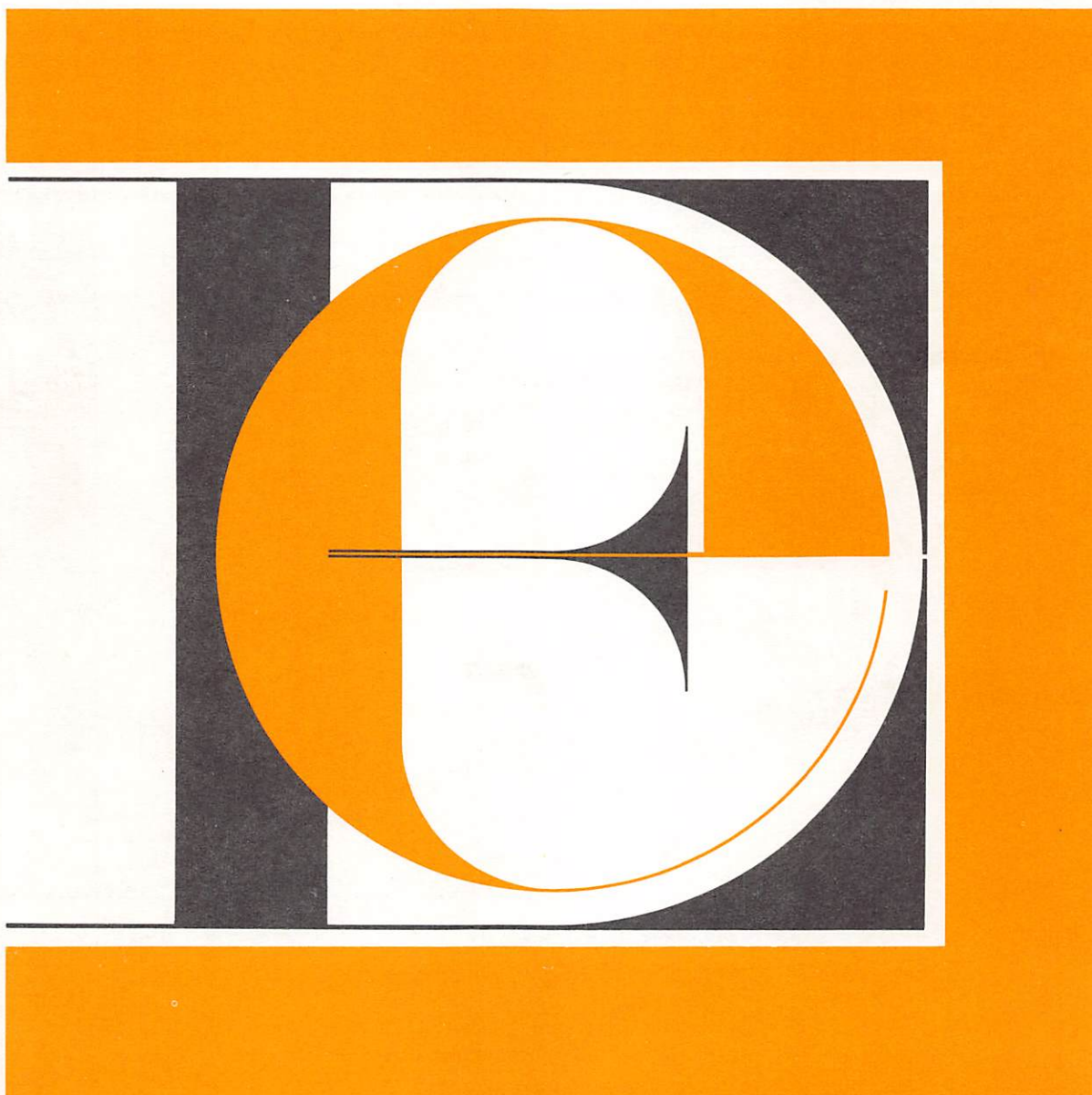


No. 26

Buildings for school and community use: five case studies

Educational studies and documents



Unesco

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Buildings for school and community use: five case studies

Unesco

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Ginsterweg 4-5
3074 Steyerberg
Tel.: (05764) 21 58

ISBN 92-3-101441-2
French edition 92-3-201441-6
Spanish edition 92-3-301441-x

Published in 1977
by the United Nations Educational,
Scientific and Cultural Organization
7, Place de Fontenoy, 75700 Paris, France

Printed in the workshops of Unesco
© Unesco 1977
Printed in France

Preface

In 1972, the International Commission on the Development of Education reported that "... The need to harmonize school and out-of-school aims and methods in their broadest sense is felt more and more keenly. The opening of the school on to the world works both ways. The former tends to see itself as a multi-purpose cultural centre. The school library serves as public library; the assembly hall is the local theatre; the science laboratories, workshops, sports facilities, audio-visual studios and documentation centres are made available to the community, at least after school hours and during the holidays."

Since then, a large number of Unesco activities have been directed at bringing educational programmes into harmony with community life. Curricula are being made relevant to students' living patterns, adults and drop-outs are being induced to return to school in order to acquire skills corresponding to the requirements of their community, and some national educational systems are being reformed so as to replace academically-oriented structures with structures that will serve the majority of the population.

New ideas in education usually have an impact on physical facilities, and this has been particularly true in the present instance. New educational and social programmes based on community needs often mean providing more, better or different facilities than those provided by schools in the past. Alternatively, it has sometimes been found that certain educational activities can be more economically accommodated in facilities already at the disposal of the community, or that several local agencies can pool their financial resources to construct a facility to be used jointly.

This community education approach means that the actual planning of the facilities becomes a community activity. Buildings are no longer merely containers of an activity but become the medium through which individuals

and groups working at the local level can begin to participate in the planning process.

The present study presents a review of how the ideas presented by the International Commission on Education have been, or might be, developed in five Member States. While many countries are giving thought to the possibility of stimulating more endogenous educational patterns, such as community-centred schools, few have had a chance to put such programmes into operation and to evaluate them. This review offers the information in Unesco's possession to educational planners and architects who may be involved in planning and designing for integrated school and community facilities anywhere in the world. By definition, however, community education is of direct concern to all communities and it is therefore hoped that the study will interest an extensive non-specialist public.

Each case study has been prepared by faculties of architecture through teams made up of staff and students. In a number of them, even children and adults in the communities concerned have been able to share in the work. The material having been prepared by these national groups is not, therefore, necessarily a reflection of Unesco's policies and opinions in this field. Nor do the designations employed and the presentation of the material imply the expression of any opinion whatsoever on the part of Unesco concerning the legal status of any country or territory, or of its authorities, or concerning the delimitations of the frontiers of any country or territory.

There are clearly a large number of additional national experiences not included in this survey. Unesco is at present carrying out a world-wide assessment of these activities and will make available a more detailed report when the survey is completed.

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Introduction

The following five national views on "Educational Facilities and the Community" have been condensed from the preliminary results of a research project initiated by Unesco in 1974. The purpose of this was to enrich Unesco's capacity to advise Member States on planning educational facilities for community use.

University groups in Australia, the Federal Republic of Germany, Greece, Kenya, and the United States were asked to collect information on the subject, and to formulate proposals for the programming, organization, and construction of educational units having a certain relationship with the community. This relationship was not strictly defined, but involved a variety of schools both in and outside the following categories:*

- schools which have extended their services to include elements of the non-school age population;
- schools in which internal activities or policies are to some extent influenced by elements of their environment;
- schools which are making use of community resources on a systematic basis to enrich their practical work or curricula;
- schools which are engaged in programmes of co-operation for a specific task involving one particular aspect of their environment;
- schools which are no longer "schools" in the accepted physical sense of the word, but are physically integrated with other social services, or have merged altogether into the surrounding communities.

These categories are not definitive descriptions but may be considered as guideposts in a gamut ranging from schools that are nearly institutional to forms that are radically innovative. The general underlying assumptions for co-ordinated facilities are social and economic as well as educational. A closer co-operation or integration of school and community facilities is expected to:

- upgrade the social and physical environment;
- enhance communication and co-operation between various agencies and user groups;
- lessen the isolation of the school from everyday life and increase its relevance;

- eliminate wasteful duplication in terms of services, programmes, personnel and space.

Although the impetus for educational reforms has come largely from groups whose educational opportunities are above average, many of the large innovative community and educational centres have been implanted in low-level socio-economic neighbourhoods. The provision of co-ordinated services in these cases serves as a focal point for community development and renewal. Since the lack of physical facilities often provides an initial impetus for co-ordination one tends to forget that community development presupposes social as well as physical development.

The priority aspects are social, political, and administrative. Only when problems associated with these have been solved is the appropriate physical facility an asset to co-ordination. Planning co-ordinated facilities is a complex task which can best be carried out at a local level and which requires a certain amount of autonomy at this level. This in turn depends on supportive strategies and delegation of power at the upper levels of political decision making. The most common combination of needs emphasized in these studies concerns recreational, cultural and educational services. In these cases, political power structures are usually supportive. However, resentment tends to be engendered within those structures if community development becomes a synonym for local grass-roots political action and autonomy.

Due to the limited size of this publication, the studies included represent only a substantially reduced version of the original reports submitted to Unesco. However, in selecting examples from each national report, care has been taken to show the diversity of possible solutions in view of different cultural, social, and economic situations. Conclusions are based on the full range of cases studied in the original reports.

* These categories follow the lines laid down by Susanne Mowat in an unpublished paper prepared for C.E.R.I.-OECD under the title "The School and Community, a Proposal for Investigation".

While emphasis in the Greek and Kenyan reports is on planning and architectural proposals based on thorough analyses of local situations, the reports from Australia, the Federal Republic of Germany, and the United States provide extensive information on existing community schools. To show the range of existing solutions, case studies on both ends of the continuum relating to cost and scale have been selected: large new educational and community centres, and the use of existing facilities and resources for community education and services.

At one end of the scale are the existing cases studied: Angle Park in Enfield, S.A., Australia; Steilshoop in Hamburg, Federal Republic of Germany; and Dunbar in Baltimore, Maryland, U.S.A., which have become models for a number of subsequent projects. All three centres were planned for the improvement of low socio-economic neighbourhoods. Angle Park was chosen because of its depressed social and dreary physical environments. In the Federal Republic of Germany, the new satellite town of Steilshoop includes a large number of publicly subsidized apartments, and the Dunbar catchment area is a black urban ghetto.

Although recent information confirms the success of operations at Dunbar and Steilshoop, the provision of further large-scale, comprehensive co-ordinated models in the above scale has been halted by a general decline of economic resources, new political forces, and demographic factors, mainly shrinking student enrolments.

Thus, to exemplify the other end of the scale, the use of existing facilities and resources - under-utilized schools, private and professional offices and workshops, institutional and commercial facilities, media, and the like - may provide the more widely applicable solutions for the future. The most varied examples exist in Australia and the U.S.A.; schools of the air, schools without walls, correspondence schools and learning exchanges which connect different educational desires and needs with the necessary resources usually operate with a minimum of physical facilities.

Community schools and colleges are housed in old schools, church halls, warehouses, theatres, bank buildings and even funeral parlours. In the Federal Republic of Germany, the existing schools being re-used are beginning to outnumber the new schools which are being planned and built. Essen provides a case in point. Between the two extremes, its large new centres and re-use of existing facilities display many permutations and combinations of the different parameters.

The cases studied in Kenya are less educationally and more socially oriented. There are social halls and community centres which provide some adult crafts courses but offer few links with the educational system. In their proposal, therefore, the Kenyan group suggests a closely-linked community education and resource network for Kawangware, a peri-urban community in the vicinity of Nairobi. The Greek and Kenyan proposals attempt to solve the specific difficulties found in those countries in the planning and implementation of community schools.

The Kenyan group developed an elaborate process for identifying community needs through the analysis of socio-

economic patterns and a gaming technique. This technique is designed to assist the public and professionals to participate directly in the formulation of the brief. Through a simple graphic method illustrating the various elements and requirements of a community centre, the user is able to relate these elements to one another before they are given concrete form.

The Greek approach to identification of user needs combines survey and questionnaire. These provide a basis for the reprogramming and redesign of an abandoned Hermoupolis building of noteworthy architecture. In addition to the difficulties of conversion, cost factors, and the lack of open-air spaces, the state of disrepair had to be considered. Both the rejuvenation of community life from its own resources and the simultaneous improvement of the existing structural wealth of the city are major objectives of the proposal.

The Australian proposals, of which only one could be included, attempt to resolve the contrasting problems of confrontation and self-destructive apathy found between the white majority and the aboriginal minority cultures. In their proposal for Mornington Island, therefore, the group architects related the ideas and life style of an aboriginal social group to the context of technology, economics, and pre-existing physical planning which are the inevitable legacy of the European system.

Citizen participation in the design process was put forward as a necessary pre-condition for the functioning of multi-use educational and community centres in the Federal Republic of Germany and the United States. In contrast to the United States, however, there are few examples of an effective participatory process in the Federal Republic of Germany. Innovation has centred largely around more efficient design and technical solutions. The German proposal, therefore, concentrates on a new procedure for programming and decision-making processes rather than on architectural design. Facilities are seen as an integral part of the total sum of elements necessary for the functioning of these new centres and include personnel, programmes, funds, time schedules, and equipment.

In contrast, the proposal for a secondary school in Fort Lincoln, a new town near Washington, D.C., emphasizes those aspects of design which have been identified as the most critical in the Baltimore and Washington case studies: location, access, linkage with the surrounding environmental elements, and a clear internal organization for community, education, and multi-use spaces.

To summarize, in spite of the detailed outline provided as a guide in collecting information and formulating proposals, the five national studies are as varied as their national backgrounds. Similarly, however, the analyses of models of co-operation expose some major local and national problems which the following proposals attempt to eliminate.

In general, it may be said that the community schools in all five countries - whether industrially developing or already developed - are involved in helping to solve some of the basic problems of their locality.

It seems too early to go any further in generalizing from the examples given in this report, mainly because a second phase of work has already started which attempts to develop

some general principles and broad outlines for relating educational facilities and the community more closely. For this second phase, additional information from 30 other countries, including a larger share of developing countries, has been collected. In many ways, this information sup-

ports the findings and conclusions put forward in the present publication. The additional information also adds new dimensions which clarify the complexities of relationships and their interdependencies with other political, cultural and economic issues.

Community educational facilities in Australia: some examples of community schools and a proposal for a remote aboriginal settlement*

In Australia, the early moves towards alternative schools began in the 1920s. Most were politically oriented, aimed at promoting world peace, and failed to survive. One explanation for their failure is that they attempted to protect their children from society, and thus omitted to induce a social perspective. In certain recent exceptions, the functions of teaching and learning extend beyond teachers and the children - conscious attempts being made to end the old isolation of the school from the community.

Inherent difficulties are found in many attempts by private groups to institute community schools. First, they do not form a "community" in the almost mediaeval sense that such schools sometimes proclaim, and furthermore, in drawing children from a group that is more socially than geographically defined, there is sometimes an incomplete, if not a false, identification with the neighbourhood within which the school exists.

Australia, both rural and urban, is settled at low densities. This means that the community school concept favours innovative enterprise at the official level, over the efforts of other groups whose identity of purpose can seldom survive the problems arising from the geographical separation of group members.

Two particularly influential events in the recent development of community schools in Australia were the encouragement of innovation in Victorian schools from 1968, and some of the recommendations of the Kamel Committee set up by the Labour Government after they achieved power in December 1972. They submitted a report to the Australian Parliament in May 1973, which presented - among others - the following aims: that schools be more closely related to present-day Australian society; that schools permit more diversity - including school organizations, school-community relationships and the timing of educational experiences; and that there be "a grass roots approach to the control of the school", and greater community involvement.

AIMS AND FEATURES OF THE COMMUNITY SCHOOL

Some of the aims for community schools set out by the Victorian Education Department include the following:

Relationship with the community

The aim of the community school is to foster a dynamic relationship between school and community through mutual action. At present, changes in society often take considerable time to filter through to the schools, insulated as they are by their physical isolation from the wider community. Such contacts as occur are often at a somewhat remote level and often have little effect on the practices of the school. Thus, for example, curriculum changes have been very slow in the past, not merely because of the centralized system, but also because of the extent to which teachers themselves were isolated from the community.

A related aim is to foster a concern for education among groups and agencies outside the school by actively involving them in the educational process. Other more obviously relevant aims under this section include facilitating the transition from school to work and the development of more realistic vocational goals.

Essential to the success of a community school is the reduction of the school's size so that relationships can be more personal and less formal, as well as to increase students' sense of belonging to a community ("the internal community - the school") and to enable them to participate constructively and meaningfully in school affairs.

* This section is abstracted from a report on "Educational Facilities in Australian Communities" prepared by Ian Sinnamon, Department of Architecture, University of Queensland, Brisbane, Australia. The report presents the conclusion of a study carried out under a Unesco contract.

In a small institution, the need for rules and regulations would be reduced, as would the tendency for children to be treated alike without regard for individual differences. In this context, it should be possible to ensure close supervision of all students by a small group of teachers who know each well. Hence, the aim is not only to achieve an atmosphere conducive to learning but also to develop sound interpersonal relationships and a positive constructive acceptance of social responsibilities.

Educational aspects

The major elements of existing curricula, such as the development of literacy and numeracy, are as important as social relationships in the aims of the community school. In fact, the format of much of the curricula would be very similar to that of other traditional schools in that students would do a good deal of reading, writing, talking, and computing. They would make useful and aesthetically pleasing objects, and study their physical and social environments.

However, the community school aims to provide many of these learning experiences through direct, first-hand experiences, such as visits to, and studies of, factories, offices, parliament, local councils, etc., as well as the flexible introduction of topics of current interest and importance into the programmes. In addition, the community school offers a very wide range of studies catering to individual differences as much as possible.

Through diverse learning opportunities, the school aims to make students more self-reliant and to develop a greater sense of responsibility for their own education. As far as teacher methodology goes, the school emphasizes individual inquiry and group activities; priority is given to the development of understanding rather than to the acquisition of factual knowledge.

Use of resources

The community school revolves around the reallocation of learning resources. In sum, substantial savings are made by employing fewer full-time staff, providing less accommodation, and using fewer facilities than in a normal school. To some extent this can be offset by better use of community resources - libraries, sports grounds, art galleries, etc., which are freely available and which are, in many cases, used well below their capacity. The savings gained by these staff and plant reductions can be used to rent equipment and hire staff on a specific short-term basis. The community school, then, offers the means to provide the services and materials which could not normally be afforded and at no greater per capita cost than those of the normal school.

Basic differences between community and traditional schools

In contrast to community school philosophy, the traditional secondary school is a large, substantially self-contained institution. Its size tends to make its relationships impersonal and to require a considerable number of rules and formal procedures which themselves often cause

disciplinary problems. The fact that the school is largely self-contained ensures that it will be isolated from the community at large. The more it succeeds in becoming a simulated society in miniature, the less it serves as a medium for participating in and understanding the "real" world outside, becoming, for many students, correspondingly less relevant.

Traditional schools have virtually the sole responsibility for teaching students to understand the society they live in. Yet students seldom have any real, direct encounters with industry. Rather, these encounters are delayed until the students leave school, at which time they have little chance for systematic and detached consideration of their experiences.

Common features of many model community schools include the following:

- (a) an attempt to promote flexible thinking and mastery of general principles rather than specific data;
- (b) emphasis on the rights and sanctity of the individual and democratic decision-making;
- (c) a "problems" approach, linking learning situations with global or national situations;
- (d) a blurring of the line between school and non-school;
- (e) a teaching force including teachers and parents and smaller numbers of children per group with greater autonomy and mobility;
- (f) easy access to transport, turning the locality into an extended classroom;
- (g) an attitude to the building fabric ranging from the "school without walls" approach to the pragmatic.

Most schools seem to be established in existing buildings, usually quite old and financed by low budgets, so much of the physical character is casual and temporary. There is no readily distinguishable standard of floor or ground area per student, and adjustment to existing spaces is generally accepted.

A feature of innovative schools, particularly privately financed ones, is a high mortality rate, as well as a burgeoning birth rate. Another feature is the rapid rate of change in method and philosophy. An attempt has been made to illustrate as fully as circumstances permit, the best, or most typical, of various groups of schools or establishments.

A PRIMARY SCHOOL NOT BASED IN A SCHOOL BUILDING: COONARA CHILDREN'S COMMUNITY

Located in the outer eastern suburbs, and accessible to Melbourne, this unit draws on both city services and the smaller scale resources of towns, farms, and the countryside of the Dandenong Ranges. Families over a 10-mile radius are represented in the enrolments, and are in the average income range. The low running costs permit the school to remain unaffiliated with the state Education Department and to offer an alternative to the state system.

Coonara opened in February 1973 as a primary school with 30 children aged from four to twelve. The schedule of activities varies daily, determined mainly by needs and

interests of students and the skills and talents of available adults. Staff consists of one salaried full-time teacher, the parents of each student, and a range of volunteer teachers, artisans, students, and others from the community. Each family contributes half a day per week for staffing, transport and organization.

The individuality of each child and adult is emphasized, and as far as possible the subjects learned are selected by the adult responsible for each group of about six. Individual children can choose the adults they work with and long-term or short-term goals may be specified by individual parents or children if desired. The administration and planning of curricula has changed from an adults' weekly planning meeting in the early stages to the present system whereby the children themselves consult with the teacher and then take the schedule to be checked with the adults involved. The curriculum includes the study of language, mathematics and science, environmental studies and expressive arts. A typical day's activity may be quoted: "Thursday, 19 April (a.m.): Film-making in the city with Bob and six children. Pick up anywhere you specify. Math, reading, writing, playing, painting at Bill's with Meredith and David."

"19 April (p.m.): Yoga with Cathy at Virginia's. Swimming and play group. Biology with Jenny at her house. Visit Judy and her horses if there is a car available."

The local community does not participate, beyond those actively involved in the school's programmes. School frequently extends into week-ends and evenings, time and space not being limitations.

Coonara has no school buildings or grounds. The decision to do without was based on considerations of economy, followed by a survey of other resources. Students meet in small groups at the homes of parents and volunteers, at local shops and businesses and places of interest throughout the Dandenong area. Public and domestic resources form the educational facilities: reading lessons twice weekly at one of two public libraries; parks and playgrounds, pools, skating rinks, film societies, conservation groups. Regularly scheduled classes are conducted by specialists in mathematics, chemistry, yoga, etc. The school is a low-budget, totally decentralized, community-based learning network.

The annual budget in 1973 was \$ Aust. 8,000 of which \$6,000 went to teacher's salaries. State and Commonwealth capitation grants help to keep fees down to an average of \$150 per year, which is quite low. A board of directors handles financial, legal and structural problems; parent groups make important final decisions.

A SECONDARY SCHOOL: ANGLE PARK COMMUNITY CENTRE

Angle Park and Thebarton Community Centres represent the first complete proposals for integrated community-school design in South Australia. The briefs for both are similar in many respects and are based on careful collection of data by survey, using similar research methodologies. They have provided models for a number of subsequent projects and though their implementation has been interrupted

by a funding shortage, they can still be regarded as valuable examples. The two areas were chosen because of generally low social and economic standards, depressed social environments, and a dreary physical environment. The following material relates mainly to the Angle Park Project.

Late in 1973, the Education Department convened a joint study of the problems of the two areas, with the participation of the Community Welfare Department, other state departments, Angle Park and Thebarton Councils and the National Fitness Council. Each of the two centres was visualized as a complex of varied facilities with multiple use for the whole community, and a co-educational secondary school within the complex. A programme of action was developed with the following aims: to promote the concept of a community centre as widely as possible in the respective areas; to record and assess residents' suggestions about community facilities and services they would like in a community centre; to instigate genuine community participation in the planning of the proposal.

Thorough demographic studies of the catchment area and community surveys resulted in the collection of the raw material on which the design brief was based.

Facilities recommended were as follows: swimming pool, senior citizens/pensioner facilities, theatre for films and possibly drama, licensed restaurant, playground, extensive landscaping, lawns, forestry, indoor sports complex incorporating gymnasium and squash, basketball, roller skating, table tennis facilities; amusement parlour; billiards; snooker tables; air conditioning; dance hall; craft facilities; workshop for music and records, etc.

The following items received only mild support from residents but were favoured by local leaders' organizations: oval for sports (as distinct from open grassed area), library, kindergarten, tennis courts, drop-in centre/coffee lounge.

Recommended activities were: adult education, motor mechanics workshop, horse-riding, and after-school activities. Recommended services were a dental clinic, medical clinic, bus service, child care centre, police station, baby sitting service, post office, welfare department office, counselling services, legal aid, consumer protection, employment aid/vocational guidance, information service/citizens' bureau.

The basis of the centre is a traditional square, analogous to the town or village square common to many European and colonial towns, with a number of pedestrian ways or streets linking the square to various elements of the centre. In order to form a fairly strong link with the existing shopping area, the square is planned for the southwest corner with streets running north and east.

It was proposed that a short section of street between the shopping centre and the square be closed and landscaped, thus forming an inviting link between the existing and the new, so that people could move freely to the centre without crossing roads. Another proposal was to detour the road to the south of the site around the adjoining land which is to be acquired. This, along with closing the road to the west, will greatly reduce the traffic flow adjacent to the centre without hindering access.

The complex has been planned so that almost any component can be expanded, but those with the most likely

expansion requirements are situated towards the ends of the streets. While retaining the simple concept of a square and two streets, it is intended to develop many interesting smaller spaces and access points.

Many of the core facilities are located around the square which thus forms a focus and a pivot for all other facilities:

- the public library/resource centre which is the core of school facilities, is accessible from the square, the roof of the library becoming the focal point of first-floor level streets;
- while integration between school and community is obviously vital, it is also important that the school itself have a sense of place ... the general study areas are therefore tightly grouped around the library;
- the streets from the square are on two levels with staircase, lift, and ramp accesses. From the street, access can be gained to the bookshop, print shop, general study areas, the medical centre, art and craft areas, the physical recreation and education centres, the play school and child care centre.

Large areas of the site are to be densely planted with trees to form small forests crossed by paths and walks with access to playing field areas. The playing field area in turn will be surrounded with banking and planting to give a varied sense of enclosure. Numerous changes of level and different types of planting around the centre will vary from intimate screened patios for relaxing to an enclosed area of tropical rainforest.

The buildings are single- or two-storeyed with one or two areas either raised or sunk below the remaining buildings to counteract the flatness of the area. Where appropriate, areas will be left so that the community has an opportunity to participate in the design and making of their own environment.

Car parking and vehicular access is peripheral to the site and while adequate does not dominate. Most of the traffic is pedestrian, and considerable efforts have been made to prevent over-dominance by any one section of the community. For example, while the square and streets are planned as a centre of activities at certain times of day, when most students leave the school they should not all be concentrated in one area.

The potential for conserving energy and recycling products is part of the projected plan. This can be done quite simply at first, by collecting rain water and using it for water displays and for watering plants, and then perhaps recycling it by using wind to pump it elsewhere. Eventually, toilet and kitchen wastes might be used to produce fertilizers and gases or solar energy might be used for air conditioning, hot water production, etc. This is all seen as an integral part of the community centre.

The following illustrations (Figures 1 to 8) summarize the planning and design developments and parts of the final proposal for the buildings of the complex. The rationale is presented in detail in the Report of the Education Department of South Australia (see references).

A SCHOOL IN A CLUSTER OF ADAPTED BUILDINGS: HAWTHORN COMMUNITY SCHOOL

Characteristically, innovations in community schools have taken place in old or under-used buildings adapted to the new purposes. Hawthorn is perhaps the best known Australian example. An annex to Swinburne Technical School, Hawthorn was set up in February 1972, following a proposal supported by Swinburne Technical School and funded by the Victorian Government.

Hawthorn's 100 students are mainly from working-class and middle-class families and some travel long distances to attend. Located in adapted buildings in the commercial district of Hawthorn, including a church hall, an old bank building and a funeral parlour, its educational programme is alternative and complementary to that of the more orthodox technical school. It was conceived in response to the Government's involvement in innovative methods.

The 100 students aged 14 to 17 (60 boys and 40 girls) were all volunteers chosen by ballot. Two-thirds were from the parent school, and one-third from other schools. None were rejected for their academic records or previous school conduct.

The teaching staff totals eight, including three part-time members whose contributions vary from half a day per week to full time for short periods. Parents and students also contribute to teaching and clerical work.

There is a comprehensive formal curriculum. Leaving certificates are awarded for studies in 25 subjects from chemistry and history to ballet and photography. Weekly classes are conducted in current events, philosophy and various modern languages, as are short-term study units in basic genetics, elementary computer technology, Chinese cooking, and single sessions in soldering or candlemaking.

