NSUKKA CAMPUS OF THE DIVERSITY, OF NIGERIA IN THE 2000 A. D.: A DEVELOPMENT PLAN.

M.Sc. (U.R.P) THESIS

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This is to certify that this thesis has been submitted in partial fulfilment of the requirement for the award of Master of Science (Urban and Regional Planning).

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JUNE 1980.

D E D I C A T E D T O.

MY FATHER, LATE DAVID O. UGWUANYI

WHOSE FORESIGHT AND PERSEVERANCE

HAS BEEN RESPONSIBLE FOR WHAT

SO FAR IS

AND TO

MY COUSIN, GUARDIAN AND FATHER

OKWUEZE, ANTHONY EGWUEKE.

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CHAPTER I

1.0 INTRODUCTION

Development of Universities is a problem that has faced different nations of the world at different times. The problem posed by university development are varied and come up severally or singly at different times.

One of the most frequent and most common problems of university development is the ever increasing number of prospective students in the face of fewer available places in the universities. This problem, often is due to natural increase in population which bring about an ever increasing percentage of qualified students. This problem, although world wide is often more acute in countries at lower stages of development.

Other problems of university development often stem from this first one. Increase in the number of qualified candidates that fail to secure admission often introduce the question of how many universities to have in a country. In the early 20th century, Britain sought to solve this problem by establishing new universities, upgrading colleges of technology, and expanding the existing universities.[1] Even then the problem was merely marginally touched and Britain had to set up a special committee to examine the situation in 1963.

The other problem that results from the increased number of candidates and so increased intake is that of university sites. With students number increased, policy on siting of

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[1] Dober R.P. (1965) The New Campus In Britain. Educational facilities laboratory. New York.

universities become necessary with regards to expansion-potentials. Such policies include Urban in-filling - locating student houses in sections of urban areas, as was the case in Oxford and Cambridge[1] and Locating new universities in rural areas for availability of land.

Arising from the siting of the universities is the problem of university-city relationship. The question of level of integration desirable and how to achieve this integration surfaces. What urban site for universities gained in terms of integration, the rural site lost by isolation. but gained convenience.

Within the specific sites, the universities contends with the problem of anonymity. The question of forms of housing and design criteria that would encourage social interaction then surfaces.

In the more developed countries, attempts have been made to solve these problems through different designs attempted in development plans. Examples include various forms of collegiate systems as well as the use of common facilities as meeting points. In the developing countries, the situation has been otherwise. Often than not, universities are established without any policies or forethoughts as to its growth or the method of forestalling the problems mentioned above.

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[1] Jordan,F. (1968) "University Development Plans - Analysis of Functions" in the Architects Information Library, Jan. 31st 1968.

In Nigeria, the problem of increased number of candidates qualified for admission being grossly higher than places available is well known. It even dates back to the time when the university of Ibadan, (then University College, Ibadan) determined the number of intakes by the number of places available. Between 1960 and 1977, the number of universities in Nigeria increased from three to 13 and there are proposals for many more. This is indicative of the increased number of candidates seeking admission.

Yet, it is only of recent that some Nigerian Universities were provided with development plans. In fact, only the New Universities had development plans on their establishment. The older ones, but for Ife had none.

1.1 Statement of the Problem

The University of Nigeria, being one of the older universities, and despite the enormous increase in its student enrollment as well as staff number, has no development plan up till now.

The absence of a development plan not-with-standing the university continued expanding areally and in the range of courses offered. In 1979, it had a total population of 7,660 out of which 5,602 students were in Nsukka. Initially, physical development in terms of living accommodation for the students and staff and that for the teaching space kept fairly apace with the growth in population. Locational decisions of buildings and other

facilities were, non-the-less, made on ad hoc bases with little consideration for the future use of space. Functional relationship between different elements of the university were not discernible. In fact, as a one time Vice-Chancellor of the university, Professor Kodilinye put it, "An initially attractive site was rudlessly transformed into an architectural nightmare"[1]

The outbreak of the Nigerian civil war in the late 1960s forced the university to close down. At the end of the war, the university campus was in ruins. Buildings were either partly or wholly destroyed, furniture ransacked or destroyed and basic infrastructure like roads, water or electricity non-existent.

Rehabilitation and reconstruction of the campus was very slow. The governments of the East Central State and Cross River State that owned it jointly lacked the funds to do so. The Federal Military Government was reluctant to shoulder the responsibility of these states. Yet the end of the war brought enormous increase in the number of qualified candidates seeking for admission into the university.

The University was faced with the options of maintaining low in-take level in relation to available facilities and thereby turning down a large number of qualified candidates yearly and that of increasing the in-take level but leaving the willing students to cope as best they could.

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[1] Kodilinye, H.C. (1971) quotted in Eze, J.C.N. (1972) "Town Planning" a Seminar paper presented at a Seminar organised by the Institute of African Studies. U.N.N. 1972.

The University Authorities opted for the later. By 1973, the enrollment had risen from a 1970 figure of 1,815 to 4,679 out of which 3,783 students were in Nsukka Campus.

The result was predictable; an acute shortage of all types of accommodation - student, staff and teaching - as expansion in courses and student population were not matched with physical development. In an attempt to offer a temporary solution, the university authorities embarked on erection of prefabricated buildings and low quality, small unit houses that are space consuming. See Plate 1.1.1.

It was at this point in time that Professor Kodilinye, the Vice-Chancellor proposed a collegiate system. He had a development plan prepared for the University on that basis. All attempts to get at that plan during fieldwork failed. However, his idea was not bought by majority of the people and when he left the University in 1975, the idea was abandoned. Thus the only plan that was drawn was never executed.

1.2 Justification for the Study

The authorities of the University of Nigeria have drawn policy proposals for the further expansion of the Nsukka Campus both in population and course structure. These proposals which have been approved by the National Universities Commission envisages an increase of the students population from the present level of 7,660 to an ultimate level of 13,648 by the year 1990.[1]

[1]The figures were computed from the proposals on Academic Development for Master Plan 1979/80-1989/90 prepared by the University of Nigeria.



Plate 1.1.1 The Students Affairs Office
Housed in a Prefab.



Plate 2.5.1 Prince Alexandria Auditorium
The Relic of a Civil War that ended
ten years ago.

The courses structures are also to be expanded entailing the establishment of many more departments.

The spatial implication of these proposals are obvious particularly as there is need for a re-appraisal of the present use of space.

There is need, therefore, for a development plan to guide the proposed expansion programme in physical terms; a development plan that will ensure that the school grows in a rational and coherent manner until it reaches its ultimate size.

1.3 Goals and Objectives

In view of the fore-going, therefore, the following goals and objectives have been formulated as a means of identifying the problems of the university and proposing guidlines for its physical development.

1.3.1 Goals

(i) To provide for a planned growth of the university up to the year 2,000 a.d.

(ii) To improve the environment so as to stimulate interaction within the university and integrate the town and the university to the degree possible.

1.3.2 Objectives

(i) A survey and assessment of the adequacy of the existing accommodation for living and teaching space.

(ii) Providing a structure plan for the university

(iii) Programming the expansion of the university

(iv) Distributing and linking of residences and places of work so as to induce greater interaction among the people of the university.

(v) The provision of the necessary road network and social facilities to strengthen the relationship between the university and the town.

1.4 Scope and Limitations

Campus planning is a wide topic which covers a lot more than the planner is prepared for. In fact a development plan for a university requires the contributions of experts from varied professional areas including Architecture, Engineering, Surveying, Quantity Surveying and the rest.

In this study, therefore, the researcher is directing his efforts mainly to that aspect of the development plan project that normally would have been the lot of a planner in such a team of professionals as mentioned above.

The study focuses on the determination of area requirement and the allocation of areas for different uses. After the structural plan have been produced, the real detailing of buildings usually falls outside the work of the pure physical planner and this is not considered here.

But the planning that goes on in any part of a city system has great implications on the whole city-system. Therefore, the environment of the Campus is considered in terms of what would be the relationship between the planned campus and its environment. Attempt is made at achieving a convenient level of integration between the two.

The planning of a university campus could be on a virgin land for a new university, the extension of an existing university to a new but different site or the expansion of an existing one on a site contiguous with the existing institution. Each of the above poses its own problems and limitations.

Nsukka Campus has been in existence since 1960 and buildings and infrastructural development have been going on. Therefore, the existing situation will, to a large extent, limit the scope of the design and determine a lot about the placing of the elements.

Another limitation faced by the researcher was the problem of relevant data. Some of the information that would have been of use to the study of the history of the campus, went with the war. The university has just set up a planning unit which is making efforts to collect what could be collected from various sources. In fact, in some cases, tables of data given in the same booklet with reference to a particular issue but compiled by different departments differ. The author, had in some dases to resolve the issue by himself.

There was the problem of literature on the design of the university campuses. Unavailability of Known books on campus planning was encountered but the author had to do with what could be got.

Furthermore, up-to-date maps of the campus as well as of the Nsukka town were not available. However, the available ones had to be up-dated through field survey.

1.5 Methodology

The Study is basically design oriented. Thus, the first stage of the work would be the analysis of the existing situation. Planning for the future should be out of the experiences of the past and present. It will give the basis on which the future can be forecast.

Next in the process is the determination of the future requirements of the community. The university already has a population projection up to the year 1990 which has been accepted by the NUC. But institutions are rarely static and the growth of the university should not be expected to terminate by the year 1990. So, basing on the rate of projection by the university and modifying it to give the expansion within the last decade a stabilizing character, the projection for the year 2000 a.d. was made. While the University had a 1990 student population projection of 13,648, the year 2000 a.d. will have that of 15,000. There is also the projection of staff population.

On the basis of the NUC recommended standards, the requirements for the population at each stage of the development plan is determined and a structure plan is produced there from.

1.6 The Structure of the Thesis

The thesis has been divided into seven Chapters. The first chapter deals with the introduction.

Chapter II examines Nsukka Town. The history of the town and the University Campus are examined. It also assesses briefly the impact the university has had on the town especially in physical terms.

Chapter III analyses the existing situation within the campus with a view to determining the needs of the university community currently.

Chapter IV examines the population projections of the students and staff and the development planned for the faculties and the departments. On the bases of these, the future requirements of the university in terms of space and faculties are determined.

Chapter V reviews the literature connected with Campus planning and states the planning principles as well as the general concept for the development plan of the university.

Chapter VI specifies the development plan. It details out the proposed landuse system and gives the external links for the integration of the university and the town. Distribution of facilities and utilities are also proposed.

Chapter VII gives the guidelines policies for the implementation of the development plan.

CHAPTER II

THE NSUKKA TOWN AND THE UNIVERSITY CAMPUS

2.1 Location and Setting of Nsukka Town

Nsukka town lies at the intersection of latitude $6^{o}51'N$ and longitude $7^{o}25'E$. It is located 66 km north of Enugu the capital of Anambra State. Fig. 2.11 refers. The town is the headquarters of Nsukka Urban Local Government Area and the focal point of roads from the other sorrounding four Local Government Areas - Isi-Uzo, Uzo-Uwani, Igbo-Etiti and Igbo-Eze - that together with Nsukka made up the old Nsukka Division.

2.2 Physical Features.

Topography: Nsukka is built generally on Nsukka plateau of the Nsukka - Okigwe Cuesta. It lies generally between 365 metres and 440m above sea level. The Plateau slopes gently to the west at a very low angle of about 2^{o}.[1] From the plateau, isolated residual hills rise to between 100m and 120m reaching peaks of 545 metres in places. These isolated hills have dome, conical or flat-topped summits. Fig.2.6.1. The plateau is heavily dissected by a network of wide, dry valleys. These dry valleys have been identified as normal river valleys in the past which have suffered desiccation due to climatic oscillation.[2]

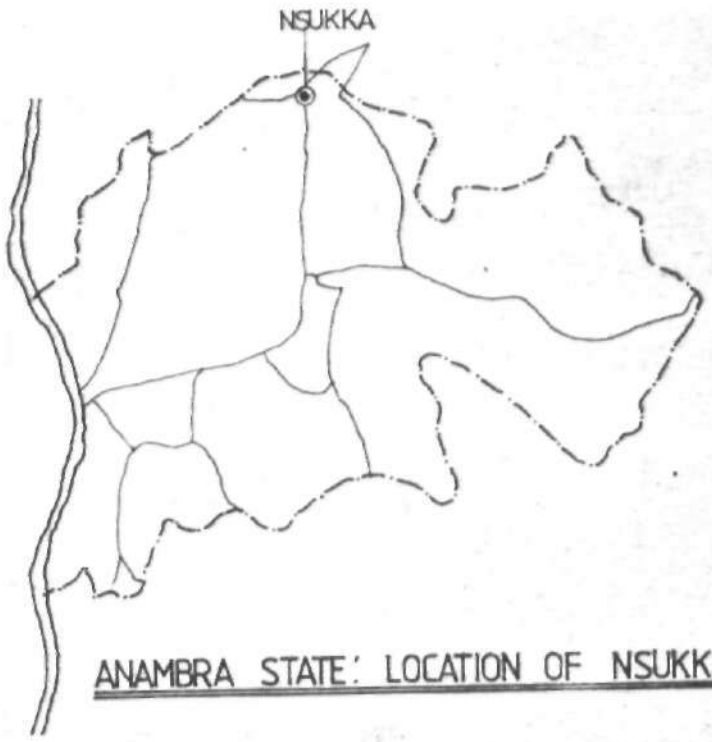
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[1] Ofomata, G.E.K. (1978) "Landforms" in Ofomata, G.E.K. The Nsukka Environment, Fourth Dimension Publishers. Enugu. p.72

[2] Ofomata, G.E.K. (1978) ibid. p.79.



NIGERIA: LOCATION OF ANAMBRA STATE



ANAMBRA STATE: LOCATION OF NSUKKA

FIG. 2.11

Geology: Nsukka is under lain by false-bedded sandstones and upper coal measures. The sandstones which have been more easily eroded comprise the dry valleys and the plateau while the upper coal measures which are less amendble to erosion cap the residual hills.

Drainage: Due to the presence of the false-bedded sandstones which is highly permeable and pervious, the rate of infiltration of rainwater is very high. This, in combination with the desiccation of the area, have resulted in scanty surface drainage in the town. However, there exists, seasonal springs from perched aquifers on the slopes,

Climate: Due to the location of Nsukka the angle of the sum is always near vertical. The daily temperature ranges between 21°C and 27°C with an annual mean temperature of 25°C. The climate is of the tropical wet-and-dry (savanna) type with an annual mean rainfall of 1,648mm. The rains are both conventional and oragraphic in nature. November to March are months of drought when the tropical continental air mass dominates the area bringing cold, dry and discomforting trade winds. July and September are the months of highest rainfall. Fig. 2.2.1

The soils of Nsukka are ferrallitic. Built on the false-bedded sandstone, the soils are reddish, deep and porous They are well drained and of good texture. From a loamy sand on the top, they grade down to sandy-loam at the bottom.

Nsukka town lies between the savanna and the rain-forest areas of the country and has been described as possessing forest-savanna mosaic. Annual bush burning that characterise agricultural practice in this area coupled with the persistent dry conditions is reducing the vegetation into a derived savanna amidst which only fire and drought resistant shrubs are surviving.

2.3 Nsukka Town Before 1960

Nsukka people are the northern Igbos. Like the Igbo people, their origin have remained an insoluble problem to researchers. According to Ikeme, a school of thought believed that the early settlers of Nsukka migrated from Igala.[1] This view originated from the similarity in culture between the Igalas of Benue State and the people of Nsukka particularly in their system of Kingship (Attamaship). The Nsukka elites denying this argue that similarity of culture was due to contact brought about by frequent invasion of Nsukka by Igala.

Another school of thought believes that Nsukka people are the descendants of the Nri-Njikoka people - a people that once controlled trade over a great portion of the then south-eastern-Nigeria. But like the first school of thought contact brought about any similarity that might have been observed.

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[1] Ikeme, C.G. (1973) "Nsukka: The Emergence of a University Town". A Seminar Paper presented in June 1973.

However, these two group of people had great impact on the early lives of the Nsukka people, the former forcefully and the latter more peacefully through trade.

The people of Nsukka live in groups scattered according to kindred. The choice of the plateau cannot be said to have been controlled by the quest for water. But once made, the location was always close to a spring.

The foundation for the urban status enjoyed by Nsukka today was laid sixty years ago when in 1920, Nsukka became the headquarters of the then Obolo Division and had a government station established there. The choice of Nsukka as the headquarters as against Nkpologwu was dictated not so much by its importance but rather by the irresistible attraction to the white-man of the broad summits of the hills and the lower temperature they induced.[1]

Before 1920, Nsukka was a mere rural settlement without even a market centre. With its newly acquired status in 1920 came public and social amenities. This led to a rapid growth of the town. Roads were rapidly constructed to link Nsukka with other parts of the Division for effective administration. The increased accessibility and the presence of the administrative set up attracted other economic activities. Throughout the local government reformation exercises of 1951 and 1954, Nsukka maintained its prime status. In 1951,

[1] Okoye, T.O. "Nsukka, A University Town" in Ofomata G.E.K.(ed) (1978) The Nsukka Environment, Fourth Dimension Publishing Co. Enugu. p.140.

it was the headquarters of Igbo-Etiti Rural District Council and in 1954, that for Nsukka County Council. By 1956, Nsukka had a police station, a hospital, a secondary school and a Teachers School, a post office with telegraph and telephone services.[1] By 1953 Census, Nsukka had a population of 14,674 people out of which 1,911 were non-indigenes in administration and businesses.[2] Thus was initiated, the cosmopolitan nature of the town.

As at 1958, Nsukka had an established urban nucleaus centred around the government offices and residences. See Fig. 2.31. It possessed some urban infrastructural services and the decision, in 1958, to build the university in the town heightened its potentialities for growth. In that year, a Town Planning Authority was appointed for the town. A document termed "Nsukka General Development Plan" which sort to provide for a gradual, coherent and guarded growth of the town to a population of 75,000 was produced.[3] See Fig.2.32 The Plan up-to-date has neither been significantly revised, nor considerably implemented. A borehole was sunk in 1959 when the springs could, no longer satisfy the demand of the increasing population. This was the setting at Nsukka when in October, 1960, the University of Nigeria, Nsukka Campus was opened.

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[1] Okoye, T. O. (1978) ibid. p.141.

[2] Population Census of the Eastern Region of Nigeria, 1953. p.20.

