if not the total elimination of the industrial workers' emotional derangement. It is a conserving and healing machine (hypothetical centre) not a straining machine (the factories).

2. CONTROL

The site, being very near the confluence of two rivers, is naturally well secured. However, I have provided two exits and entrances to the centre. These are the main vehicular-cum-pedestrian approach and the pedestrain approach from the industrial workers' housing site towards the south. The distance between the two rivers and along the vehicular road linking the factories' site with the workers housing site is fenced. Pedestrians walking by the side of the fence could, however, have a sense of belonging to the centre immediately they cross any of the two rivers. This would give effective control.

3. SYMPATHY WITH THE LANDSCAPE

The author has made considerable effort not to disrupt the natural features of the site - water-

body, slope of the site, form of the confluence of the rivers and the greeneries. The forms of the structures from the main approach to the centre conform with the shape of the lake to the beholder from the gate. To break any monotony that might arise, however, some contrasting forms are introduced within the centre e.g. workers' open air relaxation spot immediately after the administrative sub-centre, the co-operative sub-centre etc. By introducing a sort of "split level system", the slope of the site towards the lake is maintained.

4. CLIMATOLOGY

Under Oshogbo's climatological conditions, man needs large open spaces for thorough ventilation and shaded areas for confort against heat. The author has considered this in no small measure. Open air seating arrangements are amply provided to create a sharp contrast to what happens within the four walls of a factory.

For all the West and East facades and where thorough concentration is not needed as in the classrooms for example, adjustable vertical sunshading devices are provided to serve as sun breakers. An individual can easily adjust them to have visual release from outside. For example some one on the first floor of the administrative sub-centre can

have visual link between himself and the lake. On other facades, combination of vertical and horizontal concrete slabs are used as shading devices. Efforts are however made to have visual continuity between the outside and the inside.

5. MATERIALS AND STRUCTURES

Capital cost is reduced when materials are readily available Because of the micro-climatic condition of Oshogbo, concrete and asbestos materials will be very efficient. Fortunately, concrete is a very pliable material and will satisfy many psychological and aesthetical conditions. It is incumbent on this thesis to provide an atmosphere that promotes relaxation. One major way of achieving this and which the designer has employed is the use of relaxed structures mixed with natural objects.

6. FLEXIBLE SPACES

(a) PROPHYLACTORIUM SUB-CENTRE

At the exhibitional wing of this sub-centre, the covered spaces are somehow multi-purpose. They could be used for afterwork meetings when there is nothing to exhibit. They could be converted to seminar rooms for various number of workers. The instructional wing can also accommodate various number of workers.

(b) EDUCATIONAL/CULTURAL SUB-CENTRE

The theatre could be used in various ways. It could be used as a theatre-in-the-round (arena type) to accommodate 600 workers; as three lecture theatres each accommodating about 180 workers; as proscenium theatre to accommodate 470 workers; as a thrust stage theatre to accommodate 400 workers or as a small theatre for choral songs, drama or rehearsal to accommodate 200 worker-spectators. The ceiling is flexibly designed to be adjusted in line with any change in use. The three pairs of folding partitions are sound absorbent to eliminate any sound penetration when the three lecture theatres are in use.

More-over, the classrooms can be used to accommodate about 40 workers for teaching or 120 workers for after-work meeting when used as one; 60 workers each when used as two; 40 workers each when used as three.

7. SERVICES

(i) FIRE PROTECTION IN THE CENTRE

(a) Nature of Risk - Human life is predominantly exposed to fire risks. Industrial workers often become exhausted after a day's work and it

is then they would branch to this centre. They are then not smart enough to totally save themselves in case of fire outbreak. Planning has, therefore, been done to minimize outbreak of fire.

(b) Planning to Minimize Fire Risk

Area of high fire risk or high life risk is almost a separate compartment. The boundaries of the compartment are the floors above and below both internal and external walls.

Moreover, the risk of fire spreading from outside has been prevented by using non-combustible external walls; spacing buildings to a minimum of eight metres and by using fire resistant glass.

Every compartment exceeding 60 m^2 has a minimum of two exits . No point in a compartment is more than 30 metres from the nearest exit.

(ii) ACOUSTIC SERVICES IN THE HYPOTHETICAL CENTRE

(a) Sources of Noise - Noise generated in the neighbourhood includes the noise from the factories, commercial houses,

city workshops, warehouses and railway station. Noise generated within the centre includes: direct impact induced sound such as footfalls of person walking on the above floor; vibration from mechanical equipment, transmission through ducts, pipes and key hooks.