The informal curriculum includes activities initiated and developed by individual students. Innovations in the form and content of learning material are continual. There are now six teams running "team studies", both general (sciences and humanities and activity-based), and advanced (sciences and arts and workshop-based).

Afternoon units are less stable than morning activities, and encourage experimental or less-structured study or activity by students. Typical units are English, social studies, electronics, typing, wood-turning and photography.

The work experience programme covers a wide range of occupations including office work, sales, trades and technical field work with theatre companies, veterinary clinics, and research laboratories. Students work for about a week at a time in factories, offices, shops, with craftsmen, tradesmen, professional people and in the social institutions outside school. Thus, when the school runs a study called "Machines", many of the students have had first-hand subjective experience with all kinds of machinery, gained through practical involvement.

Work experience can be seen as a general educational activity, as enjoyable, and as a chance to test out vocational

Fig. 1 – ANGLE PARK COMMUNITY PARTICIPATION PROJECT - MAJOR AREAS CANVASSED

The school zone proper, contained by the dotted lines, held a population of 17,162 at the time of the 1971 census. Within the area shown on this map, which the proposed centre could serve, the 1971 census gave a population of almost 28,000.

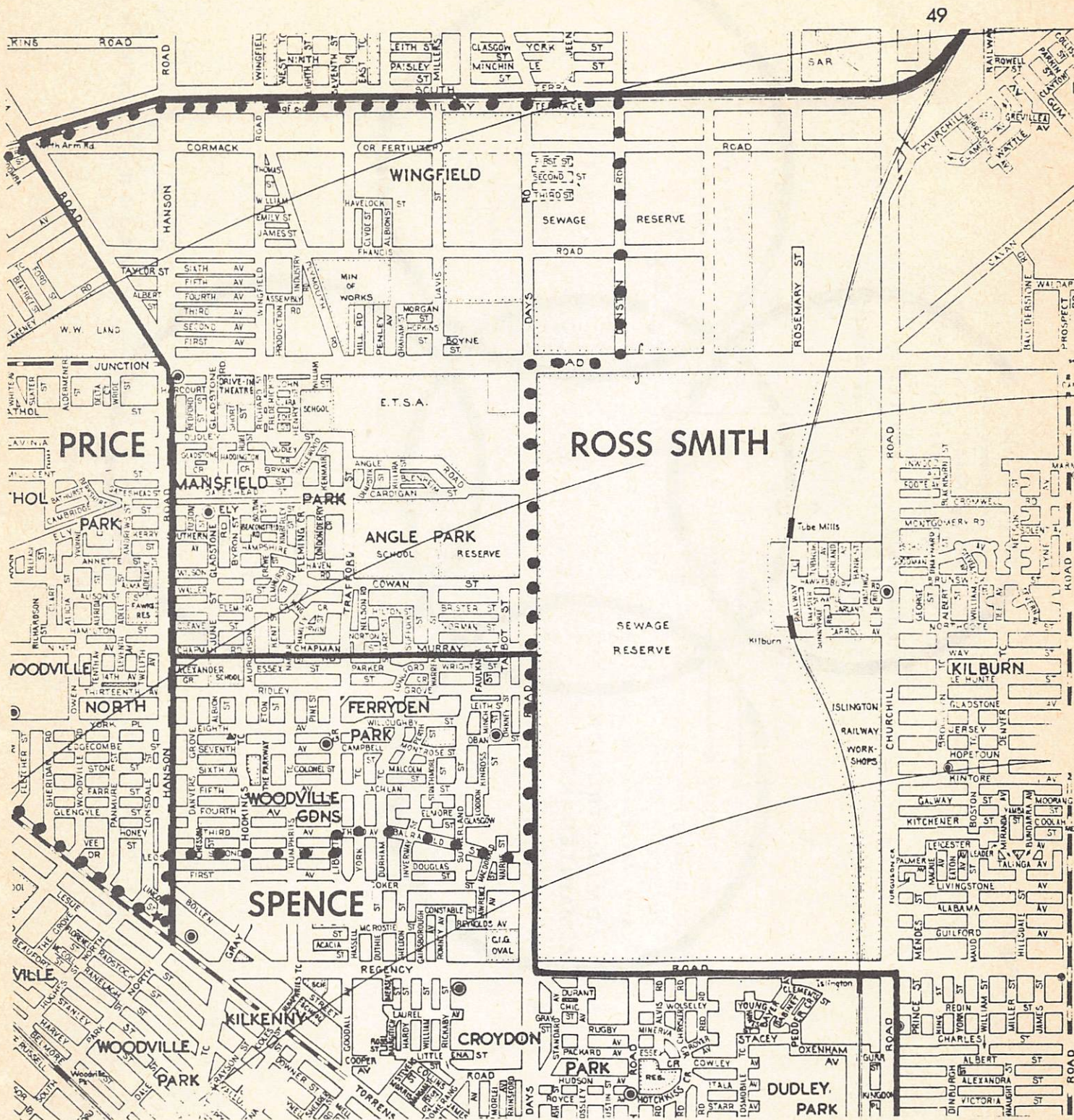
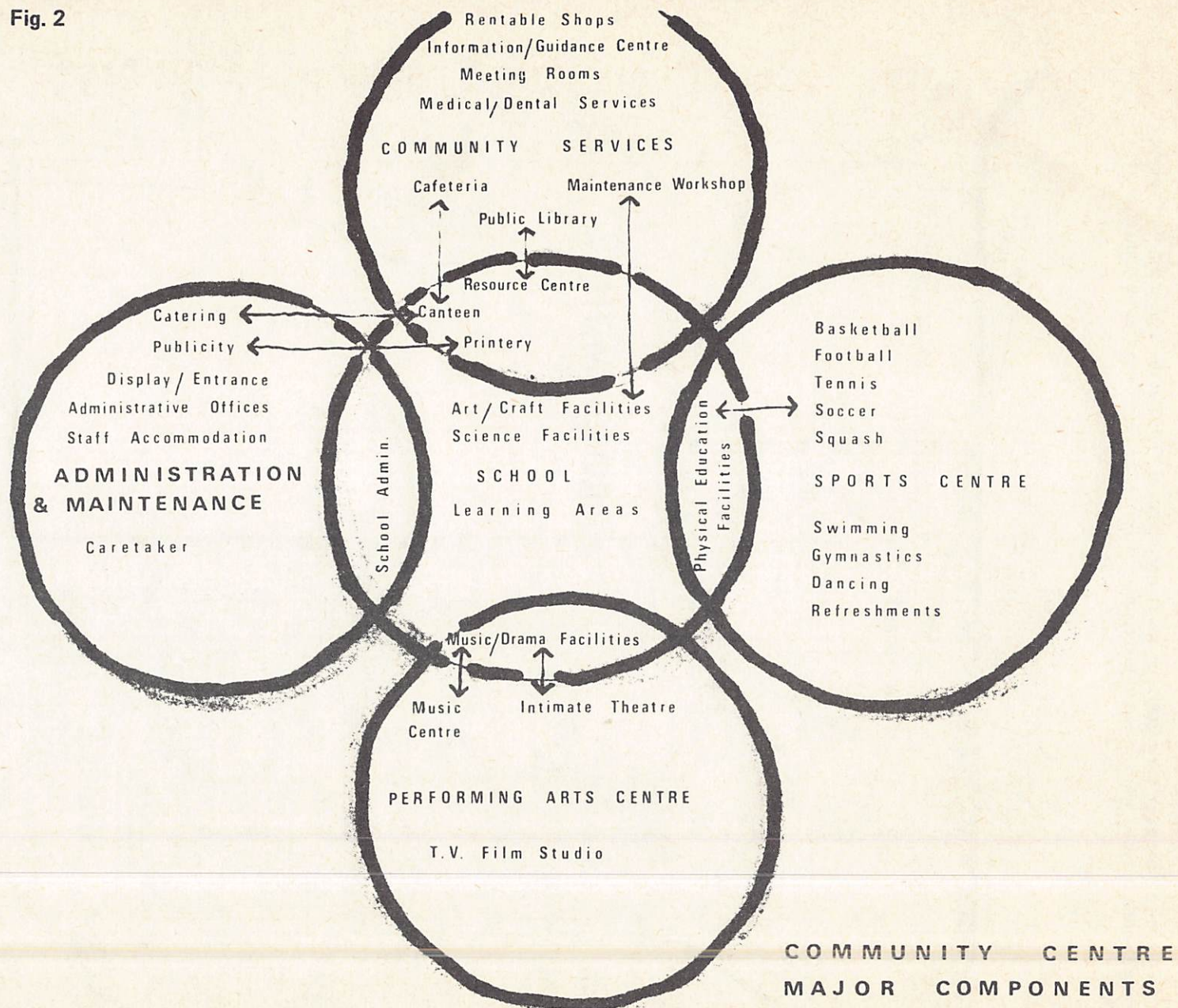


Fig. 2



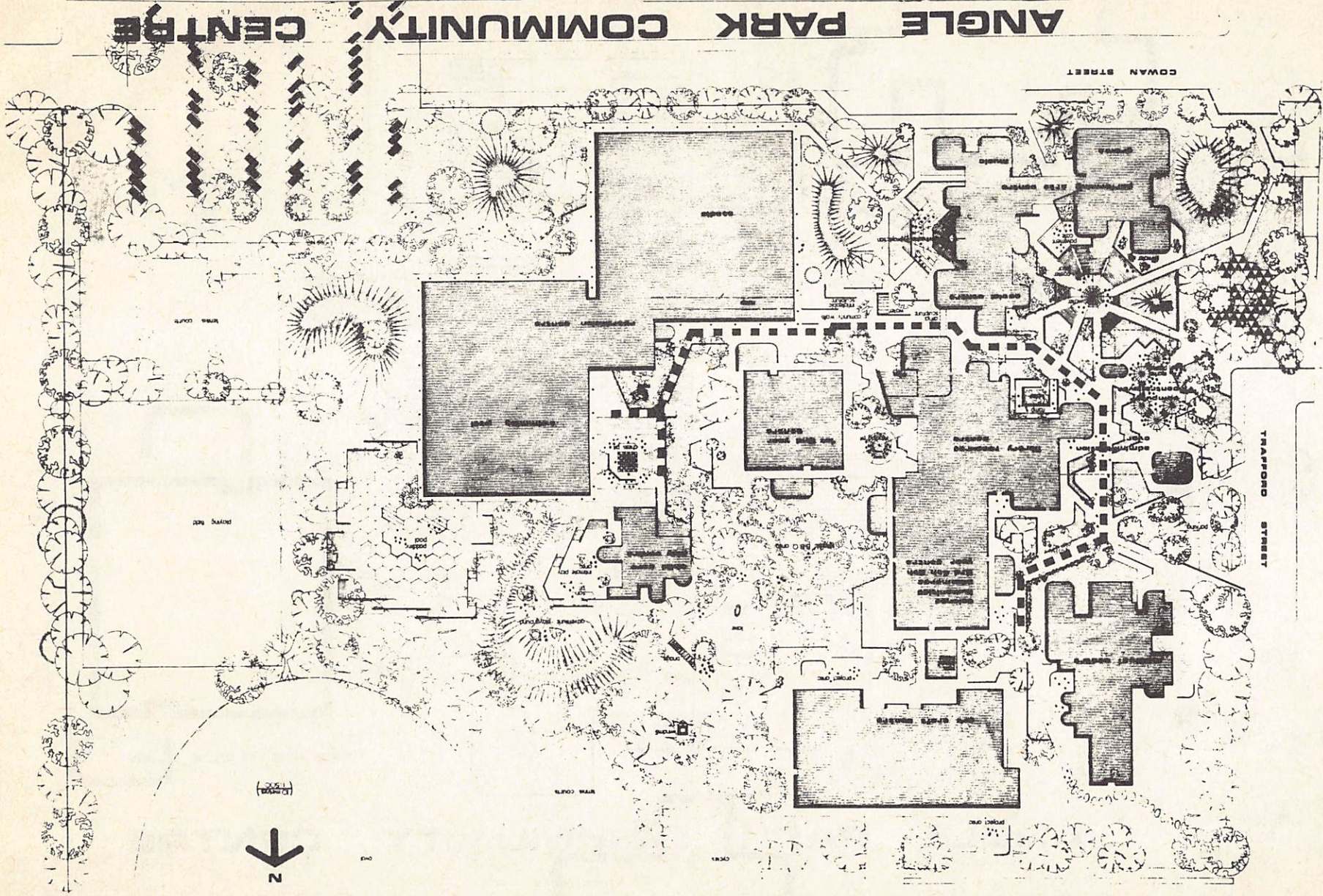
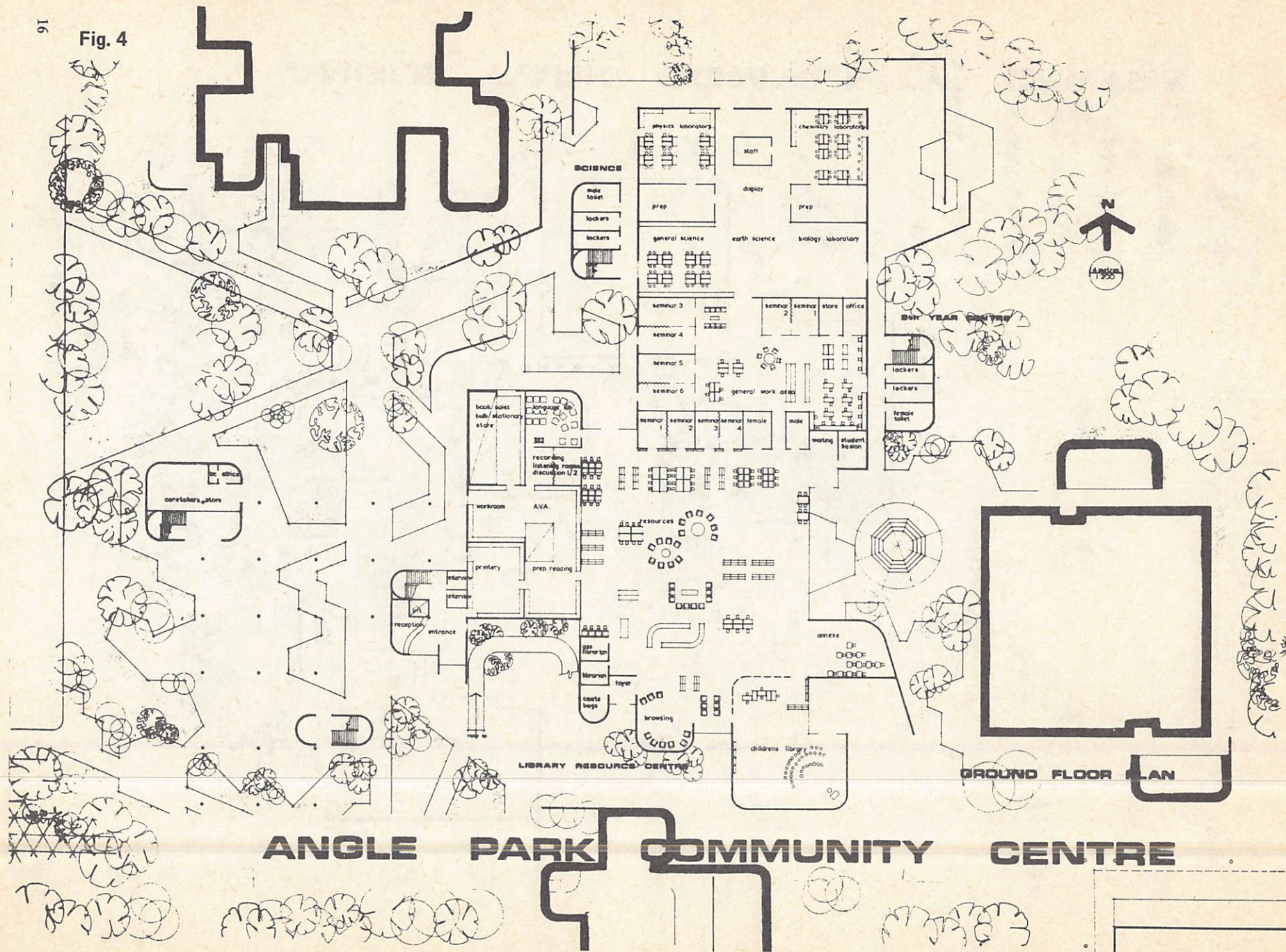


Fig. 3

Fig. 4



ANGLE PARK COMMUNITY CENTRE



Fig. 6

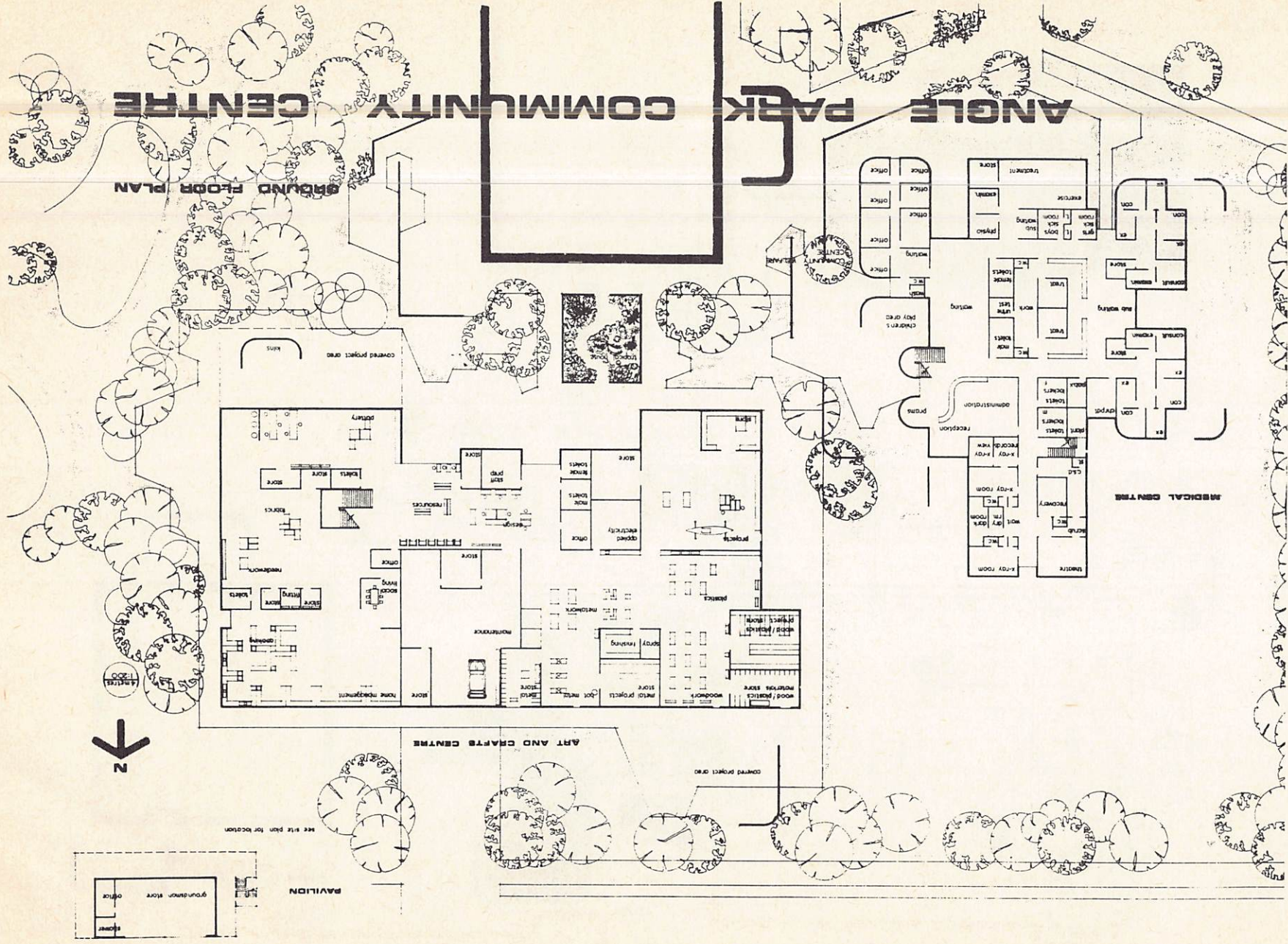


Fig. 7

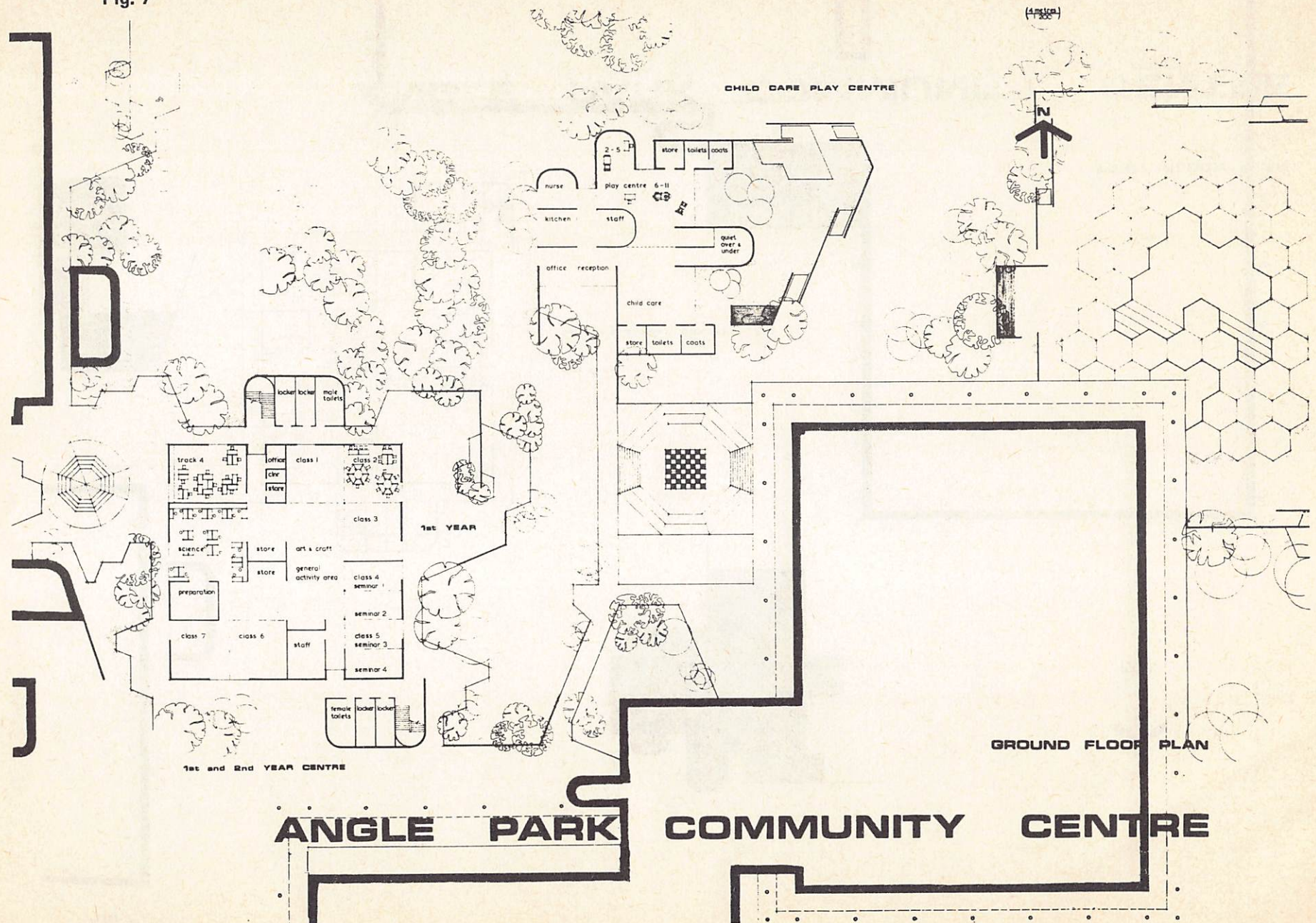
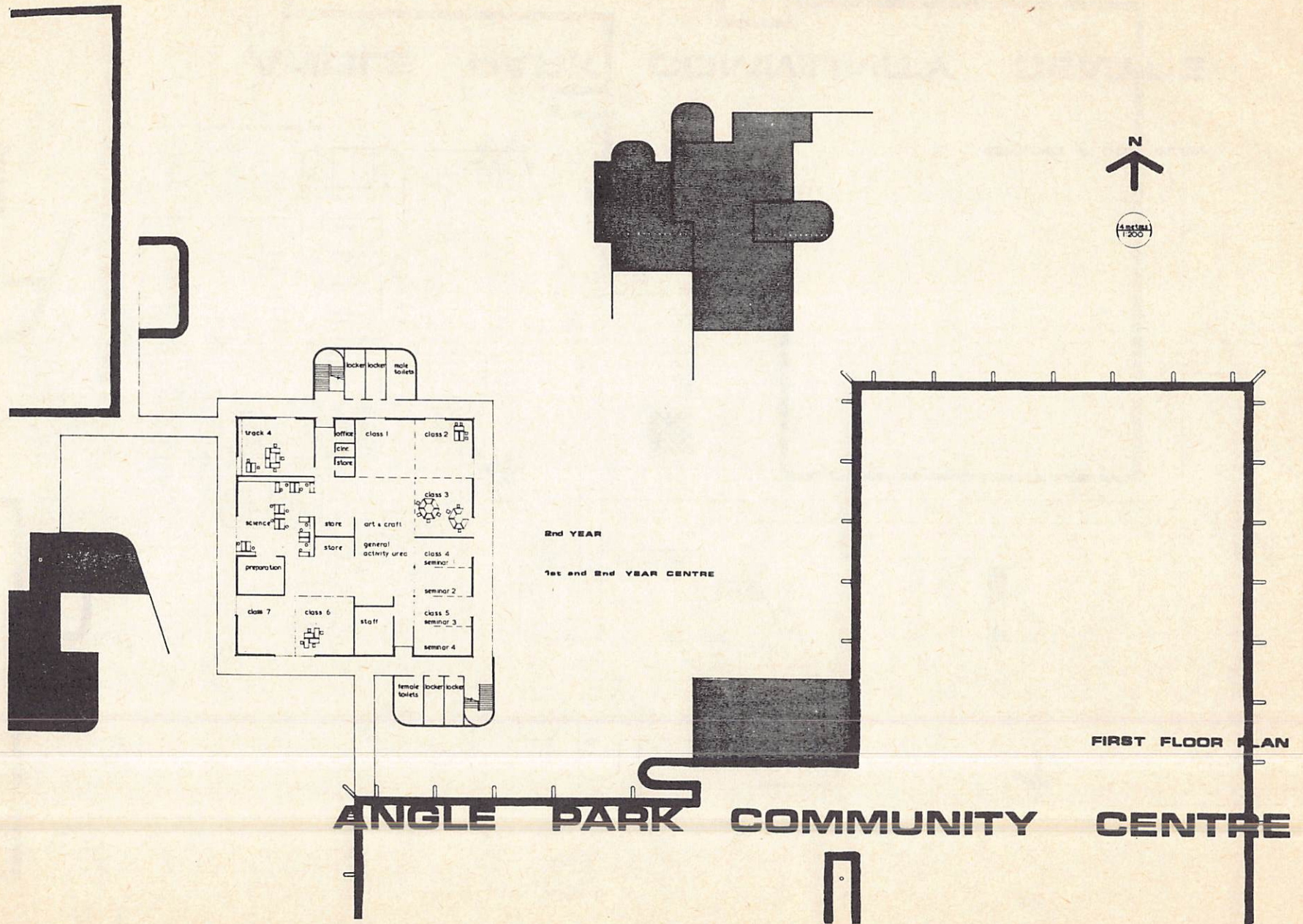


Fig. 8



aspirations. The school tries to centre its work experiences around the Hawthorn area, but it is often necessary to go further afield for specialized occupations and services, e.g. to farms, scientific institutes and welfare institutions. Generally, students are not paid for work experience, but employers sometimes make a contribution to the school. Employers are usually found through informal contacts, and when possible, on a personal basis. Each student is responsible for developing his own work programme through consultation with his staff adviser and parents.

All students are required to participate in some form of work experience or community service such as the Over 60s Club, the Hawthorn Day Centre, or the Child Minding Centre. Hawthorn seeks its specialist facilities outside its base area, intending to use community facilities more fully - garages, municipal library, art galleries, workshops, sports centres and the technical school's laboratories.