[3] Okoye, T. O. (1978) op.cit. p.145

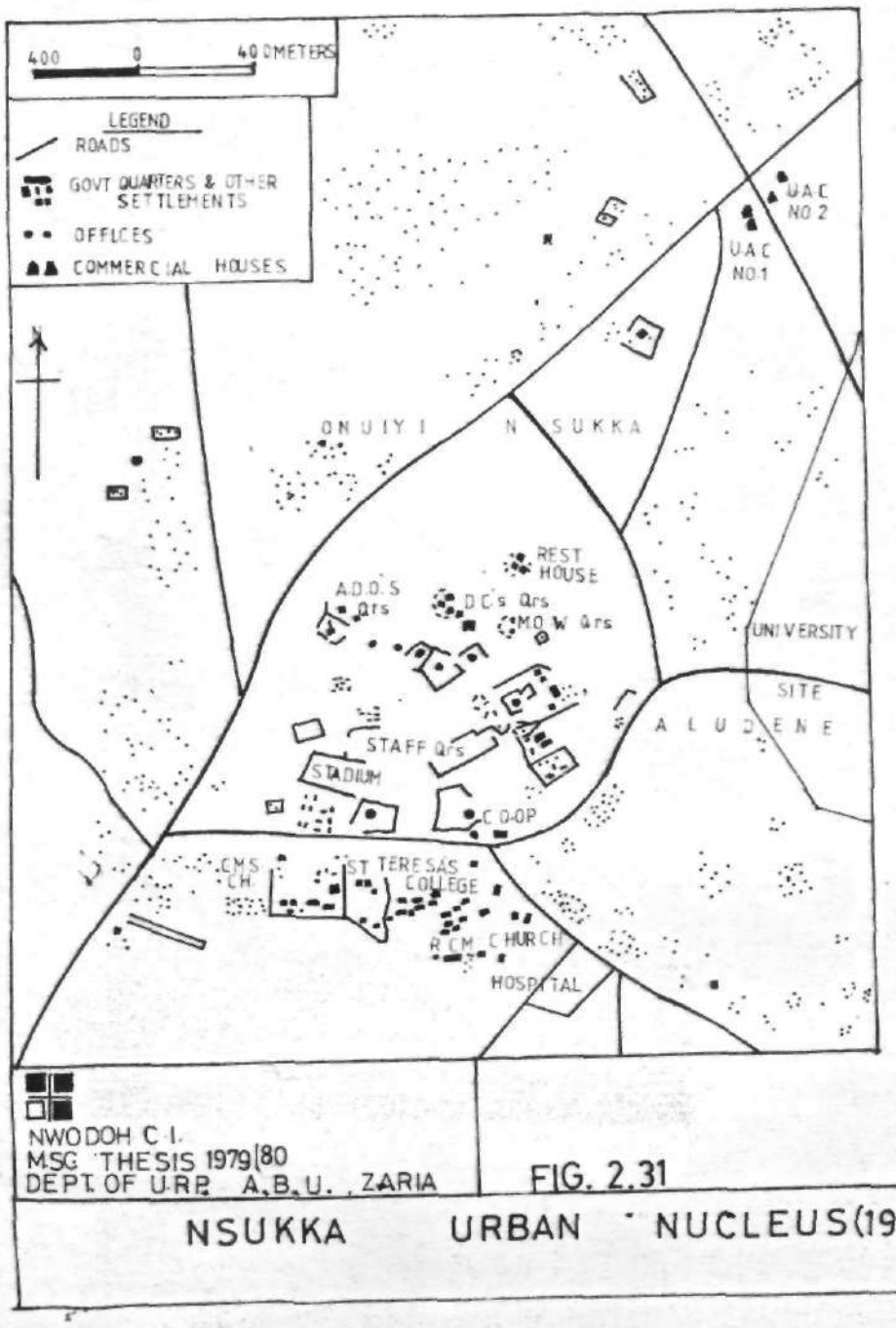


FIG. 2.31

NSUKKA URBAN NUCLEUS(1958)

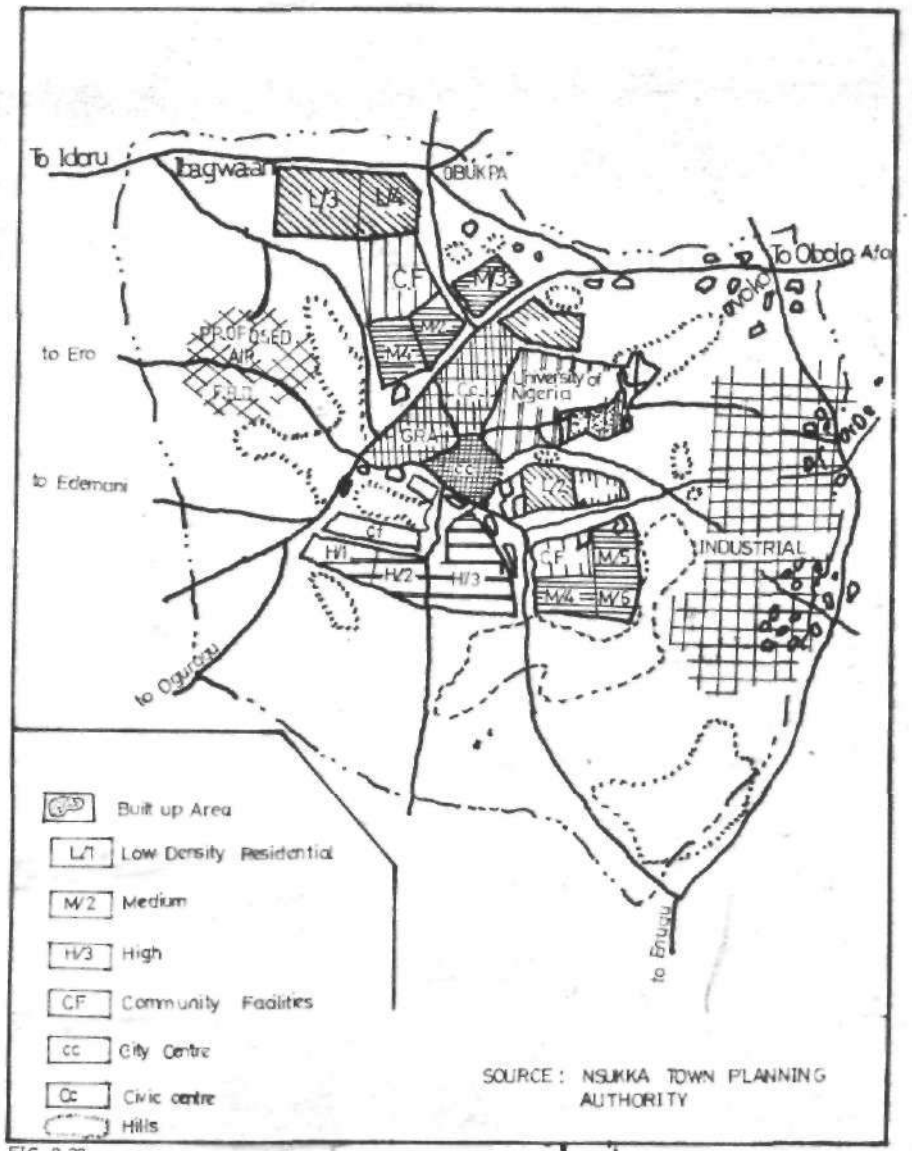


FIG. 2.32
NSUKKA: GENERAL DEVELOPMENT PLAN 1958

NWODOH C I
URP A-B.U.
ZARIA. 1979/80.

2.4 The Establishment of the University of Nigeria

2.4.1 The establishment of the University was a consumation of more than a century of yearning for a West African University by articulate and learned sons of West Africa (James Africanus) Beale Horton, 1868; Blyden, E.W., 1872; Hayford, F. 1920 and Zik, 1933[1]

The central factor in the desire for a West African University had been for the emancipation and upliftment of the African. As early as 1933, Dr. Nnamdi Azikiwe had proposed the founding of a "University of Nigeria".[2] It is not surprising, then, that when his dreams materialised, he named it "The University of Nigeria". Its motto, "To Restore the Dignity of Man" depicts vividly the main motive for a West African University.

On October 17th, 1960, the University of Nigeria opened its door to the first undergraduates. The former Nigerian College of Arts, Science and Technology became the Enugu Campus of the University in the same year.

2.4.2 The Location of the Campus

The university is located at the north east of the central broad-topped hill of Nsukka. The primary consideration for its location was the plateau nature of Nsukka which induces a pleasant and healthy climate. The campus is so located that it is sheltered by residual hills on all sides.

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[1] Okafor, N. "The University of Nigeria" in Ofomata, G.E.K.(ed) (1978) op.cit. p.426

[2] Okafor, N. (1978) ibid, p.427

2.4.3 Land Acquisition Process

Areal expansion of the University landed property in Nsukka has been marked by piece-meal acquisition of small pieces of land. Initially a 400 hectare piece of land was made available to the university in 1958[1].

See Fig. 2.4.1. By 1963, it was evident that the available land will not be enough for the requifements of the university in future. In fact according to the National Universities Commission's Standards Guide for Universities published latter in 1977, 400 hectares of land was for the agricultural practice of the university alone.[2]

In that year (1963) a further 81 hectares of land covering the area between the University and the roads to the west was acquired. In 1972, the two eastern arms of the university totalling 205 hectare of land were acquired.

This method of expansion by accretion did not find favour with Professor H.C. Kodilinye, the Vice-Chancellor of the university (1970-1975). He therefore made a bold proposal for the freezing of all developments within the area bounded by the University Road, Orba road and Owoko Road and the acquisition of that area for University expansion. This was to enable him execute his collegiate system development plan which he had prepared. The fate of that proposal for

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[1] Uka, N. (1972) "Education in Nsukka, Traditional and Mordern and the Impact of the University" in Nsukka: The Problems of Change and Continuity. Seminar series Nsukka p.15

[2] The NUC, (1977) Standards Guide for Universities. Alfred H. Cooper and Sons. London Section 4.3

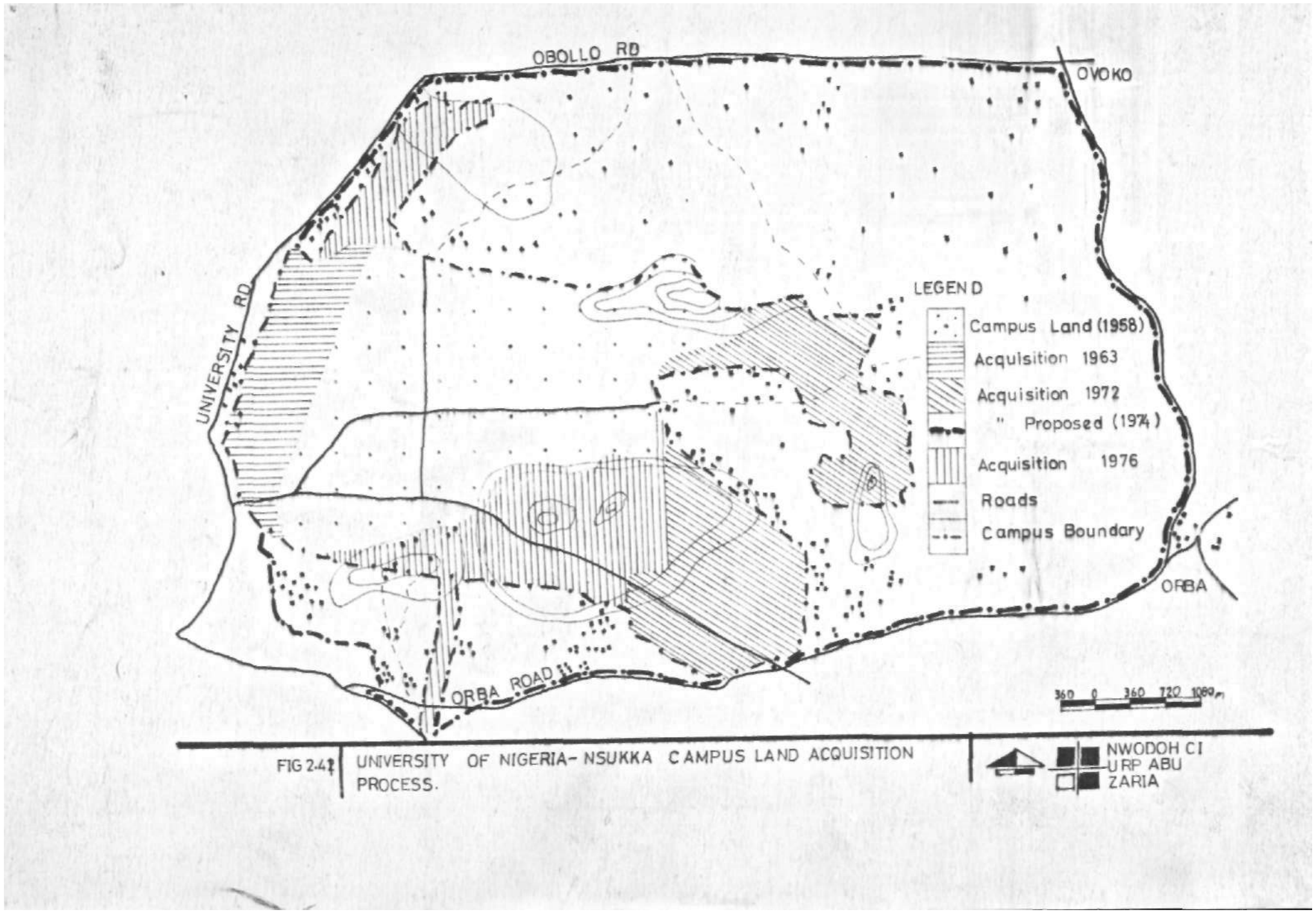


FIG 2.4 UNIVERSITY OF NIGERIA- NSUKKA CAMPUS LAND ACQUISITION PROCESS.

a collegiate system had already been referred to.[1] The upsurge of protests from the people of Nsukka, Orba and Ovoko severally and individually; the share cost of the compensation needed to acquire the land effectively; the social problems involved in the displacement and resettlement of villages at that scale; the problem of securing land for resettlement in an area where land is regarded as the unifying factor of generations dead, living and unborn and the cost of executing the collegiate system all combined to defeat the proposal. Of course, the exit of Professor Kodilinye from the scene in 1975 closed that Chapter finally.

However, in 1976, the university acquired a total of 175 hectare of land contiguous with the university in two areas, one to the south and one to the north. In addition an area of 271 hectares of land was acquired at Aju-Erike Obukpa for staff residential development.

It is obvious from all these that there was no foresthought for the provisions of the future need and expansion of the university. This has led to acquisition of land as the need arose. The development of residential areas close to the original site and the avoidance of complex issues of compensation and displacement by the government has given the university a most irregular and funny shape.

Although the university is sited at Nsukka, its expansion has invaded lands belonging to Orba, Ovoko and Obukpa. In fact the residential unit wedged in between the two arms of the 1972 acquisition is a part of Orba settlement. This fact has great implications for the Town Planning Authority at Nsukka.

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[1] See Chapter 1.1

2.5 The Growth of the University.

2.5.1 The Student Population: The University of Nigeria which started with 305 undergraduates and 13 academic staff in 1960 has grown from strength to strength since then. Table 2.5.1 shows the growth of student population in the first decade of its existence.

The pre-war period, shows a steady growth of the population until the outbreak of civil hostilities. It shows that before the war, the University was merely consolidating her undergraduate intake and had barely started the postgraduate courses.

Table 2.52 shows a growth from 2,934 for the whole campus in 1970/71 to 7,808 in 1979/80. The University therefore had a quick recovery from the war effects.

The university showed an average growth rate of 94% between 1970 and 1975. However, the average growth rate for the years 1975 to 1978 were as low as 22%[1] But the postgraduate school grew more rapidly in this period. The lower growth rate recorded in the later period could be due to a stemming down of admission rate after absorbing the effect of the war in terms of qualified candidates.

The percentage of female students have increased from 8.00% in 1961 to 15.7% in 1975.[2] In 1977/78 the females constituted 17% of total enrollment.[3] Thus there was a

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[1] Abstracted from the University of Nigeria's Faculty growth rate as stated in their Abstract of Statistics.

[2] Okafor N.(1978) Op.cit. p.431.

[3] UNN.(1978) op.cit. p.4

Table 2.5.1 University of Nigeria Growth of the Student Population, 1960 - 1969.[1]

Year	Under-graduate			Post-graduate			Grand Total
	Men	Women	Total	Diploma	Higher Degree	Total	
1960/61	271	34	305	-	-	-	255
1961/62	*	*	1,064	-	-	-	1,064
1962/63	*	*	1,248	-	-	-	1,248
1963/64	1,689	139	1,828	-	-	-	1,828
1964/65	2,273	209	2,482	6	-	6	2,488
1965/66	2,366	213	2,579	8	-	8	2,587
1966/67	2,818	307	3,125	4	4	8	3,133
1967/68	**	**	**	**	**	**	**
1968/69	**	**	**	**	**	**	**
1969/70	*	*	1,815	-	-	-	1,815

Note: * Not available

** Civil war years, the institution remained closed.

Source: UNN Annual Abstract of Statistics, 1978.

[1] The figure includes that of the Enugu Campus.

Table 2.5.2 University of Nigeria Growth of the Student Population 1970/71-1978/79

Year	Nsukka Campus			All Campuses
	Under-graduate	Post graduate	Total	
1970/71	2369	9	2378	2934
1971/72	2670	7	2677	3363
1972/73	3076	19	3095	3891
1973/74	3759	29	3788	4678
1974/75	4688	-	4688	5799
1975/76	4754	54	4799	6059
1976/77	5004	83	5084	6432
1977/78	5441	121	5574	7124
1978/79	5580	178	5758	7445
1979/80	5602	249	5649	7808

deliberate effort to increase the female quota of the population.

2.5.2 Academic Growth

In its reports, the two man Economic Mission to Europe in 1955 had stated inter-alia that "... such a higher institution of learning should not only be cultural, according to the classical concept of Universities, but it should also be vocational in its objective and Nigerian in its contents".[1] Thus the University of Nigeria, deviated from the tradition of teaching classical courses only and introduced vocational courses also. It started with the eight faculties of Agriculture, Arts, Business Administration, Education, Engineering, Law, Sciences and Social Sciences. Within these faculties were found such new vocational courses as Journalism, Finance, Home Economics, Physical Education, Secretarial Studies and Music.

As at now, three new faculties of Biological Sciences, Environmental Studies and Medicine have been added to make eleven.

2.5.3 The Staff

The staff of the University grew from 13 academic staff and a handful of casual and Secretarial workers to a total of 1,318 Senior staff and 5,907 junior and intermediate staff in 1977/78. Of the 1,318 senior staff, sixty were Professors and 47 were Readers.

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[4]Reports of Economic Mission to Europe and North America. Enugu, 1955 p.3.

2.5.4 Structural Growth.

The University has had its most unimpressive growth in the section of buildings. Only recently have structures of any worth begun to spring up otherwise the University has been as it was before 1970 with some of the war damaged buildings yet unpepaired. Plate 2.5.1 shows Alexandria Auditorium still in ruins. Infact as noted else where, when the university was under presure for space requirement, it resorted to the construction of prefabricated buildings. Plate 1.1.1 refers.

2.6 The Impact of the University on Nsukka Town

A university, it has been said is a great modifier of urban character. The growth of Nsukka since the establishment of the University has been phenomenal. Its main impacts can be appreciated better by the examination of changes in the population and landuse before and after the establishment of the University.

Comparatively, undergraduates and their teachers are heavy consumers of services. Due to the massive construction work in the University between 1960 and 1962, job opportunities were created for semi-skilled and non-skilled labour. This brought about a prevalence of a floating population of daily paid workers. The presence of these workers and the students and staff of the university attracted further population to supply there service needs.

Thus by 1963 National Census Nsukka had a more heterogenous population of 26,206.

Table 2.61 Shift in Population between 1953 and 1963

1953 Population					1963 Population	
Nsukka	Non-Indigene	P.C. of total	Indigenous	P.C. of total	Indigeneous pop at 2.5 N.I.R.	Expected Total pop.
14674	1,911	13	12763	87	16,337	18,778

Sources: Computed from the 1953 and 1963 Census Figures by the author.

We can calculate the change in population between 1953 and 1963 thus:-

If 1,911 (13%) out of 14,674 of total population were non-indigenes, it does mean that 87% or 12,763 people were indigenes. The indigeneous population of 12,763 projected to 1963 at the national assumed natural increase of 2.5% gives 16,337 which would represent 87% of the total population of the town in 1963. If we assume the relationship between the indigeneous and non-indigeneous population to remain the same, then it means that the total population of Nsukka in 1963 would have been

$$\frac{16337 \times 100}{87} = 18,778.$$

But by 1963 Census, the population was 26,206. If we then attribute the difference between the expected situation and the actual population solely to the existence of the university then the shift in population due to the university

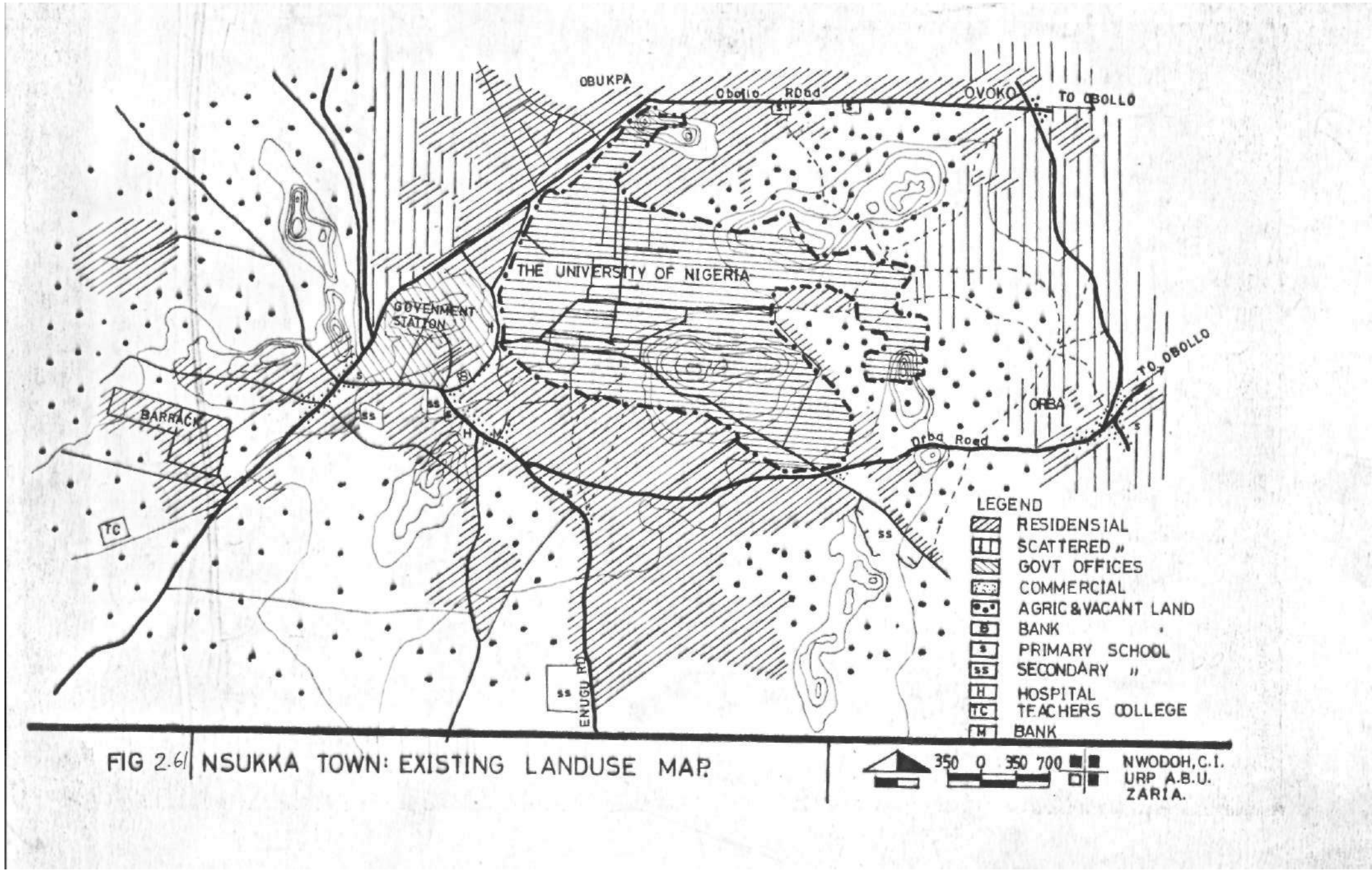


FIG 2.6 NSUKKA TOWN: EXISTING LANDUSE MAP.

would be

26,206 - 18,778 = 7,428

This figure calculated as a percentage of the expected population of 18,778 gives 39.5%. So the shift in the population of the town due to the presence of the university was 40% approximately in 1963.