(b) General Treatment - Both horizontal and vertical principles have been adopted by the designer i.e. spaces with relative noise levels are grouped together while spaces with quiet but located near the main sources of noise have green areas forming a sort of "baffle zone" for them. Another method is avoidance of hole in construction element such as cracks around pipes, and openings above partitions. Such leakages can be controlled by inserting solid, impervious barriers in the openings or at the smaller cracks and holes by packing the resilient materials with mastic. These cracks have partially been avoided at drawing stage.

8. OTHER SERVICES - THEIR REQUIREMENTS AND FUNCTIONS

1. POWER PLANT : This may be in form of steam-generating boilers. Their function would be for steaming equipments in kitchen, repair

workshop and laboratories.

2. AIR CONDITIONING: This depends on climate variability to suit the needs of the sub-centres. Special consideration should be given to prophylactorium sub-centre and other special areas like the multi-use theatre.

3. VENTILATION: A system of mechanical ventilation may be extended to kitchen, internal lavatories as in the threatre, bathrooms and all other places where natural ventilation is insufficient.

4. INCINERATOR: A system would be combined with a major incinerator plant for the disposal of contaminated and bulk wastage. The function of this would be for the disposal of the hypothetical centre's dressing waste - by means of automatic incinerators located throughout the centre.

5. OTHERS:

   (a) Cold water - To be stored in tanks located on roofs in sufficient minimum quantity to meet a day's total use.

   (b) Waste and Soil - Disposal of waste and soil water could be either to authority's main drains or sewage treatment disposal plants.

(c) Rain Water - Disposal of rain water depends on local conditioned storage facilities.

(d) Mechanical Gases - These comprise compressed air, vacuum oxygen, carbon dioxide, nitrogen. They would be piped from central storage area.

(e) Service Plant - In addition to power plant, the followings are also necessary:

(i) Cold storage of food and drink

(ii) Kitchen equipment

(iii) Laundry equipment.

(f) Electrical Installation - Total capacity requirement depends on size of the hypothetical centre.

APPENDIX I

QUESTIONNAIRE USED FOR THE SURVEY

1. (i) Name .....
   (ii) Age .....
   (iii) Marital Status.....
   (iv) Place of Work .....
   (v) Type of Work .....

2. What is your job here? (Be specific)

3. Have you always done the same work since you started work here or have you done different jobs? (Specify all jobs)

4. Have you ever taken a trade test?
   (i) Yes, passed in
   (ii) Yes but failed in
   (iii) No, never tried.

5. (a) Are any of your relatives or men from your home-town working here?
   (i) No
   (ii) Yes

   (b) Were they working here before you came or have they come since?

(i) Before

(ii) Since

(iii) Both

6. How many weeks or months were you unemployed between your last job and this one?
(IF FIRST JOB, BETWEEN LEAVING SCHOOL AND THIS ONE).

7. (a) What did you do during that time?
(b) How did you go about finding this job?
(c) Have you ever paid a dash to get a job?
(d) How long did it take you to learn the job you are doing now?
(e) What is there about this job that you like?
(f) What is there that you dod not like?
(g) What things would you like changed or improved?

8. How do you get to work?

(i) walk

(ii) bus

(iii) lorry

(iv) car (state one you do most)

(v) combination of above

9. How long does it take you from the time you leave home until you arrive at work?

(i) under 30 minutes

(ii) 30 - 60 minutes

(iii) 1 - 1 1/2 hours

(iv) varies.

10. Do you eat before starting work -- either at home or on the way?

(i) No

(ii) At home

(iii) Chop bar

(iv) Street shelter.

11. Do you ever meet men that you work with in the evenings or on week-ends - to drink together, or go to football matches or sit and talk?

(i) No

(ii) Yes

If yes, are they relatives of yours or do they come from the same town or the same tribe?

12. How many times were you absent from work in the last month?

(i) None

(ii) .....times

If (ii) above, what was the main reason why you stayed away from work?

13. Do you work or stay out of work on week-ends?

(i) work

(ii) stay out of work

If (ii), state reasons.

14. How many evenings per week do you normally go out? (Be specific)

15. How much do you spend per week on entertainment?

APPENDIX II

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