Classes are sometimes held in private homes and the school often extends its own facilities to neighbourhood groups. By sharing facilities with other community groups during the day and in the evenings, Hawthorn hopes to draw parents and other groups into its programme. The school shares premises with some groups, such as pensioners and the Girl Guides, and has become an advisory centre for educational problems. Students speak to interested groups about the school's work and philosophy, and a shop has been established in a nearby arcadex to sell students' arts and crafts products.

However, community involvement is hard to achieve, according to the staff, particularly since the locality itself claims no strong identity and since not many students live there. Nor has the problem of travel been completely solved. Many resources are within easy walking distance, but some are not. Private cars, hired coaches, and minibuses have been used while, in some cases, students have simply been provided with train and tram fares.

Chairmen and rapporteurs for various meetings are appointed for short terms, and, while the planning meeting chairman may be a student, the rapporteur may be a parent. Consensus decisions are normal and since the school considers itself to be a democratic community, all parties share in policy-making.

Students are encouraged to suggest new courses and change old ones, and thus have some experience in directing their own lives and those of others. They identify with their education and appreciate their own rôle in it.

Hawthorn is based in a church hall (see Figure 9) which it shares with other groups. Downstairs are the staff room, kitchen, main recreation room and office; upstairs are lockers and classrooms. Next door is an old theatre used as an indoor sports stadium, and next door to this is the art room housed in what was once a funeral parlour. Major specialist facilities are outside the immediate complex.

The school is financed and staffed on a ratio comparable to that of traditional schools. Economies effected by maintaining a small permanent staff and using limited permanent facilities enable more flexible use to be made of funds for subjects and activities not available in traditional schools.

ADULT EDUCATION: CENTRE FOR CONTINUING EDUCATION IN WANGARATTA

Wangaratta is a rural town of about 16,000 persons, approximately 240 km from Melbourne. The economy is based on the manufacture of synthetic fabrics, the production of wool and yarns, and the town has a farming hinterland with a strong community spirit.

The centre was established in 1962 and is considered a model for community-based schools in Victoria. There are no age limits, but most students are adult, and more than 20,000 students a year attend a wide range of courses. The centre serves a large rural population and caters to rural interests. Schools for herd-testers and lectures on beef marketing are frequent, as are meetings of Young Farmers Clubs.

Wangaratta Centre is located in a 60-year-old building which was originally an agricultural high school with various outbuildings. Its main section is a large, two-storey red brick structure near the heart of the central business area. Rooms vary in size, layout, and equipment, and almost all are multi-purpose. An arts room has been newly supplied and the electronic equipment includes a public address system, projection equipment, and audio-visual aids.

The main purpose of the Centre is to foster the community's educational development. It is open to anyone who wishes to take part in its organized programmes or to merely make use of its facilities. Activities include classes, lectures, exhibits, seminars, workshops, recitals, group meetings, conferences and school examinations. The principle function is to organize classes, and scores of subjects are offered, such as languages, book-keeping, meat inspection, metric conversion, parents' math, rapid reading. Solar water heating, taxation, state and probate planning, and television and the community are some innovative topics included.

A free crèche is offered Wednesday afternoons and is supervised by trained nurses who are helped by Wangaratta High School students. The centre acts as a general bureau for educational or cultural services, and arranges for speakers, and films, as well as advising on educational matters and sponsoring community groups.

The centre's revenue is mainly from student fees, leasing of facilities, income from publications, and small annual grants. The University Extension Committee subsidizes fees of tutors, all of whom are part-time.

LEARNING EXCHANGE: COMMUNITY CENTRE IN HOBART, TASMANIA

This facility is a multi-unit complex provided on a non-profit basis by voluntary groups promoting community education and interaction. It exists in a community which has an established reputation for educational innovation.

Situated on the docks close to the commercial centre of Hobart, Salamanca Place is located in a Georgian sandstone warehouse built in 1834 to cater to the nineteenth century seal trade. It was unoccupied from 1972 until commissioned

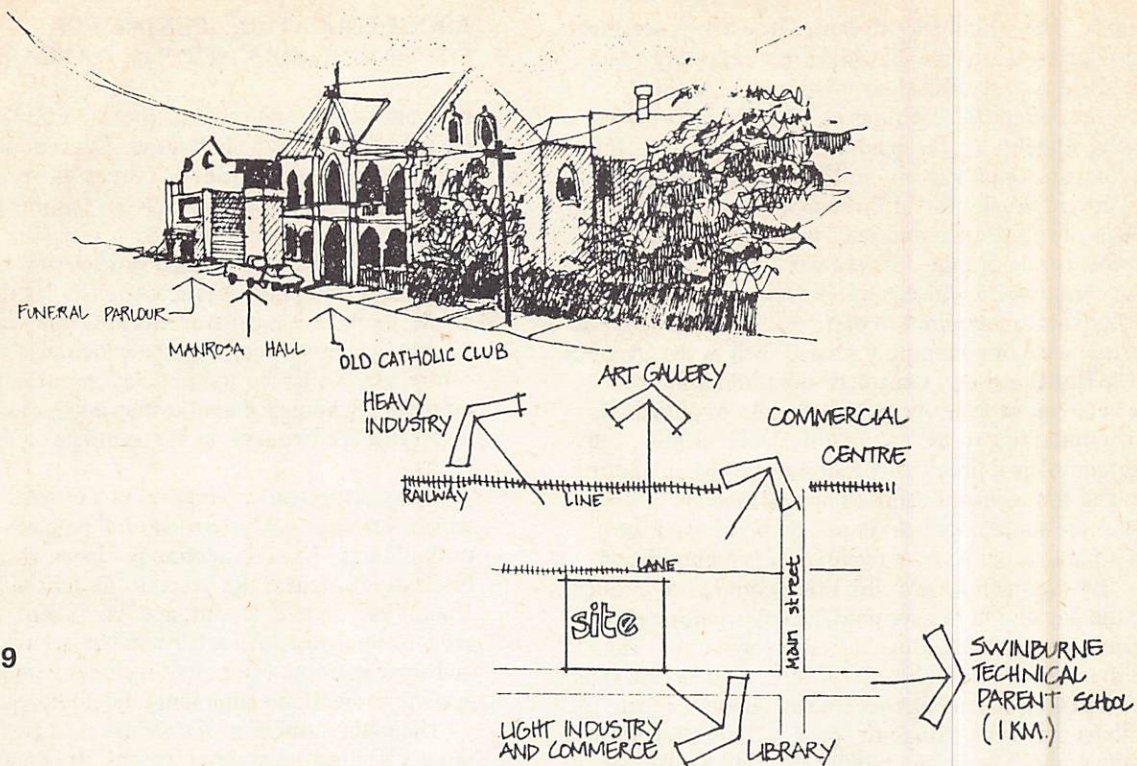


Fig. 9

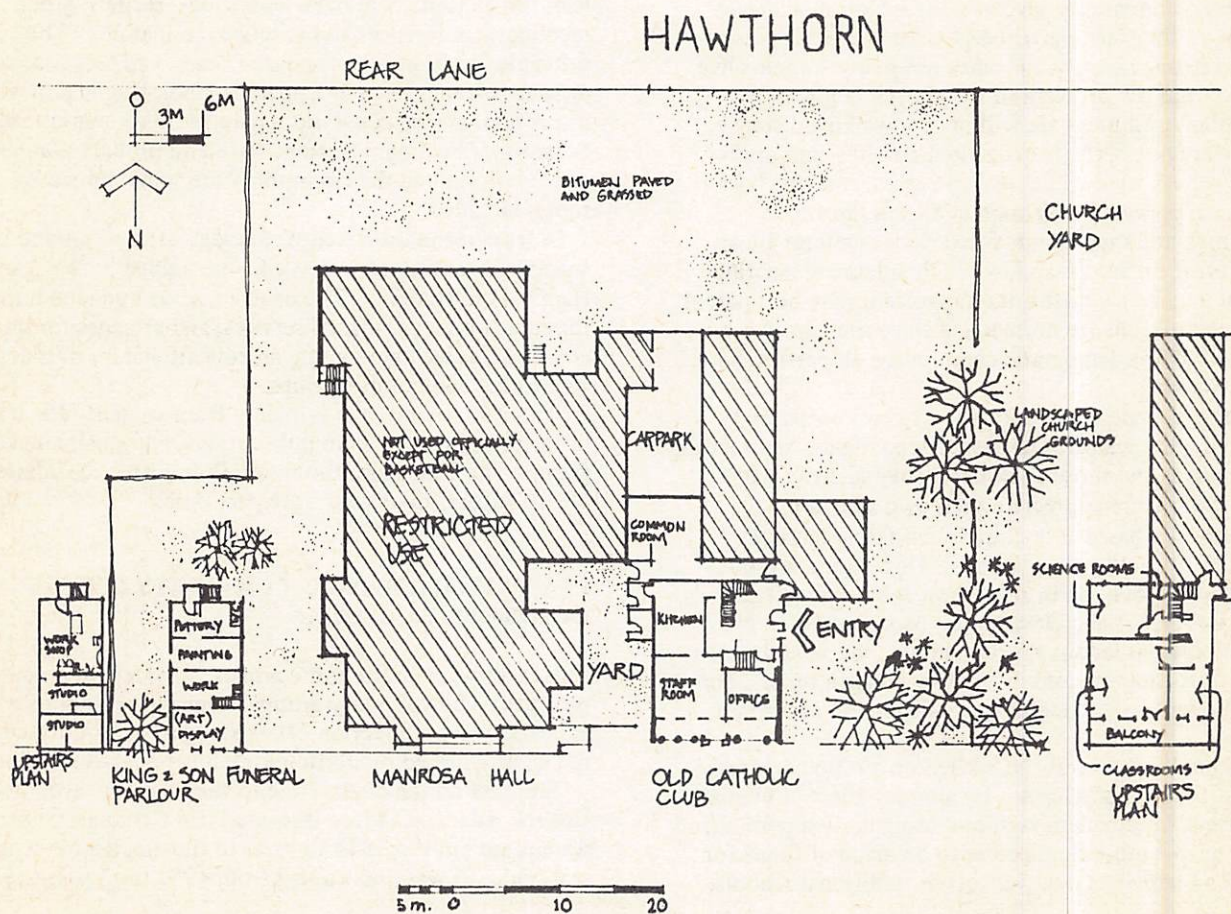
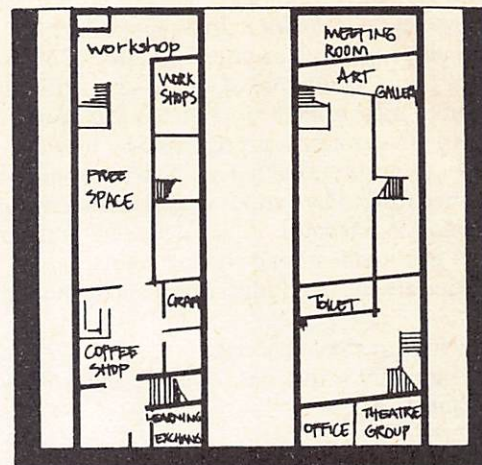
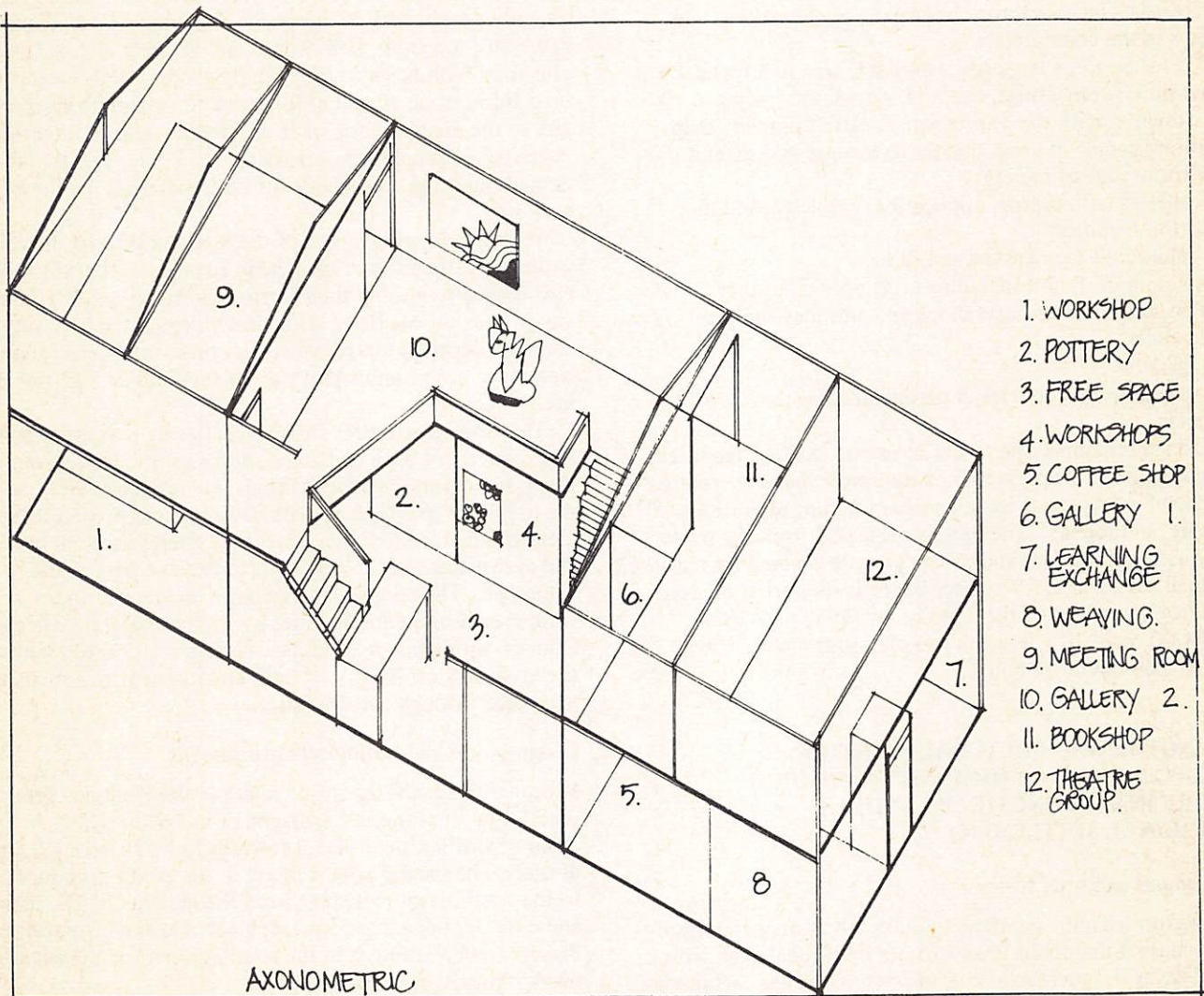


Fig. 10 – SALAMANCA PLACE



LEVEL 1

LEVEL 2



1. WORKSHOP
2. POTTERY
3. FREE SPACE
4. WORKSHOPS
5. COFFEE SHOP
6. GALLERY 1.
7. LEARNING EXCHANGE
8. WEAVING.
9. MEETING ROOM
10. GALLERY 2.
11. BOOKSHOP
12. THEATRE GROUP.

in 1973 for its present use as a learning exchange and community centre.

The usable area amounts to 600 square metres in three storeys and is designed for workshops, offices for community groups and other community services. It is based around the Free Space, or indoor city square, which is available for individual and community use free of charge.

The complex serves a mixture of education, crafts and commercial units, most serving more than one purpose. (See Figure 10) The project was originated by four co-ordinators who were also leaseholders. The next phase will be a co-operative formed by various groups and individual craftsmen, donors and tenants. A newsletter informs the community of developments and coming events.

The following are the main educational and community activities:

- music workshops and concerts;
- open community workshops for crafts and work with experimental materials;
- bookshop;
- a meeting room for films, music, plays, and receptions;
- learning exchange, a community resource and reference centre with the main emphasis on access to educational materials, and a directory of groups, organizations, and services in the community;
- Free Space, a large space available free to anyone, by reservation, for meetings, exhibits, workshops, plays;
- theatre, with the Tasmanian Theatre Company helping young people in using theatre to explore and extend their knowledge of society;
- offices with typing, duplicating, publicity, and information facilities;
- children's play groups and films;
- commercial unit including art suppliers, leather, woollen, and wooden crafts shops and antiques and gemstones stalls;
- galleries;
- seminars and courses in particular subjects according to demand.

Costs are minimal due to the re-use of existing facilities. Salamanca Place is operated on a non-profit basis by voluntary members who also handle minor building alterations, cleaning, and repairs. The building is leased from the owners at \$ Aust. 6,000 a year and some costs are covered by renting small shop spaces. The Free Space is supported by donations from members of the Society for Free Space who give \$4.00 each. The leaseholders plan to transfer ownership to a co-operative body.

STRENGTHENING CULTURAL IDENTITY: A PROPOSAL FOR A COMMUNITY/CULTURAL CENTRE IN MORNINGTON ISLAND, AN ABORIGINAL SETTLEMENT

Background and brief history

Mornington Island is significant among Aboriginal communities because it maintains links with its traditional past, without rejecting the encroachments of Western life and technology.

The Europeans who colonized Australia, starting late in the eighteenth century, saw the Aboriginals as cruel, poor and brutal, and in settling the continent paid little respect to their philosophy, which had perpetuated harmony between man and environment for perhaps 40,000 years. Mornington Island, in the Gulf of Carpentaria (see Figure 11) differs from other communities in that it was not disturbed by European contact until 1914. Its isolation and absence of viable industries has preserved an overwhelmingly Aboriginal racial composition.

When the first Presbyterian mission was established in 1917 in the area of the present community, the native Lardils were living a nomadic hunting-gathering life, closely tied physically and spiritually to the land. The missionaries established a compound and a school, and taught the Queensland curriculum up to Grade Five. To ensure complete indoctrination into the ways of Christianity and European education, the dormitory system was instigated; children lived at the school and were only allowed to rejoin their people in the bush during school holidays.

Prior to the founding of the Mission, the Island was divided by its people into four geographic subdivisions, and it was further divided into 25 estates, each belonging to a family group, with 37 littorals. The people hunted and gathered food from their estates and littorals, sharing surplus food with neighbouring family groups. Rafts were used for hunting as well as for travel to neighbouring islands and to the mainland for trade and feuds. The architecture consisted of simple windbreaks for the cooler nights and of domed buildings constructed of bush materials for the wet seasons.

With the growing power of the Mission, through its educational, economic and medical influence, the Lardils were encouraged to give up their territorial estates and live in a village near the Mission. While this village is the population centre of Mornington Island today, these territorial estates were once a very important part of the Lardils' traditional life.

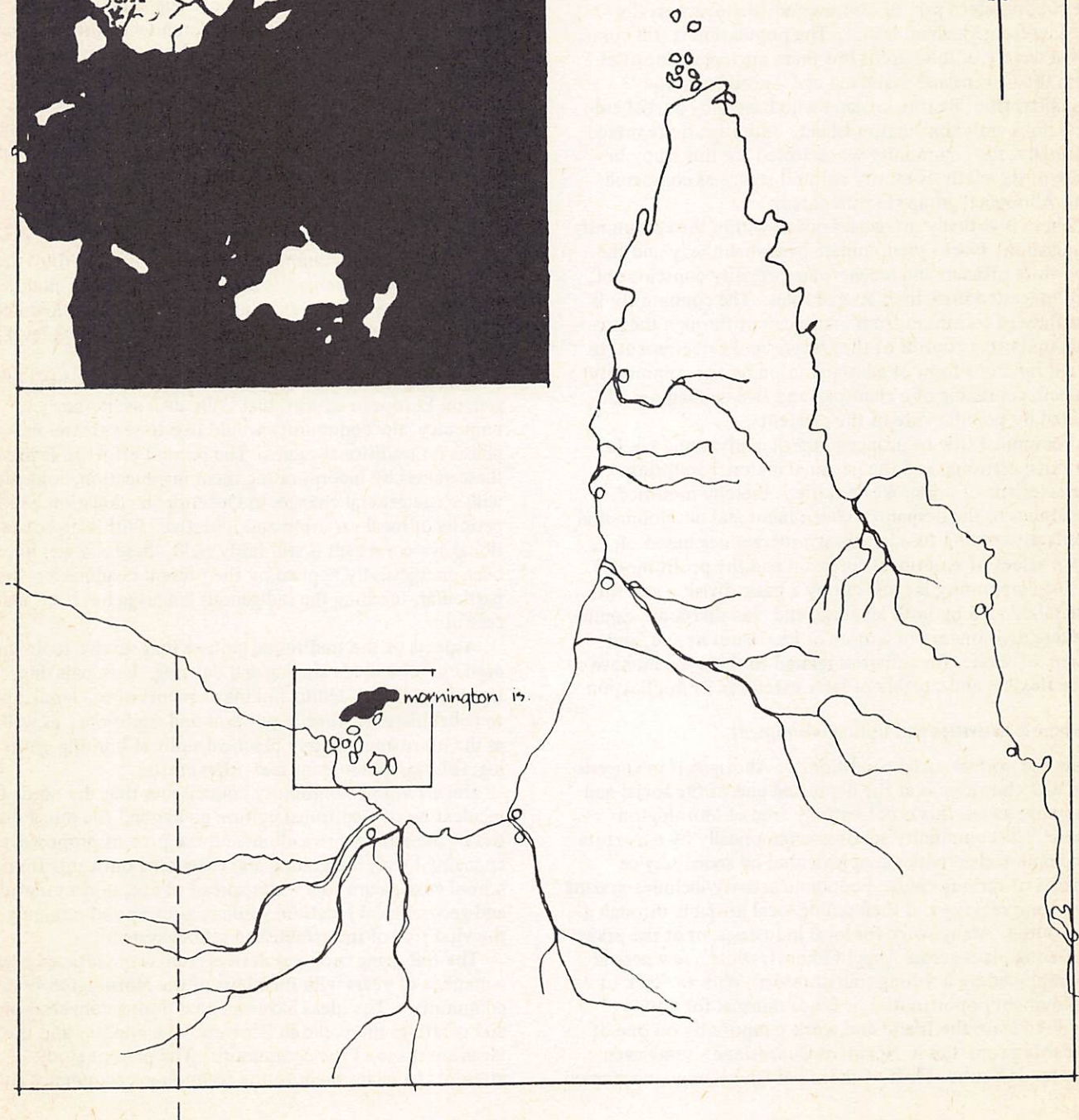
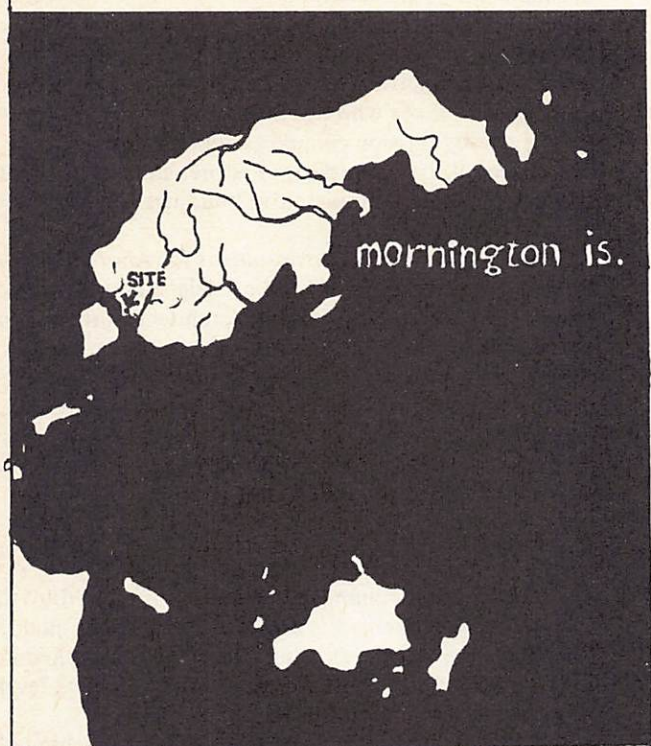
The Aboriginals were animists, believing that every tree and rock, every stick and stone, had a spirit. Therefore, to them, the natural features of their territorial estate were the homes of spirits, supernatural beings and progenitors of men who had turned themselves into animals and plants and eventually sunk to the earth to become part of the landscape. The people explained the creation of their various environmental features by mythological heroes and animals, through story and dance. This relationship with the mythological history of their environment was further expressed through cult totemism.

Geographical and ecological environment

Mornington Island, the major island in the Wellesley group, is about 64 km long and averages 13 to 16 km wide. A chain of smaller islands leads towards the mainland, 25 km distant. The second largest island in the group, Bentinck to the south, is more distant from the mainland. The main and only permanent settlement, located around the former Presbyterian Mission, is in the southeast part of the island overlooking Appel Channel.

Fig. 11 – MORNINGTON ISLAND LOCATION MAP

50 0 50 100 150
Statute miles



The climate is monsoonal with the wet season from December to March. Characteristic prevailing winds are from the northwest in summer, with dry southeasterly winds from March to November. A moderately dense savannah woodland covers Mornington Island.

With an area of 950 sq. kms, there is no population pressure on present resources. The marine diet of staple sea foods still caught by the Lardils is supplemented by food obtained through trade and hunting. Wild honey, and vegetable foods such as water-lily roots, pandanus, nuts and yams are other dietary items.

Social structure

About 700 people live around the Presbyterian Mission at the southwestern part of Mornington Island, across the channel from Denham Island. The population is still composed largely of the Lardils but there are large minorities from the Queensland mainland and Aboriginals (the Kaiadilts) from Bentinck Island who have only partial cultural links with Mornington Island. Although quite mixed culturally, the community was selected for this study because of its relatively sturdy cultural stance as compared with Aboriginal groups in other areas.

There is virtually no racial tension within the community in question; blacks predominate overwhelmingly and the few white officials and teachers are properly conscious of, and integrated into, their special rôles. The community is in a stage of transition from management through the mission, under the control of the Queensland Government, to an autonomous form of administration by the community council, consisting of a chairman and five councillors, all elected by popular vote of the residents.

Communal title to property, particularly along kinship patterns, is strong, and the personal material ambition characteristic of urban Western life is thereby modified, sometimes to the despair of government and developmental agents attempting to administer programmes based on urban values of vocational ambition and the profit motive.

The community is cross-cut by a basic division and further subdivided by both language and clan divisions. Some of these divisions are of a more or less secret nature, and design of shelter for activities related to them would have to be flexible and capable of later extension or duplication.

Economic activities and built environment

While the normal social condition for Aboriginals in Queensland and elsewhere is at the depressed end of the social and economic scales, this is not entirely true of Mornington Island. The community survives economically by a mixture of commercial activities supplemented by social service benefits of various kinds. Economic activity includes grazing cattle, and making and then selling local artifacts through a local outlet. Many work for local industries, or at the prawn-processing plant across Appel Channel, while a few people are employed by a fishing tourist resort. With the lack of employment opportunities, it is not unusual for young people to leave the Island and work temporarily on one of the cattle properties in Northern Queensland; some even go as far as Cairns. Most of the tribal land is now unoccupied

although many of the people return at school holidays to teach their children about traditional living.

Today the people live in a concentrated mission settlement, together with neighbouring tribal groups. Many live in simple self-constructed, informally arranged, galvanized-iron huts with a few rooms that are used mainly for sleeping and storage. Cooking, eating, laundry, craftwork and informal social activities are usually carried on outside - as in the case of those who live in the European-style houses.

The nearby mission complex contains school, sports oval, hospital, trade workshops, store, church, outdoor concert/film area, administrative buildings - all in a Western architectural style.

Much of the physical environment for Aboriginal people has been, and will continue to be, designed by Western, middle-class architects. From the architects' professional point of view, it would seem necessary to understand how these people relate to their environment before creating design solutions for them - how they use it, behave in it, perceive, regard and value its parts, how they make changes in it to satisfy their needs. These questions are being considered in this project and related research.

Education

The standard curriculum devised and administered by the Queensland Government is provided by the eight qualified (white) teachers in the existing school, which is scheduled for relocation on a new site. Education to Grade-8 level is free and more or less compulsory.

While there is little disagreement with the teaching of general European educational skills such as literacy and numeracy, the community would like to see greater emphasis on traditional values. The present effort to revive these values by incorporating them in education, coincides with some general changes in Queensland education which permits of local variation and initiative. Within an educational system which is still fairly rigid, these changes have been energetically applied by the present headmaster. In particular, teaching the indigenous language has been successful.

Aspects of the traditional culture that survive to an uneven extent include singing and dancing; bark painting; legends and story-telling linking elements of the landscape to tribal history; kinship patterns and traditions; as well as the more immediately practical skills of hunting, gathering, fishing, tool making and other crafts.