Table 2.6.2 Shift of population in Nsukka between 1953 and 1980

1953					1980		
Nsukka	Non-indigene	P.C. of Total	Indigeneous	P.C. of Total	Indige-neous at 2.5 N.I.	Expe. ted Total	Projec-ted at 5-9%
14,674	1,911	13	12,763	87	24253	27877	69705

The intercenal growth rate of population between 1953 and 1963 was 5.9%[1] The population of Nsukka projected at this rate to 1980 gives 69,705.

If we repeat our calculations as for 1963, we get a shift in population of 150% due to the university.

In a study of the University of Exeteer on the town, Lewis and Kirkness discovered that while towns of a certain status had population of 20,000 to 25,000, University towns amongst them had 40,000 to 53,000 population.[2] This would mean a difference of 100% and 112%. So the above calculations and derivations for Nsukka are within reasonable range.

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[1]Federal Census Office, 'Population Census of Nigeria' 1963, Eastern Region (1964) p.130.

[2]Lweis and Kirkness, A., Town Planning Review 45 (3) July 1974.

[3]Okoye, T.O. (1978) pp.cit. p.143.

2.6.2 Landuse Shifts

The presence of cosmopolitan and sophisticated population ranging from professors to unskilled labour has meant the existence of a purchasing power higher than the local average in Nsukka. Apart from the increased demand for locally produced good that has been generated, it has meant the existence of sufficient threshold population for higher order goods.[1] This has led to the establishment of many and various commercial and small industrial businesses Fig. 2.6.1. A survey carried out by the Geography Department of the University in 1975 recorded a total of 470 small businesses in Nsukka.[2] The number of small scale industries has been put at 600.[3]

The increased population and the commercial and industrial activities all have implications for land use in Nsukka. Nweke C.N. who studied the physical impact of the university on the town found the following:[4]

Table 2.6.3 Shifts In Activity Areas Due to the Presence of the University.

Use	Area in 1960	Area in 1976	Shift in %
Residential	1425.6	4845.2	180%
Commercial	25.7	39.2	52%
Roads-UnSurfaced	75.9	94.4	18%
Roads - Surfaced	13.6	50.8	273.5%
Roads, total area	115.7	143.9	24.5%
Public & Semi Public	215.5	2731.9	1167.7%

Source: Modified from Nweke, C.N. (1977) Results of Field work.

[1] Okoye, T. O. (1978) op.cit. p.143

[2] Okoye, T. O. (1978) ibid. p.147.

[3] Nwafor J.C. "Industries and Crafts" in Ofomata, G.E.K. (ed) (1978) The Nsukka Environment Fourth Dimension Publishers, Enugu, p.202.

[4] Nweke, C.N. (1977) The Physical Impact of the University of Nigeria on Nsukka. An Unpublished Thesis Material, Ibadan.

The above shows that there was an increase in the area covered by each of the landuses listed . That shows the great positive impact the campus has had on the town.

The impact is not limited to the examples above. There were great increases in other services like posts and telegraphs, public transport, water consumption and electricity consumption.

Neither is the impact limited to positive ones. The consequences of urban growth is often partly a deterioration of the environment. This is not yet too well pronounced at Nsukka. But the two settlements on the hill behind the Health Centre (up hill) and that behind the Ikejiani staff quarters are Ghettos in its sense. Suffice it to say that as close as that range to the Campus, slums have developed. Other negative impacts include shortage of housing, and most of the utilities, facilities and services which can not keep pace with the rate of population growth.

Population and Landuse have been used as indicators to analyse the impact of the University of Nigeria on Nsukka. The result of the analyses has shown that the impact was great. Thus it vindicates the statement that "Inserting a vigorous and fast growing educational community into any existing framework must have far reaching economic, educational and social consequences [1] on that city. The University of Nigeria, up-till-date, remains the pivot of urban growth in Nsukka although the process of cumulative causation is setting in.

[1] University of Essex - I in the Architectural Journal Information Library. 14th Dec. 1966.

CHAPTER III

ANALYSIS OF THE EXISTING SITUATION.

3.1 The Relationship Between the University and the Town.

The Concept of University-Community close relationship received a great emphasis in the philosophy of the University of Nigeria quite early in its life as noted in Chapter 2.5.2

In translating this concept into action, the University of Nigeria established independent units which engage in independent programmes that "enhance the relevance of the university to the society.[1] The most important of these units was the Division of Extra Mural Studies.

The Division offered extra-mural off-Campus and on-Campus evening courses to adults and adolescents who were desirous of improving their educational status. It prepared these people for the G.C.E. Ordinary and Advanced level papers as well as for other professions like Secretarial Studies.

Other programmes embarked upon by this division include:

Community Continuing Education programme for rural and urban women, where they were taught home economics and home management. It organised these programmes at Orba, Ovoko, Obolo Onoi, Awka, Nnewi etc.

Community Study Group. An educational plat form for promoting community action. It was aimed at encouraging participants to initiate self-help projects in their homes.

Other programmes include Agriculture extension services and publication of the activities of the Universities to the people.

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[1] Odokara, E.O. (1978) The University of Nigeria and its surrounding community" in Ofomata, G.E.K. (1978) ibid. p.439.

However, since after the war, only the extra mural studi for G.C.E. has been going on.

But apart from integration by disemenanation of ideas, there is that physical integration, the area in which the university and the town relationship is weak.

Firstly, the major road that links the university to the town, as Dr. Eze put it, comes in 'shyly through the senior staff residential quarters". (Plate 3.1.1) Instead of leading to the main administrative block, it introduces one to a vacant lot of land. (Plate 3.1.2.) This gives a poor first impression of the University.

The University population go out to the town to shop but that is about all that takes them out apart from visiting friends. Buy for workers and visitors to the staff and student very few people go to the university. The absence of this mutual interaction is primarily due to the absence of facilities that would attract the population from one part to the other. Facilities like games, parks, picnic resorts and availability of indoor games facilities as well as restaurants that attract people are lacking. There is a stadium in the University but it is not enough as football games are not played everyday.

In terms of transportation, there used to be an internal bus service for students in the university serving mainly the students who lived in the Zik's Flats. In 1974/75, it also served students quartered at the Ekweme Flats in Odenigbo.

However, since the University opened the Eni-Njoku studen hostels in 1976/1977, the bus service has been withdrawn.



Plate 3.1.1 Entrance into the U.N.N.



Plate 3.1.2 You are introduced into this armophous vacant Land On reaching the Campus

Between the university and the town, the main means of public transportation is taxi. There are no bus services. The Nsukka urban government has not experimented on such a venture for lack of funds while the town is still small for business enterprises to provide this. The taxi service is regular however while the higher cadre of the university population have their cars.

3.2 The Relationship of Elements Within the University

The University is a society of individuals living and working together. It follows, therefore, that it is a meeting place of different aptitudes, skills and specialisations. The benefit to be derived from social intercourse in such an environment cannot be over-emphasized. But the problem always lies in the ways for the achievement of this ideal.

Within Nsukka Campus, the relative position between the departments in a faculty was of great concern to the decision makers on location of facilities. This arrangement has its advantages in that related subjects often have common courses to be attended by students. But it has it's short-coming in grouping students according to faculties and thereby minimising greatly, the possibilities of interaction as the students of different "aptitudes, skills and specializations".[1] go to and from their lectures. Fig. 3.2.1. depicts the landuse system at the Campus. With careful planning a compromise could be reached which while not sacrificing the conveniences of inter-related courses attempts an inter-disposal of these departments to encourage interaction.

[1] University of York, (1972) University of York Development Plan 1962-1972. York University. York. p.12.

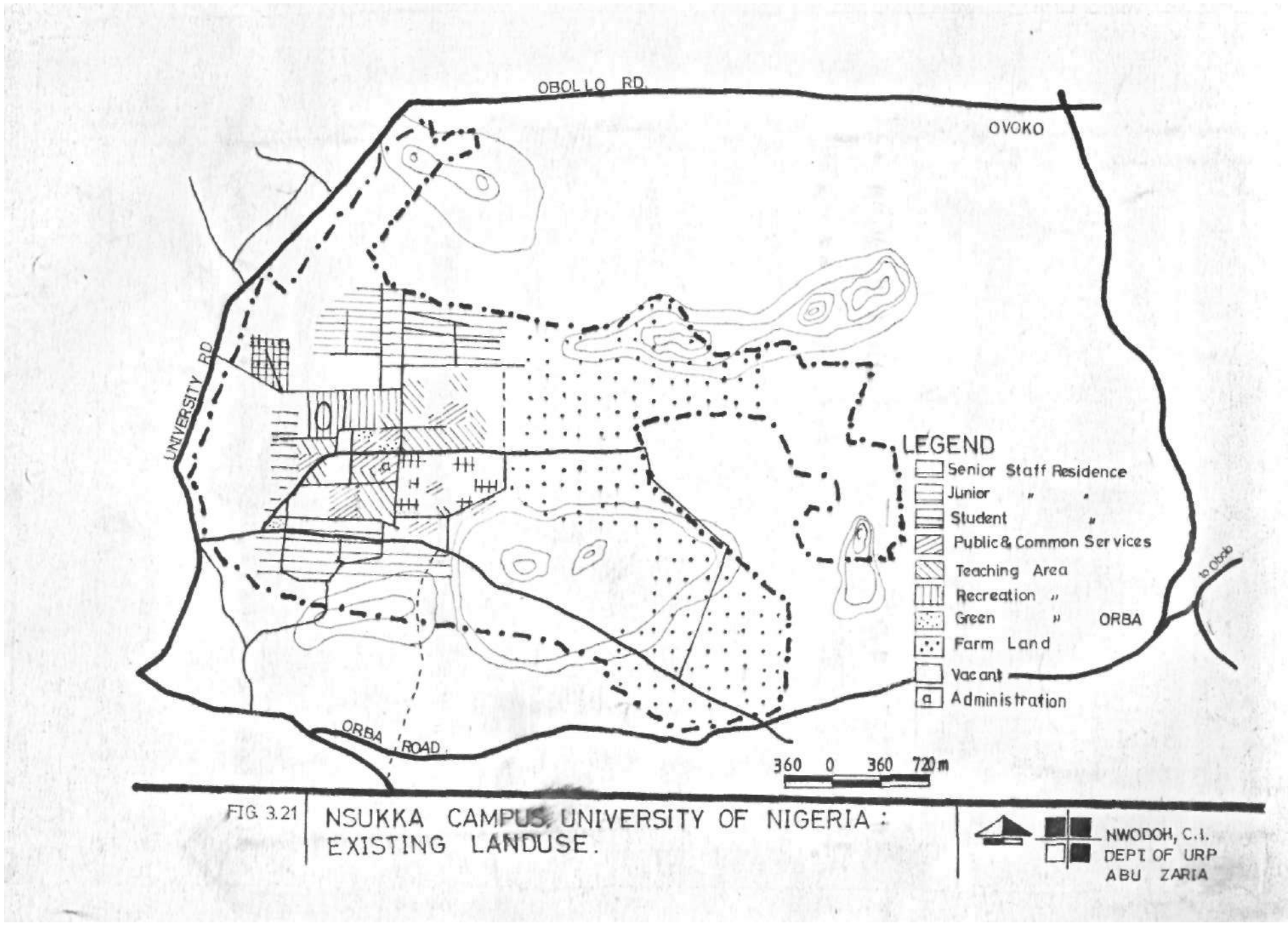


FIG. 3.21 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA : EXISTING LANDUSE.

NWODOH, C.I.
DEPT OF URP
ABU ZARIA

Another means that has been used in achieving interaction is the location of the community facilities in different places so that as students from all discipline use these facilities, they interact. In the Nsukka Campus, this has been, to some extent, done. The dinning halls, the library and the book shop are some of the common facilities that are fairly dispersed. But more could have been done particularly if thought was given to this at the early stages of the planning.

Another aspect to the use of common facilities is the interaction between the students and staff of the university. In Nsukka, neither are student and staff residences linked nor are there those facilities that as of now can be said to draw staff and students together in an informal way. Apart from the bookshop, which is not, of course, up to standard, such other facility is hard to comeby.

There is need, therefore, to explore means of achieving these unscheduled meetings. "A student should be given wide opportunities for association with staff and fellow students".[1]

3.3 Accomodations - Teaching, Student, Staff

The National Universities Commission (NUC) in its standards Guide for Universities published in 1977 stipulated minimum standards for various elements within the universities. The standards were derived from the requirements of the Full-Time-Equivalent (FTE) students.

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[1] University of Sterling: Development Plan in The Architects Journal Information Library May 29th 1968. p. 231

For ease of comparisons and a quick appreciation of the situation in Nsukka presently, the existing situations are set side by side with the recommended minimum standards in the tables below.

3.1 Academic Space.

Table 3.3.1 Analysis of the Academic Space.

Faculty/Department	Population*	NUCCON[1] STDS M^2/STD+	Useable Area M^2	Balancing Area M^2	Existing Area++ M^2
Agriculture	804	12.00	9648	5,306	5900
Languages	287	3.40	976	536	-
Education	638	5.50	3509	1930	1490
Social Sciences	778	2.80	2178	1200	2050
Natural Sciences	1610	9.00	14490	7970	10500
Engineering	1007	10.60	13694	6601	2870
Geography	108	8.30	896	496	-
Health Education	170	8.00	1360	748	822
Arts	460	2.80	1638	876	4756
TOTALS	5862		48,389	15,663	22,810

Sources: *Computed from the 1978 UNN Abstracts of Statistics vol. 1 by the Author.
+NUC (1977) Standards Guides for Universities.
++Field Survey.

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1. National Universities Commissions Master Planning and Consulting Group - The Area of the NUC in charge of Master Plan Production for Universities.

From the above table, it is clear that there is an acute shortage of teaching space. While the total floor area required for the academic space is 48,389 sq. m. only 22,810 sq. m (47.1%) is available. Balancing area is the area made available for facilities around the buildings for instance, circulation, parking and landscaping and is calculated as a percentage of the useable area. For the department areas it is 55%. This, as of now is not a problem in Nsukka as fig. 3.1.1 would show. There is much open spaces between buildings.

But many departments and Deans offices are either harboured in prefabricated buildings meant fo be temporary reliefs since 1972/73, or are squatting in buildings belonging to other departments or faculties. Languages driven away from its building by the expanding Registrars office is found in a prefabricated building behind the history department. English is located in the Department of Economics, while the Department of Vetmedicine (soon to become a faculty) is in the Faculty of Agriculture.

Academic Support Facilities.

Table 3.3.2 shows the situation with regards to the support facilities. While some facilities, like student common rooms, (student Centre) shopping centre, and out-door threatre are non-existent, others like, Administration, Conference Centre cum Guest House, Dinning hall, have greater space than specified. The total area requirement, is however deficient by 5,106 m^2.

Table 3.3.2 Academic Facilities

Facility	Population	NUCCOM Stds M^2/FTE STDI	Useable Area M^2	Balancing Area/M^2		Existing Area M^2
Library	5862	1.2	7327	35	2564	3052
Hall	"	0.2	1172	50	586	-
Auditorium	"	0.15	880	65	572	1350
Administration	"	0.40	2345	55	1290	2450
Conference Centre	"	0.10	2486	45	1163	3600
Dinning	"	0.55	3224	50	1612	9675
Computer Centre	"	0.10	586	40	236	300
Student Common Room	"	0.76	4435	50	2217	-
Staff Common Room	"	0.35	2052	50	1046	-
Out-door theatre	"	0.40	234	-	-	-
Indoor Sports	"	0.20	1172	30	351	262
Shopping Centre	"	0.25	1466	15	220	-
Central Stores	"	0.20	1172	50	117	750
Health Centre	"	0.05	293	55	161	2300
			28845		12135	23,739

Such important facility like the main library erected to accommodate 150,000 volumes of books with a seating capacity for 350 readers still serves 5,862 in 1980 and now accommodates 200,000 volumes.[1] In fact the floor area, according to the N.U.C. recommendations is enough for only 2,840 students F.T.E. (See Plate 3.3.1, it shows the Library)

Other Facilities

The available farm as indicated in Table 3.3.3 is 61.2% of what should be. The total area of other facilities at the moment is 259.91 ha (58%) as against 448.63 ha recommended as minimum by the N.U.C.

Table 3.3.3 Other Facilities.

Facility	NUCCON Standards (Ha)*	Existing *** (Ha)
Farm	400.00	245.00
Out-door-sports	19.00	3.77
Botanical Garden	5.00	-
Zoo	5.00	2.55
Estates Department	4.00	1.20
Semeerage	2.00	2.50
Petrol Station	0.50	0.04
Power Station	0.13	0.04
Convocation Square	Ad hoc	2.00
Car Park	8.00	1.8
Staff School	5.00	2.45
	448.63	259.91

Sources * NUC Standards Guide for Universities.
** Field Work.



Plate 3.3.1 Nnamdi Azikiwe Library.
Grossly inadequate for the present population.



Plate 6.2.1 Guest and Conference Centre.
It is an American donation to the U.N.N.

Car parking space is one aspect of this column that is adversely lacking. In-fact, but for the continued Education Centre, Administrative block and the front of Carver and Okpara/Balewa Complexes, there is no other place where there is a conscious effort to provide parking space. Cars are parked where the owners find space - incidental space.

Residential Accommodation

Table 3.3.4 indicates that while the useable floor area required according to NUC Standards for students (both residences and common room) is 45,622 sq.m. (43,207 + 2,415) the existing floor area in all the hostels is 27,708 sq. m. This explains why in many hostels, three students occupy a room meant for 2 students. In 1978/79 sessions the University had a total of 3,176 places in the hostels in which were accommodated 3,389 students out of a total of 4,318 that should be offered accommodation. Plate 3.3.1 shows a student hostel.

Table 3.3.4 The Residential Accommodation

Type	FTE Stds Workers	NUCCON Standards M^2/Ha	Useable Area m^2/Ha	Balancing Area M^2/Ha	Existing Area M^2/Ha
Students (75%)	4236	10.2	43,208	43,207	27,708
Students Common Room	4236	0.57	2415	1,207	
Senior Staff	1052	0.20	230	-)	75
Junior Staff	2550	0.03	76	-)	

Sources: Same as in Table 3.3.3



Plate 3.3.2 Eyo-Ita-Bello Hall.



Plate 3.3.3 The Eni Njoku Complex
(Franco Building)

Table 3.3.5 Nsukka Campus - Students' Accommodation 1977/78

Type	University Owned Student Housing Units	Student Occupiers	University Hired Units	Student Occupiers
Hostels (Men)	1992	2654	840	1233
Hostels (Women)	544	809	-	-
Sub-total	2536	3463	840	1233
Off-Campus		879		
Total	2536	4342	840	1233

Source: UNN, (1979) proposals on Academic Development for Master Plan 1979/80-1989/90. Nsukka P. 17.

Since the above figure was produced, only 640 units under construction at the time of compilation of these figures have been added. Yet the student population have been on the increase. Plate 3.3.3 shows the new Eni Njoku Student Hostels.

Of the 1,233 that lived in University hired units were in the Zik's flats - blocks of flats owned by Dr. Nnamdi Azikiwe Close to the University, at Onuiyi.

For staff residence, the table 3.3.4 is explicit enough. The little accommodation that is available for the junior staff is even taken over by the Senior Staff. In 1977/78 out of

1,054 senior staff members, 485 were quartered in accommodation meant for 454. The rest 600 Senior Staff were either quartered in rented buildings in the town or made their private arrangements. In that same year, the university spent (₦125,740) one hundred and twenty-five thousand, seven hundred and forty naira on staff residences at Nsukka. Plate 3.3.4

It can then be seen that there is deficiency of accommodation of all types in the university. The deficiency is almost critical particularly with reference to the student and staff accommodation. Fig. 3.3.1 Illustrates existing inadequacies.

3.4 Utilities, Services and Facilities.

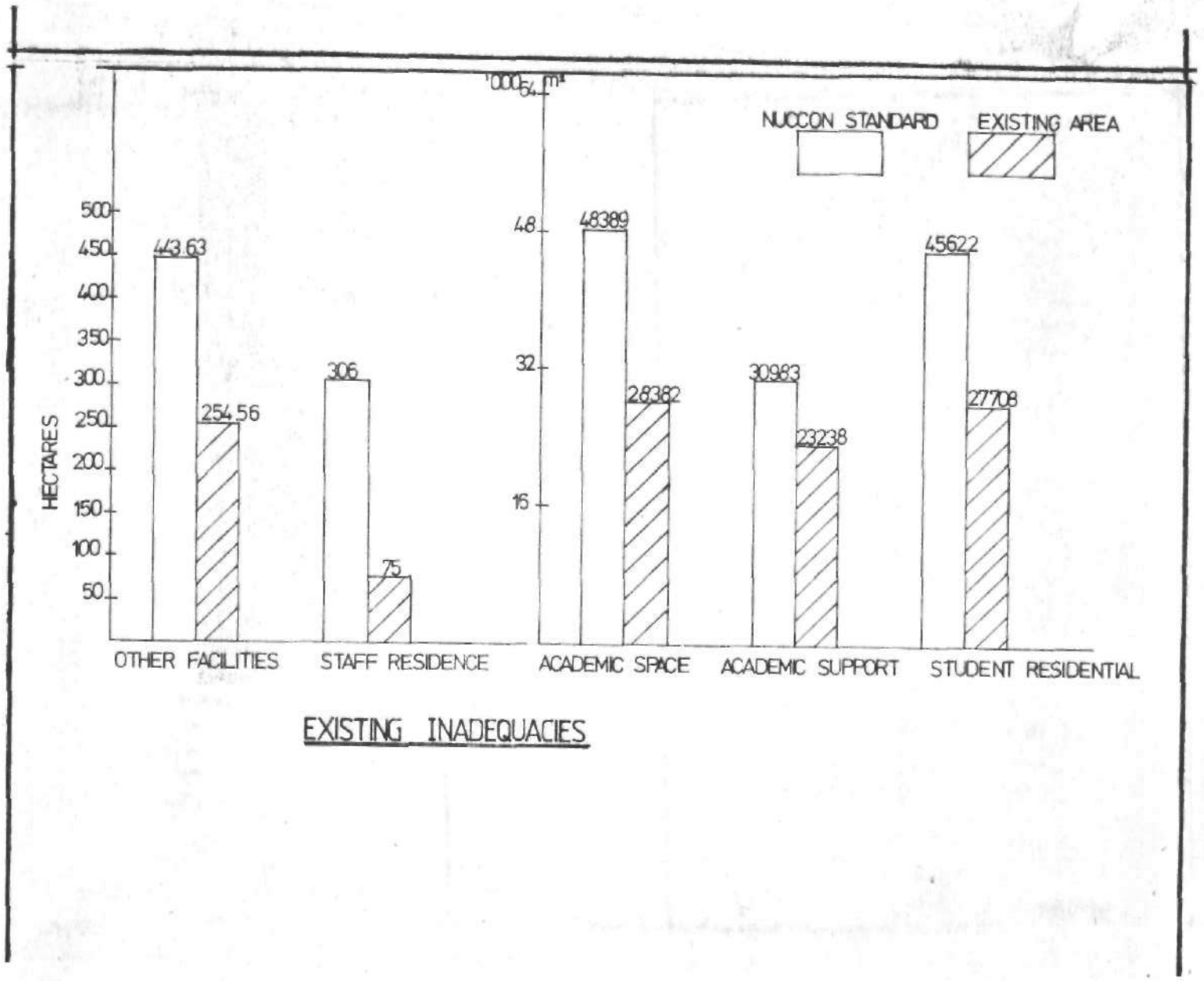
3.4.1 Water

The main source of water supply in the Campus is the several boreholes sunk by the university authority. Their supply is, however, augumented from the main borehole in the town.

There are five water boreholes in the Campus out of which 4 are in operation.

According to the water Engineer, the Campus pumping stations produce a total of 2,068,000 litres of water daily and this is augumented by a supply of 600,000 litres from the Water Board in the town. This gives a total of 2,668,000 litres daily.

For the population of the Campus in 1980 which is 18,212, this gives a per capita consumption of 146 litres. While this



EXISTING INADEQUACIES



Plate 3.3.4. A Section of the Senior Staff Housing behind the Stadium.



Plate 6.2.2. Present Administrative Block.
It will become the General Studies Division.

is not low, it is still below the need of the people. In fact water rationing is adopted as a means of ensuring a fairly equitable distribution to all sections of the Campus.

However, a sixth borehole is planned and a Reservoir of capacity of 910,000 was nearing completion at the time of the survey.

3.4.2 Electricity

The Campus is supplied electricity from the main power line from the town. There is also a standing generator which supplies the public spaces and the hostels alternatively when there is a blackout.

3.4.3 Health Services: The University has a health Centre that covers a floor area of 2,300 sq. metres as against the N.U.C. recommended floor area of 293 sq. metres. It contains an admission ward of 45 beds as against the minimum of 20 beds according to NUC standards. It has a surgical theatre, an X-Ray unit and laboratory facilities.

3.4.4 Educational Facilities

The University has one primary school covering an area of 2.45 ha. as against the N.U.C. recommended 2.5 ha. and a bank land for expansion of 2.5 ha.

3.4.5 Religious Facilities

There are two big churches in the university. However, there is no mosque but the Campus is predominantly christian.

3.4.6 Postal Services The former postal agency in the Campus has been upgraded to a post office and a new building with a Post-Master's quarter built.

3.4.7 Police Service. There is a police post located at the Odim Senior Staff Quarters.

3.5 Possible Expansion Directions.

Figures 3.4.1, 3.4.2, 3.4.3 indicate the alternative growth or expansion directions of the campus. The first alternative considers equal growth thrust on all sides. This will regard the present build-up area as a core from which expansion continues on all sides. This alternative could ensure the maintenance of Central Services at the centre and so a limitation of the walking distance within the pedestrian area.

However, to the west and north-west, the built up area of the town constrains growth while the hills to the south cannot be built upon.

The second alternative considers North-South thrust of the main growth point with no thrust to the west and little to the east. This approach seeks to conserve the agricultural land while utilizing other areas.

To the north is an attractive sight for expansion but the hills to the south remain constraints. Furthermore, this would lead to a limitation of the expansion of the uses at the centre which is mainly academic. Unless, of course, it is to be interspersed with other uses at the north and south thrust points.

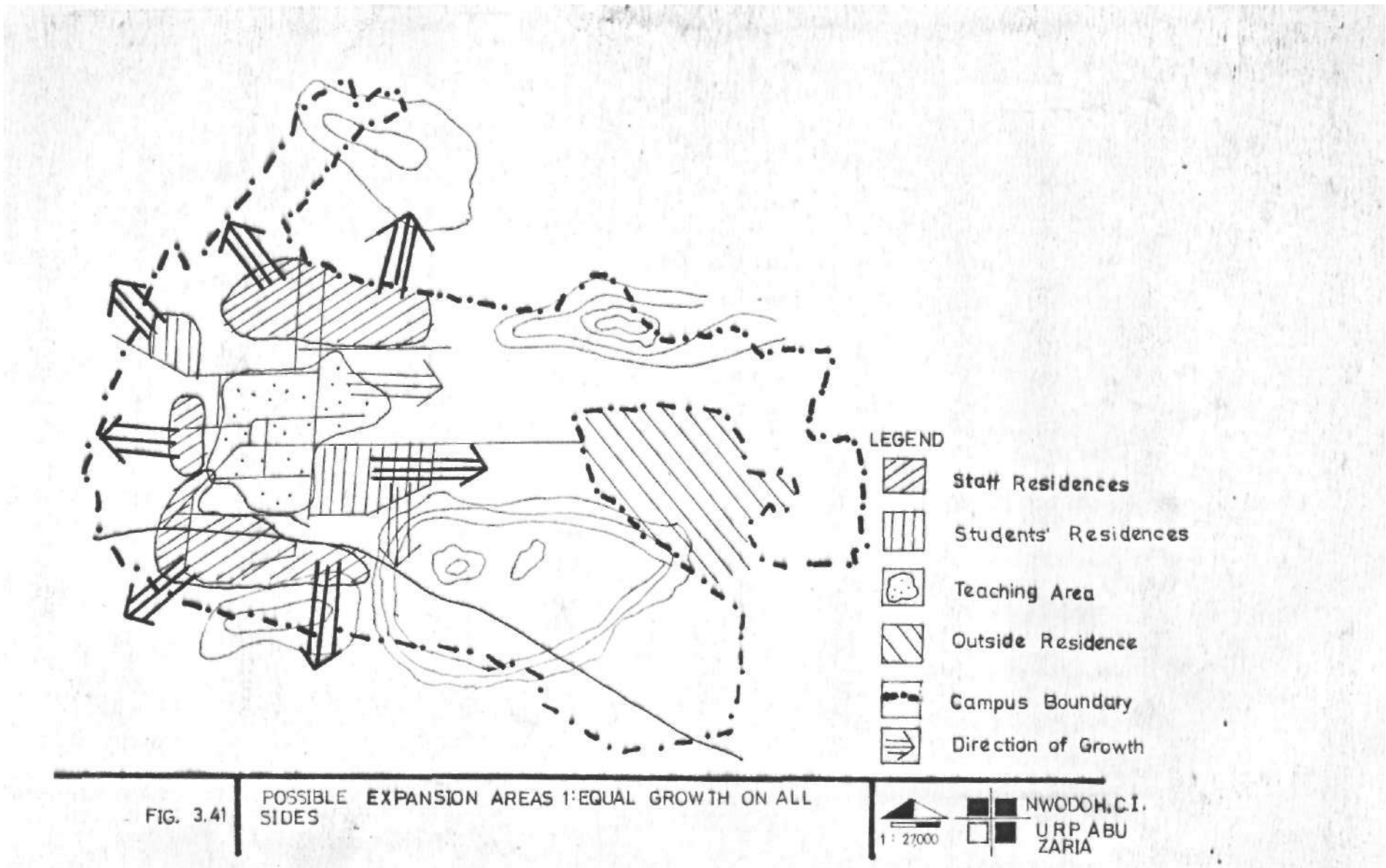


FIG. 3.41 POSSIBLE EXPANSION AREAS 1: EQUAL GROWTH ON ALL SIDES

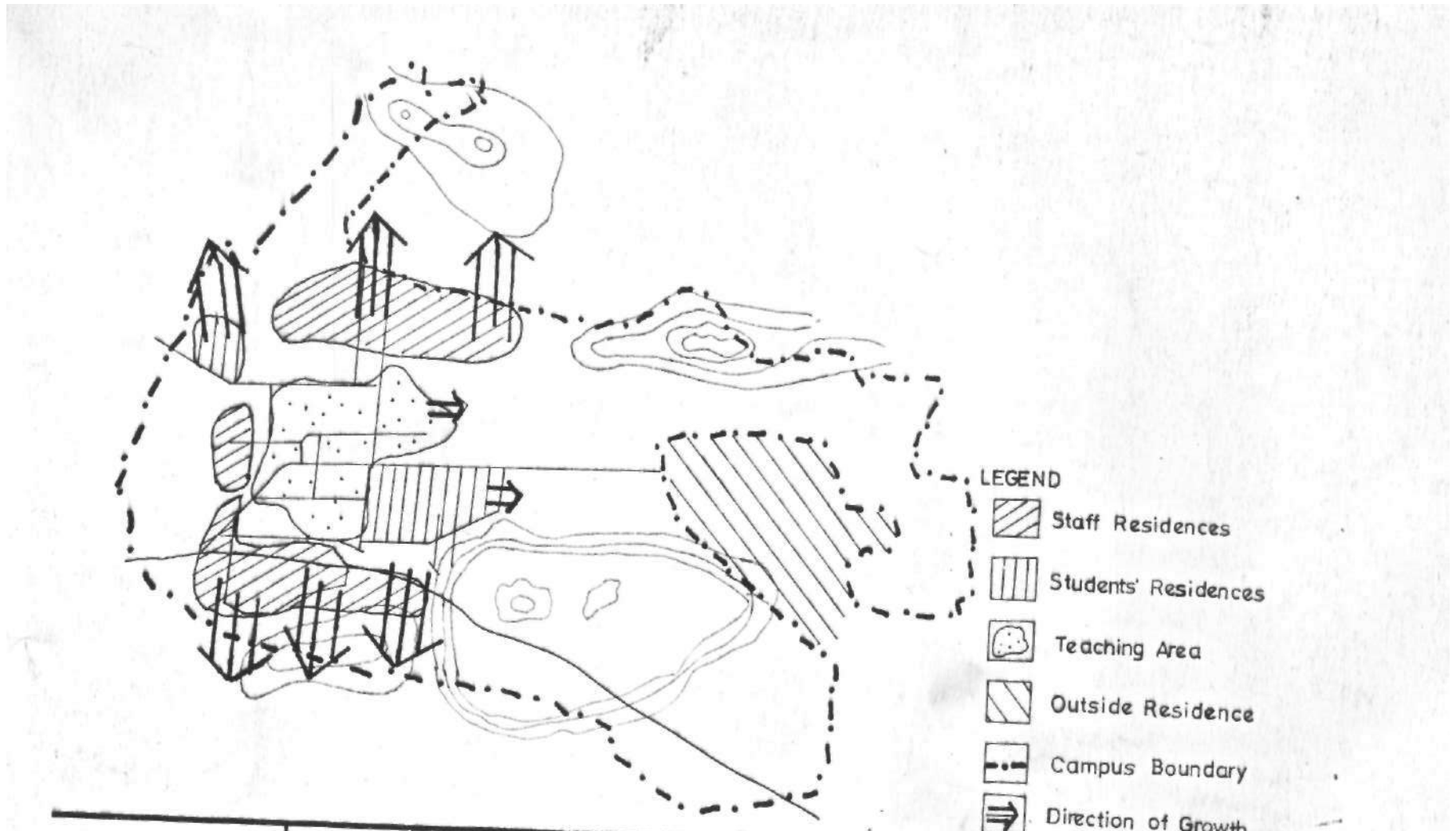


FIG 3.42 POSSIBLE EXPANSION AREAS II: NORTH SOUTH THRUST

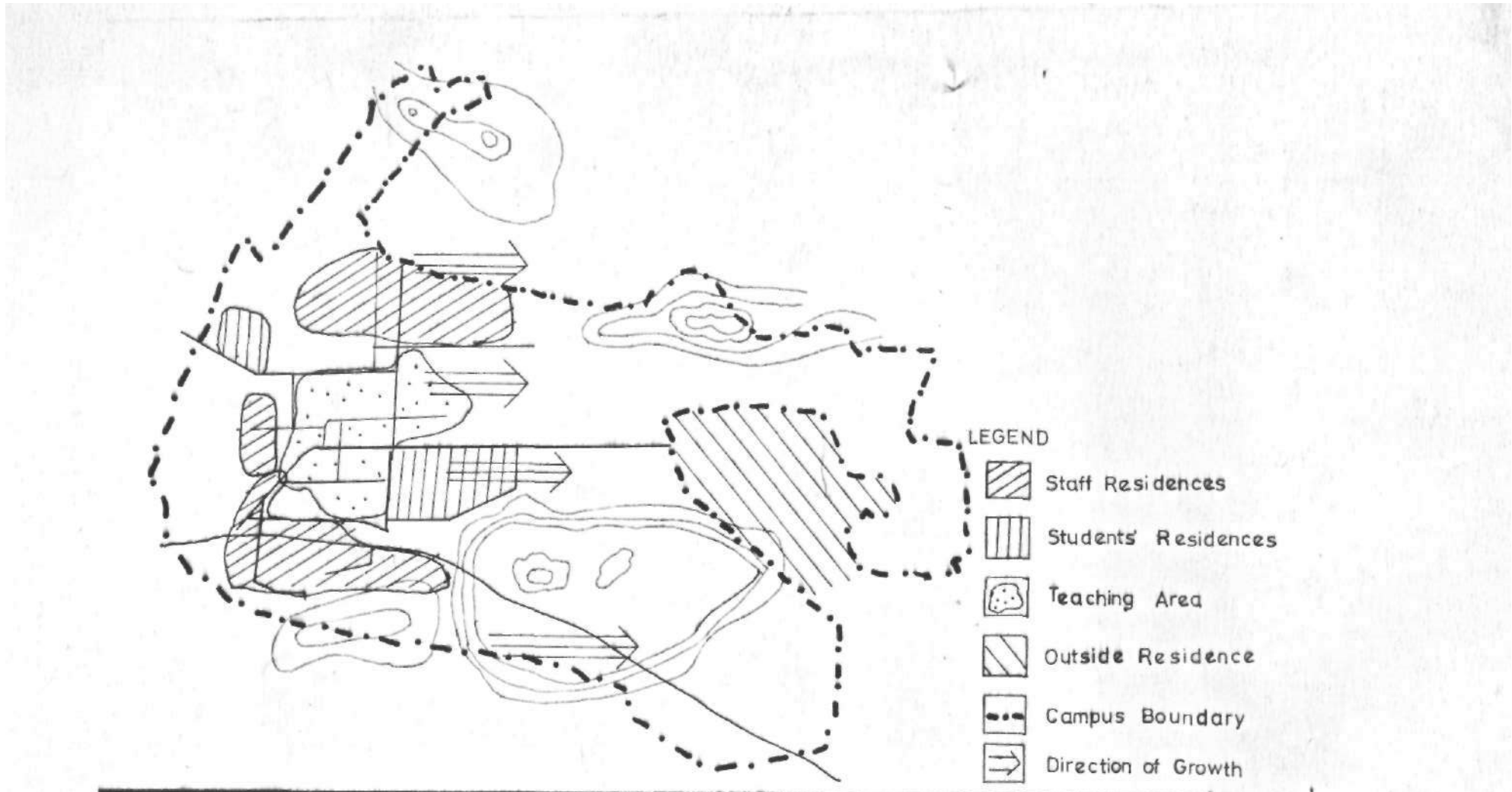


FIG. 3.43 POSSIBLE EXANSION AREAS III: EASTERN GROWTH THRUST

The third alternative considers an eastern thrust purely. To the south it leaves the hills but utilizes the undulating land south of them.

This alternative gives ample opportunity for parallel development of the uses although at the expense of the agricultural land. It also leaves the western part of the Campus land on which can be developed a public park for public use (University and the town).

The distance to be covered on foot could lengthen as the core area develops along the growth path but good planning and distribution of other uses would take care of its effects.

The buildings as they stand now have ample spaces in between them which could be utilized for further structural development. Thus a redensification could be one of the approaches in the development of the university.

It will be observed that the existing situations - buildings, roads and other infrastructurel facilities will constitute some constraints and will determine to a large extent the nature, shape and direction of development.

CHAPTER IV

THE PROJECTIONS AND THE FUTURE REQUIREMENTS

4.1 The Student Population

Table 4.1.1 Projected Growth of the Student Population

Projections of the population will then aid us in determining the level of need of the population at each stage of the Plan.

Year	NSUKKA CAMPUS		TOTAL	BOTH CAMPUSES
	Undergraduate	Postgraduate		
1980/81	5613	249	5862	7808
1981/82	5823	366	6189	8246
1982/83	6098	489	6587	8750
1983/84	6328	601	6929	9190
1984/85	6359	735	7094	9647
1985/86	6566	795	7261	10062
1986/87	7500	870	8370	11137
1987/88	8325	961	9286	12256
1988/89	9023	1016	10039	13247
1989/90	9040	1103	10143	13648
1994/95*	9200	1293	10493	14459
1999/2000*	9600	1463	11063	15000

Sources: 1980-1989 Abstracted fron UNN Projections 1979-1989.
1990-2000. Projection by the Researcher.

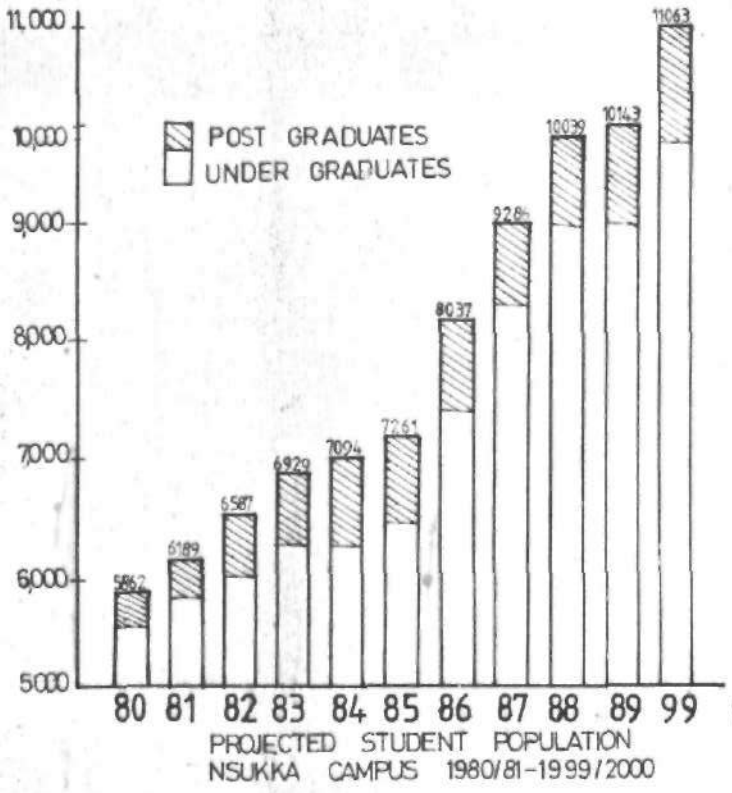
The above is the student population projection for Nsukka Campus of the University of Nigeria. The University authority has a projection to 1990 already approved by the NUC. On the basis of their own projections modified by the recommendation to regard the second decade of the Development plan as a decade of population stabilization at 15,000, the researcher arrived at the population projection for 1994 and 1999.

The projection shows that the undergraduate's section has an average growth rate of 7.5% between 1980 and 1989 while the Postgraduate section has an average growth rate of 20.1%. It indicates the wish of the University to expand rapidly the postgraduate section of the students population. The ultimate objective, according to the document[1] is to achieve a postgraduate enrollment of 15% of total student population.

In the stabilization ~~year~~ decade, the student growth rate is slowed down. An undergraduate growth rate of .62 and 3.3 for post graduate is recommended. Fig. 4.1.1 shows the projected student population annually with division between the postgraduates and the undergraduates. It illustrates the increase in the percentage of the total population that goes to the postgraduates.