However, the community council sees that the needs for inculcation of traditional culture go beyond the possibilities of the school curriculum, and the present proposals are concerned with integrating and extending outwards from school curriculum to a wider spread of age, subject matters and geographical location, while respecting and retaining the vital rôle of the established school system.

The following proposal derives from acquaintance over a number of years with members of the Mornington Island community. The ideas have emerged during conversations and meetings there and in Brisbane; the impetus and the ideas are those of the community. The present study attempts to relate them to the technology, economics and

pre-existing physical planning which are the inevitable, if recent, legacy of the European system.

The proposed community facilities

The tenuous structure of traditional Aboriginal society, with its balanced relationship to the environment and intricate family networks, has been somewhat disrupted by white Western society. Young Aboriginals no longer know customs or legends, and much of the traditional knowledge is dying with the elderly. Now the people of Mornington Island want to save and reimplant as much of their traditional culture as possible, integrating it with aspects of Western society so that an independent, self-directed life-style can be created.

The local council proposed relocating the school and building a museum/cultural centre and a separately-located crafts workshop to offer young Aboriginals the values of their traditional culture and enable them to retain an appreciation of the land. The general wish of the community was to learn and share skills, and the building proposals were felt to satisfy all needs. The museum/cultural centre and the crafts workshop will have separate but relevant locations as described in the following design brief.

Accommodation and functional requirements

(1) The *Craft Workshop* would consist of offices, a storage room, a shop from which visitors could buy and see display of works, workshop facilities to include rip-saw, bandsaw, sanders and hand tools, and a garage for the crafts truck. The main functions would be to buy and retail handcrafts, and to improve facilities for obtaining the needed materials as well as for their manufacture.

A site was chosen next to the airstrip as this will be convenient for dispatching orders as well as for airline passengers who wish to buy things. However, the crafts workshop site has no big trees and only a few small ones, so that comfortable working conditions will have to be achieved through a good design for the climate - insulation from heat, sun-shades, breezeways, etc. The building will generate considerable noise from the workshop section, but this should not be a problem as it is not close to the main housing areas.

(2) The *Museum* is essentially a place for the safe storage of important objects. The community and visitors will be able to see these objects which will include the following:

- very old tools, weapons, stones, etc.
- the best examples of handcrafted work produced on the Island;
- a collection of bark paintings recounting the traditional stories and legends;
- documents and written works about the people of the Wellesley Islands, copies of earlier written works now being sought and listed and copies of the works of students, linguists and anthropologists studying at the centre;
- photographs and films showing the history of the people of the Wellesley Islands;
- tape recordings of traditional songs, records of Aboriginal music such as the Lockhart River record, and tape recordings of old people recounting stories, legends and customs;

- information about important dance festivals, with tapes, films, photographs when possible;
- maps of the Wellesley Islands, maps showing countries or tribal lands, story places and traditional place names, nautical maps, aerial photographs;
- gifts from other Aboriginal groups;
- books about Australian Aboriginals in general;
- natural objects of interest such as stones, shells, coral, bones, feathers, skins, etc. and possibly an aquarium or snake cage;
- interesting indigenous bush plants to be kept in a plant nursery.

The museum would be best sited central to the community, and housed in well-constructed buildings to ensure the contents against decay, insect attack, fire, vandalism, humidity.

(3) Cultural Centre

This would be a centre for active participation in cultural activities such as the following:

- teaching and learning aspects of traditional culture for the whole community - for schoolchildren, young people and adults;
- meeting and discussing matters of cultural interest or concern;
- special demonstrations of cultural activities for visitors or schoolchildren;
- exchanging cultural knowledge with other tribal groups;
- storage of sacred object in restricted areas - this may also include tape recordings of original songs;
- dancing, singing, informal gatherings for the elderly, and general crafts and artwork.

Much of the activity would best be carried on outdoors, and hence an attractive site is required with good shade, breezes, views, together with a degree of privacy from noise and children, etc.

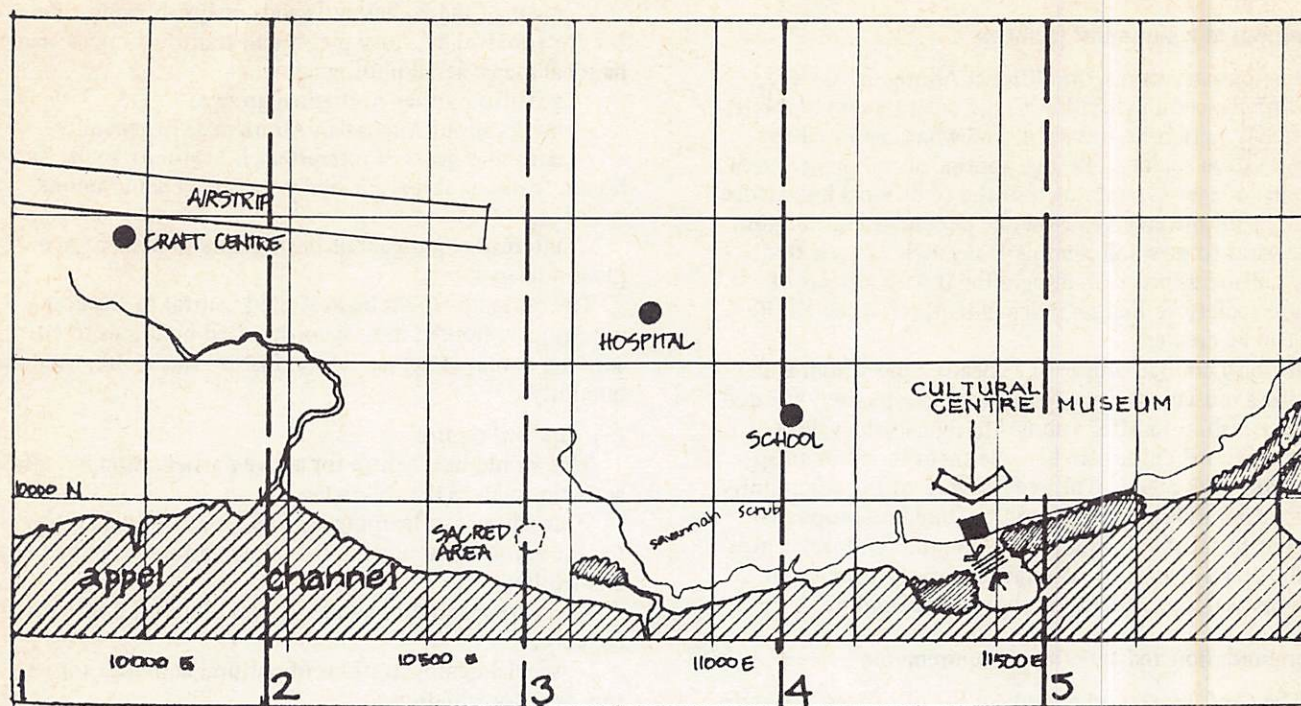
Since many of the learning and teaching activities of the cultural centre would necessitate the use of items in the museum, it seemed logical to include both buildings under the general name of Cultural Centre. Because of site requirements for the Cultural Centre, the Craft Workshop would be unsuitable for inclusion in the same building. The choice of sites must also be influenced by the new town plan, as the new town's centre will be in another location. Some sites now in the centre of town may also become isolated and thus obsolete as far as serving the community centrally is concerned. (See Figure 12).

The most suitable sites discovered were the existing mission and staff houses along the cliff, and the old turtle farm on top of the cliff. The turtle farm site was favoured, for besides being in a beautiful location, it will be near the centre of the newly-planned town - an important consideration since old people and schoolchildren will be able to walk to it. The site is also close to story and legend places.

The activity spaces in the combined Museum/Cultural Centre would include a museum display area open to the public, a museum storage area (archives), offices, an indoor meeting room and work space. Other spaces would provide:

- limited-access rooms, whenever the Aboriginal elders

Fig. 12 – MORNINGTON ISLAND KEY PLAN OF SETTLEMENT



think necessary, and a special room for groups of initiated people or people with special knowledge from the various tribal groups in the community, also to be used for meetings or for storing sacred objects;

- outdoor meeting area (grassed) which could also be used for showing films;
- dance floor and tape lounge;
- informal spaces for groups of people to talk, drink, make crafts or listen to music - these could be outdoor as well as semi-enclosed verandahs or shade shelters;
- a small kitchen.

The Craft Centre shown in Figure 13 is to be built adjoining the airstrip. It will be a large building, but will use simple carpentry skills, relatively small timber members, short spans, and light corrugated galvanized steel roofing. The design uses an adaptation of existing traditional timber construction found in numerous buildings on the island.

The small "totemic" shelters (shown in Figure 14) attempt to use very simple materials and technology, involving building in remote areas. The Aborigines have no building traditions beyond windbreaks and very small temporary shelters of bush material. However, the circle is a characteristic and symbolically important plan shape. The shelter illustrated is sufficient to store minor items between visits to the totemic sites and to provide emergency shelter for small groups making visits in inclement weather. It could be built with light corrugated roof sheeting on bush timbers, with the enclosing walls built of sand-filled bags of hessian needing only a small amount of cement for bonding.

The new school would be of standard departmental design and construction. The cultural centre (Figure 15) is shown in conventional Western design.

The following additional elements will eventually be added to those previously listed:

- active film-making and photography, with a photographic laboratory;
- preparation of books as teaching aids for school;
- use of the cultural centre as a co-operative with the legal power to contract (particularly with the education department) to supply curricula programmes to Mornington Island School, and other southern gulf and Australian schools in general;
- courses on local culture for anthropologists and other outsiders as well as for urban Aborigines on holiday;
- monthly museum displays to entice visitors from the community;
- a small zoo near the nursery for pre-school children.

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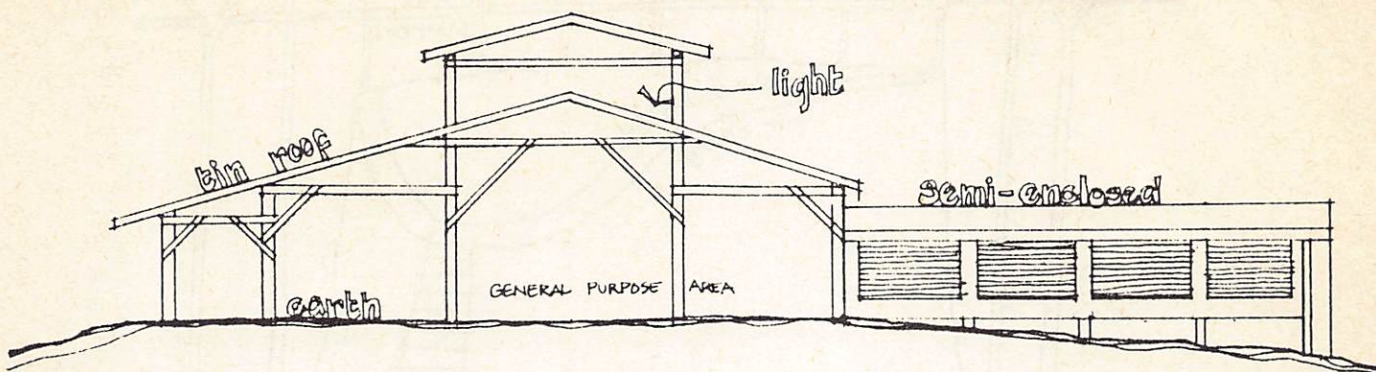
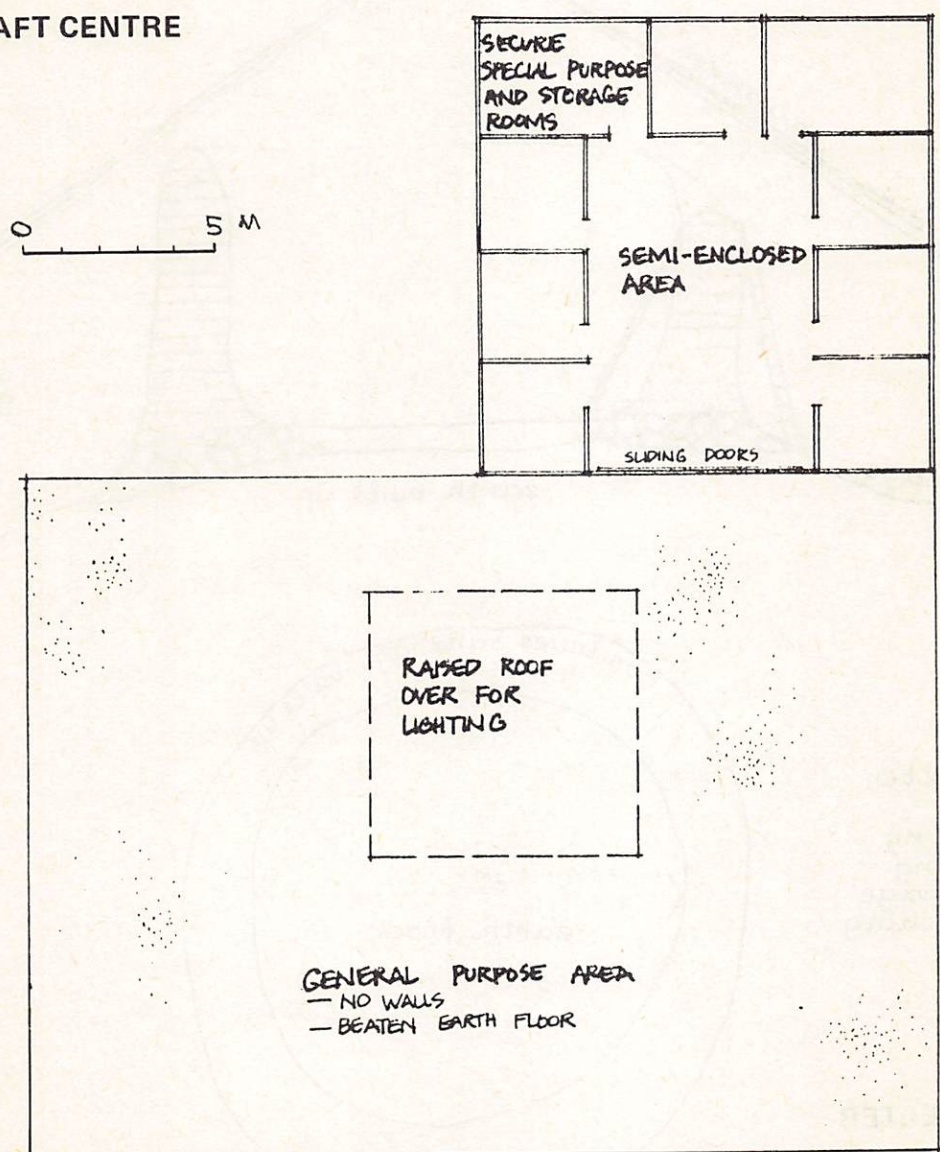


Fig. 13 – CRAFT CENTRE



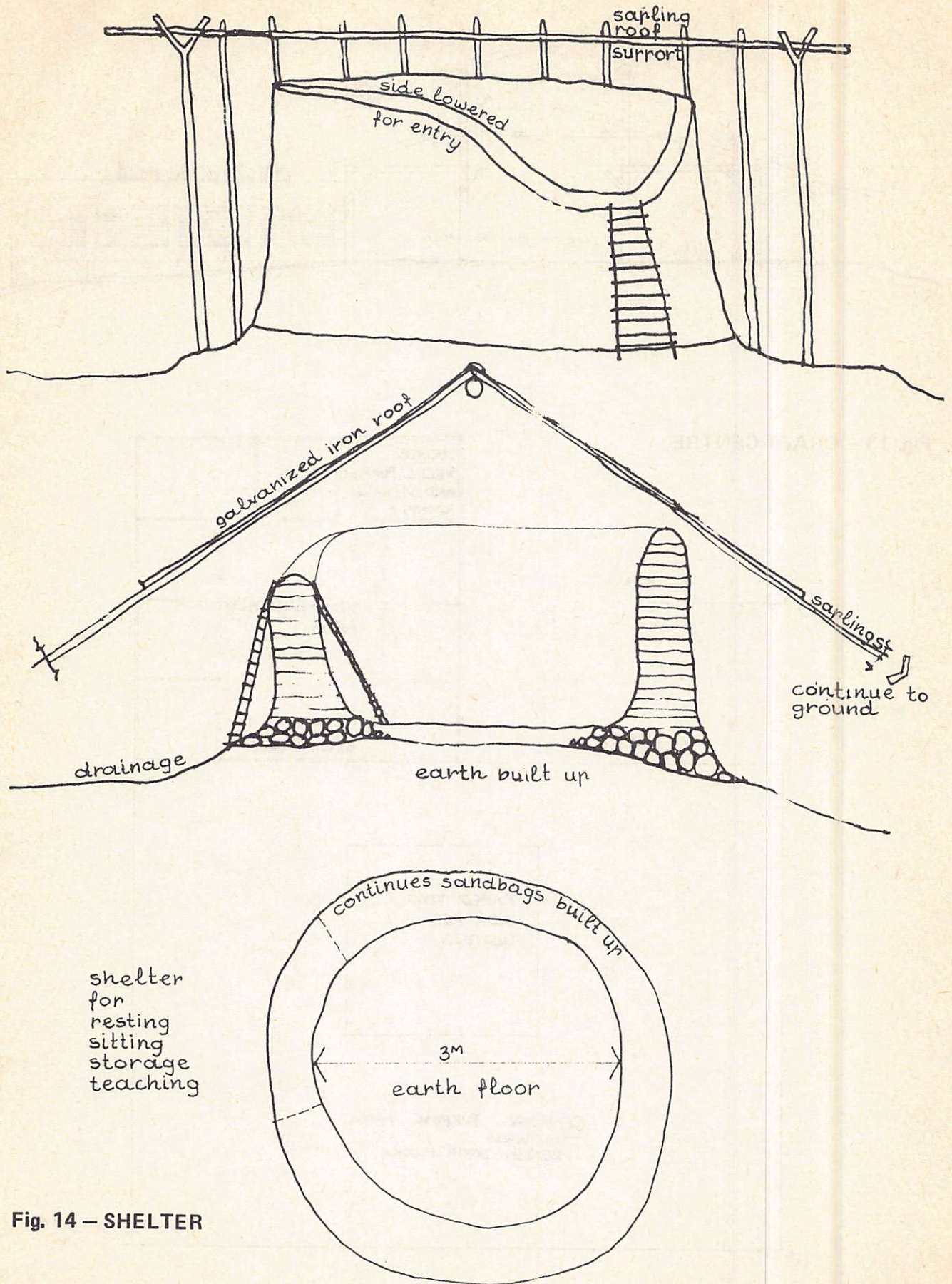
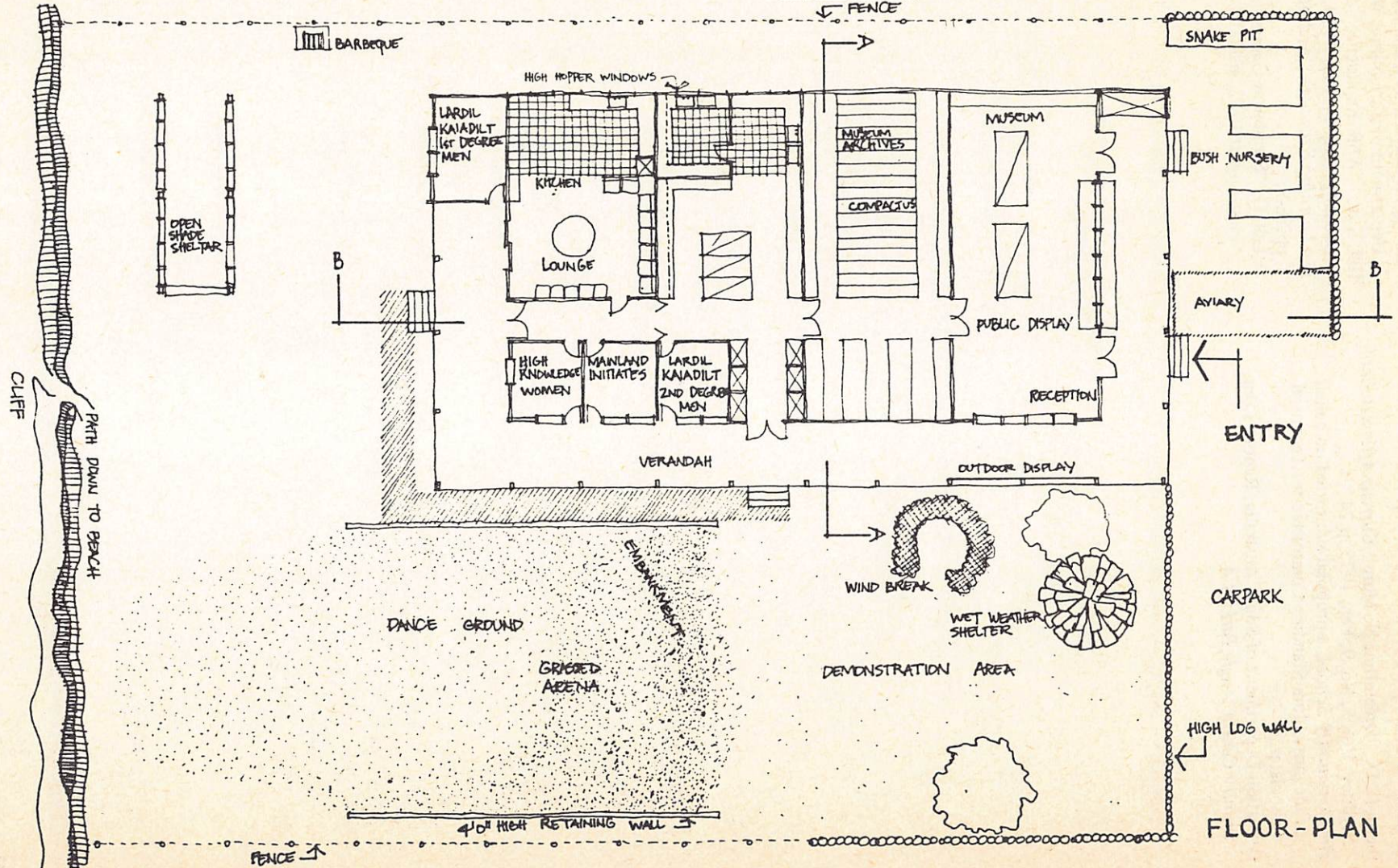
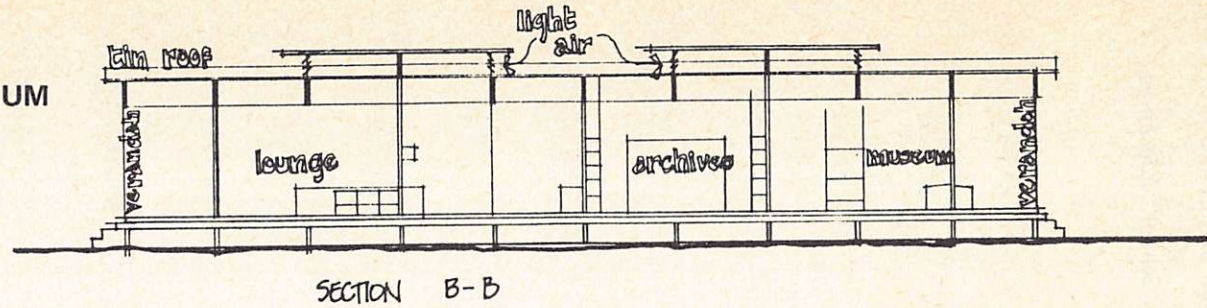
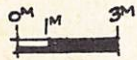


Fig. 14 – SHELTER

Fig. 15
CULTURAL CENTRE/MUSEUM



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Integration of educational and communal facilities in the Federal Republic of Germany and Berlin (West): an evaluation of existing and planned community schools*

A State of Distress, or "Bildungsnotstand", was George Picht's description of the Federal Republic of Germany's educational system in the '60s. The term was confirmed in international studies by the early '70s and the subsequent reforms have provided one or several large educational complexes for most cities, and for some rural settlements, in less than a decade. Built according to new educational and technical standards that are radically different from those of traditional schools, the most important of the new aspects is an increased awareness of the needs of surrounding communities.

Studies have shown that the concept of multi-use educational facilities and of the school as a community resource is rapidly being accepted. This applies not only to newly-built educational facilities such as those in Hamburg and Berlin (West), but also to existing adapted systems like that of Essen.

However, the outstanding community school examples produced in Berlin (West) and the Hamburg-Steilshoop city-state are mainly due to the interdependence of state and local governments. Co-operation among the various agencies is easier in both places than it is in the larger states where state and local governments may be represented by opposing parties.

Berlin (West) is building 13 new secondary schools and community centres for 1,200 students each, all to a standard design. One or two such centres will be located in every city district and will feature similar community uses.

The examples to be discussed present two entirely different approaches:

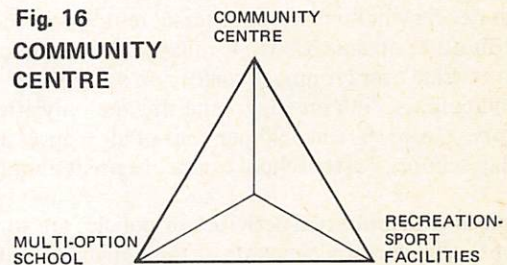
Hamburg has built two large experimental school centres in new satellite towns - Steilshoop and Mümmelmannsberg. They serve lower and upper secondary populations of 2,400 to 3,000 students each and have extensive community facilities.

Essen is a special case as it is the first German city to require all its schools to be community schools. This is a recent policy decision and, since feedback is still limited, this section will deal with the reasons that have led to the decision rather than its outcome.

THE COMMUNITY SCHOOL CONCEPT

Various official institutions, societies and committees in the Federal Republic of Germany have collectively published a list of activities which they viewed as positive and possible extensions to the normal school programmes. The purpose was to integrate the newly-established school centres and multi-option schools. These lists are similar as reflected in the following series of rooms and spaces: gymnasium and game rooms; indoor and outdoor swimming pools; sports fields for school, spare-time and club use; play areas for children and adults; open spaces and parks; recreational centres for old people; libraries; theatres; exhibition halls; community centres with group meeting rooms, lecture theatres and administrative offices; youth clubs; adult education facilities; professional, vocational and educational advisory bureaux, professional and vocational further education and retraining programmes, social help organizations, medical offices, medical counselling rooms and public workshops.

Fig. 16
COMMUNITY
CENTRE



The function triangle concept (multi-option school-community centre-recreational and sports facilities) was presented as the central idea for the choice of sites for these facilities within the urban area (Figure 16). Direct

* This Section was abstracted from a report on "Educational Facilities" prepared by Declan Kennedy, Professor of Architecture and Urban Infrastructure at the Technical University of Berlin (West) and Margrit Kennedy, architect. The report presents the conclusions of a study carried out under a Unesco contract.

connexions between them, via public transportation, was deemed necessary.

The Educational Council went one step further in opening the discussion as to whether ground-floor spaces of community schools could be used for commercial purposes, with upper floors used for community activities. Housing was also suggested as a use for upper floors. These suggestions differ radically from the traditional concept of clearly-defined school sites and educational areas.

In the Federal Republic of Germany, educational and cultural autonomy lies with the states. The Federal Government has little or no voice in these matters with the exception of higher education and vocational training. The power to make decisions regarding school sites, facilities, and capital investment planning is delegated to the local school administration, while maintenance costs are covered by local budgets. Teaching materials and personnel costs, such as those for teachers and custodians, are paid by the State.

For the above reasons there are several different categories of community schools in the Federal Republic.

Most schools fit into the category of "schools which have extended their services to include elements of the non-school-age population" in as far as sports areas are usually available to clubs, political parties, and other organizations for assemblies and conferences. Regulations in the various states differ considerably: for example, in North Rhine-Westphalia multi-use of sports facilities is obligatory and financed out of the school budget, while in Saarland, shared financing is the usual rule, and Bavaria has no regulations on the matter.

In addition, there is a growing demand for adult education which is institutionalized in the "Volkshochschule". These often have their own buildings in central locations, but use school facilities to provide life-long education in suburban areas. Other uses which provide special facilities in newer schools are: youth clubs that include the non-school-age population, public libraries, restaurants, cafeterias, and "Bürgerhäuser", or communal clubrooms and offices.

Unless there is a special contract, all of the above users have to ask for permission from the local school administration to use school facilities. The school administration itself cannot decide whether or not to lease, rent, or co-operate with other organizations. It must wait for applications from outside user groups. Usually non-school-age users attend courses, club meetings, and the like only after school hours. However, since 90 per cent of all schools are still half-day schools, "after school hours" begin at about 2 p.m.

"Schools in which internal activities or policies are to some extent influenced by elements of their environment" are a new phenomenon in German secondary education - the vocationally-oriented high schools, abbreviated from the German to Sek II.

The concept consists of combining vocational-training with secondary school certificates, and several experimental and private schools have used the method for years. At present, most states have appointed task forces to implement the concept, to develop curricula, and to build programmes for grades 11-13 which will allow students to prepare for

university entrance, a trade, or a professional career. The co-operation or integration of these formerly separate school types should ensure: greater opportunity for flexibility and openness in the development of individual talents and needs; and a greater opportunity for reality-oriented learning with, for example, programmes closely tied to needs and openings in local and regional industries and job markets.

There is, however, little to say about the success or failure of the concept since it is still in the planning stage.

More than in other types of school, Sek II-centres will be influenced by local labour markets in their study programmes and proximity to local industries as well as in their planning and site selection.

"Schools which are making use of community resources on a systematic basis to enrich their practical work or curriculum", are more difficult to find. However, there is a growing need for para-professionals. Parents from the community are increasingly in demand for supervisory functions in schools. In particular, full-day schools, which are usually understaffed during recreation and free hours, are beginning to tap the enormous pool of part-time workers available in their surrounding communities. Programmes for training para-professionals are being developed and many professional educators expect school life to change considerably under the influence of these newcomers.

The integrated school centre, Bremen-Öst, uses recreation and cultural facilities in the city such as theatres, museums, cinemas, parks, as well as the harbour, and weekly and Christmas markets on a regular basis as learning places.

"Schools which are engaged in programmes of co-operation for a specific task involving one particular aspect of their environment", can be found in Osnabrück, where the municipally-supported theatre has taken an active rôle in sponsoring student-produced plays and student workshops.

Other noteworthy initiatives in this connexion include the many courses for schoolchildren in the museums and a recent recommendation of the German Science Foundation (DFG) that museum representatives should participate in scientific, educational, and cultural planning.

"Schools which are no longer schools in the accepted physical sense of the word", do not exist in the Federal Republic, but a few of the new schools have achieved a certain degree of physical and social integration with their surroundings.

The two foremost examples can be found in Hamburg-Steilshoop and in Mümmelmannsberg which both provide main pedestrian paths through the school grounds and close connexions to the local shopping centres, public library, and youth clubs.

INTEGRATED SECONDARY SCHOOL AND COMMUNITY CENTRES: BERLIN (WEST)

Political, social, economic and geographic context

An example of slow but impressive change is the building of the 13 West Berlin Mitteltufenzentren (abbreviated as MSZ

and translated as secondary school centres), each of which will provide educational facilities for 1,200 students as well as facilities for the community. These school centres were to be completed in 1975.

As in most states, the "student peak" - a 50 per cent increase in the primary and secondary school-age population from the late '60s through the late '70s - created a difficult situation in Berlin (West). The problem was to provide a future-oriented solution while concurrently offering enough schools in which basic educational reforms could be implemented.

One possible solution would have been to continue the traditional types of schools: the Hauptschule or primary school from the first through the eighth or ninth grade; the Realschule or secondary school from the fifth through the tenth grade; the gymnasium, or high school, from the fifth through the thirteenth grade. However, this solution would perpetuate the nineteenth century stratification of education, and the decision favoured by the Educational Council was to integrate all three types of schools at the lower and upper secondary school levels.

Following the educational programme guidelines of the Social Democratic Party, the Berlin (West) Senate chose the second concept - to integrate grades seven through ten in new secondary schools and community centres with adult education programmes, public libraries, recreation and leisure facilities and sports and craft programmes. Similarly, grades 11 through 13 will be integrated in new, professionally-oriented high school centres which will be closely related to industrial and commercial sites. These centres are scheduled for completion by 1978 when the first year of secondary school students will enter eleventh grade.

The decision to build most of the secondary school centres according to standardized plans promises considerable savings in time and money. It is the biggest public construction project in Berlin (West) since World War II, a capital investment totalling 620 million Deutsche Marks.

By 1975, 30 per cent of the secondary school student population in Berlin (West) was being taught in 10 integrated secondary schools and 13 newly-built integrated secondary school and community centres.

Among the reasons why this unified plan and standardization was possible in Berlin (West) were the relatively flat sites and the dense homogenous types of urban structures, mostly four to five-storey apartment blocks.

The planning process

The immense political, social and economic task of building 13 new educational centres of this size in less than three years necessitated a radical rethinking of traditional planning and implementation procedures.

Administrators asked the following questions:

- How can essential preliminaries for optimization of the task be achieved in the short time period available?
- How can a method be found that will honour the time restraints while fulfilling the requirements of the conflicting

need to choose qualified architects able to contribute contemporary ideas?

- Will it be possible to find a basic design for an educational centre in a standardized industrialized system that could be used in all locations?

- Can a design be found which can be built quickly, within the organizational and administrative restraints?

In order to prepare the decision alternatives, the Berlin (West) Senate set up a new planning system, (see Figure 17) tightly meshed with the implementing administrative and the political establishment. A proposal for a central planning office with substantive decision-making powers was abandoned. The planning was done by an interdepartmental planning team with from five to ten representatives from different agencies.

Representatives on the planning team were drawn from the offices of the Senator for Schools, the Senator for Building and Housing, the Senator for Family, Youth and Sport, and the Senator for Finance. Other specialists included a planning group of three teachers, a social worker, and a group of architects.

The pedagogical group represented not only the three traditional types of schools - Hauptschule, Realschule and Gymnasium - but also different subjects. The architectural group was determined through bidding. The planning team was appointed by the Senate for a certain time period and for this specific task. There were no residents representing their communities on the planning team.

Results were presented for intermediate decisions to a planning committee composed of Senators or Senate Directors of the respective government offices, as well as representatives of the districts, appointed by the Council of Mayors of the Berlin (West) House of Representatives.

General considerations

(a) Programme and location criteria

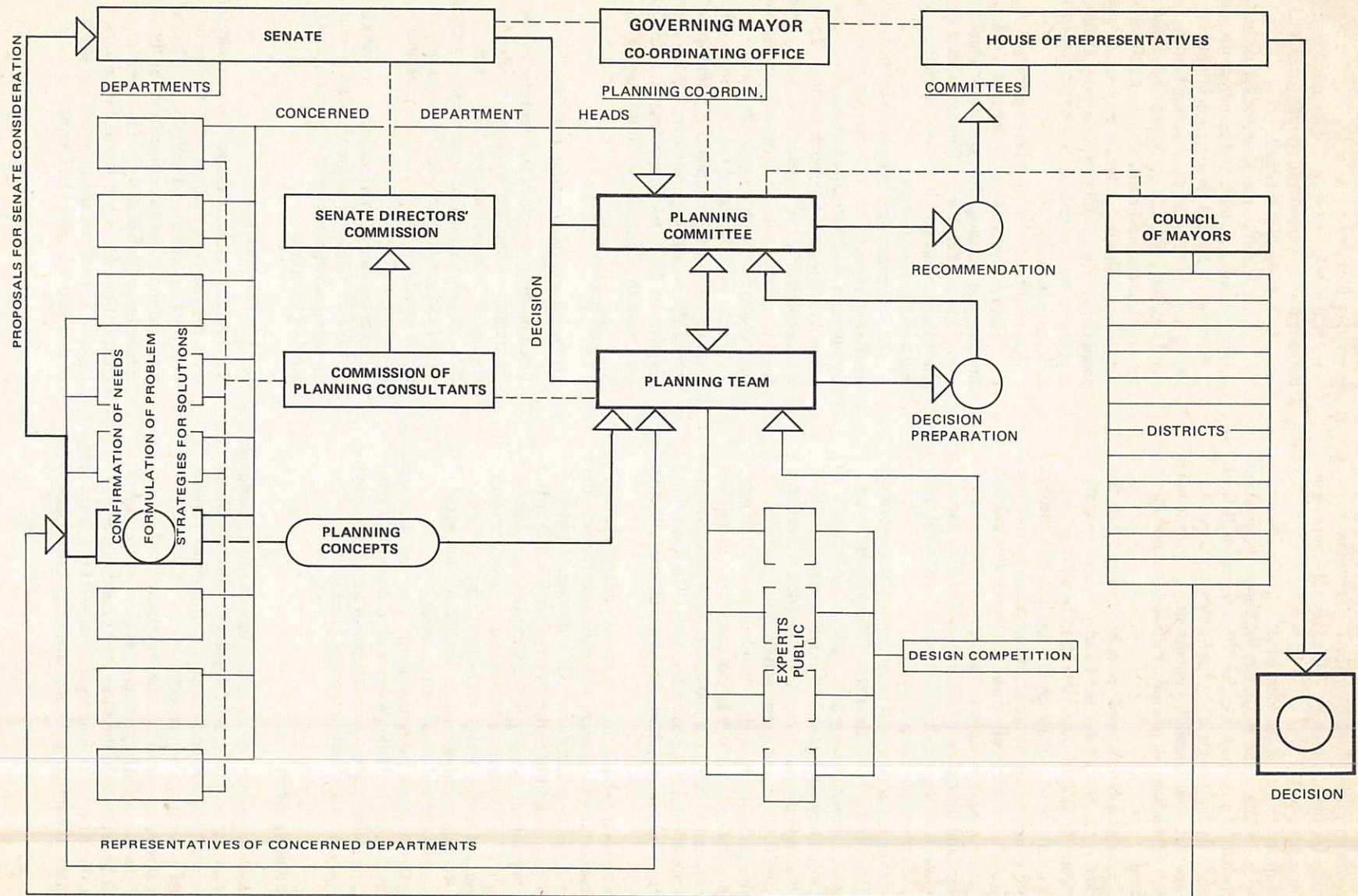
Based on the principle of subject-oriented classrooms, the programme encompassed a secondary school with 10 parallel streams, 1,200 students and all-day usage. Furthermore, those areas which would be immediately suitable for both school and general use, and those which would have to be added to achieve a community educational facility had to be determined.

To determine the various locations, which all had to be suitable for similar programmes, a set of criteria was drawn up exemplifying the choice of sites for these large-scale building complexes.

(b) Use-value analysis

To check and evaluate designs for complex building projects, the use-value method was found to be highly precise in evaluating criteria and techniques. The use-value method was used in the design competition for the Berlin (West) Educational Centres as well as in other educational design competitions which had recently been carried out and was checked to compare the rationale and the implementation of this methodological technique.

Fig. 17 – BERLIN (WEST) PLANNING SYSTEM



(c) *Cost planning*

In all planning phases, alternatives were evaluated for their financial feasibility, and the need for an intensively co-operating planner was emphasized. Despite the time pressure, cost analyses of entries in the design competition were extensive.

The design competition: two stages

In meetings of the planning team, professional societies, and the Senator for Building and Housing, it was decided that the quickest and most effective way of choosing an architect or an architectural group would be through a two-stage competition. Phase I was designed to determine qualifications, while phase II concentrated on optimization.

Participation was restricted to architects residing in Berlin (West) to ensure a close co-operation in the later optimization phase. In the first phase, two alternatives were developed to evaluate the abilities of the competitors.

Performance Level I required proof of ability to create schematic designs of relationships between departments, to plan a department, including furnishings at a scale of 1 : 200, and to plan a systematized building unit which could be applicable to all chosen sites.

Performance Level II required the development of two types of exemplary preliminary designs, on a given detailed accommodations schedule as a base for a later optimization stage. Type A was for an educational centre, with integrated extra-mural activities, and Type B was for a school centre with the potential for added extensions as an educational centre.

For both types, it was necessary to design the zoning and the relationship of all departments to one another on a scale of 1 : 500 and to calculate the relationship of the built-up area to the open space on a neutral abstracted site.

Feedback and community involvement in planning

The competition results were in full accordance with the requirements established by the specialists who criticized only a few points:

The planning team's intention to add specialists' advice to informational discussions and hearings did not make full allowance for the short time period agreed upon, and thus the specialists' contribution was limited. The variety of specialists was also limited, especially in presenting alternative proposals for the final phase. Feedback hearings concerning findings, as opposed to original requirements, too often took place in the presence of the experts involved but without the future users.

In terms of standardized building types, the Senatorial Administration had expected proposals which would include multi-storeyed solutions to take into account the urban situation. As the winning design was two- to three-storeyed, special designs had to be conceived for the three inner-city sites, thereby reducing the efficiency of the standardization and increasing the costs for the other 10 locations. (See Figures 18, 19 and 20).

Purchase of sites was delegated to district administrations which otherwise had little to do with the design process.

Optimal location was, therefore, seldom guaranteed. Interdisciplinary co-operation occurred only at the examination level, and had little influence on the actual design work.

While participating government offices judged the competition method a success and a complete fulfilment of their expectations, the ideas and expectations of the 13 communities' residents were not directly considered. No specific local representation was arranged for, and the communities' views were only heard to the extent that they were voiced by the generally-elected representatives.

Information on the project was widely dispersed: more than 22 articles were published in newspapers and journals; press conferences were held on educational, architectural, and organizational subjects; 200,000 brochures were distributed among teachers, parents, and students; discussion panels, exhibits, and films were offered to interested citizens, and numerous administrators were available to answer informal questions.

Each centre's experiences, during the first months of use, have been unique. In some centres, everything seems to be running smoothly, while in others - mostly in poorer areas - school and multi-use facilities (discotheques and youth clubs) have already been damaged. As a result, restrictive measures were increased, and school authorities and other involved agencies are trying to clarify responsibility for the damage.

In the complicated interdependent decision-making system of the planning team, planning committee, and the jury, it was intended to get as many opinions as possible on the design results. The participation and involvement of the 13 communities where the educational centres were to be located were conspicuously absent. It seemed that most people were either in agreement with, or not interested in, the idea of a large educational and community centre in their neighbourhood; or perhaps they saw no opportunity to express a different opinion which would be heard.

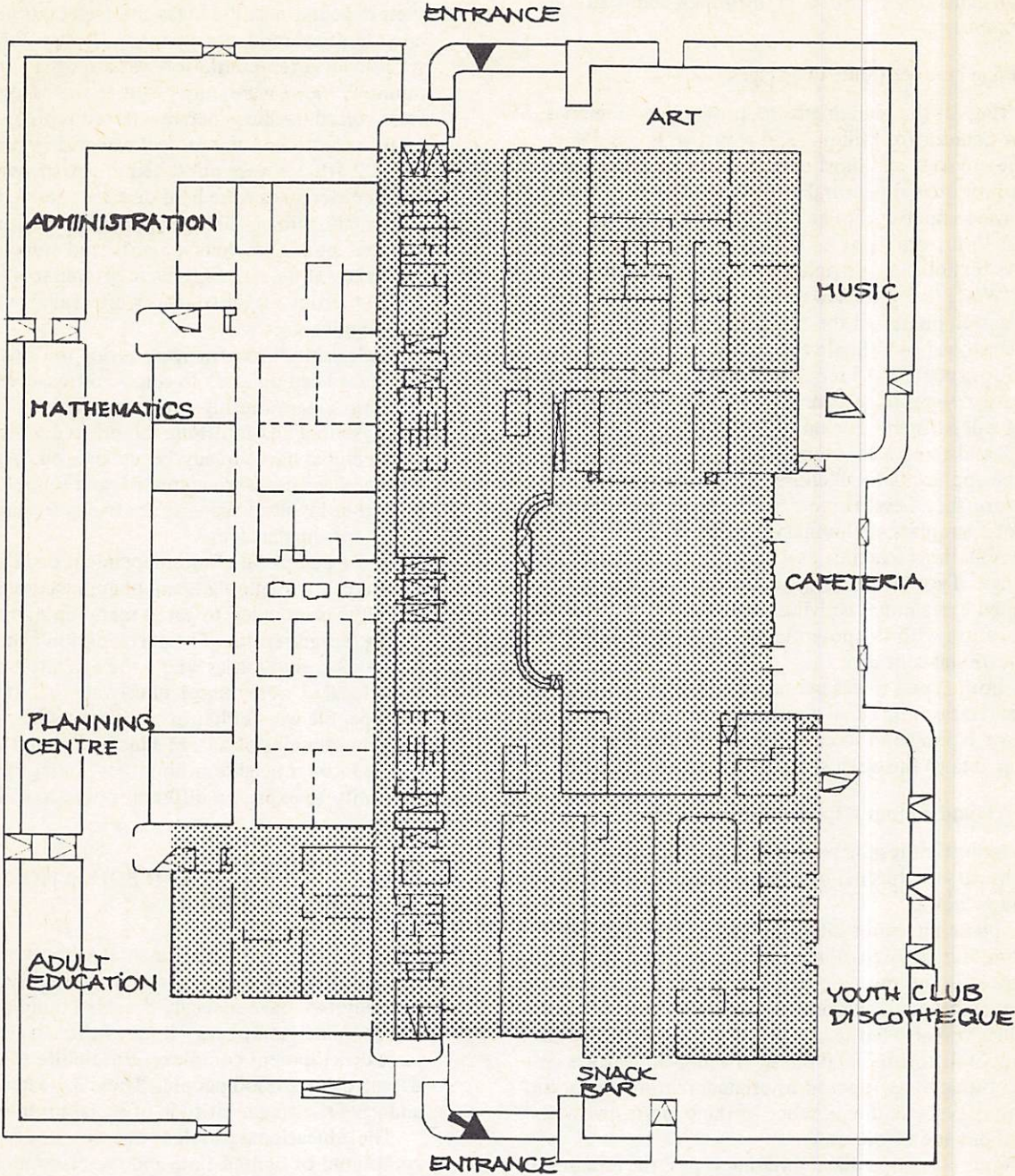
FULL-DAY SCHOOLS AND EDUCATION CENTRES/ THE HAMBURG MODEL

There are now eight experimental schools of the new, integrated lower and upper secondary school types in Hamburg, but only two have specially-designed buildings - Steilshoop and Mümmelmannsberg. Both of these names refer to the large development complexes or satellite towns originally designed for 24,000 people. These appeared very quickly and gave rise to a multitude of social problems.

The educational problem was very evident and was a compound of limited time and the classroom space needed for children of the newly-arrived and mostly younger families. The Hamburg Senate's decision was similar to those reached in other parts of the Federal Republic of Germany as regards new housing developments. Rather than separate school systems into primary, lower, and upper secondary schools, it was decided that one integrated school centre (Gesamtschule) was to serve each community.

The Steilshoop community and educational centre may be used as an example of multi-option community schools

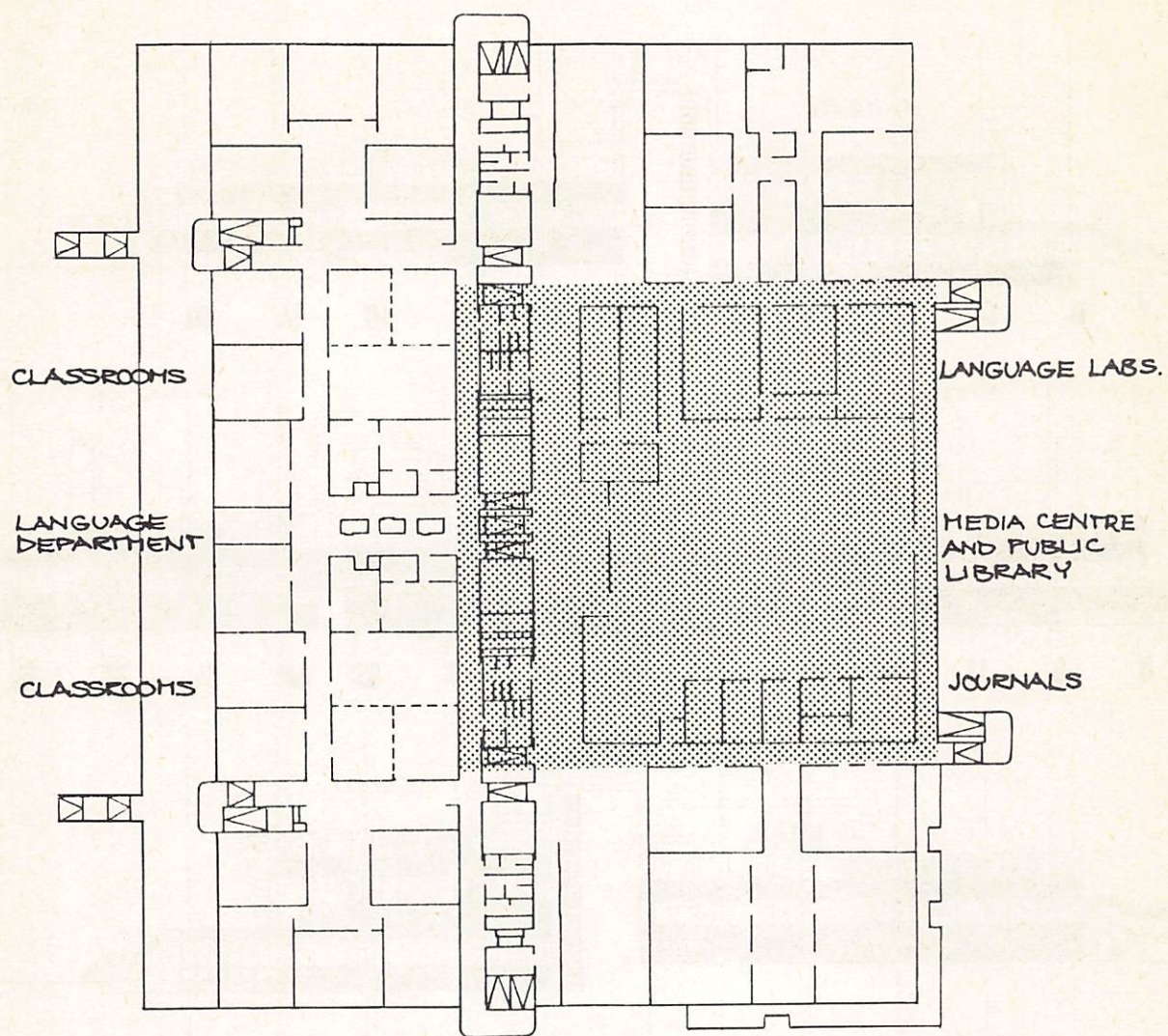
Fig. 18 – INTEGRATED EDUCATIONAL AND COMMUNITY CENTRES, BERLIN (WEST)



LEVEL 1
COMMUNITY SHARED SPACES

0 5 10 15 20m

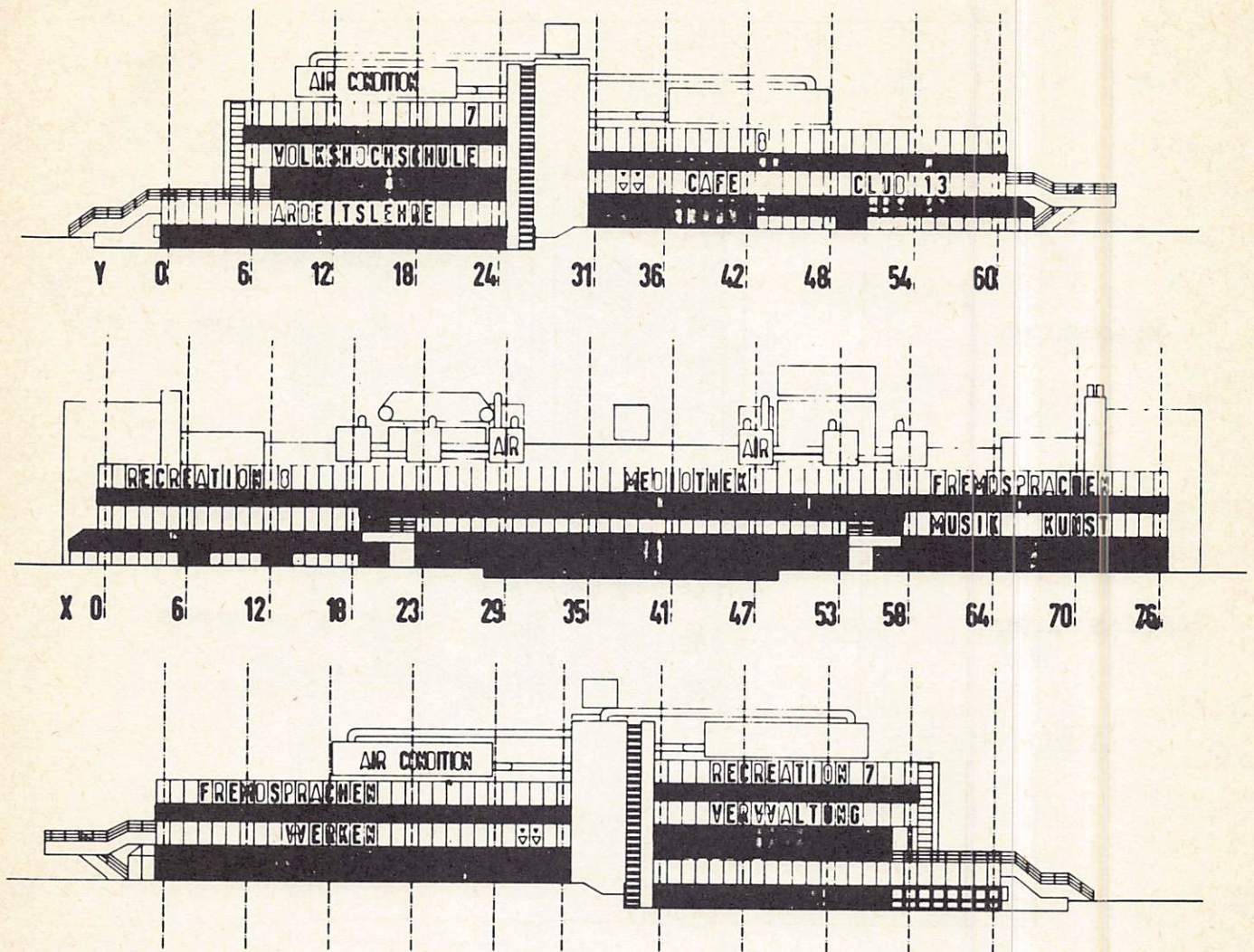
Fig. 19 – INTEGRATED EDUCATIONAL AND COMMUNITY CENTRES, BERLIN (WEST)



LEVEL 2
COMMUNITY SHARED SPACES

0 5 10 15 20m

Fig. 20 – INTEGRATED EDUCATIONAL AND COMMUNITY CENTRES, BERLIN (WEST)



ELEVATIONS AND SECTIONS

as it was the first to be completed at the lower and upper secondary (that is, Secondary I and II) levels. It houses approximately 2,400 students from ages 10 to 19 and operates on a full-day basis five days a week. Community activities include a youth club, an educational counselling section, a day-care centre with parent education, adult education, a half-day kindergarten, a public library, youth music school and the close co-operation of the other two 20-class primary schools within the satellite town.

Its educational features are determined by group size and the students' choices. Since it is impossible to finance groups of less than 20 students per course in the near future, a selection of 15 courses means 300 students per year or grade level.

Only this number makes it possible to offer the following courses simultaneously: chemistry, biology, physics, history, geography, politics, art, music, Russian, Latin, French, Spanish and crafts.

Whether or not these courses are offered depends on the decisions of students, their parents, and the teachers available for each course or subject.

The schedules for individuals within the same age groups may all be totally different, so that each student can select courses according to his or her interests and abilities.

The school as a community centre

The description of Steilshoop provides a relatively typical picture of educational systems in new satellite towns such as the Maerkische Viertel in Berlin (West), Dortmund-Scharnhorst, or Frankfurt-Nordwestadt. However, as part of a comprehensive educational centre functioning as a cultural focus for the entire community, it is unusual. Education is only one of the functions of this centre.

Although the two primary schools in Steilshoop are geographically separated from the lower and upper secondary school in the educational centre, they are both represented on the council directing the new facility.

Though its development is by no means finished, the community centre already offers a number of activities to residents. The youth club opens in the morning and serves as a gathering place for students during breakfast and noon breaks. The centre is also used during the day in free school hours.

In the afternoons, the youth club is used mainly by the primary and secondary school students for unstructured play. Courses in judo, table tennis and enamelling are also offered.

The centre is used in the evenings until 10 p.m., mostly by young people between the ages of 14 and 18. They have a variety of meeting places in the form of 18 clubs ranging from rhythm and dance to an auto repair workshop.

After 6.00 p.m., however, the centre is used mostly by adults. Tenant meetings are held in the large assembly room and a band uses the sound studio. Many adults also participate in various sports at the centre. The library and the parents' school are open and an adult education programme offers evening classes.