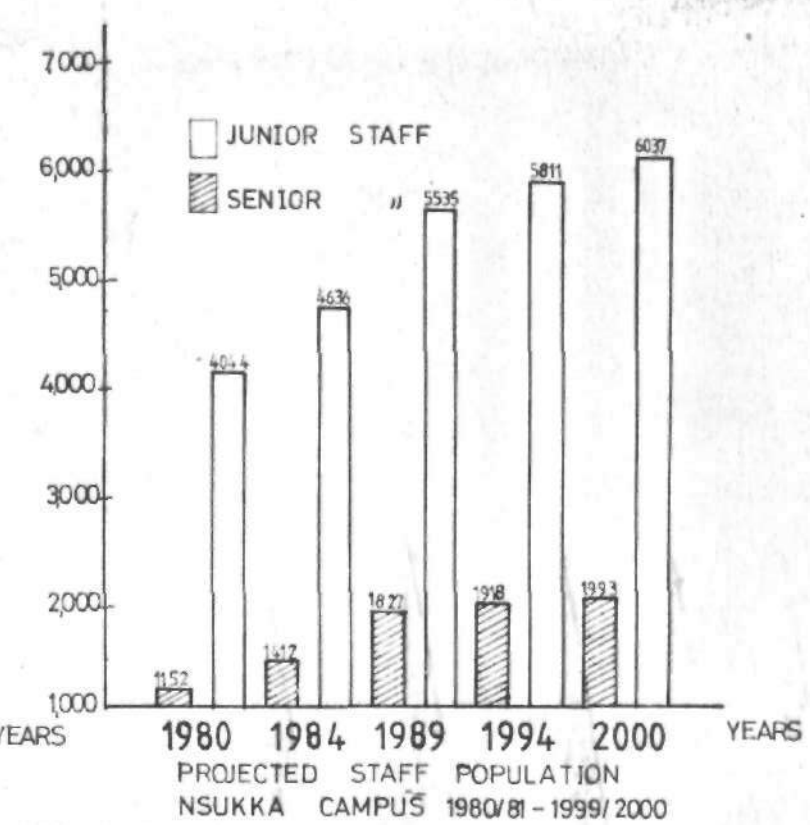
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[1] UNN, (1979) Proposals on Academic Development for Master Plan 1979/80 - 1989/90. Nsukka, p.6



PROJECTED STUDENT POPULATION
NSUKKA CAMPUS 1980/81-1999/2000

FIG. 4.11.



PROJECTED STAFF POPULATION
NSUKKA CAMPUS 1980/81 - 1999/2000

SOURCES: UNN ABSTRACT OF STATISTICS 1978.

FIG. 4.12

4.2 Staff Population

Table 4.2.1: Staff Projections.

Year	Academic	Non-Academic	Total Senior Nsukka	Total Senior Both Campus	I & J Nsukka	I & J Both Campus
1980/81	556	596	1152	1470	4044	5652
1984/85	710	702	1412	1776	4636	5718
1989/90	874	853	1827	2336	5535	6847
1994/95	1023	895	1918	2452	5811	7189
1999/2000	1063	930	1993	2547	6037	7476

Source: Same as table 4.1.1

Table 4.2.1 shows the staff projections for the development period ~~year~~. The University's projection is based on the Student-Staff ratios prescribed by the National Universities Commission. Fig. 4.2.1 depicts this infomation graphically showing the division between the Academic and the non-academic Senior Staff.

For the total Senior Staff in Nsukka, the cumulative growth rate for 1980 to 1985 is 22.5% rising to 29% between 1985 - 1990. Thereafter it gets down to 5% and 4% in the stabilization decade.

The junior staff grows at the rate of 14.6% and 19.4% in the first and second half of the first decade. In the period 1990-2000 it grows at 4.9% for the first five years and 3.9% for the second.

4.3 Organisation and Development of the Faculties and Departments.

Within the development period, two new faculties of Veterinary Medicine and Pharmaceutical Sciences are established At present, Veterinary Medicine is under the Department of Agricultural and Veterinary Medicine and possesses three departments. But the new faculty is proposed to have a total of eleven departments. Pharmacy currently is in the faculty of Biological and Pharmaceutical Sciences. When established, the new faculty of Pharmaceutical Sciences will have five departments and one sub-department.

Apart from these two major introductions, the University plans a number of new academic programmes and departments while some existing ones are either merged or phased out. Table 4.3.1 shows the proposed reorganisations in the departments.

It is obvious from the following table that most of the expansions in the faculties and departments are proposed to take place within the first four to five years of the plan period. The feasibility of this proposals, however depend to a great extent on the availability of funds to the University. These expansions are those located in the Nsukka Campus of the University alone.

In addition, the University envisages that by 1984/85 session, all the faculties would have developed postgraduate degree programmes in a good number of disciplines.

Table 4.3.1 Developments in the Faculties and Departments.

Faculty/Department	1979/80	1980/81			1983/84			Post 1984		
	Existing Depts.	1	2	3	1	2	3	1	2	3
Agriculture & Vet. Med.	8	3	3	8	-	2	10	-	-	10
Veterinary Medicine *	3	-	3	6	-	5	11	-	-	11
Biological Sciences	7	1	1	7	-	1	8	-	-	8
Pharmaceutical Sciences*	1	-	4	5	-	-	5	-	-	5
Education	3	-	-	3	3	9	9	-	-	9
Engineering	3	1	4	6	-	2	8	-	1	9
Geography Department	1	-	1	2	-	-	2	-	1	3
Chemistry Department	1	-	-	1	-	4	5	-	-	5
Computer Department*	-	-	1	1	-	-	1	-	-	1
Political Science Department	1	-	-	1	-	2	3	-	-	3
Religion Department	2	1	1	2	-	-	2	-	-	2
Sociology Department	2	1	-	1	-	-	1	-	-	1
Anthropology Department*	-	-	1	1	-	1	2	-	-	2
Arts	6	-	-	6	-	-	6	-	-	6
	38			50			73			75

* New establishment.

1: Department phased out or merged.

2: Departments split up or introduced.

3: The new situation.

Furthermore, there exist independent research units that are not covered by the above academic faculties and departments. These include the Institute of African Studies, Division of General Studies, Institute of Education, Division of Extramural Studies and Distance Studies Division. Some teaching support units are proposed also. These include Centre for Economic Research, Centre for Public Policy, Ecumenical Institute, Third World Studies and many others. These teaching support units, however, go with the departments.

4.4 The Schedule of Requirement.

Armed with the knowledge gathered from the fore-going analysis of projections, the schedule of requirement is then drawn.

Table 4.4.1 1984/85

Facility	Population	Useable Area	⅓ of Use-able Area M^2	Balancing Area/m^2	Ground Area Ha.
Academic Space	7094	61525m^2	20508	31866M^2	5.2374
Academic Support Facilities	10,000	49900m^2	16633	20650	3.7283
Student Residences (75%)	5,321	57307 m^2	19162	56790	7.5890
Senior Staff Residences	1,412	212 ha	-	-	212.00
Junior Staff Residences	2,789	83 ha	-	-	83.00
Other facilities	10,000	444 ha	-	-	444.00
					755.5 Ha.

Table 4.4.2 1989/90 Requirements.

Facility	Population	Useable Area	⅓ of Use-able Area	Balancing Area	Ground Area
Academic Space	10,143	85,650m^2	28,550	44917	7.3467
Academic Support Facilities	10,000	49900 m^2	16633	20650	3.7283
Student Residences[1]	7,607	81927 m^2	27309	79759	10.7068
Senior Staff Residence	1,827	274 Ha	-	-	274.00
Junior Staff Residence	3,321	100 Ha	-	-	100.00
Other Facilities	10,000	444 Ha	-	-	444.00
					839.8

In calculating the schedule of requirement for these years, certain factors have been considered. For Academic space requirements, the total number of students for that future date has been used. For academic support facilities, the NUC recommended ultimate number of 10,000 has been used. For students residences, 75% of the FTE students are used as a base. The junior staff quartered in the Campus, or by the university, should be 60% as 40% land for this cadre should be reserved elsewhere for private development according to the NUC minimum standards.

[1]This includes the area for students common rooms in the hostel.

To curtail the area of land to be required, it has been decided that the floor area ratio of buildings should be 150%. That means that the ground floor area of the building should be $\frac{1}{3}$ of the buildings total floor area. This figure added to the Balancing area then gives the ground floor area requirement of each facility.

The calculations are based on the stipulated minimum standards by the NUC as stated in paragraph 3.1, table 3.1.1 above.

Table 4.4.3 1999/2000 Requirements

Facility	Population	Useable Area	$\frac{1}{3}$ of Useable Area	Balancing Area	Ground Area
Academic Space	11,063	93502 m^2	31167	51626	8.2835
Academic Support Facilities	10,600	499,000m^2	16633	20650	5.3685
Student Residences	8297	89,358	-	86993	11.6779
Senior Staff Residences	1993	298 Ha.	-	-	298.00
Junior Staff Residences	3622	108 Ha.	-	-	108.00
Other facilities	10,000	444 Ha	-	-	444.00
					875.3 ha.

By the schedule of requirement, a total of 875.3 hectare of land is required for the ultimate yeart of the development plan - 2000 A.D. At the moment, the university owns a total of 861 hectare of land at the campus site. It does mean that the available area is deficient by 14.3 hectare.

It must be borne in mind that what has been stated are the minimum according to the NUC. Therefore allowances could and should be made for a margin above the minimum.

Furthermore, the present spread of buildings on the site could mean the existence of a flowing space between buildings even after a re-densification. Flowing space in itself is commendable but then one is drawing attention to its implication for space.

Therefore, the researcher recommends the acquisition of that piece of land to the north of the Campus. This contains an area of 125 hectare and is shown on fig. 2.4.1.

Water Supply and Waste Disposal

Although water points are well distributed in the campus, it has been noted that supply is not satisfying demand. The University is already planning to sink more boreholes. The Water Board in the town also have plans to dam the Adada river situated about 17 km south-west of Nsukka. From there, water would be pumped to Nsukka.

There is need for the campus and the town to harness their efforts at solving the water problem. If efforts are harnessed, the Adada project will be enough to solve the problem.

At a projected population of 253,000 for Nsukka for the year 2000 A.D. and an estimated water consumption rate of 500 per capita (including public and industrial uses) the water requirement would be:-

$$25300 \times 0.50 = 126{,}500\ m^3/day.$$

It means, then, that the impounded reservoir will have a six months capacity of 22.8 million cubic metres or approximately 24 million cubic metres.

There will be need for protecting the source of water as it is surface water supply. It will also need a treatment plant consisting of the stages of aeration, coagulation, sedimentation, filteration, chlorination and neutralisation.

Water tanks should be located at the highest altitudes in the town. It will need 15 water tanks of 8,500 m^3 [illegible] each. Fortunately, Nsukka is adorned with numerous hills. Five of the 15 tanks could be located to serve the campus.

The university has a central sewerage system ending in a treatment plant at the North western end of the Campus. The central system will need to be extended to cope with the increased volume of waste effluent.

Electricity.

The NEPA is expected to meet up with the power demand of the University as it arises. The town is already connecte to the National Grid Supply. There is one substation in the town for converting the 132 kv supply to 11 kv. Just outside the campus is located one transformer for connecting 11 kv to 415 v for the use of the University.

Armed now with the level of all facilities required to satisfy the need of our future population, we shall proceed to examine the possible ways of doing this.

CHAPTER V

5.0 THE PLANNING PRINCIPLES.

The factors that are very crucial in the development plan of a University and on which there have been contributions are:-

1. The relationship between the University and the town and
2. The internal relationship between the people in the University as well as the functional relationship of the elements of the University.

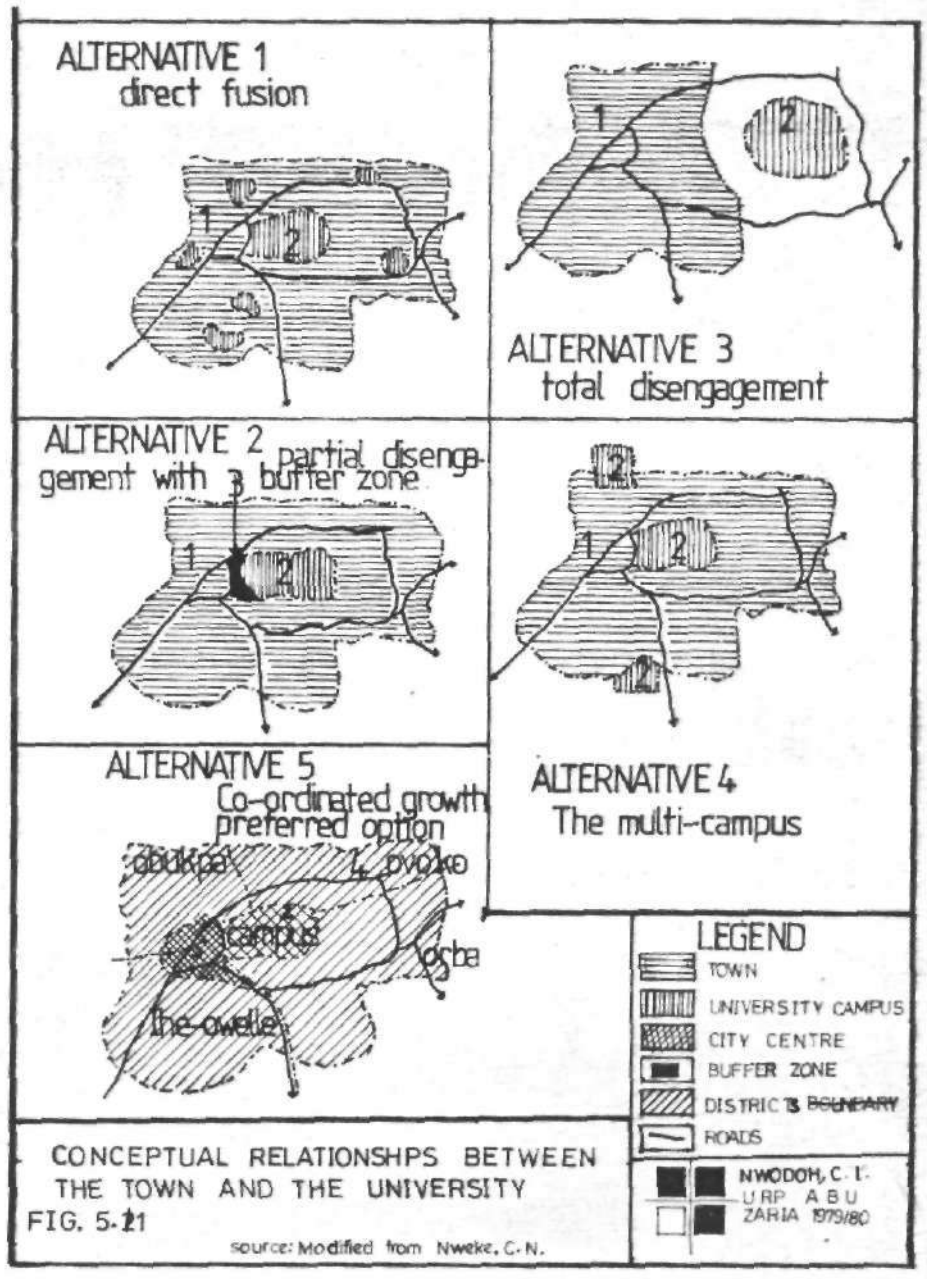
5.1 The conceptual Relationship Between the University and the town.

There are five basic concepts with regards to the relationship between a university and the town or city. These concepts have been put in the form of models depicting the Nsukka Campus and its town - fig. 5.1.1

Concept 1. Direct Fusion : This concept has been variously referred to as the Dispersed stfucture and the Poly-Structure. Town and gown are so intermingled that you cannot distinguish between their landuses easily.

This was the relationship adopted in medieval England by such universities as Oxford and Cambridge.[1] In Nigeria, the University of Lagos practises a good example of this inter-relationship. It has its faculties, colleges and student residences scattered all over Lagos. The Ahmadu Bello University with its Samaru, Kongo, Tundun Wada and the new Teaching Hospital site along Shika Road examplifies this type of relationship.

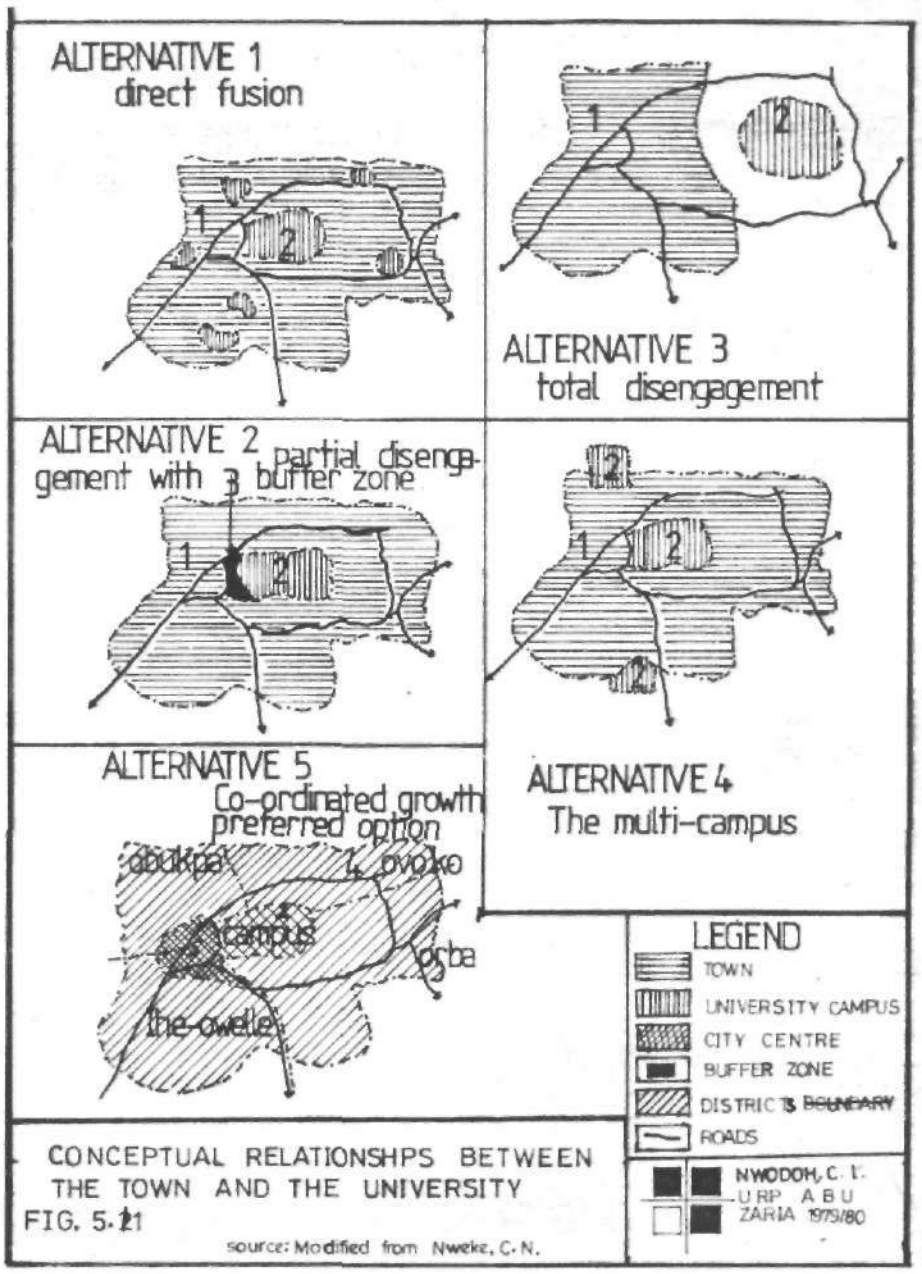
[1] Jordan John, (1968) "University Development Plans - Analysis of Function" in Architectural Journal Information Library 31/1/1968.



CONCEPTUAL RELATIONSHPS BETWEEN THE TOWN AND THE UNIVERSITY

FIG. 5.21

source: Modified from Nweke, C. N.



CONCEPTUAL RELATIONSHPS BETWEEN THE TOWN AND THE UNIVERSITY

FIG. 5.21

source: Modified from Nweke, C. N.

This form of relationship maximises integration between the University and the town. But the needed interaction between the students of various faculties or colleges are sacrificed almost to a fault for the interaction with the city. Furthermore the conveniences of administration in particular and academic work to some extent are lost, because of dispersal of these facilities. On future, great pressures could be brought to bear on the institution's boundaries due to expansion of economic activities in the town generated by the University.

Concept 2: Partial disengagement. As depicted, the University is separated partially from the town by a buffer zone of wide green belt on the city-centre side.

The concept of the green belt itself is quite good and some elements of it would be sifted for application to Nsukka. But the issue of devoting such an expanse of land close to the city centre to a belt of green raises the question of land values and alternative uses. It is possible to utilise the piece of land for another purpose that will be of higher value. There is, again, the problem of maintenance of this gree belt. The idea is alien to the African who, as yet, lives close to greens in their natural habitat. But in a university community of 2000 a.d. a strip of green may not be improperly kept.

Concept 3: Total Disengagement: In this case the ~~the~~ university is removed entirely from the city and is secluded. According to Jordan,[1] in England, such concepts

[1] Jordan, J. (1968) ibid, p.

were utilized during the 1960s and Universities were located "out in the fields".

Siting of a University in this way creates the problem of isolation. The secluded environment may offer conducive atmosphere for reading and writing. But it becomes difficult to resolve the short term gains of convenience and the long term goal of integration into the larger society. This is more so as "the University is a community whose concern is not just with the pursuit of learning but with the fulfillment of lives".[1] Thus the Plan that sets up an artificial polarity between the University and the nearby town is to be discouraged.

Concept 4: The multi - Campus: This differs from the Dispersed-structure in that it has just two or three campuses. This encounters some of the problems of Dispersed-structure, namely loss of administrative convenience and sacrifice of the interaction between the students of various disciplines. At Nsukka, double campus have been proposed by the acquisition of an area of 271 hectare at Nkele-Agu, Obukpa. But the situation is even less conducive in the case of Nsukka. The two campuse issue was not an original plan and so central functions and facilities have been concentrated at the original site. The initial cost of development and the cost of relocation definitely will not be low. A suggestion to quarter only staff there is not even better as the separation of staff and student limits interaction. Then there is the waste calculated in terms of journey to work and the lost proximity to the city centre.

---

[1] Solomon, A.E. "An Address" quotted in Dobbar Richard, (1965) The New Campus in Britain: Ideas of Consequence for the United States. Educational facilities Laboratory. New York. p.15

Concept 5: Co-ordinated Growth. In this concept, the university campus is treated as one of the communities, it focusses on the town centre. In this case it maintains a contiguous campus. The problem faced by this concept is that due to the bit by bit acquisition of land, private residences have developed very close to it necessitating the irregular shpae of the campus and creating problems for further acquisition. This sort of vindicated Jordan who commenting on universities on a contiguous site noted that the greater the economic success of such cities, the more problems were posed for the Victorian* university as a result of increasing competition for valuable central area site and the consequent pressure on its boundaries.[1]

Fortunately, the Nsukka Campus is so sited that to the north and east, it is bounded by scattered residential area where the pressure is not yet too great. Acquisition of an area contiguous with the present site will ensure compactness of development of the entire institution.

This option is therefore recommended and will be pursued further in this study.

5.2 The Conceptual Relationship Within the University

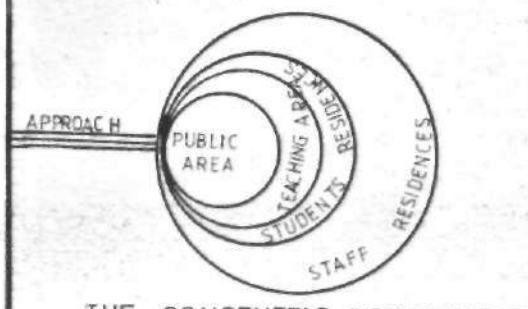
Four main design concepts are examined for the internal relationship in Fig. 5.2.1.

Concept (A) The Loose tie:

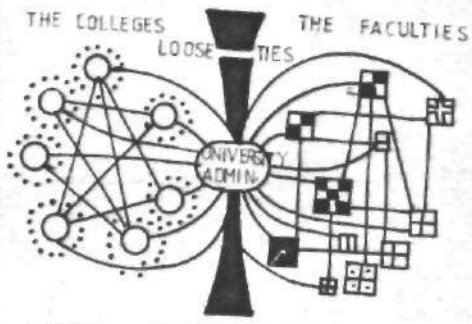
Here the university central administration is located at the centre while the colleges and the faculties locate at the opposite sides of the central administrations. The

*Victorian Universities were characterised by one contiguous Campus.

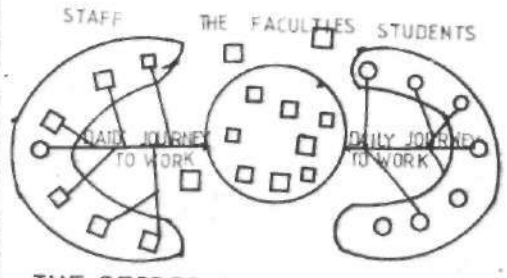
[1] Jordan,J. (1968) op.cit. p.



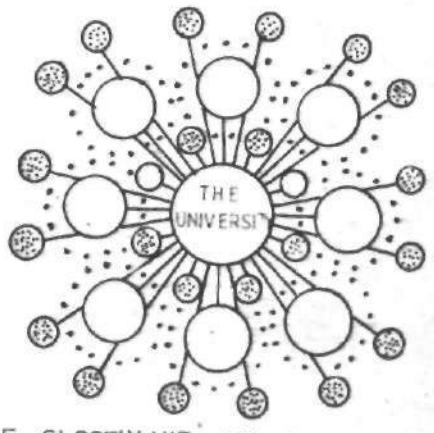
THE CONCENTRIC DEVELOPMENT



THE LOOSE-TIE RELATIONSHIP



THE SEGREGATED RELATIONSHIP
(MODIFIED)



THE CLOSELY-NIT RELATIONSHIP
THE COLLEGES WITH THEIR SATELLITE HOUSES SORROUNDING THE ADMINISTRATIVE CENTRE

SOURCE: UNIVERSITY OF NEW YORK DEVELOPMENT PLAN

FIG. 5.21

CONCEPTUAL RELATIONSHIP IN A UNIVERSITY

colleges are organised in such a way that each student and each staff belong to one and only one.

This is the setting in Cambridge and Oxford.[1] But apart from the limited scope of interaction, the rigid distinctions between the teaching area, the residential area and the communal buildings can be great inhibition to proper mixing and an antithesis to our objective of achieving maximum interaction.

Concept 2. The Segregated Model

The teaching area and the administration is centralised but the staff residences and the student residences are located in ~~her~~ semi-circles on the opposite sides of the focal point.

As the name implies, this is, segregational and cannot achieve interaction of both staff and students. Furthermore, it involves daily journey to work for both the staff and the students.

Concept 3: The Closely Knit Relationship.

Here, the focus of the students are again on their separate colleges. The tag "Closely Knit" refers more to the positioning of the buildings relative to each other. In fact, each of the colleges look inwardly into itself and interaction is very low.

Concept 4: The Concentric Development.

A long and impressive approach leads directly to the public area. Within the public area are sited common facilities and those uses that are shared with the public from outside the institution.

---

[1]Robert Matthew, Johnson-Marshal and Patterns: (1962) The University of York Development Plan: 1962-1972. York University Promotion Committee, England p.2

This last alternative is preferred for the situation at Nsukka. A careful location of activity nodes between the various areas can create the meeting points which will achieve the desired interaction.

Already, the students residences are fairly at the periphery of the teaching area and the staff quarters sorround all of them. It may not be a 100% adoption of this concept due to the constraints imposed by the existing situation but generally, that is the concept accepted by the author.

5.3 The General Concept of the Development Plan

There are produced, two alternative concepts for the development plan. Figs 5.3.1 and 5.3.2 show these two alternative general concepts.

Alternative A maintains the existing approach into the university but utilizes the vacant land it arrives at for the public area. However, it claims a larger area for the public area than the other alternative does and includes some existing academic areas into the public area.

Alternative B defines a different public area and the approach to the university is more direct. It leads into a greater portion of the existing public area and relocation of functions and changes of uses will be less.

Both approaches would need demolition of some senior staff housing and a buffer zone created.

As indicated before in the concepts of relationship within the university, surrounding the public area is the teaching area, then student residences and finally staff residences.

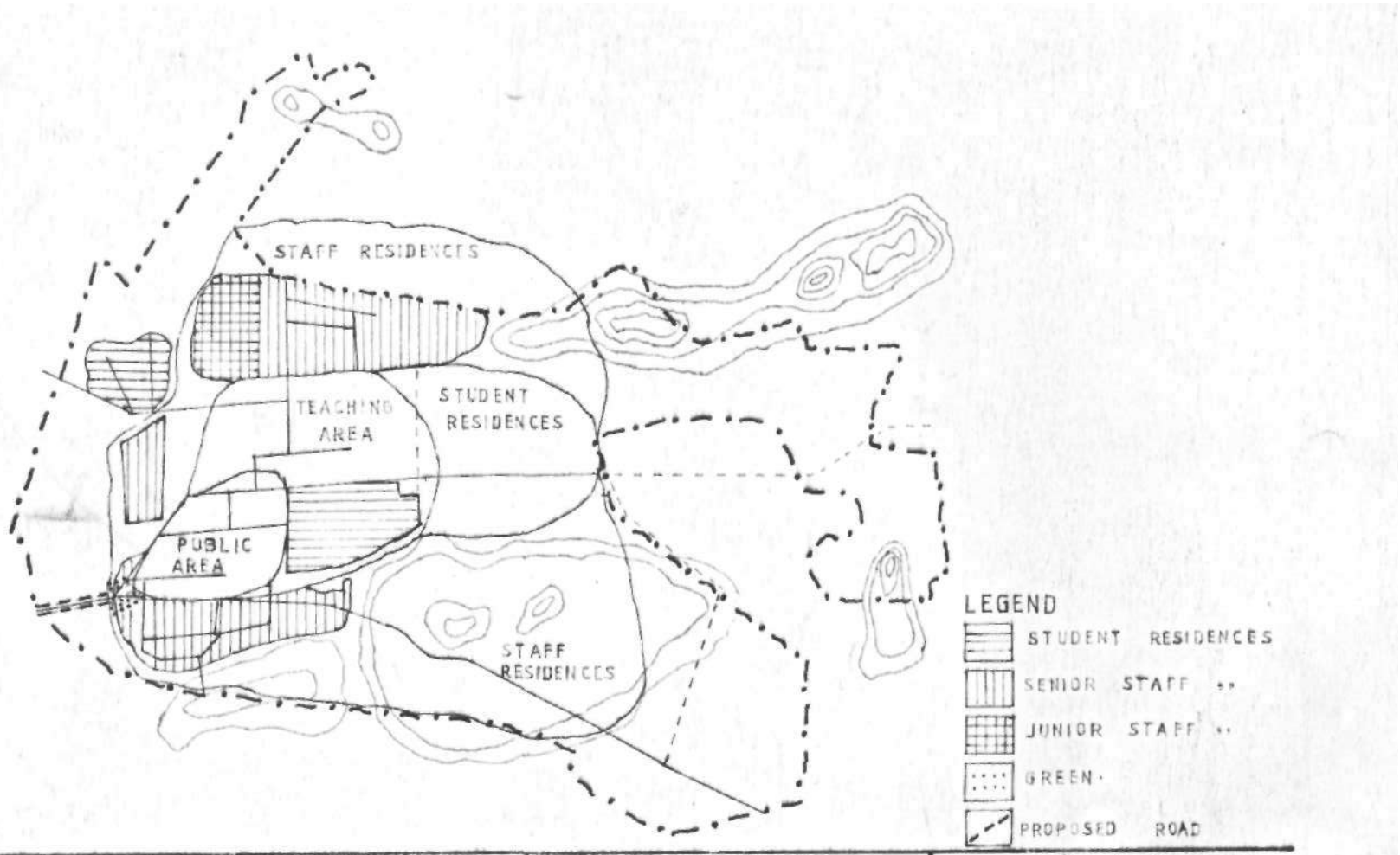


FIG. 5.31 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA: GENERAL CONCEPT OF DEVELOPMENT PLAN.
ALTERNATIVE A

NWODOH C.I.
URP ABU.
ZARIA.

Scale 1:27000

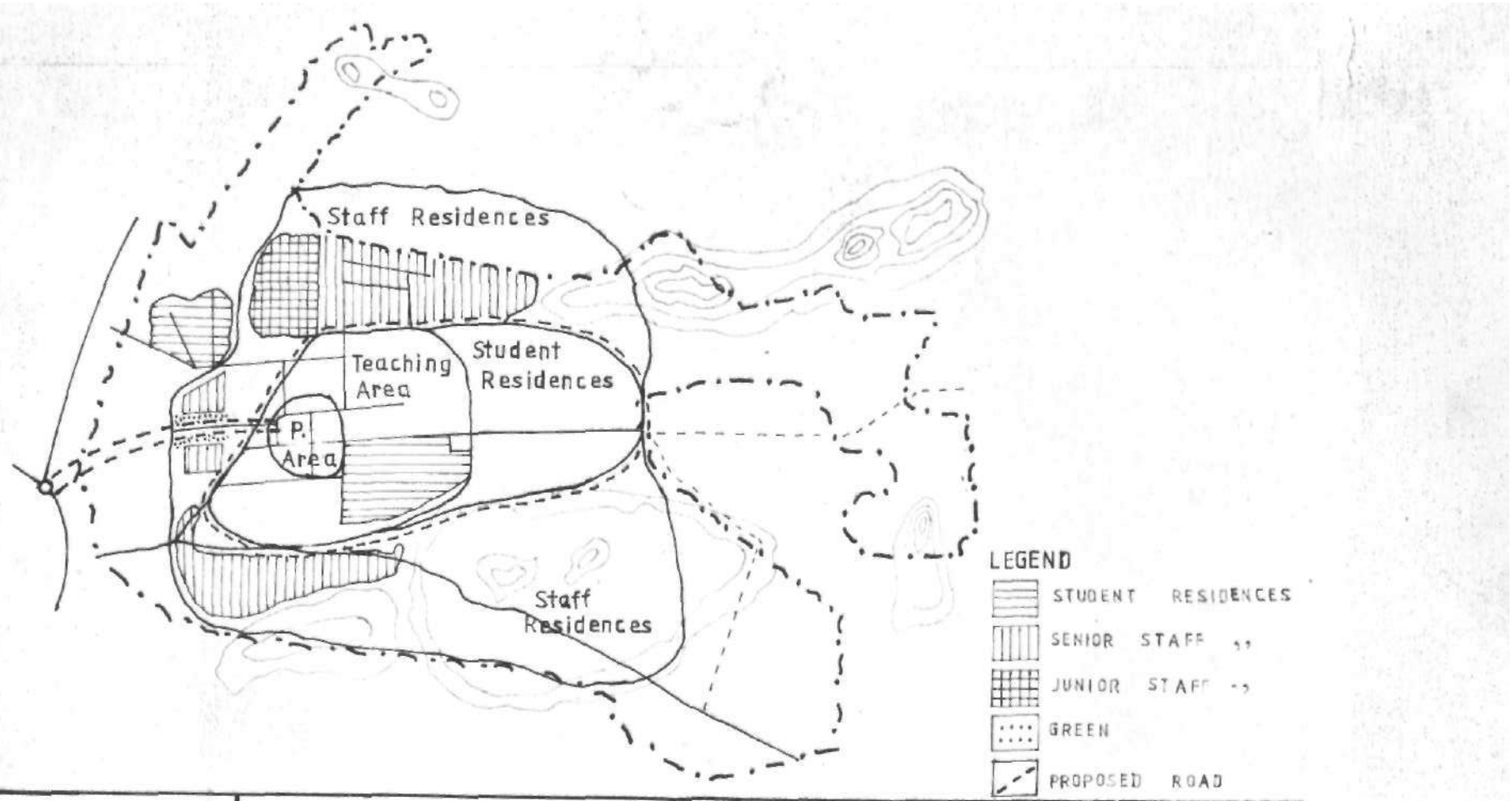


FIG. 5.32 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA: GENERAL CONCEPT OF DEVELOPMENT PLAN. ALTENATIVE B

The approach in alternative B is more direct and better suited to adapting the existing situation to the new planned situation.

Alternative B, is therefore chosen. Basing on the concept now accepted, we proceed to detail out the landuse of the development plan.

CHAPTER VI

THE DEVELOPMENT PLAN

6.0 The Proposed Landuse system Within the Campus

6.1 The general landuse pattern as detailed out in the development plan can be classified into the uses covered. Within the plan are the public area, the teaching space, the student residential area and staff area.

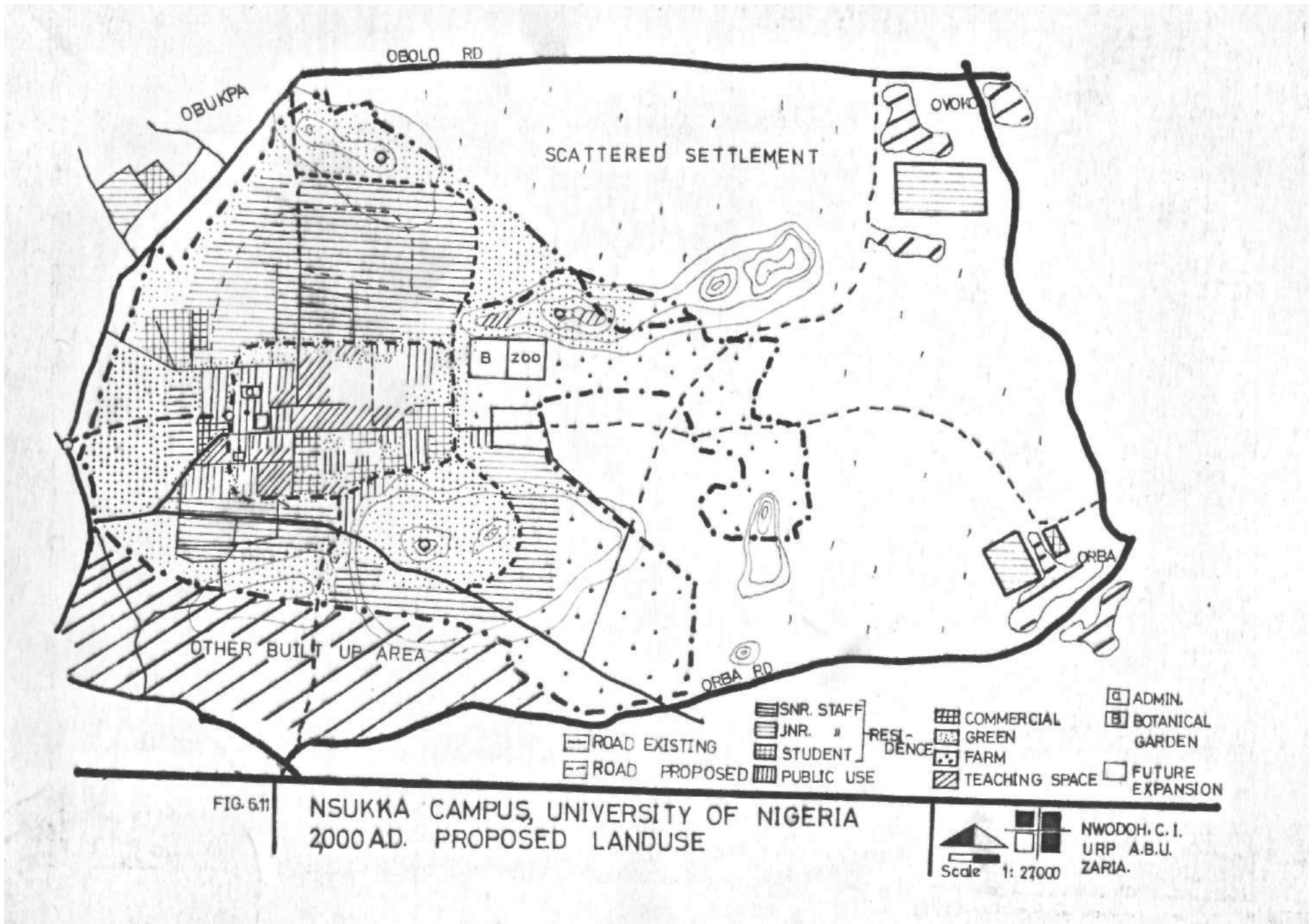
Some communal facilities are concentrated -e.g. in the public area and the shopping centre - while others are distributed all over e.g. dinning, open spaces, recreation and the Library. These are all shown in fig. 6.1.1

6.2. The Central Area

In the central area the following uses can be found. They are depicted in fig. 6.2.1

(i) The impressive approach into the university. It leads directly to the public area.