It is largely the social structure of the population which determines the activities and programmes offered. Predominating

in Steilshoop are working class families with several children, lower-than-average earnings, high rents, working wives, child care problems, long commuter rides to and from work, and isolation resulting from their recent moves.

The community centre provides numerous opportunities to alleviate the resultant social problems: adequate school and kindergarten facilities located directly in the development, the opportunity for young people and adults to communicate through youth clubs and adult education courses, sports clubs, counselling services (parental and educational counselling) and various information possibilities, such as the public library. The necessity for such facilities has been demonstrated in studies of communities where they are lacking.

Design and use: Steilshoop Community and Education Centre

The Steilshoop Community and Education Centre is located north of the town's focal point (see Figures 21 and 22). This site on the north-south axis of the town was chosen to allow pedestrians access to the open space in the north and the shopping centre in the south. Both connect to the densely-built housing areas to the east and west.

The road between the school and adjoining block of flats has been bridged at the first upper floor level to accommodate the combined school and public libraries.

Most of the building complex is one to two storeys high. The different wings of the building are joined by meeting areas on the ground floor, where the cafeteria, teachers' and students' rooms, large lecture theatre, and the Youth Club are located.

The first building (see Figures 23 and 24) houses science, vocational training, art, home economics, business and music rooms. The middle building provides for general studies and some social studies and houses the libraries and the media rooms (see Figures 25 and 26). The third building consists of indoor sport facilities with changing rooms, and is reached by an internal pedestrian path (the west building in Figure 21).

The main entrance, with cloakrooms and lockers, is in the middle building. Colour coding in red, yellow and blue to assist in orientation starts here. (See Figure 22).

The first impression of the community centre in Steilshoop is that of a colourful, almost confusingly diverse building rather than an awe-inspiring temple to education. There are parts with overhangs, ramps, steep roofs, and attractive entrances that induce passers-by to find out what is behind them. (See Figure 27). The Youth Club is at the main street of Steilshoop and all the grounds are open to the public, thus linking residential and nearby recreational areas. This concept of linking public space with the educational centre originally included a series of small shops, cafés, etc. along the main street between the shopping centre and the community centre, which would have introduced opportunities for contacts among the residents. As this has not been implemented, there is today a long, uninviting and uninspiring stretch of bleak apartment block façades between the centre of the development and the educational centre.

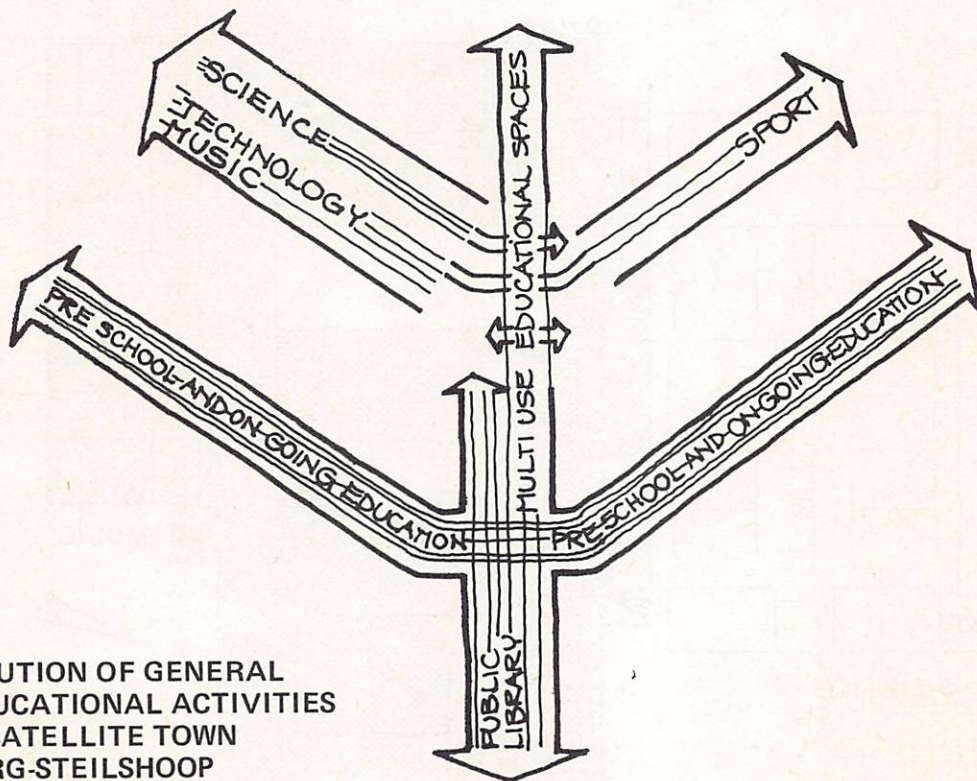
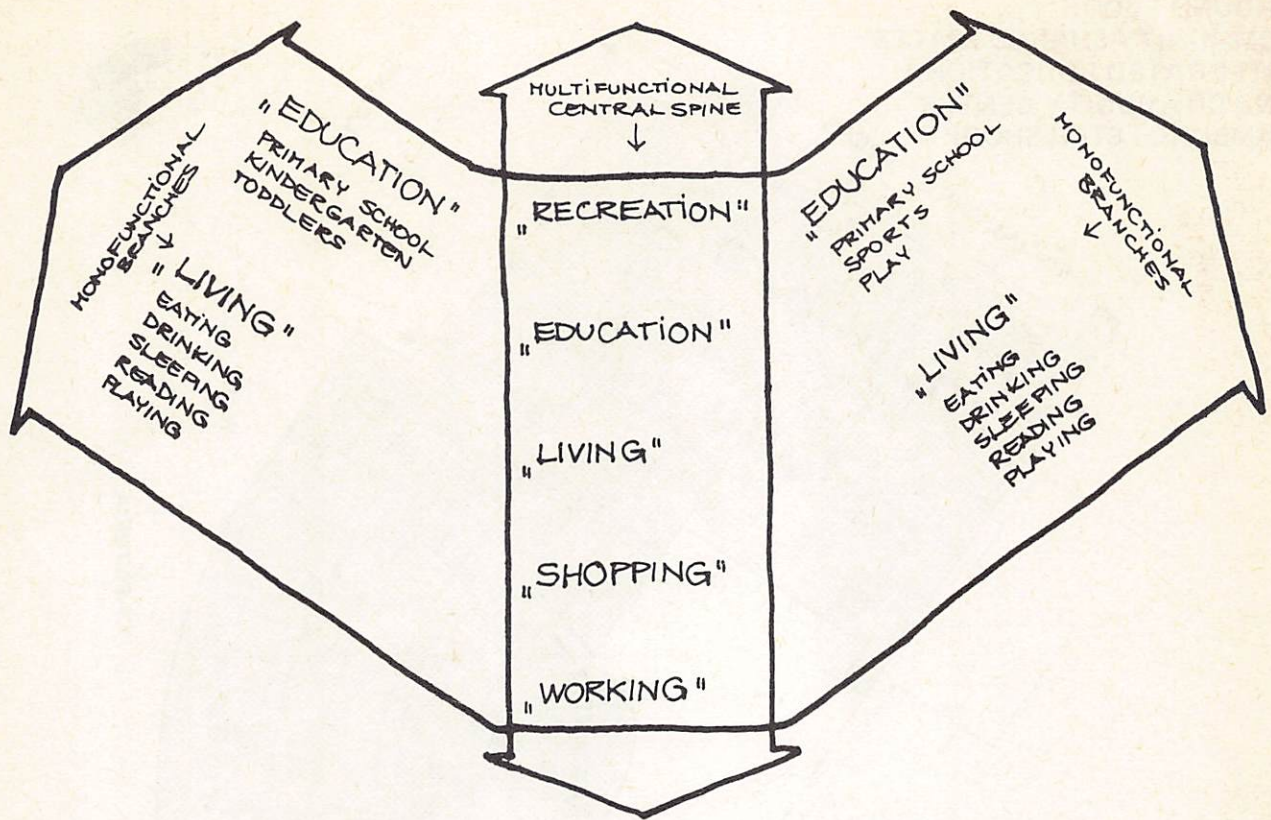


Fig. 22
DISTRIBUTION OF GENERAL
AND EDUCATIONAL ACTIVITIES
IN THE SATELLITE TOWN
HAMBURG-STEILSHOOP

Fig. 23
GROUND FLOOR
COMMUNITY SHARED SPACES
INTEGRATED EDUCATIONAL
AND COMMUNITY CENTRE
HAMBURG - STEILSHOOP

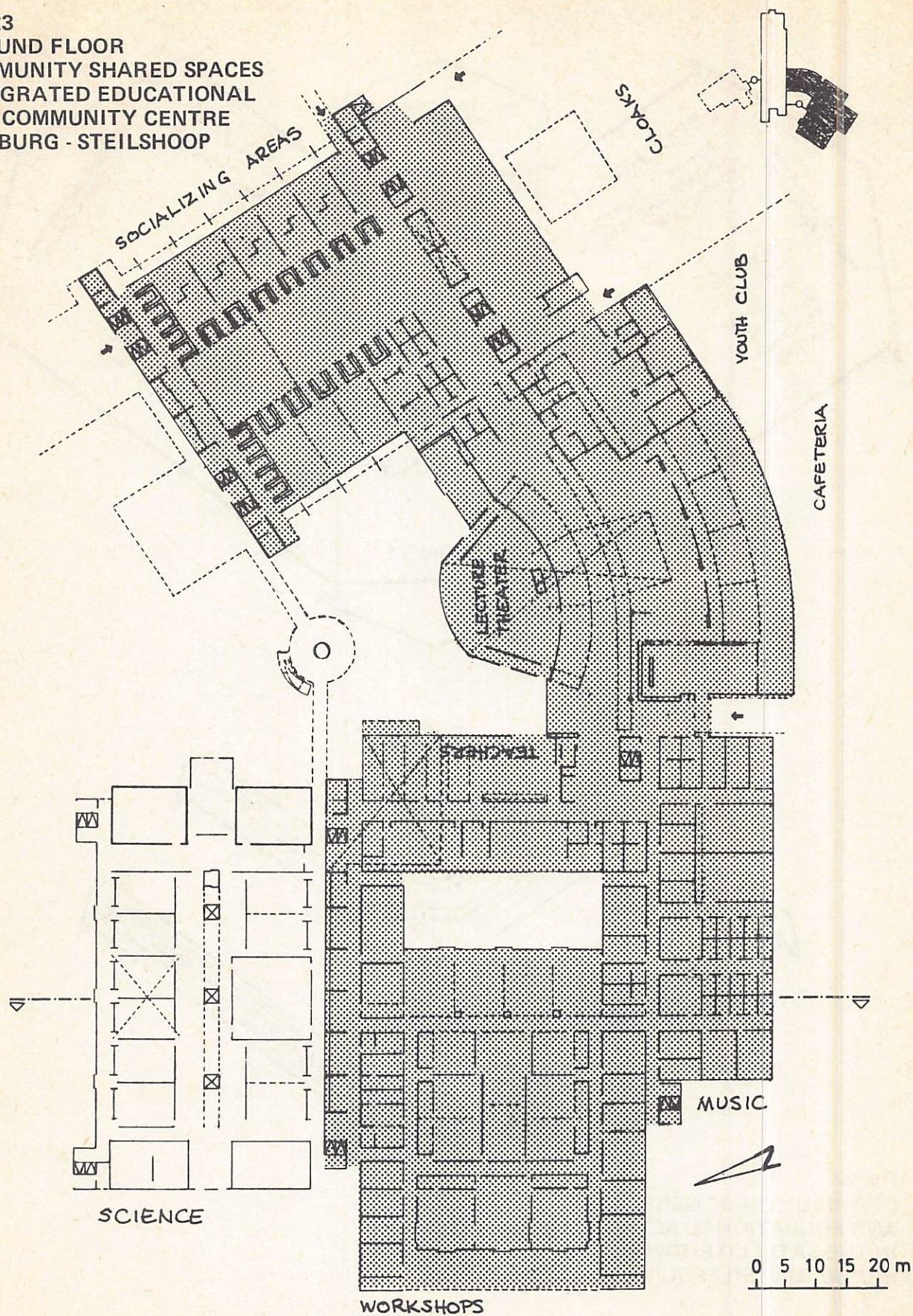


Fig. 24
 FIRST FLOOR - SCHOOL SPACES
 INTEGRATED EDUCATIONAL
 AND COMMUNITY CENTRE
 HAMBURG - STEILSHOOP

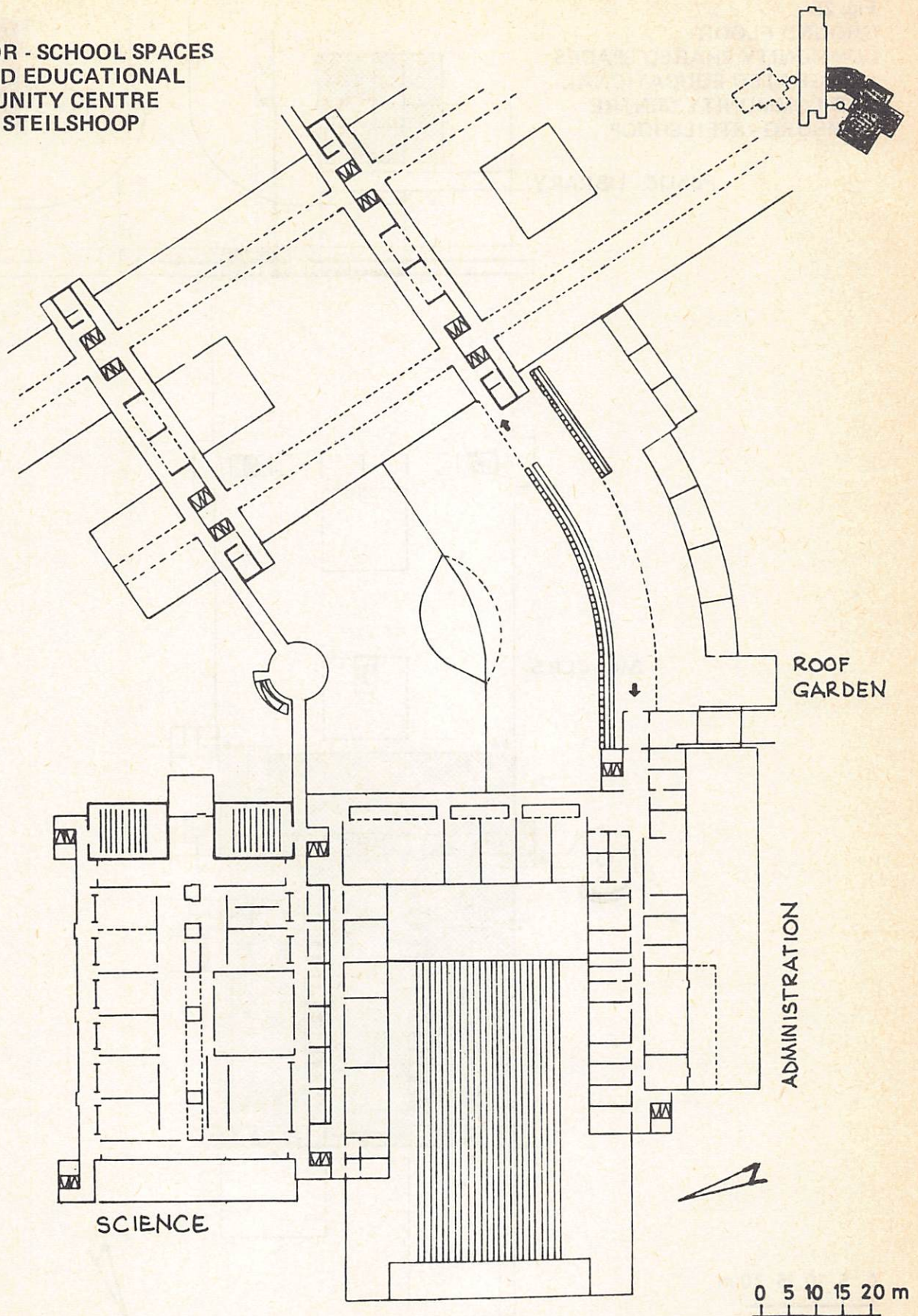


Fig. 25
GROUND FLOOR-
COMMUNITY SHARED SPACES
INTEGRATED EDUCATIONAL
AND COMMUNITY CENTRE
HAMBURG - STEILSHOOP

PUBLIC LIBRARY

BICYCLES

0 5 10 15 20 m

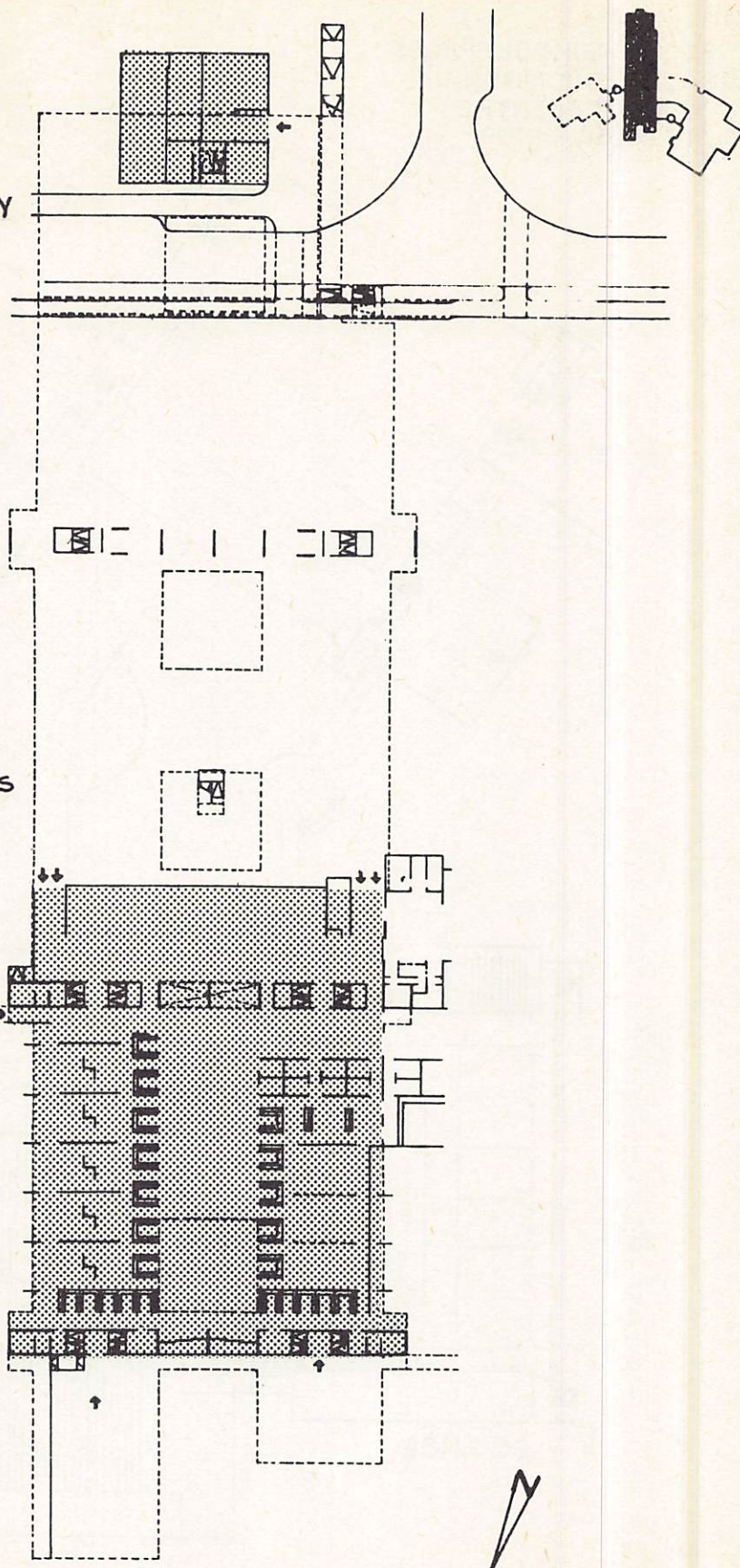


Fig. 26
FIRST FLOOR-
COMMUNITY SHARED SPACES
INTEGRATED EDUCATIONAL
AND COMMUNITY CENTRE
HAMBURG-STEILSHOOP

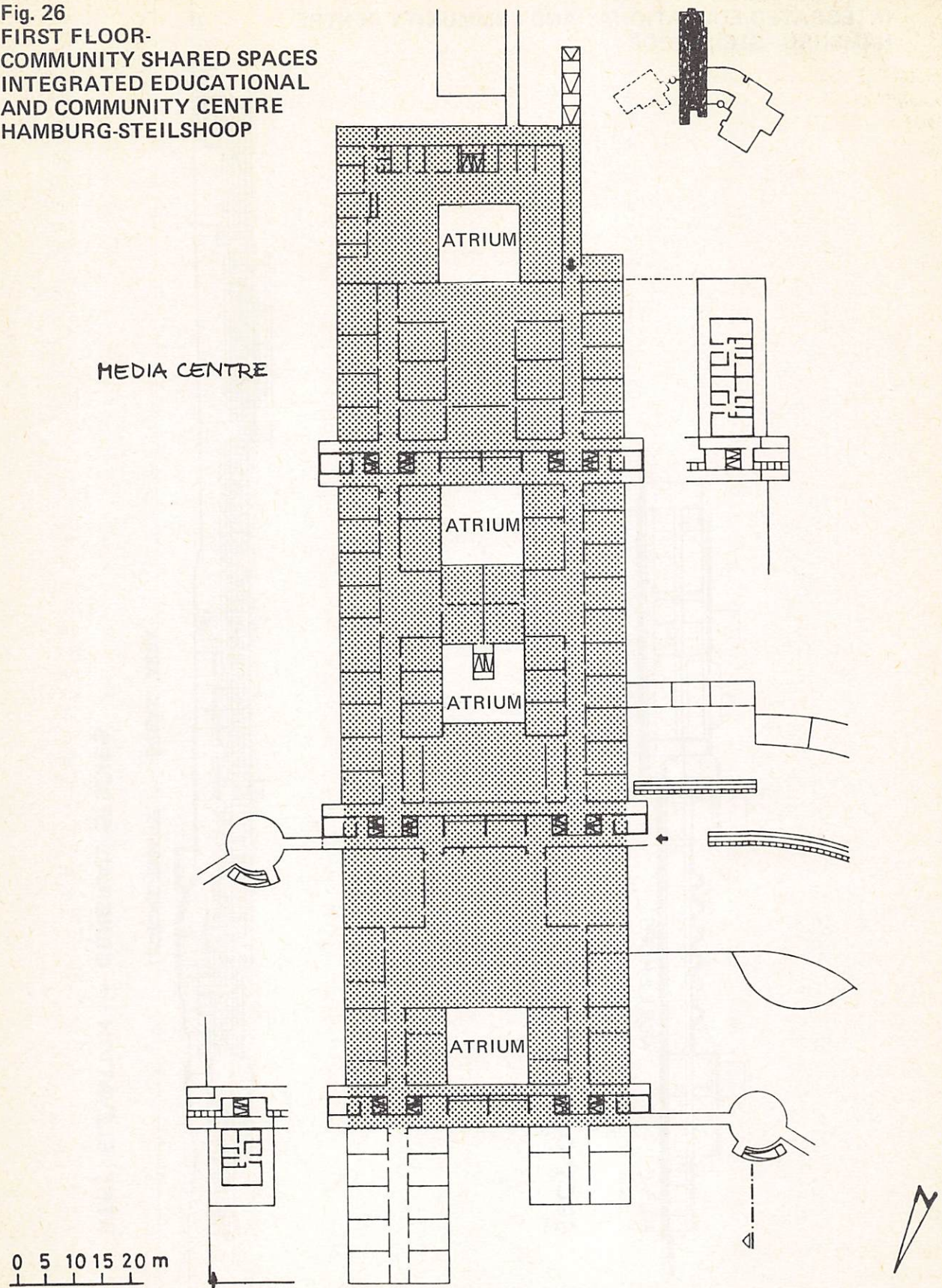
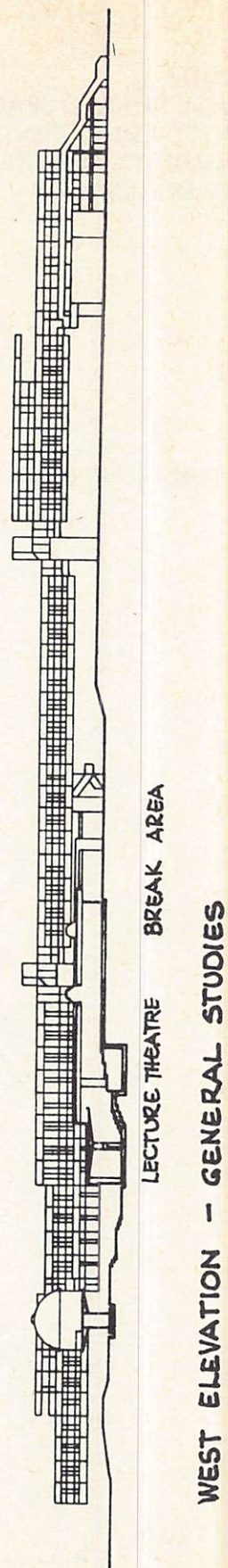
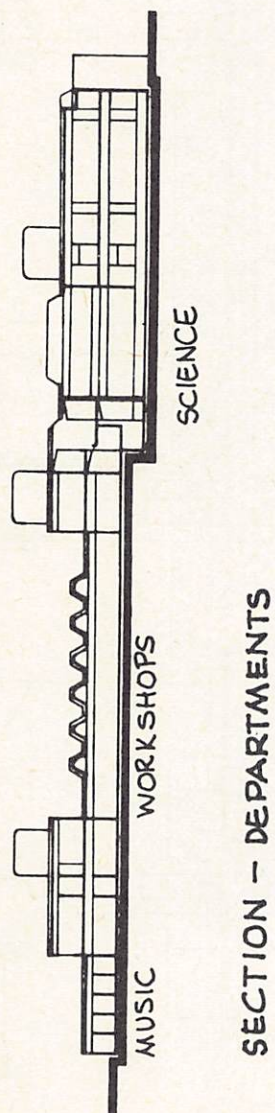


Fig. 27 SECTION AND ELEVATION
 INTEGRATED EDUCATIONAL AND COMMUNITY CENTRE
 HAMBURG - STEILSHOOP



There are, of course, other problems, such as the fact that the Youth Club has limited access to other rooms in the educational centre and spontaneous attempts for contact may die solely due to lack of rooms. The public library and reading rooms can only be reached by climbing many flights of stairs. While this is logical since the library must be integrated with the school, it is hoped that these inconveniences will not affect the fundamental concept - namely, that the educational and community centres will eventually become one.

In general, both from the perspective of the population and the school itself, this model seems to work. The community centre offers many different possibilities that meet residents' needs. Whether the Hamburg model can be repeated elsewhere, however, remains to be seen. The cost of the school complex and the accompanying facilities was 65 million Deutsche Marks. This sum would intimidate many less affluent communities.

COMMUNITY CENTRES IN EXISTING SCHOOLS: ESSEN

Multi-use of school buildings

A model for the multi-use of existing school buildings has been designed in Essen. The intention is to expand the use of school buildings to include leisure activities and additional educational opportunities. It is hoped that with a minimum of capital investment, personnel, and maintenance costs, schools can be transformed into community centres which make a dovetailing of leisure time and school activities possible and promote interaction of different generations.

Essen's administration is confronted with an ever-increasing demand for more leisure activities. There is a lack of meeting space for youth clubs, organizations, conferences and various adult groups. There is also a shortage of space for larger gatherings and sports activities.

Existing school space could also be used for individuals and groups who want to read, talk, play cards, or work on their hobbies. Larger rooms could be used for lectures and slide shows. Erection of new buildings for these purposes, however, is impossible in Essen because of a lack of funds.

The school administration suggested that the school's existing facilities be used in the afternoons and evenings.

Changing existing schools into multi-use centres does not include changing their structures - rather, equipment and furnishings would be added or changed so that the buildings could serve both school and leisure activities. School centres and buildings now being planned would not be expanded, into educational centres. Instead, the criteria for using the spaces multi-functionally are being more carefully considered. The results of these considerations can be seen in such changes as the demarcation of game fields, new play equipment, rest areas, landscaping, and the renovation of entrances to future meeting places.

In December 1973, the Essen City Council asked various branches of its administration to develop a model for the multi-functional use of school buildings and centres. To

meet this request a task force with representatives from the school administration, youth and welfare offices, the health department, city planning office and personnel office, developed the following goals for the model: to increase and improve leisure activities while minimizing costs, by taking fuller advantage of existing facilities; to promote a closer interrelationship between the school and leisure activities of the students; to improve the communication links between the younger and older generations.

The first goal was considered to be of immediate, overriding importance, while the second and third goals were long-term objectives.

Planning and organization

Incorporating leisure activities into the school day requires that those activities be co-ordinated with academic instruction. Multi-use rooms should be clustered in one area because dispersing them over the entire grounds creates increased cleaning and supervisory costs.

In the mornings, leisure time and social areas should be open to the school only. In the afternoons and evenings, academic instruction should have first priority and should be separated from other activities which may interfere.

Possible uses of this model are divided into three categories: established groups, clubs, and organizations which would occasionally or regularly use rooms not required for instruction; open or limited-access courses, assemblies, or various workshops; an open meeting place for all age groups.

New types of personnel will be needed to staff the open school programmes - voluntary workers, part-time assistants, part- or full-time counsellors, and full-time teachers.

Communal facilities

Entrance-halls for social contact will be created in new schools and will include cafeterias, bulletin boards, show cases, easy chairs, etc.

Ideally, the assembly hall should be linked directly with the entrance-hall area and feature a movable stage, fastenings for decorations, electronic installations, various lighting arrangements; air conditioning; and a small kitchen adjoining the assembly hall.

Club rooms will become available as the numbers of students decrease. These clubrooms will be used for games, dances, lectures, music, adult and parent education, senior clubs, etc. Necessary fixtures should be installed with the help of the groups that will be using the rooms.

Rooms with special equipment would include darkrooms, sound studios, physics and chemistry laboratories, sound proof rooms for music groups, table tennis rooms, physical fitness rooms, and rooms for gymnastics and play equipment.

Implementation

The realization of the model will occur in the following stages: inventory of resources, assessment of needs, selection of those schools which will become community centres, and development of a five-year programme.

An inventory of the programmes for youth and senior groups available at the present must be drawn up according

to location, size and particular installations. Needs will be determined basically from the data of the school and city planning statistics.

The choice of which schools are to become community centres will be based on the following criteria: need for leisure and educational facilities in the community; location of the school in the neighbourhood, architectural and spatial features of the school; co-ordination with other school and city planning activities. Preference will be given to areas which, until now have lacked educational and recreational opportunities.

The two phases of the five-year programme

The main problem in implementing a five-year plan in Essen will be finding appropriate staff - cleaning staff, counsellors, social workers, and professionals. Because of financial limitations, professional staff will have to be hired gradually and will need a certain length of time to organize new programmes. In the light of these difficulties, the programme is divided into two phases.

In the first phase, school rooms and leisure areas which could be used for this programme will be equipped and made available to established groups (organizations, clubs, youth groups, church organizations, etc.) in the afternoons and evenings. Use of the rooms will depend on whether a person or organization is to take responsibility for them, so that no additional staff need be hired. The responsibility could also be assumed by a public agency such as a youth, welfare sport or cultural agency.

The second phase of this programme would be to extend the school's leisure activities to the whole community by opening table tennis and play rooms, club rooms and hobby space. In this phase, greater emphasis would be placed on planning and organizational aspects. At this point, counsellors, social workers, and para-professionals would be hired. They would also help the users to evaluate and interpret the experience gained in Phase I.

The beginning of the first phase was planned for 1976.

Evaluation of the model

The suitability of this community school model can best be measured by answering the question. "How closely did the project realize the formulated goals while keeping finances and personnel to a minimum?"

The five-year plan justifies a measure of scepticism. Younger people and adults have been invited to meet in the community centre for a variety of activities too complex to be served by the currently proposed programme. More space, equipment, material and personnel will be needed to stimulate such activities. Constructional changes - a financial expense - will also be needed.

It is, at present, impossible to give more detail on the programmes because a cost plan is not available. However, initial savings may not necessarily be economical, considering the longer time period the programme is to cover.

The Essen model is neither inadequate nor unreasonable. Indeed, it shows much ingenuity and initiative in the development of a concept that, with a small investment, can

provide the local community with additional means of communication and leisure activities.

It should be emphasized that it is impossible to find instant and infallible solutions to the problems involved in realizing even a small goal. "Small-scale solutions" are always attractive at first, especially when the problems revolve around finance. It is all too easy to lose sight of the total problem and to cure only the symptoms.

PROBLEM AREAS AND PROPOSALS

The purpose of this part is to project and propose alternative methods of planning and implementing communal schools, based on the analyses and trends discussed previously. Since the emphasis in the Federal Republic of Germany has been largely on optimal technical and architectural solutions, these proposals will be directed towards the following aspects: the community school planning process; financing and administrative aspects; locational criteria; programming considerations; implementation of community school facilities.

Since these appear to be the most critical variables, an architectural design solution, in the form of plans, sections and elevations, has been purposely omitted. The solutions to main problems in the Federal Republic of Germany are not to be found in three-dimensional form, but through changes at policy levels.

The community planning process

Problem

The greatest barrier to the fuller use of new or existing school facilities seems to be the exclusion of the community from the programming and planning stages due to a highly technical and bureaucratic planning process.

Formal competition procedures, as described in the case study of integrated secondary school centres in Berlin (West), leave little or no room for community input and stifle the architect's and planner's creativity by reducing his rôle to that of a small wheel in the total urban machinery.

Proposal

Alternative planning processes should be set up to test the assumption that an increased share of decision-making power for community groups will produce a more user-oriented community school facility, enhance community-school relationships, provide more adequate administrative, urban design and architectural solutions, and stimulate a continuous interest in the educational, social, recreational and cultural programmes which serve young and old.

To ensure community participation in programming and planning community schools, several steps must be taken:

- Adequate information about participatory possibilities, intentions and programmes should be provided through public billboards, newspapers and other mass media.
- Regular interaction processes must be set up in the form of public forums, community task forces, "charettes", planning games, etc., where people can meet and voice their

opinions without repercussions, discover common problems, needs, goals and objectives, and discuss solutions.

- A redistribution of decision-making power is needed for meaningful work at the community level, which means that governmental agencies will have to share their decision-making powers with communal groups or individuals. New control mechanisms against misuse of this power will have to be found. The government should be involved only where the community processes fail.

- Continuing training opportunities for administrators, teachers, para-professionals, and parents should enable them to deal with problems of a new type and new dimensions. Training and education for participation is as necessary as it is for other activities.

- Just as it is taken for granted that maintenance and running costs will be needed after a facility is completed, sufficient resources should be set aside at the beginning for changes and new needs which will emerge in the course of the work.

As the transformation involved in creating community schools is a complex one, planners should be allowed to take on many rôles - advocate, educator, specialist, or mediator - thus facilitating the achievement of consensus or compromise to the maximum extent.

Financial and administrative aspects

Problem

Local school authorities in the Federal Republic of Germany are usually the sole owners of school facilities which are built to suit specific educational programmes according to high technical standards. School authorities in general do not appreciate difficulties and conflict resulting from the multiple use of school facilities as this goes beyond the uses traditionally made by the non-school population. In addition, state agencies responsible for staff and curricula tend to be reluctant to finance the additional personnel needed to provide multi-use options for the community.

Proposal

(a) The school authority does not necessarily have to be full owner of the building in which the school is located. A rented, leased, or partly-owned building is feasible and the right to use a particular - and non-public - building may be made official through political channels. If experiments with integrated facilities are to be undertaken, then special-purpose agencies with mixed fiscal powers should be created to contract between private and public agencies and market-oriented establishments.

(b) A sample constitution for these new integrated centres should be formulated to regulate such matters as maintenance, cleaning, supervision, liability, insurance, periodical rooms, and space apportioning, joint acquisition of equipment and materials, over-lapping of personnel, and even continuous reviewing of aims and activities, and conflict resolution. The difficulties that ensue if logistical regulations and goals are not planned for should not be underestimated. Schools, other organizations, and their users are not yet accustomed to, or prepared for, this type of

“human resource centre”. Misunderstandings and unbalanced participation in the centre’s management can make the facility unsuited to certain uses, unpleasant in other cases, and generally unserviceable. Mismanagement can destroy the very community spirit that initiated the undertaking. A flexible and self-determining administrative system will assure that the complex will be accepted, used, and enjoyed by all.

(c) Sectoral planning for social and cultural infrastructures is a main part of the different supportive measures of the state. The co-ordination of different objectives, and policy changes in respect to subsidies must therefore be tailored to fit the complex problem of financing multi-use facilities, and should be initiated before planning takes place.

Locational criteria

Problem

Functions and locations of numerous social and cultural facilities are unco-ordinated with, and under-used by, groups they might be serving, while the demand for these facilities is increasing.

Proposal

In accordance with the new horizontally-structured school system encompassing elementary schools, integrated lower secondary schools and professionally-oriented upper-secondary schools, community- and task-oriented centres should be developed. Whether added, co-ordinated, or integrated, whether centralized or decentralized and well-served by public transport, these centres should contain all the necessary facilities and services for their particular catchment area.

Problem

Due to their necessarily large size, most of the new school centres are badly situated on left-over suburban land, cut off from central functions such as shopping, cultural facilities, health and social services, government offices, etc., and are quite unfit to become “focal points for community development”.

Proposal

The reasons for large school centres must be reconsidered not only because of the choice between centralized versus decentralized locations, but also because of the immense organizational problems and dehumanizing aspects of large educational units.

In many states in the Federal Republic of Germany, there is now a tendency to regard 1,200 students per year as the maximum. This may still be too large to fit choice central locations.

Since most of the Federal Republic of Germany and Berlin (West) have efficient public transport networks, the systematic decentralization of school facilities through existing community resources should be tested on a larger scale.

Existing schools, or older buildings that are no longer suitable for their original purpose such as cinemas, factories or

railway stations, etc. are often centrally located and could be re-used as school and community facilities if administrative ingenuity and tax incentives were redirected toward such goals.

Policy changes to preserve older buildings should also attempt to preserve neighbourhoods, cultures, and social fabric. Rebuilding and re-use should be a continuous process to meet highly variable and unpredictable demands for space, both in quantity and quality. This means a vertical and horizontal mix of uses, with the school as one component of a complex social infrastructure and a multi-use facilities network.

Programming considerations

Problem

In programming for community school facilities, school administrators tend to be rather conventional in combining and adding new uses. Adult education, evening courses, political groups, and sports clubs are traditionally welcome to use school facilities after hours. Many other possible co-operative ventures remain to be tried.

Proposal

Schools should be considered as just one - although perhaps the central - component of a network which encompasses social services and multi-use facilities, including: education, recreation, health, government, commerce and industry.

A more detailed description of what these services would entail can be found in the following tables (Figures 28 and 29). Proposals for the integration of schools with other social services, summarized under education, recreation, and health, have been made in the past and will be generally more widely acceptable than those multi-use facilities suggested under the headings of government, commerce, and industry. However, the proximity of the latter three categories may be just as functionally important in respect to the new professionally-oriented high-school centres as the first three categories, and should therefore be considered among the options for integration.

Implementation of community school facilities

Problem

New school centres have become such large, uninviting, factory-like, architectural monuments that they often impede their own goals - to attract students and community residents - because of their very size and technical demands.

Proposal

A theory to be tested is that smaller units which observe the neighbourhood scale and atmosphere will be more acceptable to community residents, will eliminate psychological barriers, and will provide a focal point for community development.

Problem

The prevailing architectural aesthetic ideology - building visually pleasing objects - coupled with a government attitude that school buildings ought to show lasting dignity

and stability produces perfect educational machines but not community schools.

Proposal

The community school building should represent the social, cultural, and political ideologies resulting from collective design decisions and from a new government attitude which allows building to be part of a continuous change directed by the actions of, and interactions with, the users.

Problem

A high percentage of new schools within the Federal Republic of Germany have large interior spaces with artificial lighting and air conditioning, yet with no direct outdoor contact because there has been no cost-benefit analysis to weigh building and social costs against the eventual benefits of built-in flexibility. Because interior rooms can only be used for a short time, they are unfit for most community uses. The problem, however, belongs in the group of problems resulting from rigid planning programmes and cost optimization methods that do not allow for changes in specifications. More flexibility might enable architects and planners to optimize the multi-use aspects rather than just the educational aspects, for example.

Proposal

With the exception of very few spaces for lectures, theatres, etc., workrooms should be naturally lit, with supportive lighting and ventilation systems only where needed.

In the official programme and cost specifications, room should be allowed for creative changes in spatial arrangements, to facilitate the fullest range of uses under consideration. Minimum space standards and upper cost limits should be sufficient to ensure the provision of both adequate educational facilities and community services. To become truly community-oriented, school buildings should be enjoyable, attractive gathering places, providing for many kinds of pastimes: quiet spots for individual rest, reading, observation; open meeting places which draw users naturally; areas where noise, movement and group gatherings are permitted; intermediate learning and communication areas.

Multi-use areas should be visible or easily accessible from a central entrance hall or vestibule, featuring seating arrangement, information booths, and a personal information and counselling service for passers-by.

Uses to be offered at this level are: library and media centre, community offices, studios and workshops, counselling services, cafeteria and restaurant, shops and governmental agencies, theatre and lecture halls.

Thus, a traditional entrance hall opens up to become a part of the community level, while classrooms and other learning activity areas, which are more specific in character, may be located on other levels.

Problem

The most urgent problem in the near future will not be, as in the past, how to build new school centres for an unprecedented student peak, but how to re-use existing schools in view of a decreasing student enrolment. To date, the scope and severity of this problem has not been truly recognized.

Fig. 28

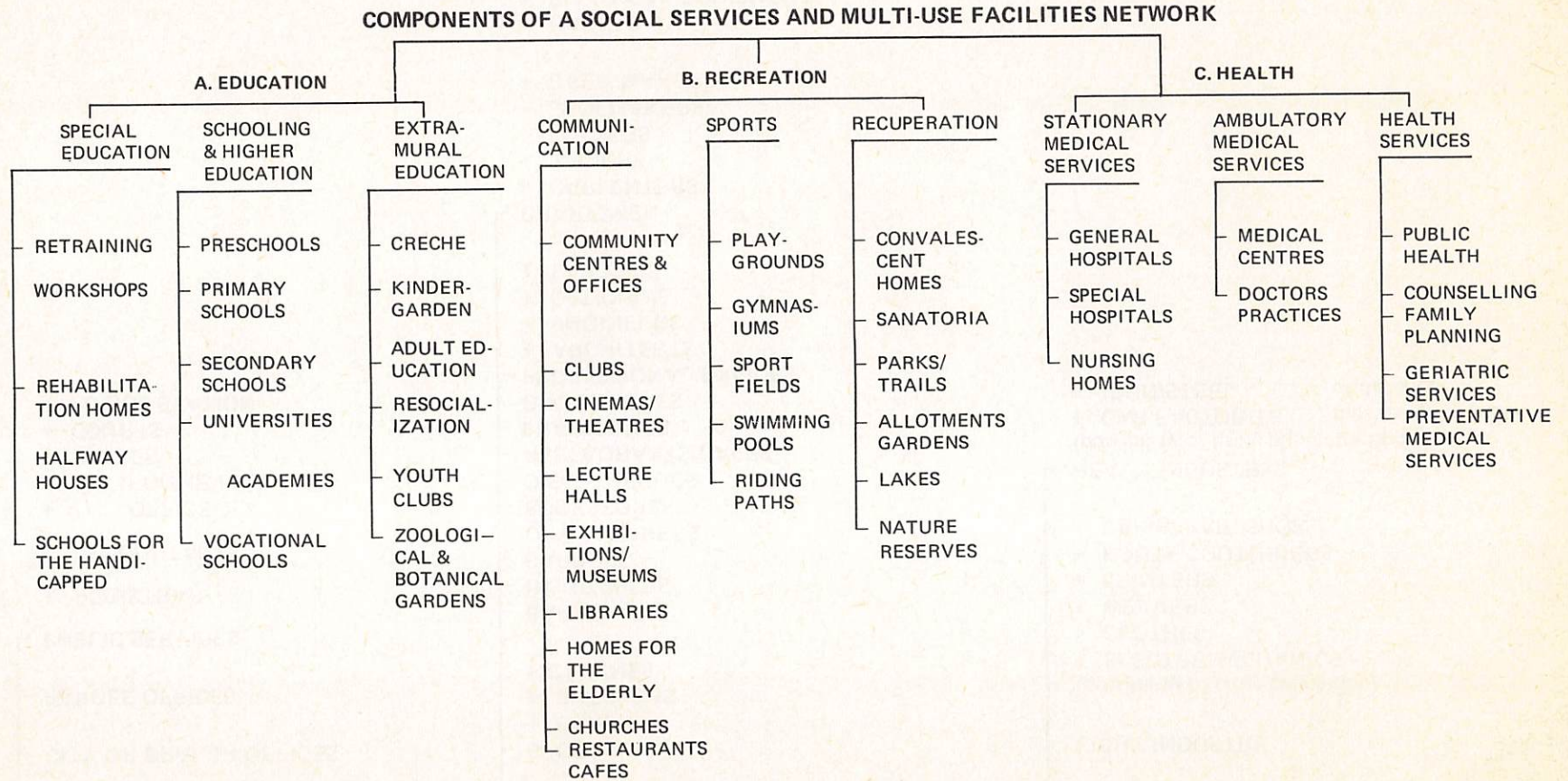


Fig. 29

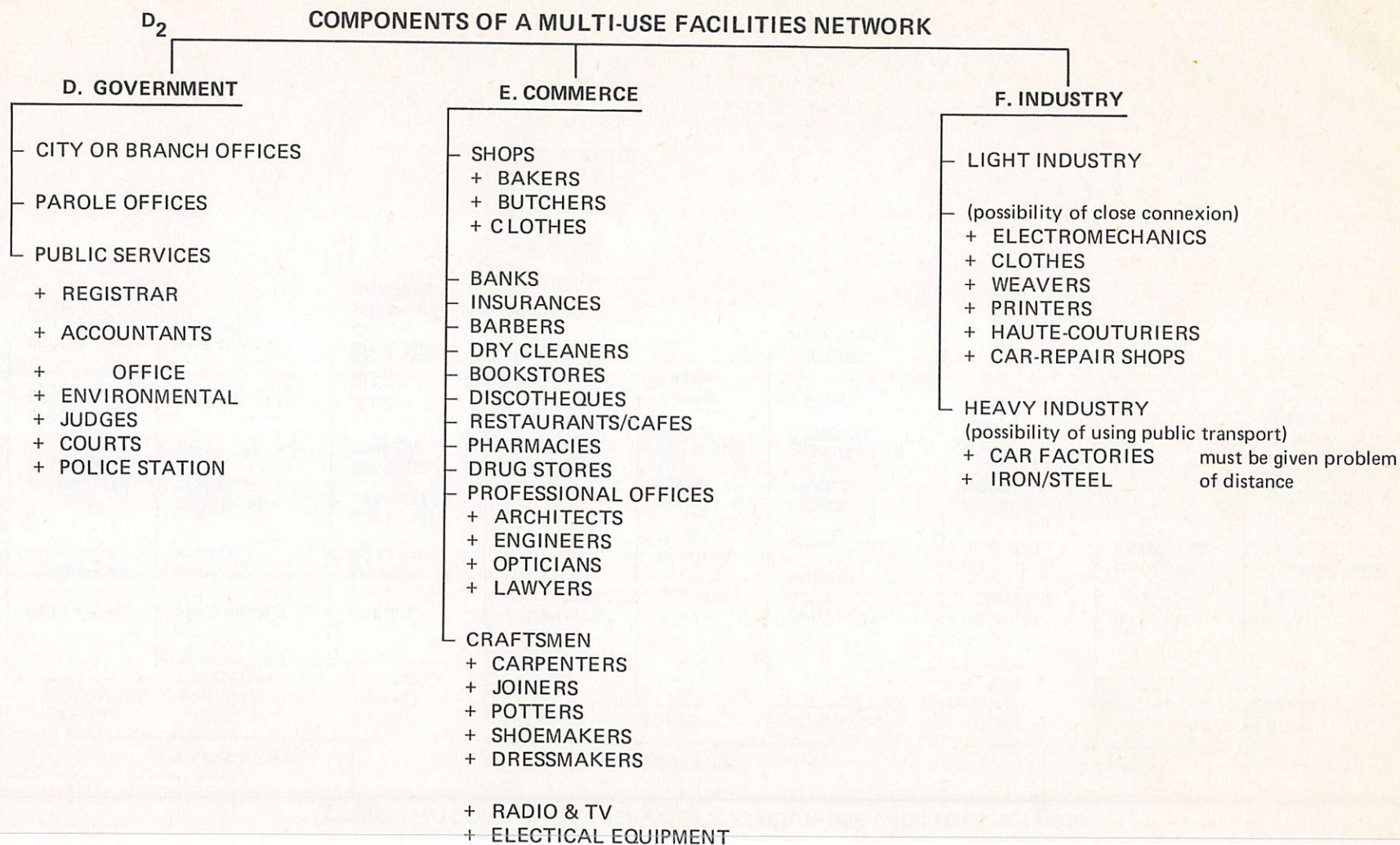
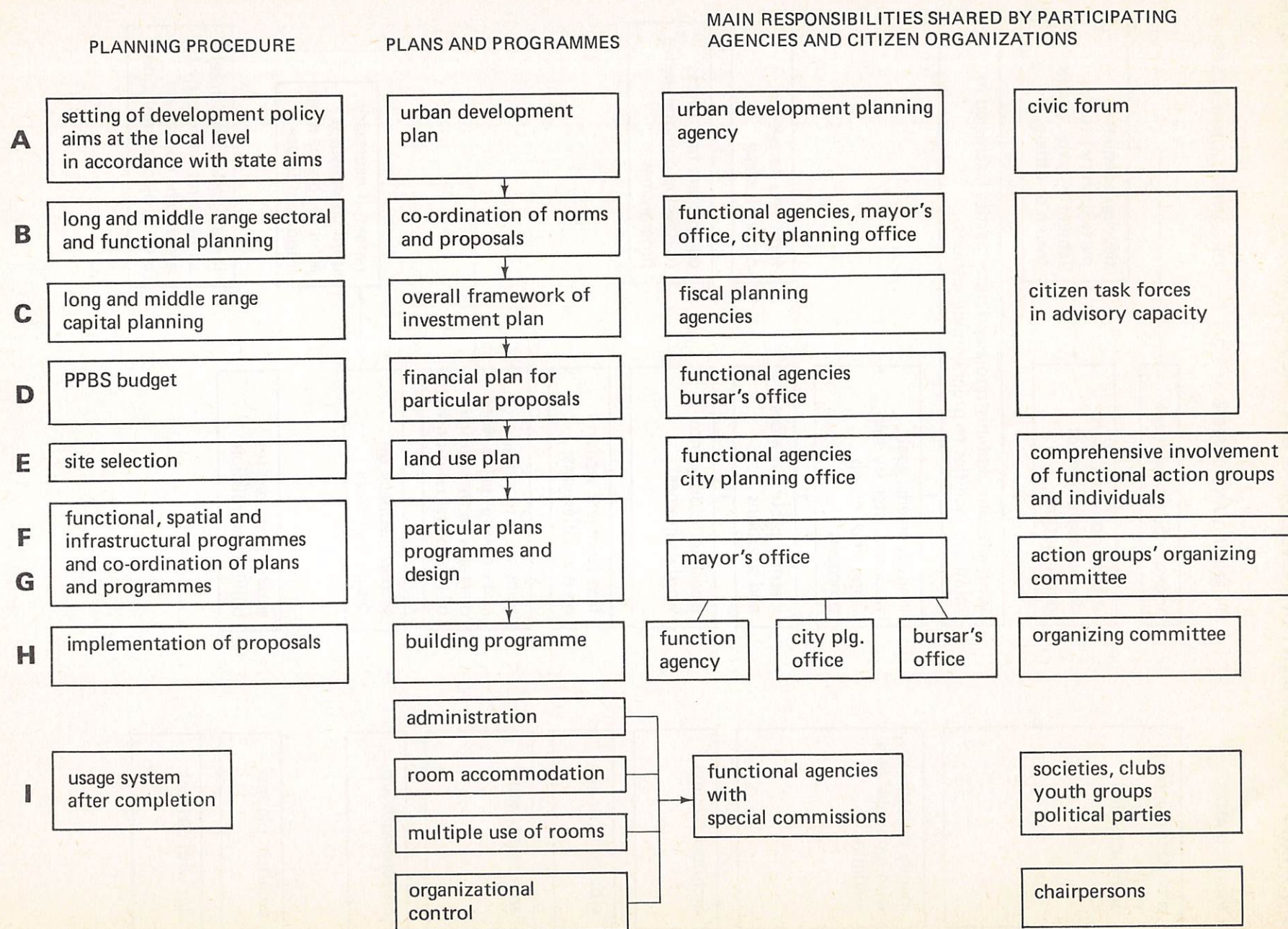
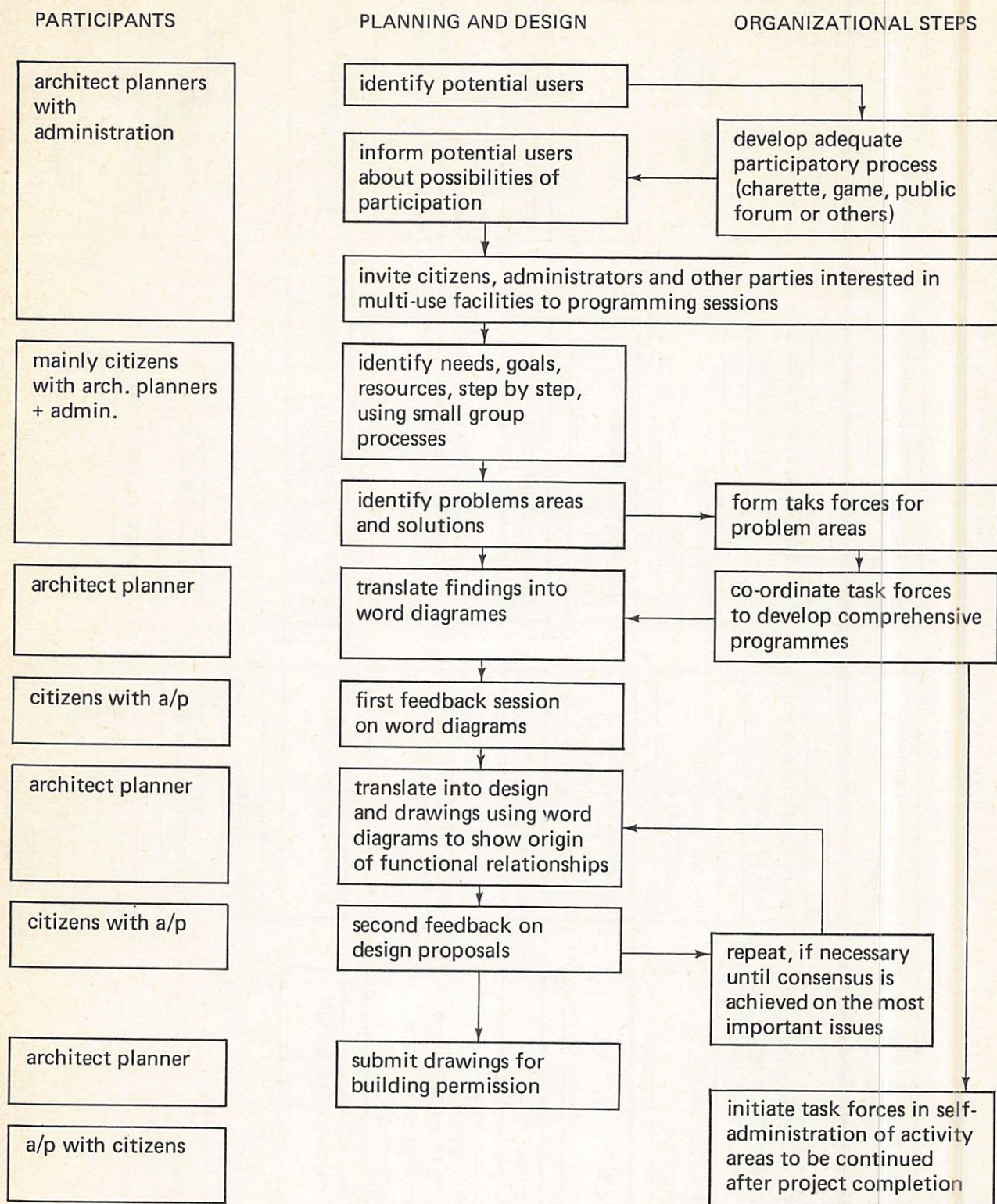


Fig. 30 DIAGRAM OF PLANNING PROCESS FOR INTEGRATED COMMUNITY AND EDUCATIONAL FACILITIES



● F. Fig. 31 DEVELOPMENT OF FUNCTIONAL SPATIAL AND INFRASTRUCTURAL PROGRAMME



Proposal

Instead of waiting for the decrease in student numbers and reacting to difficulties when they appear, certain trends for solving them can be traced now and should serve as a basis for experimental test cases in statistically relevant urban and rural areas. One possibility which offers several advantages is to use school facilities for communal needs. Experience gained in this field, through the provision of different options and use combinations, may prove to be an asset in the near future and may prevent emergencies from arising. By the time decreasing student numbers become a problem, community groups will almost certainly be pressing for room and resources. As the case study of Essen has shown, difficulties in sharing the space and action are numerous but can be overcome.