(ii) The Public Area: It contains the facilities shared mostly with people from outside the university community. Such include the administrative block, the Guest/Conference (C.B.C.) center (See Plate 6.2.1) the auditorium, and the central hall, the convocation square which is so positioned that a procession can start from the administrative block and passing through the landscaped multi-purpose space, go straight to it. From there, the procession or people can move onto the hall or auditorium. The library and the shopping centre are all parts of the public area. All these form the focal point of the university with that multi-purpose space infront. It is meant to be


OBOLO RD
OBUKPA
SCATTERED SETTLEMENT
OVOKO
B
ZOO
ORBA
OTHER BUILT UP AREA
ORBA RD
ROAD EXISTING
ROAD PROPOSED
SNR. STAFF
JNR. "
STUDENT
RESI-DENCE
PUBLIC USE
COMMERCIAL
GREEN
FARM
TEACHING SPACE
ADMIN.
BOTANICAL GARDEN
FUTURE EXPANSION
FIG. 6.11
NSUKKA CAMPUS, UNIVERSITY OF NIGERIA
2000 A.D. PROPOSED LANDUSE
NWODOH, C. I.
URP A.B.U.
ZARIA.
Scale 1: 27000

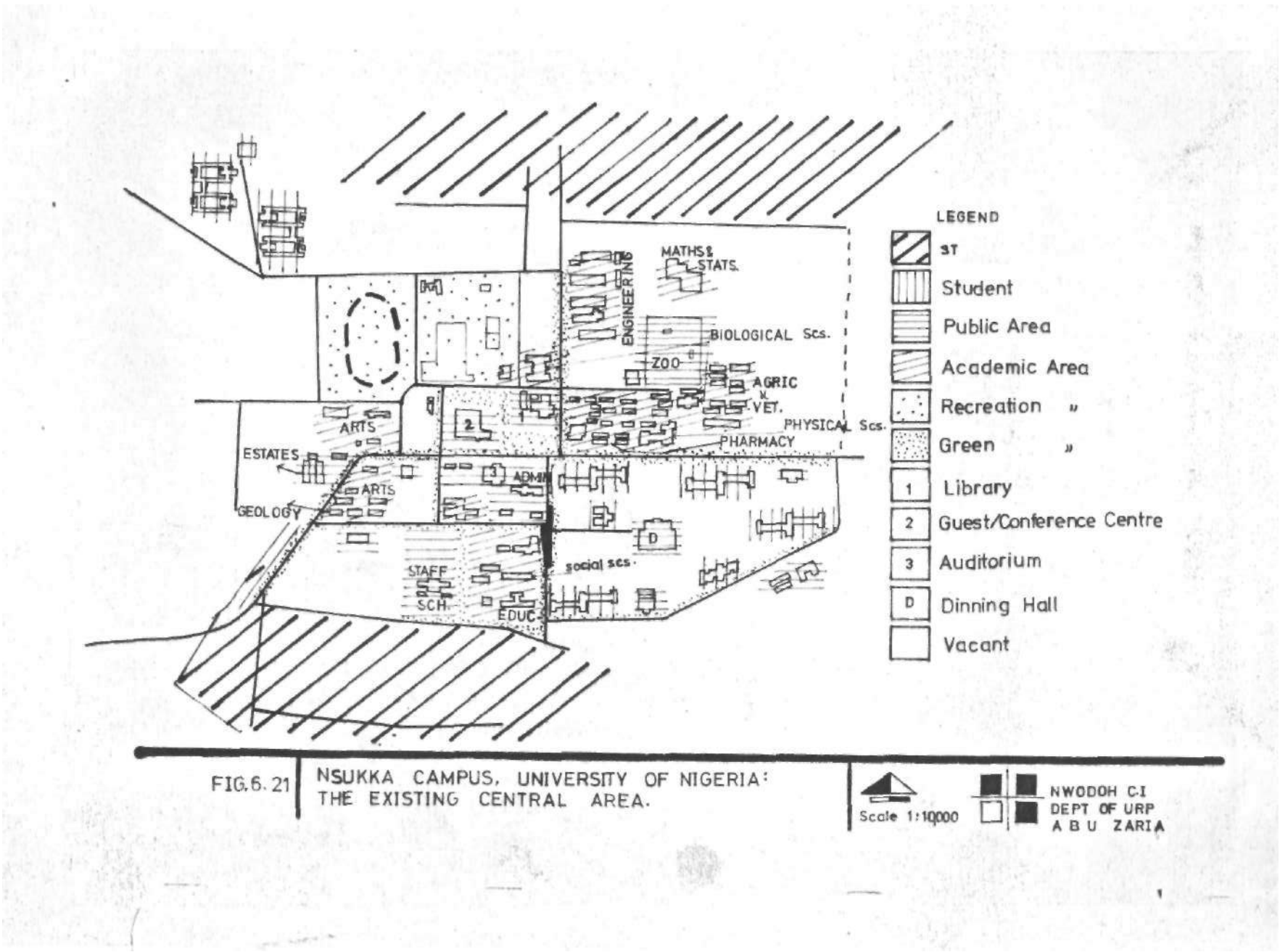
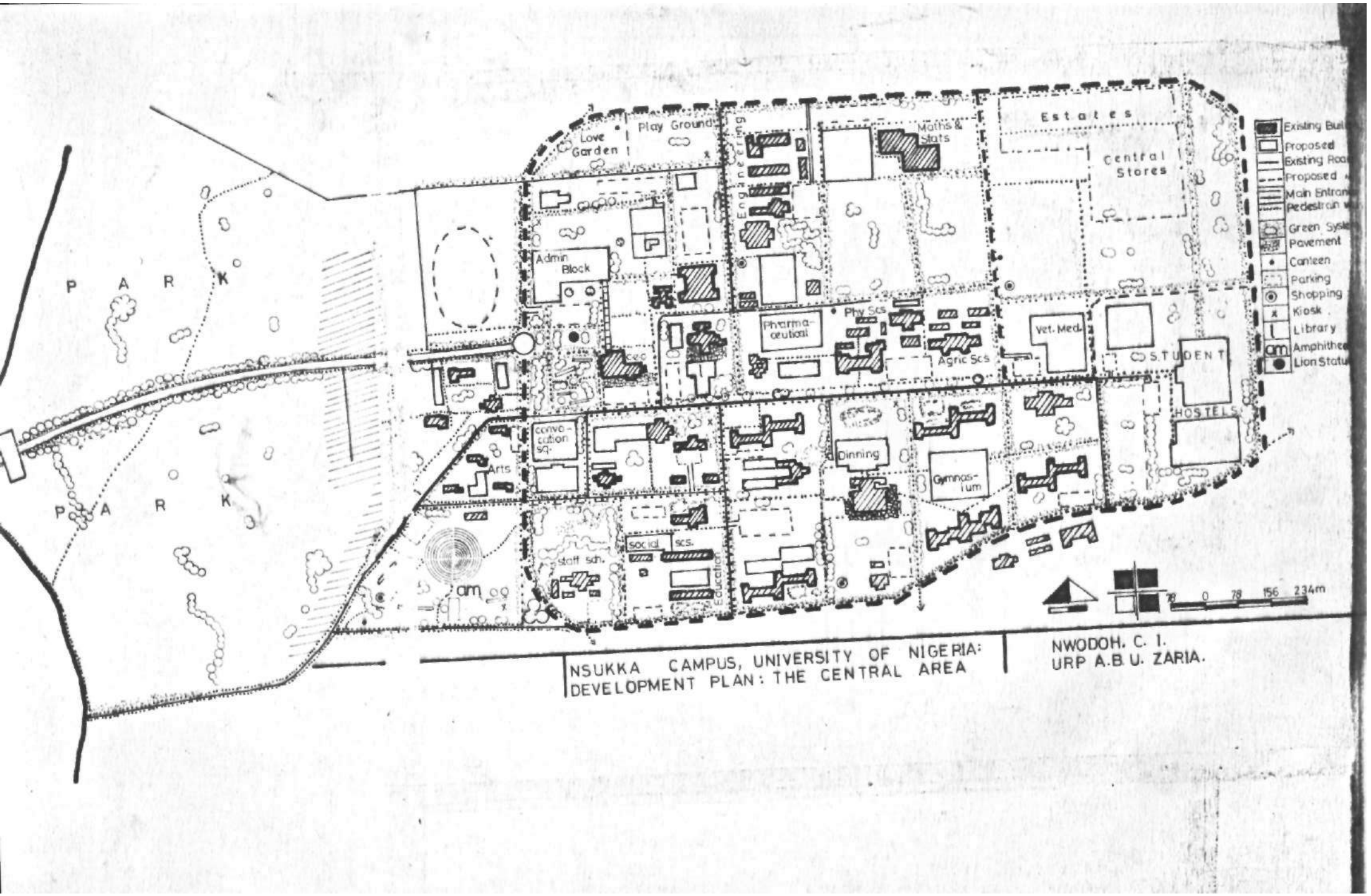


FIG. 6. 21 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA: THE EXISTING CENTRAL AREA.

Scale 1:10000

NWODOH C.I
DEPT OF URP
A B U ZARIA


Love Garden
Play Ground
Engineering
Maths & Stats
Estates
Central Stores
Admin Block
Pharma-ceutical
Phy Scs
Agric Scs
Vet. Med.
STUDENT HOSTELS
convo-cation sq.
Arts
Dinning
Gymnas-ium
social scs.
staff sch.
Education
PARK
PARK
am
Existing Buil
Proposed
Existing Roa
Proposed
Main Entran
Pedestrain
Green Syste
Pavement
Canteen
Parking
Shopping
Kiosk
Library
Amphithea
Lion Statu
78 0 78 156 234m
NSUKKA CAMPUS, UNIVERSITY OF NIGERIA:
DEVELOPMENT PLAN: THE CENTRAL AREA
NWODOH. C. I.
URP A.B.U. ZARIA.

an area of intense interaction and so the pedestrian was considered most in designing the circulation system of the public area.

A huge lion, the symbol of the University of Nigeria, is located in this multi-space. On entrance therefore, the long approach ushers one into a centre that immediately contrasts with the world outside and gives one a feeling of having entered a particular environment, a University environment as the view would portray.

(iii) The Teaching Area. The allocations of spaces for the departments and faculties in the teaching area has been greatly controlled by the existing buildings. Architecturally, the buildings harbouring the departments have been constructed to specifications to fit the use of that particular department. Flexibility in use have not been taken care of e.g. by having less fixed partitions or adapting a building less rigidly to the particular needs of particular departments. That is the situation that permits relocation of functions and changes of uses could be effected.

However, in less rigid situations, some relocations were achieved. For instance, the General Studies Department now moves to the former administrative block. Plate 6.2.2.

(iv) The Students Residences and Common Facilities.

Some of the requirements for future student residences have been met by a redensification of the present area occupied by hostels. Other areas allotted for student residence are to the east of the central area necessitating a divertion of the Owere Eze Orba road.

(v) Pedestrian Circulation: A network of pedestrian routes together with the green system have been provided. The part of Kwame Nkruma way by the side of the library is recommended for a purely pedestrian way to break the continuous drive from the Education faculty through the centre of the Campus to Odim.

(vi) Provided at strategic points are facilities like kiosks, restaurants, shops, canteens and organised open spaces. These will enhance interactions amongst the students in particular and inmates of the university in general as meeting points.

6.3 The Hierarchy of Roads.

The proposal for four Hierarchy of roads have been made. The approach to the University is in a class of its own and is major residential road having a width of 24m. Then the others are collector roads - (which include the ring-road) a width of 18m; Local residential roads - 15m and the access roads which are 12m. Fig 6.3.1 illustrates this.

Illustrated together with the roads is the green system within the campus. The western end of the campus is proposed for a park while the hill at the south of the staff residences becomes a hill-top resort. A love garden is provided for at the north of the central area.

6.4 Utilities and Facilities.

6.4.1 Water

The University Campus will have a total population of 36372 by the year 2000 a.d. This is assuming an average family size of 5 persons for all the workers. Then, the

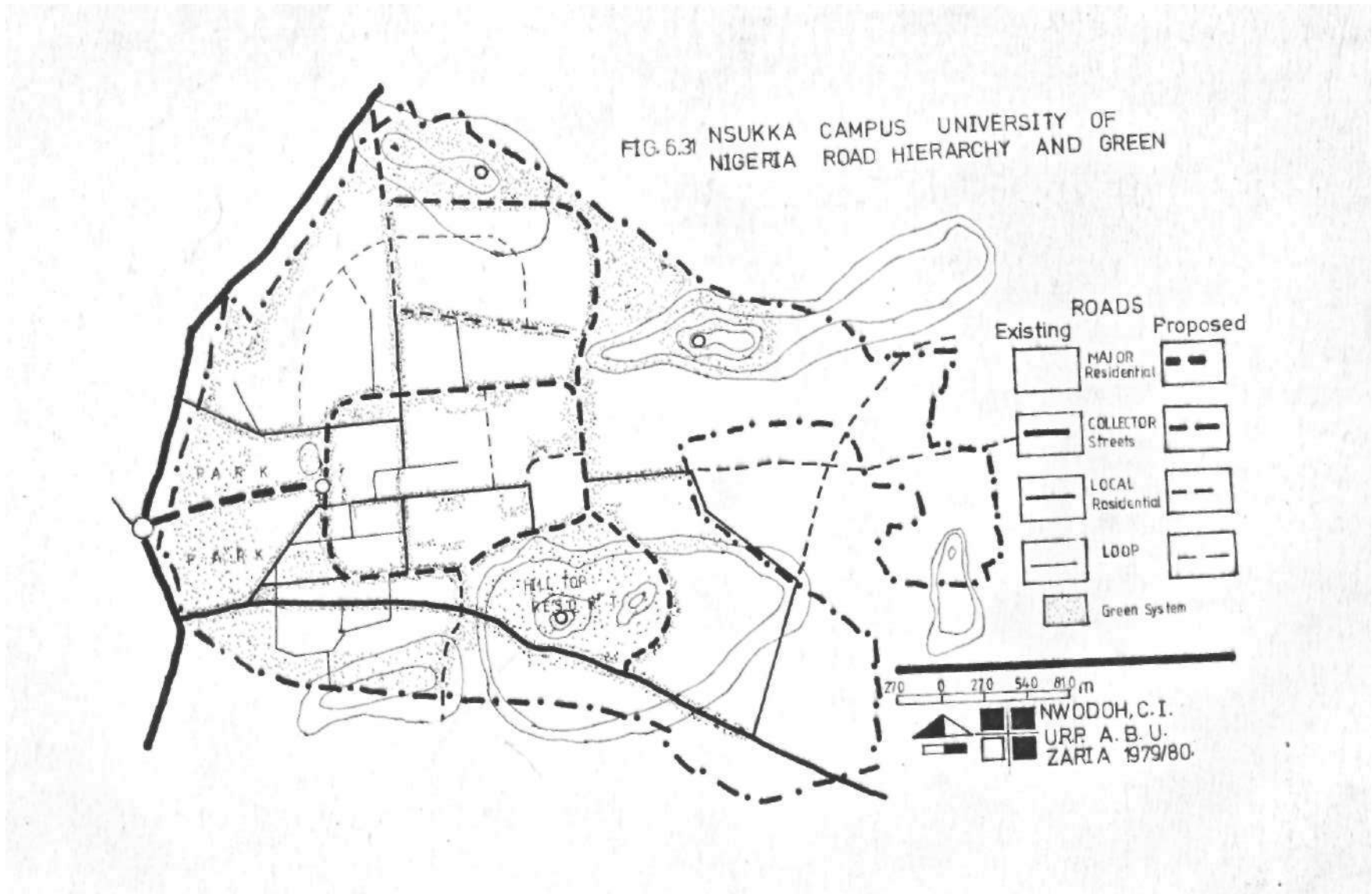


FIG. 6.31 NSUKKA CAMPUS UNIVERSITY OF NIGERIA ROAD HIERARCHY AND GREEN

water requirement at 500 litres per capita per day would be 18186 cubic metres per day. It means that the Campus would need water tanks of capacity of 16,000 cubic metres to serve them. A closed circuit system is proposed for the distribution of main water supply lines.

6.5 The University and its Environment

In the development plan for the Nsukka Campus of the University of Nigeria, proposals have been made which aim at enhancing the relationship between the Campus and its environment. These proposals are depicted in fig. 6.4 and contain the following:

6.5.1 Residential Districts.

As a first step, the environment of the Campus has been viewed in its totality. The total population of the area concerned including Nsukka town, Obukpa, Owoka, and Orba has been estimated at 320,000 at the Plan ultimate year.[1] It is proposed, therefore to group these into five residential districts of approximately 60,000 each. The Campus and Obukpa make up a District while the city-centre is a part of the Nkpunano District. These districts will have District Centres that will offer Centre Services.

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[1] Projections based on the growth rate of the areas from the 1963 population census.

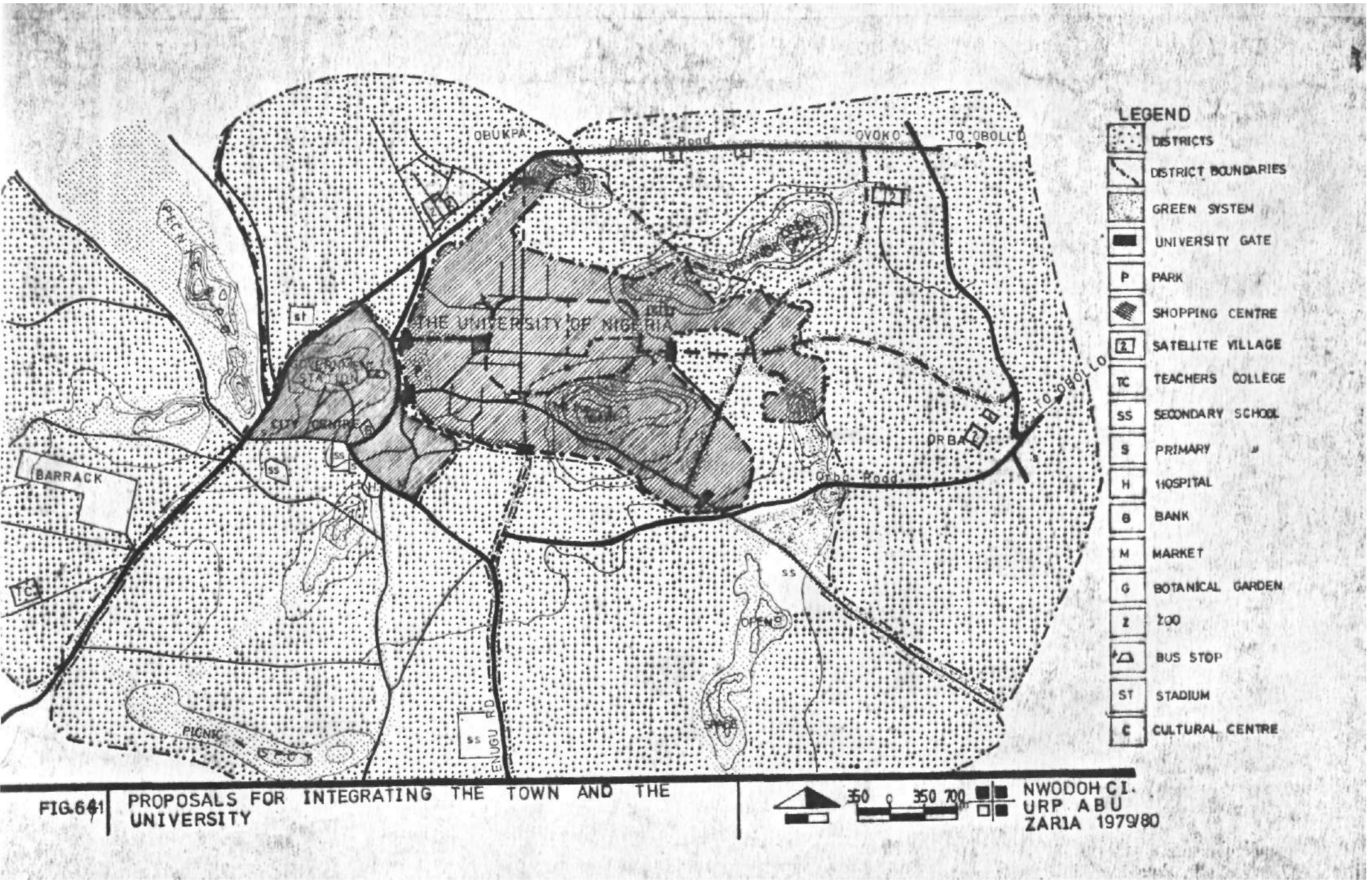


FIG.6.1 PROPOSALS FOR INTEGRATING THE TOWN AND THE UNIVERSITY

6.52 Satellite Villages

The idea of satellite villages for Universities have been tried in Britain as a solution to the housing problem of universities particularly the Civic Universities.[1] It was used in the University of Manchester where Fallowfield was developed for staff and student residences.[2]

However, in the sense Fallow field was developed, it was merely a second campus. It housed only students and workers and the university established an administrative block. Communal facilities like dinning were also built.

The Students and staff members were housed in groups based on sex, age, marital and educational status. This looks like being segregatory.

As a means of achieving integration between Nsukka Campus and the environment, satellite villages are proposed at Orba, Ovoko and Obukpa. These villages as envisaged are to be radically different from Fallowfield experience if our objective of integration must be achieved.

The villages should not be islands of themselves but should be located in existing settlements. This is the crucial aspect of these as a measure of integration.

Secondly, the satellite villages are not to be developed by authorities of the University of Nigeria. It could be by private developers but it is strongly proposed that the idea be integrated with the present administration's policy on massive housing.

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[1]Dober, R. P. (1965) The New Campus In Britain. Educational Facilities Laboratory. New York. p.12.

[2]Dober R. P., (1965) ibid. p.12.

In this case, they would be developed as housing estates.

According to discussions with the Assistant Campus Planner, A.B.U., Zaria[1], the government has asked the University authorities to select a site for a satellite village. It is strongly recommended that when sited, it should be in an already settled area. This will make for an economic provision of communal facilities and give the students a taste of the societal life for which they were being prepared. It is an this premise that Orba and Ovoko as well as Obukpa that are already settled are selected for these villages.

The junior staff and the students to live there are expected to cater for themselves.

6.5.3 Inter-Connections

Roads have been proposed to link the Districts to the Campus while they are all linked to the city-centre. This makes for easy accessibility between all sides and particularly between the campus and other districts. Thus integration is enhanced. Where necessary, some of the roads have been re-aligned to avoid awkward junctions, e.g. the junction of Orba, Enugu and Campus roads south of the Campus. The roads are also important factors in the success of the satellite villages as they are connected to the Campus through some of these proposed roads.

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[1]Personal discussion with the Assistant Campus Planner, Ahmadu Bello University, Zaria.

Pedestrian routes leaving the campus for other districts have been shown.

Although integration is desirable, it should be pursued with discretion for the campus is an academic community. Gates are therefore proposed at each entrance to the University. These gates should be manned by the University Security Organisation.

6.5.4 The Green System

The Green System can be used effectively as an integrating factor. Along the roads and pathways, it offers shade thereby encouraging interaction. More importantly, parks, picnic sports and organised open spaces are green centres that are attractive forces which can be exploited as a means of integrating places.

The Green System in the campus is also integrated with the green system in the town for the above reasons.

While there is a park and a hill-top resort in the campus which are open to the public from outside, the north-western ridge as well as the southern ridge in the town are proposed as picnic resorts. These can draw campus in-habitants to the town. The Western hill and the Ovoko ridge are also proposed to be organised as open spaces. The Botanical Garden and the Zoo in the Campus are other facilities of this nature that increase interaction and integration.

6.5.5 Other Activities.

Commerce: The provision of a standard bookshop in the Campus shopping centre is an attractive force. Also in the shopping centre, such other facilities as pharmacist shop (more reliable than the patent medicine stores in the town) good quality clothing store, cafeteria and general stores will attract people from the town. The Guest/ Conference Centre is already there in the Campus and is much used by visitors.

In the town, on the other hand exists super, markets, and the main market. The Orba market has been serving as a source of food supply to the University and the town. This position will be strengthened by the presence of the satellite village. Ovoko market is relatively small but with the workers there, it's influence will rise.

Socio-Cultural facilities: The Campus provides the modern Akanu Ibiam Stadium on which games and sporting activities are provided. There are also the amphi-theatre proposed, See fig. 6.2.1, indoor games, sports Centre, and fine arts.

In the town, centres for culture and exhibition are proposed in addition to the proposed stadium.

Educational Facilities

The University has a primary school and one is proposed. Children from the town attend the school but constitute just 8.2% of the schools population.[1] For a greater

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[1]From the Headmaster of the School.

degree of integration, a higher percentage of pupils from the town is recommended. However, the main constraint is the high fee which is due to the specialised method of teaching. Children of staff members pay between ₦40.00 and ₦58.00 per year depending on the class. The children of non-staff members pay between ₦46.00 and ₦64.00 per annum.

There are as many as four secondary schools in Nsukka town. If these offer admissions to the children of the campus residents, it will induce integration. However, admission is centrally controlled in Anambra State and nearness to a particular school may not be an assurance that one is admitted there.

The extra-mural facilities for education offered by the University is an important wheel for integration. There are centres of this at Orba, Ovoko, Eha-Alumona and the town itself. Various subjects are thought from the G.C.E. subjects to home management and agricultural improvement courses.

Health Facilities

The University, as has been said, possesses a health Centre that is of high standard. This is, however reserved exclusively for the students and the staff family. An expansion of the Health Centre is necessary if it will throw its doors open to outside patients.

In the town exists a missionary Hospital (Bishop Shanaban) a private hospital (Akulue hospital) a government health centre and a newly opened General Hospital. Campus residents avail themselves of services

from these health facilities and so they aid integration.

6.5.6 Consultancy Services

It is recommended that the University Staff offer consultancy services to the people of their environment in their various specialised fields.

6.5.7 Research

Through research, the academics and students gathered at Nsukka contribute a lot and can contribute a lot more in the identification and suggestion of solutions to the current problems facing the area. It is recommended that the staff and students develop "an aggressive approach to the problems of the city (town) where the city itself and its problems would become the animating focus, as agriculture once, and to some extent still, is of the land-grant University".[1] In the case of Nsukka, Campus, it is faced with both, ~~Both~~ Urban and rural problems as its environment contains both aspects.

In this Chapter, the distribution of activities ~~uses~~ in the development plan and the main elements of the plan have been highlighted. With the proposals for the integration between the university and its environment, it is hoped that not only will the situation in the Campus improve throughout the plan period but that the University and the town will continue to discover in each other, new areas of interests and inter-dependence.

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[1] Kerr, C. "The University and the City" in Dialogue Vol.6 No.3 of 1973. US Information Agency. Washington.

CHAPTER VII

7.1.0 IMPLEMENTING AUTHORITY

The authorities of the University of Nigeria are the ones directly concerned with the development plan. However, the National Universities Commission is the body from which the Nigerian Universities derive their authorities.

The NUC has whittled down the powers of the Nigerian Universities so much that the relationship calls for a reappraisal. Presently not only are the Universities starved of funds but their research programmes are reduced to a level that has become unreasonable. Too much direct control of all the aspects of the Universities life has become an inhibition in generation of change and promotion of Knowledge amongst the Universities.

It is therefore proposed that:

1. The University Council of each of the Universities be the main governing body for each University. This will guarantee the Universities a great measure of autonomy for both academic and physical development.
2. The Federal Government should be releasing enough funds to the Universities for their development and research programmes.
3. The N.U.C. should therefore, interfere very little in the affairs of the Universities, administration wise.

Accepting this set up, it is necessary to see in concrete terms, the sharing of responsibilities for carrying out specifically the development plan as detailed out for Nsukka.

1. It is proposed that for the implementation of the development plan, there should be set up a committee of the council of the University to be known as the Committee on Implementation.

2. This Committee should be directly responsible to the Council of the University which is the governing body.

3. Already, there is a planning unit in the University. This unit should be expanded and strengthened by the recruitment of the appropriate professionals to serve on it.

4. The planning unit should be responsible for the day to day implementation of details in the development plan. It will be responsible to the Committee on Implementation.

5. The Committee on Implementation will be responsible for awarding the contracts for major aspects of the development to qualified firms. Such firms should be responsible to the Committee on Implementation.

6. The Planning Unit, should always work co-operatively with any firm or firms appointed in the sense of provision of data and other necessary information.

7.2 Land Acquisition

An area of 126 hectares needs to be acquired at the northern end of the campus. This will make for the contiguous expansion of the staff residences and the

institution generally. The 271 hectares acquired at Enu-Agu, Obukpa could be used to augument the Agricultural land need of the University.

The process of land acquisition as laid down in the statute of the University should be followed.

7.3 Satellite Villages.

The land for this needs no direct acquisition by the University authorities. It is either left for private developers to produce the houses or the Government erects housing estates in such places. It is recommended that the government undertakes the student part of the satellite villages as private developers may not find it lucrative to build for student accommodation.

7.4 Utilities

For this, a proper co-ordination is needed between the University authorities and the different bodies concerned with them example water and electricity supplies. The Adada project is one, full of proppects for adequate water supply in Nsukka. The Federal government, ~~for~~ the university and the state government for the town should be involved as it requires heavy initial outlay.

7.5 Transportation

The provision of this infrastructure at the scale proposed in the plan needs the co-operation of the following bodies:

i. The University authority.

ii. The Nsukka Town Planning Authority

iii. . The Isi-Uzo Local Government Authority

iv. . The Igbo-Eze Local Government Authority

v. . The Ministry of Housing and Works

vi. . The Anambra State Government.

These authorities should co-operate and co-ordinate their efforts for the solution of the problems of Transportation.

The University authority is, however, expected to cater for the bus stands within the campus. But the provision of the Buses themselves should be by a body set up for that particular purpose. This is because the area concerned includes parts of different local government areas.

7.6 Phasing

There are to be four phases to correspond with the National Development Plan Periods.

7.6.1 1st Phase: 1980/81 - 1984/85

In this phase it is proposed to start with public area which is to become the focal point of the university. Also work on the faculties whose academic programme are being newly established are given priority as well as residential accommodation. Figs. 7.3.1 shows the first phase.

The first phase involves the development of residential accommodation to take 5,321 students and a total of 4,193 workers. Thus an overall population of 26,786 will be provided for at this stage.

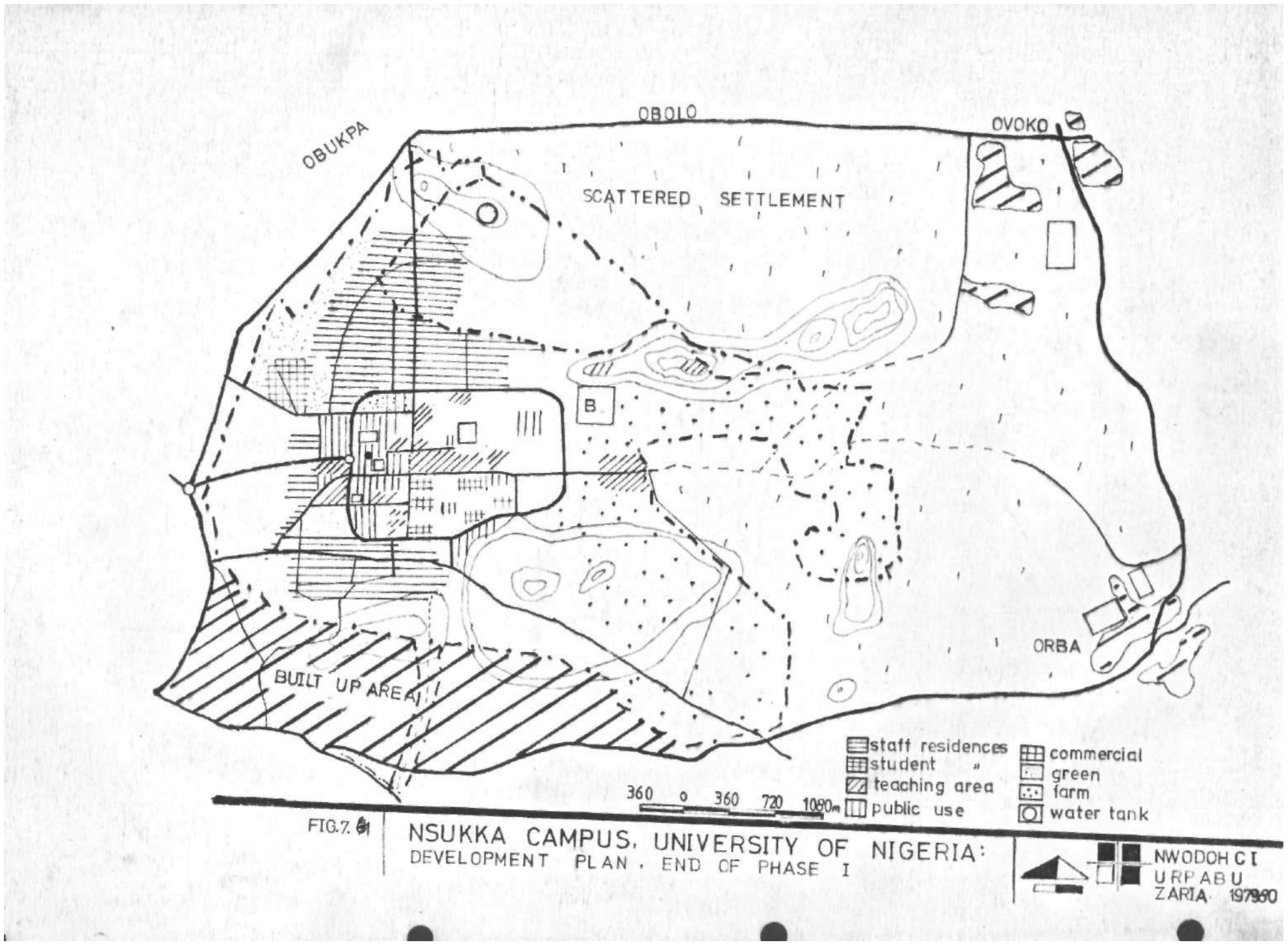


FIG. 7.61 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA:
DEVELOPMENT PLAN, END OF PHASE I

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ZARIA 197960

As access is necessary, the main connecting linking between the University and the town should be completed within this phase. The link road, one of the roads that meet at the round about, is declared a one way road so that vehicles approaching the city centre from it are diverted through Onuiyi road.

The ring road around the central area of the University is completed within this period as it means a lot to the public area.

The new administrative block is built and the road re-organisation required within that area should be completed within this phase. When administration moves to the new block, the vacated buildings are re-assigned. Because the Library is already under pressure, it is expanded. The part of the Kwame Nkrumah road near the Library becomes a pedestrian way.

Work starts on the site for the new faculties of Veterinary Medicine and Pharmaceuticals.

Outside the Campus, the first phase of the staff and student residences at Orba and Ovoko are constructed. Work on the roads that link them to the University is set in progress.

One water tank of 5,000 cubic metres is located at the top of Obukpa hills.

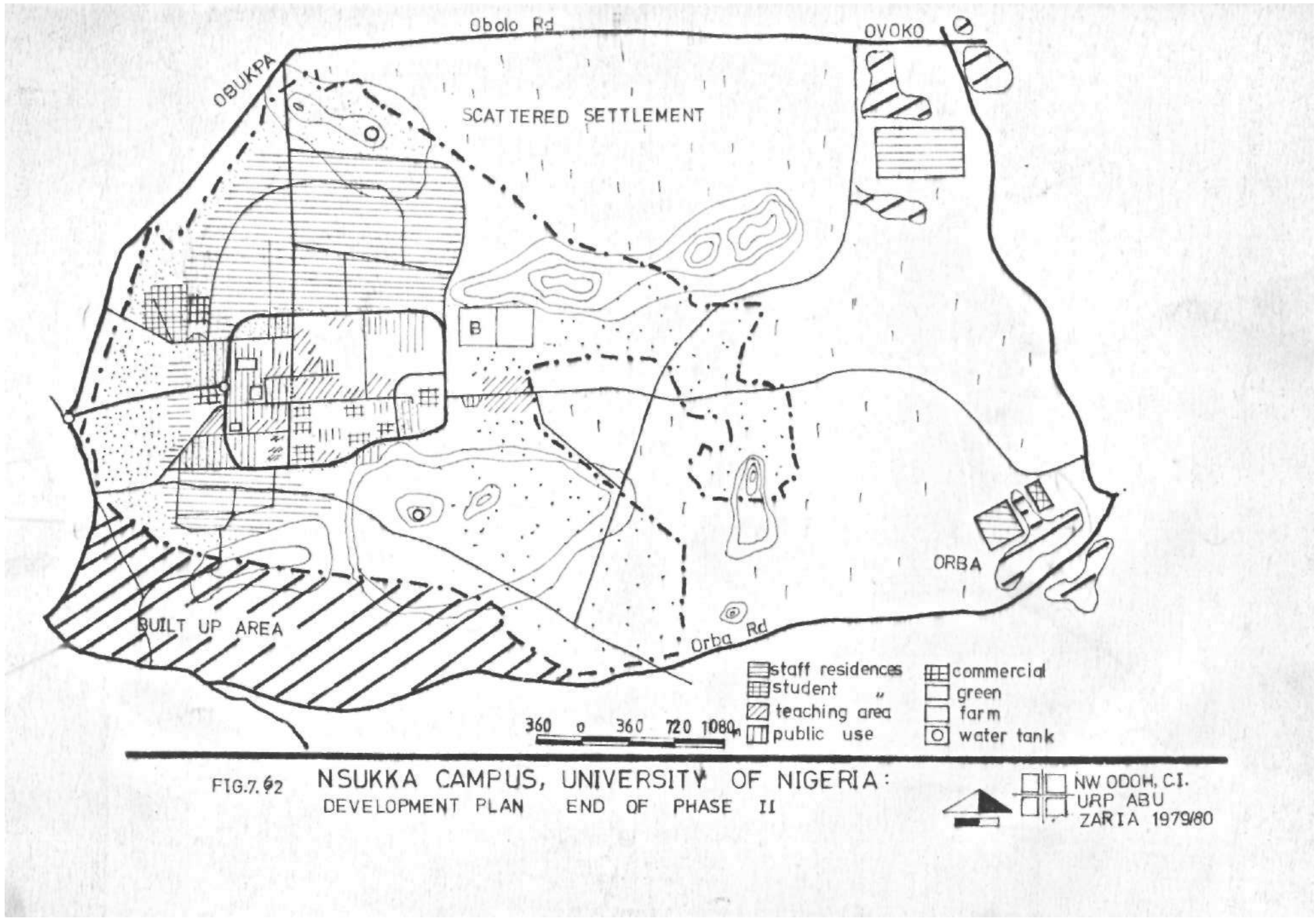


FIG.7.62 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA:
DEVELOPMENT PLAN END OF PHASE II

NW ODOH, C.I.
URP ABU
ZARIA 1979/80

7.6.2 The Second Phase 1985/86 - 1989/90

Residences on the campus to accommodate a total of 7,607 students and an addition of 955 staff members are to be completed within this period. The road near the new student residences is diverted while the new road through the faculty of Veterinary Medicine will be completed. ~~Ikejiani~~ Southern exit Road and Odim ringroads are constructed also.

Work starts at the shopping centre and Faculty of Arts concentrates at the site where History department is located. The Estates department is relocated because of the work going on in the shopping area.

The student building at Orba is completed. While the roads that link Orba and Ovoko to the Campus are opened. Water tank of capacity of 4,000 cubic metres is located at the hill south of the Health Centre.

7.6.3 The Third Phase 1990/91 - 1994/95

Within this period, the shopping centre is completed. The extension at the Faculty of Education and the Institute of African Studies are accomplished. The Faculty of Adult Education is expanded within this phase.

The satellite village at Obukpa is completed within this period and the Orba satellite village is also complete. The students dinning Hall - Ekpo refectory - and the second Lecture theatre are now to be errected. The new physical

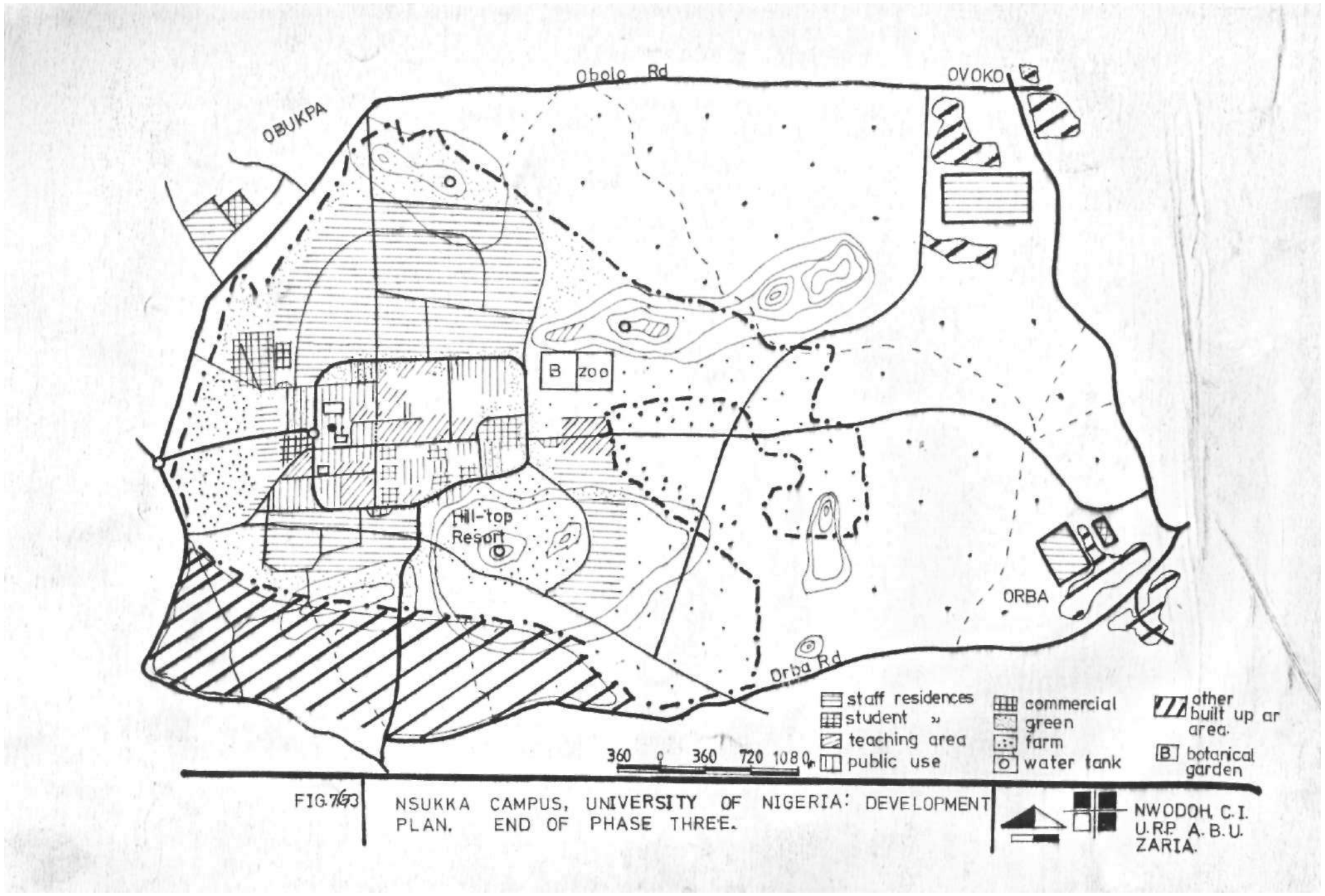


FIG. 7.3 NSUKKA CAMPUS, UNIVERSITY OF NIGERIA: DEVELOPMENT PLAN. END OF PHASE THREE.

Sciences building is also completed. The ringroad within the farm near the hill behind the health centre is constructed.

Accommodation for 7,870 students and 7,729 workers are built.

7.6.4 The Final Phase

Within the final phase, the remaining projects proposed in the development plan are then completed.

Unanticipated changes would demand the modification of the plan. At the end of the plan period, the situation should be reviewed in the light of experiences and need. If there is need for further expansion, that should be effected.

7.7 POLICIES ON BUILDING STRUCTURES

The plan recommends the building of solid structures rather than the mushroom building units that consume space unnecessarily. Prefabricated buildings and those small units called pharmacy blocks, for instance, should be replaced with bigger, less space consuming but more stable and accomodating structures. A floor-area ratio of 150% is recommended.

7.8 Funds

With the proposals made under the Implementation Authority, the authorities of the University of Nigeria become responsible for the implementation of the development plan. But Universities are known not to be profit making

institutions. So it is not expected that the University will fund the development plan fully. More so as education is regarded as a social service in our country.

Therefore the Federal Government is expected to make available adequate funds for the implementation of the development plan once it is accepted and approved.

Secondly, the University would explore other avenues to strengthen its financial position. Thus, endowment funds, and other donations could be solicited for. The Aluminai Association of the University could play a major role if contacted.

Also funds from research efforts by the University could be made available and utilized.

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