Summary

The following diagrams (Figures 30 and 31) provide an outline for future planning of integrated community and educational facilities in the Federal Republic of Germany. They summarize the experience sketched in the analysis and conclusions.

The first diagram shows the main participants, procedures plans and programmes which merge in planning integrated community facilities. This places emphasis on the shared responsibility of citizen and agency participation.

The second diagram shows, in detail, the steps which must be taken to ensure that citizens can participate at one particularly crucial point in the overall planning process, that is, the user's input into the actual design process of an integrated community educational facility.

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Educational facilities serving a Greek island community: adapting an old historical building to local educational and communal use*

In countries such as Greece which have a comparatively rigid and centralized educational system, proposals for development based on a new approach have little chance of being implemented. However, the study on "Educational Facilities and the Community" was undertaken enthusiastically in the belief that the study itself could be an incentive for change and for the development of new ideas.

Although the relationship between school and community is almost non-existent in the present educational system, the principle is not new to Greece. Educational forms based on a close community-school collaboration proliferated in Greece prior to its independence. The church, school, guilds, and brotherhoods functioned communally, but the systems which evolved through necessity and survived times of duress were gradually forgotten as conditions changed.

To try to revive the school and community structures which served subjugated Greece in the past would not be a relevant answer to today's needs. The customs and procedures that assured the survival of Hellenism during times of stress no longer apply to the autonomous Greek state. The needs, characteristics, and structures of contemporary Greek society should be researched and new kinds of relationships between school and community should be developed.

The study outlined here is an initial attempt in twentieth-century Greece to relate educational and communal needs and to present an integrated plan for physical facilities.

A BRIEF HISTORICAL REVIEW OF EDUCATION IN GREECE

Five centuries of turbulence and the continuous presence of conquerors of several ethnic origins are the main reasons for the slow evolution of the Greek educational system. While educational development has sometimes been at a standstill, the Greek church kept Hellenic traditions and the educational system alive despite constant oppression. An important survival factor in Greek education was a sense of community spirit, transmitted in particular by the brotherhoods, or guilds, which were the institutions best serving the occupied country.

Despite the long years of foreign dominance in Greece, the pattern of its educational system can be traced to the Byzantine era. The church was then essentially responsible for public education, and became formally so by the end of the sixteenth century. There was no uniform curriculum or central directing body. Classes were held in churches, chapels, monasteries or monks' cells.

Byzantine teachers were priests, but later, when laymen taught as a profession, there was so little remuneration that pay was supplemented with meals. School funding came from local brotherhoods, guilds, wealthy tradesmen, and individual Greek intellectuals living abroad. Educational conditions were proportionate to the local economic situation.

The educational system became centralized after the War of Independence in the nineteenth century. Three scales of general education - primary, secondary, and higher secondary - were written into the Constitution, though only four elementary years were compulsory. This system was in effect until 1929 when the time divisions were changed to six years each of elementary and secondary schooling. This system applies today.

The current educational system was centralized for a nineteenth-century environment and has become cumbersome for twentieth-century needs. Since schools must answer to uniform State requirements, they have lost relevance to community and local needs.

THE CHOICE OF HERMOUPOLIS FOR A CASE STUDY

In this study, the communal school form is once again revealed as best serving Greek educational needs, and the town of Hermoupolis was chosen as a case representative on many levels.

* This section was abstracted from a report on "Educational Facilities and the Community" prepared by a team of the School of Architecture, National Technical University of Athens, Greece headed by Dionysis Zivas, Professor of Architecture. The report presents the conclusions of a study carried out under a Unesco contract.

Hermoupolis is particularly interesting for its educational history as well as for its architectural richness. In order to preserve the town's architectural heritage, proposals for a new school programme were designed to function in an interesting older building. It is hoped that the proposals, if implemented, will help to prove, first, that there are solutions to the problem of preserving architecturally interesting buildings in Greece and, secondly, that modern education need not depend solely on modern buildings.

Geographical and historical positions

Hermoupolis is the principal port of Syros Island, the central and capital island of the Cyclades group. Kythnos is to the west, Andros and Tinos to the north, and Mykonos to the east. (See illustration 32). The 84-square-kilometre island has 18,642 inhabitants, and its coastline is heavily indented, providing numerous capes and inlets. Though mostly rocky, Syros has areas of hills and valleys, with a pleasant climate that is dry and cool in summer.

Fig. 32 Map of the Cyclades islands



Syros weathered most of the invasions suffered by mainland Greece, though until the late fifteenth century there were only 400 island inhabitants. The Turkish invasion and the consequent flow of refugees from nearby islands raised the population to 3,000 by the mid-sixteenth century and by the nineteenth century Syros was flourishing, due to its position on the trade route to the East. A commercial

centre and port, Hermoupolis was named in honour of the Greek god of trade, Hermes (Mercury), after the War of Independence.

Culturally well-developed, Hermoupolis was an important commercial centre until the early twentieth century. Piraeus was then the principal port in Greece, and the opening of the Corinth Canal relegated Syros to a secondary position as a financial and commercial centre. Then, the early twentieth-century migrations to Athens and Piraeus left Hermoupolis a small provincial centre, totally reliant on the capital by the end of World War II.

Education today

At present, primary education in Hermoupolis is provided by nine schools, six of which are State-owned. Of the latter, four have six teachers, one has five and the other has two. Of the three private schools, the one for Greek Catholics has two teachers, the St. George Parish School has four, and the Vadarki Vocational Training Night School has two.

Replies to the annual questionnaires sent to all schools by the National Statistics Service show that in the 1973-1974 school year on Syros, the general condition of primary school buildings was good, though nearly all lacked some basic facilities such as heating, a gymnasium, or fresh-water drinking fountains. Several lacked adequate play areas for breaks between classes.

The total number of students in both public and private primary schools is 1,267 and more than 90% of these are in State schools.

General secondary education is provided by three State schools - the Syros Secondary School for Boys, the Syros Secondary School for Girls, and the Syros Commercial School.

Replies to the National Statistical Service questionnaires sent to secondary schools for the 1972-1973 school year include frequent mention of unsatisfactory conditions in the buildings being used. The technical basics - heating, water supply, etc. - as well as the general condition of the buildings for the boys' secondary school and for the commercial school were below standard. Teaching aids - such as maps, projectors, etc. - existed, but were also sub-standard.

Although the girls' school is a modern building designed as a school in 1964, it has no outdoor space for breaks between classes which must take place inside the building. The fact that the same building is used by the secondary technical school further complicates the problem.

An architecturally interesting building is used as the boys' secondary school but is in poor repair. School administrators are trying to have parts of the building improved as well as to acquire additional adjoining space since there is only a small courtyard for class breaks.

The Commercial School is housed in two rented buildings that have serious drawbacks, both inside and out. Students must take class breaks in the street, though in the quiet area where the school is situated this creates no traffic problem.

Data on technical vocational training facilities in Hermoupolis for 1973-1974 in the three schools concerned were as follows:

Fig. 33

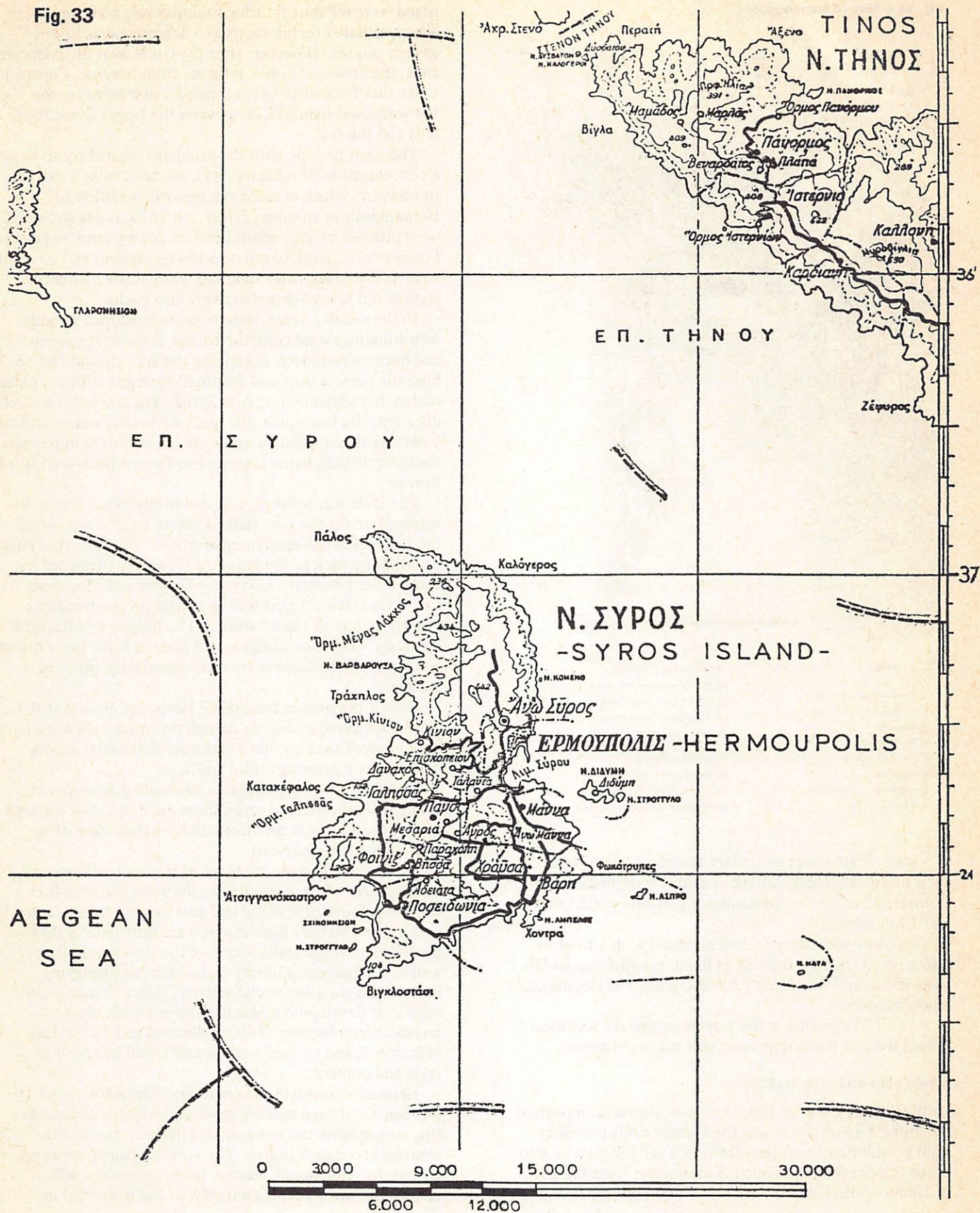


Fig. 34 — Map of Hermoupolis



LEGEND

1. TOWN HALL-LAW COURTS
2. CLUB-MUNICIPAL LIBRARY
3. THEATRE
4. PREFECTURE
5. PORT AUTHORITY
6. CUSTOMS
7. CHEMICAL LABORATORY
8. YACHTING CLUB

9. MUNICIPAL STADIUM
10. MERCHANT MARINE SCHOOL
11. COMMERCIAL SECONDARY SCHOOL
12. BOYS' SECONDARY SCHOOL
13. GIRLS' SECONDARY SCHOOL AND TECHNICAL SCHOOL
14. PRIMARY SCHOOL
15. LABOUR CENTRE
16. SOCIAL SECURITY CENTRE
17. PROPOSED EDUCATIONAL UNIT

- one State lower secondary technical school with a total of 300 students had 105 machine tool mechanics trainees, 72 in electro-mechanics, 11 in auto-mechanics, and 12 in carpentry;
- a State secondary technical school with a total of 146 students had 29 training as builders and foremen, 40 as machine tool workshop foremen, and 77 as electromechanics foremen;
- all 188 students in the private secondary technical school were in training as merchant marine engineers.

Town plan and architecture

Until the Greek War of Independence, the most important inhabited area on Syros was the Hermoupolis township built by the Franks on the crown of a tall hill named Ano Syros (Upper Syros), about 1.5 kilometres from the port of Hermoupolis (illustration 34). Only a few areas on the

island were inhabited during Frankish rule and these were always situated on hill-crests as a defensive precaution against pirates. However, after the Greek War of Independence, the droves of Greek refugees from Smyrna, Chios and Crete that flocked to Syros formed a new town on the flat wasteland hemmed in between the Upper Syros foothills and the sea.

The need to cope with the problems created by so large a concentration of inhabitants in the developing town led to measures which ensured the smooth evolution of Hermoupolis as an urban centre. In 1834, roads and squares were planned by city administrators and by army engineers. Concurrently, work began on a sewage system and on main streets. Some essential buildings, such as the quarantine station and several churches, were also begun.

In the ensuing years, Hermoupolis developed steadily. New buildings were constructed and the town expanded and became complete, occupying the area around and behind the present port and eventually merged with the older traditional settlement of Ano Syros. The town was entirely different. Its town plan, the spacious central square and the buildings all belonged to a new epoch. All were in the neo-classic style then being imported to Greece from the rest of Europe.

The style was willingly adopted in the belief that it was appropriate for the new Hellenic State since it embodied the features of the ancient civilization. Thus it is that public buildings such as the imposing Town Hall designed by Ernst Ziller (illustration 35), the Theatre and Municipal Club (illustration 36) as well as several private buildings give Hermoupolis (illustration 37) its unique architectural character. These buildings are all built of solid stone masonry and many of the façades are of immaculately chiselled marble.

One of the unique features of Hermoupolis is that the streets are paved in marble though unfortunately some have been covered over by other materials that better accommodate the increasing motor traffic.

However, Hermoupolis lacks adequate public spaces. Apart from the main squares, there are only a few terraced spaces, though these do offer visitors a clear view of the scale of the town's layout.

Parallel to the town planning of Hermoupolis was the development of its cultural life. Between the time the town was founded and the late nineteenth century, several cultural and welfare institutions were founded. A theatre modelled after the Italian style of the time was built, as well as orphanages, a library and a club, all displaying brisk intellectual and social activity. Thus Hermoupolis' economic development was in harmony with successful architectural planning, with intellectual and cultural advancement, and created a community well-balanced in style and content.

Hermoupolis still maintains its traditional form, and despite some scattered modern structures which had disturbed this atmosphere, the town retains its basic nineteenth-century neo-classic charm. The current danger, however, is that for functional reasons heavy pressures will change the town's aspect entirely, as has happened in



Fig. 35 Hermoupolis, the town hall. Architect E. Ziller



Fig. 36 The municipal library and club of Hermoupolis

so many other parts of the modern world. This will occur if the present measures for the preservation of existing architectural wealth are not augmented and if Hermoupolis' adaptation to modern needs continues without careful physical planning.

HOW HERMOUPOLIS RESIDENTS SEE THE RELATIONSHIP BETWEEN EDUCATIONAL FACILITIES AND THEIR COMMUNITY

As has been noted, the Greek educational system is centrally prescribed. Curricula, teaching methods, and materials are established by the Ministry of Education and are uniform for all schools in the country. Even design requirements for schools being built or planned are uniform throughout Greece.

The purpose of this study, however, is not to assess the merits of the existing educational system and potential improvements, but to examine the possibility for existing schools to provide additional cultural and educational activities for the mutual enrichment of students and the surrounding community. The hope is to orchestrate a more enriching combination of the human and material resources available to the community. In general, it is of national interest to see how communities can beneficially influence schools in Greece, how such influence can be measured, and what the results will be.

In the Hermoupolis case study, it seemed essential that the data on, and suggestions about, the problem should

Fig. 37 House in Hermoupolis
J. Travlos: *Neoclassical Architecture in Greece*



come from the community itself through an exchange of ideas in groups of Hermoupolis residents. Two groups, roughly defined as students and as adults from varying trades, professions, and educational levels, were invited to meet and respond to questionnaires.

Printed questionnaires (see Annexes I and II) seemed the surest way to get answers and the simplest way of classifying views. Both the questionnaire for students and that for adults asked a limited number of questions, offered multiple choice answers, and provided space for open replies. Questionnaires were distributed in school as well as in the town club, and the adults' form was printed in the local newspaper. Those participating were briefed on the object of the survey, and specifically on possible new outlooks on relationships between schools and the communities they serve.

While students and adults found the subject and the procedure somewhat strange, those responding - with only a few exceptions - showed keen interest, gave complete replies, and often offered their own suggestions. Many students and even more adults wanted explanations of the object of the study, so answers were based on a solid understanding of the survey. Those participating were asked to give their own views and not to influence those of others.

Students

Following the order of the questions, the rough results showed the following trends.

Just over a third of the students wanted to continue university studies directly related to their vocations, but only about a sixth of these were girls. Interest in following higher studies was expressed by more than a fourth of the students, and work as clerks was chosen by less than a fourth, mostly girls and commercial school students. Less than a fifth of the students were interested in the Merchant Marine, despite Hermoupolis' tradition in this regard, but that may be because a special training school serves those who want a career at sea and they were not included in the survey.

More than 96% of students said they would like to devote free time to additional educational activities and hobbies.

Despite the generally unsatisfactory experience of Hermoupolis students in the existing school buildings, about three-fourths of them agreed that extra-curricular activities should be held on the premises. The order of preference was for general education subjects followed by hobbies, vocational training, foreign languages, craft workshops, literature, music, poetry, and current events.

In answer to the question on personal contributions to social and economic events in their home towns, the first choice was for educational lectures, followed by artistic events and a school magazine, then co-operation with local cultural societies and finally handcraft exhibits. A few students suggested voluntary teams to raise funds for poor students or destitute residents or for after-school adult education, and lastly for tourist development. Only one student said that existing programmes and facilities were sufficient.

Most students said they wanted to retain ties with their schools after graduation, and 92% thought that the school could serve as a local cultural centre.

In terms of continuing aid to their schools, only slightly more than half felt that graduate groups should be founded. More than 10%, however, favoured continuing co-operation with their teachers, offering active assistance in working out curricula and selecting subjects.

A minority of students made suggestions that did not directly concern school and community relations. In order, these suggestions were for a general change in the educational system, abolition of distinctions between good and bad students, friendly relations with, and understanding from, teachers, greater freedom in dress and behaviour, less work, more science laboratory time, and larger staffs.

Adults

The rough analysis of answers to adults' questions showed an overriding conviction (97%) that the school could expand its programmes to include cultural and educational courses or workshops. About half suggested additional electives for students, with suggestions for courses in the arts, social-political subjects, and general current studies following.

More than 90% said that if school buildings were rearranged they could easily house educational and cultural facilities and activities for the entire community. Suggested activities were for continuing adult activity, education for the illiterate, lessons on farming and agricultural matters, and parent education. Further suggestions included seminars by leading students for fellow students, lectures at technical and elementary schools, foreign languages and elements of Maritime Law.

Most residents felt that the school should develop a local character and only about 10% thought the community incapable of influencing extra-curricular school activities. While a large percentage believed such influence possible, most did not offer suggestions as to how it should be exercised, while the remainder were simply in favour of moral and material support of school by the community. Some suggested that the community choose special teachers for selected subjects and advocated direct support of social and artistic endeavours undertaken by the school.

Agencies seen as suitable for influence upon the school were the municipality and prefecture, welfare, cultural and professional associations, parents' associations, the Educational Advisory Board and the church.

Suggested as specific contributions from the community to the school, were buildings, financial aid, extra teachers for selected subjects, co-operation by local cultural clubs and associations, and additional laboratories, equipment, libraries, and educational entertainment.

CONCLUSIONS AND TRENDS

Communal activity in Greek education has been a fairly consistent tradition and manifestly successful in meeting the needs of once-subjugated citizens. While the community

founded and maintained the schools, it only played a small rôle in educational matters. However, the idea of communal education continued into the first national charter of the free Greek State, even if today has proved difficult to implement.

Hermoupolis today is essentially a provincial town with fairly well-defined cultural and economic features and a rich architectural heritage. The public and private buildings, flagstone-paved streets, and impressive churches comprise the marked architectural style which make it one of the most characteristic and least spoiled examples of neo-classic towns in Greece. Visitors are impressed by the architectural features and residents, too, regardless of educational levels, are equally aware of its importance.

Hermoupolis' architectural wealth is a legacy from its days of great opulence, though its survival is now in question. The entire atmosphere of the town is in danger of vanishing under various influences which are not unique to Hermoupolis - the natural wear and tear on buildings, and often neglect or failure to modify them, make it impossible to put them to their original use. There is also a lack of funds for maintenance of buildings that are often very large and would require heavy outlays. Owners of such buildings are frequently tempted to have them demolished and replaced by multi-storeyed buildings whose financial returns would assuredly be greater. It is this last factor that most threatens the town's appearance and state of preservation today.

A second and equally obvious characteristic of Hermoupolis is its economic potential. After its unprecedented accumulation of wealth from about the mid-nineteenth century to the early twentieth century and the decay which followed, Hermoupolis has entered a phase of recovery with clear signs of economic development. Though a detailed analysis of the town's economic future is outside the scope of the present study, it is worth noting that the economic situation now developing - combined with Hermoupolis' position as the administrative and judicial seat of the Cyclades Island group - promises increased economic development in the near future.

At present, due mainly to the floating docks operating in the port and a factory that manufactures electrically-propelled vehicles, a new impetus has been given to industrialization which is likely to generate further activity in other sectors of the island's economy. As a result, not only has the town's labour force been fully occupied but some 300 technicians from elsewhere have been attracted to it.

One last, but important, feature of Hermoupolis is the collective strength of its citizens. While the choice of Hermoupolis for this research study was made largely because of the town's historic, economic, educational and cultural features, the success of the choice was confirmed through contacts by the working team with town residents. The community is evidently well aware of its historic and cultural background and keenly interested in the problems facing it. Residents responded willingly and enthusiastically to the new problem on which they were asked their opinions. Furthermore, citizens were prepared to help

materially and morally in establishing an educational unit open to the community.

The questionnaires show conclusively that school activities could be expanded to include students' in-school interests and adults' interests. There is also a general consensus that space in school buildings could be rearranged so as to accommodate both students' and adults' activities. Both groups are willing to contribute, each with the means at its disposal, towards the success of an expanded school programme. While students are prepared to co-operate with local associations to invite community participation in their functions, adults are ready to offer material and moral support to help form the school into a local educational and cultural services centre for all residents, regardless of age, educational level, or occupation.

PROPOSAL FOR A NEW EDUCATIONAL UNIT SERVING THE COMMUNITY

The proposal begins with the assumption that the girls' secondary school should be moved to more suitable premises. At present, it shares the building used for the technical vocational school, under unsatisfactory conditions. A concurrent aim is to re-use an abandoned Hermoupolis building of architectural interest. Finally, it is desired to organize a unit which, parallel with school functions, will serve residents' intellectual and educational interests more generally.

Analysis of the proposal

Use of an existing building was considered in drafting a specific proposal that would create an educational unit comprising the necessary broad programmes of activities. The building chosen (see illustrations 38, 39) was thought to fulfill the requirements defined by the questionnaire results, though at first the decision was accompanied by certain doubts.

First of all, the neo-classic style of the building with its fairly rigid form and space layout does not lend itself easily to uses other than those for which it was designed. However, despite this limitation, preference was given to the building precisely because of the special problems engendered by adapting a building of such different character to new requirements, as well as because of the belief that utilization can show how initial obstacles might be overcome.

Other basic difficulties were the limited possibilities of converting space to fulfill the requisite rearrangements. These difficulties are of a structural nature since the stone-built, wooden-floored building is so inflexible that possibilities for remodelling it are narrowed. First, the load-bearing structure cannot be altered, and secondly, the internal spaces that are to be developed must correspond to the external form of the building.

Finally, one of the building's greatest disadvantages as an educational facility is its lack of outdoor space. This problem is characteristic of Hermoupolis. There is a consistent lack of privately owned, open-air space due to the undetached building plan which prevails. The only way to avoid the

difficulty would be to select a site on the outskirts of town, but this would then lessen the centre's accessibility to residents. Despite other limitations, the building chosen is centrally located.

Also despite initial reservations about using an old building for new purposes, other more substantial factors emerged in support of the solution.

While one of the original aims of this study was to examine the possibility of using an existing structure for community purposes, the aspiration was strengthened by the fact that in Hermoupolis the decision might concurrently save an architecturally interesting building. It will provide one solution to the problem of maintaining and restoring abandoned buildings for optimum usage and at minimal cost. The need to preserve many of Hermoupolis' houses has long been recognized by its residents, as already noted, but effective action has been curtailed by financial difficulties.

Besides fulfilling most of the requirements, the building selected, if not an outstanding specimen architecturally, is none the less worth preserving. It is near the centre of town, yet adjacent streets carry minimal motor traffic. It is spacious enough to house the proposed new unit adequately. The building has additional assets as well - it was donated by its owner for purposes similar to those foreseen in this study, it had previously been used as a girls' school and was

abandoned because it had fallen into disrepair, and with the exception of a rented part of the ground floor, it is unoccupied and earning no income.

Organization of the new educational unit

Guidelines for organizing the new unit were set by the views derived from students' and adults' replies to questionnaires.

In the first phase, those activities which could broaden the present school curriculum were noted (see Figure 40). The table clarifies the relationships between the two groups' proposals as indicated in questionnaire replies. They are shown in detail, and the scale is proportionate to the percentage of individuals who asked for each. The third part of the table shows the corresponding spaces that will be required.

The table in Figure 41 shows suggested functional relationships between the spaces. On the assumption that the school should function as independently as possible, an attempt was made to correlate it with the other activities so that ultimately, without disrupting classes, the two sectors should work as a unified and co-operating system.

Because of space limitations, certain activities must share the same space within the building or even in other buildings so as to meet the needs of a six-class secondary school with 200 to 240 students. Thus, performances, lectures, and films are all housed under the same roof in a multi-purpose

Fig. 38 South-East view



Fig. 39 North-West view

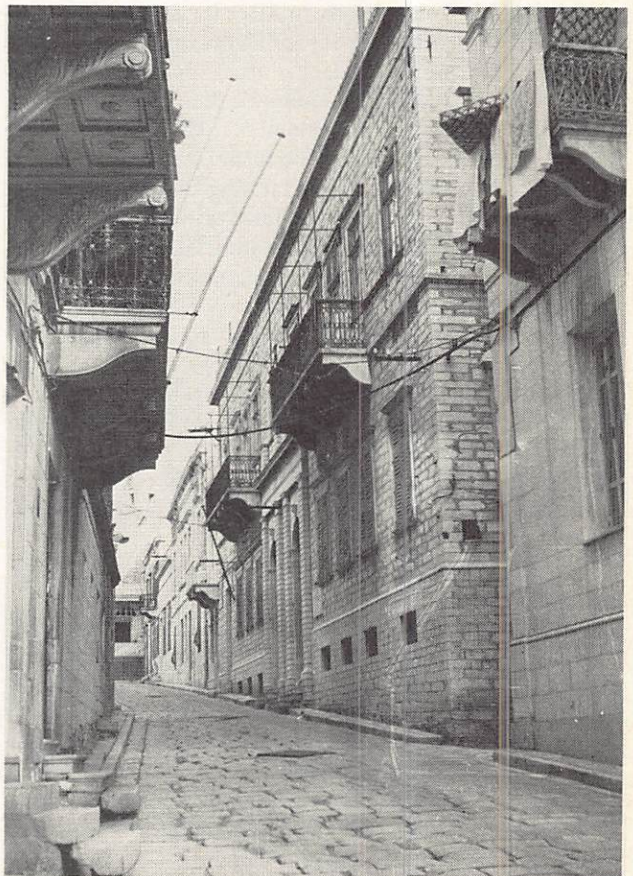


Fig. 40

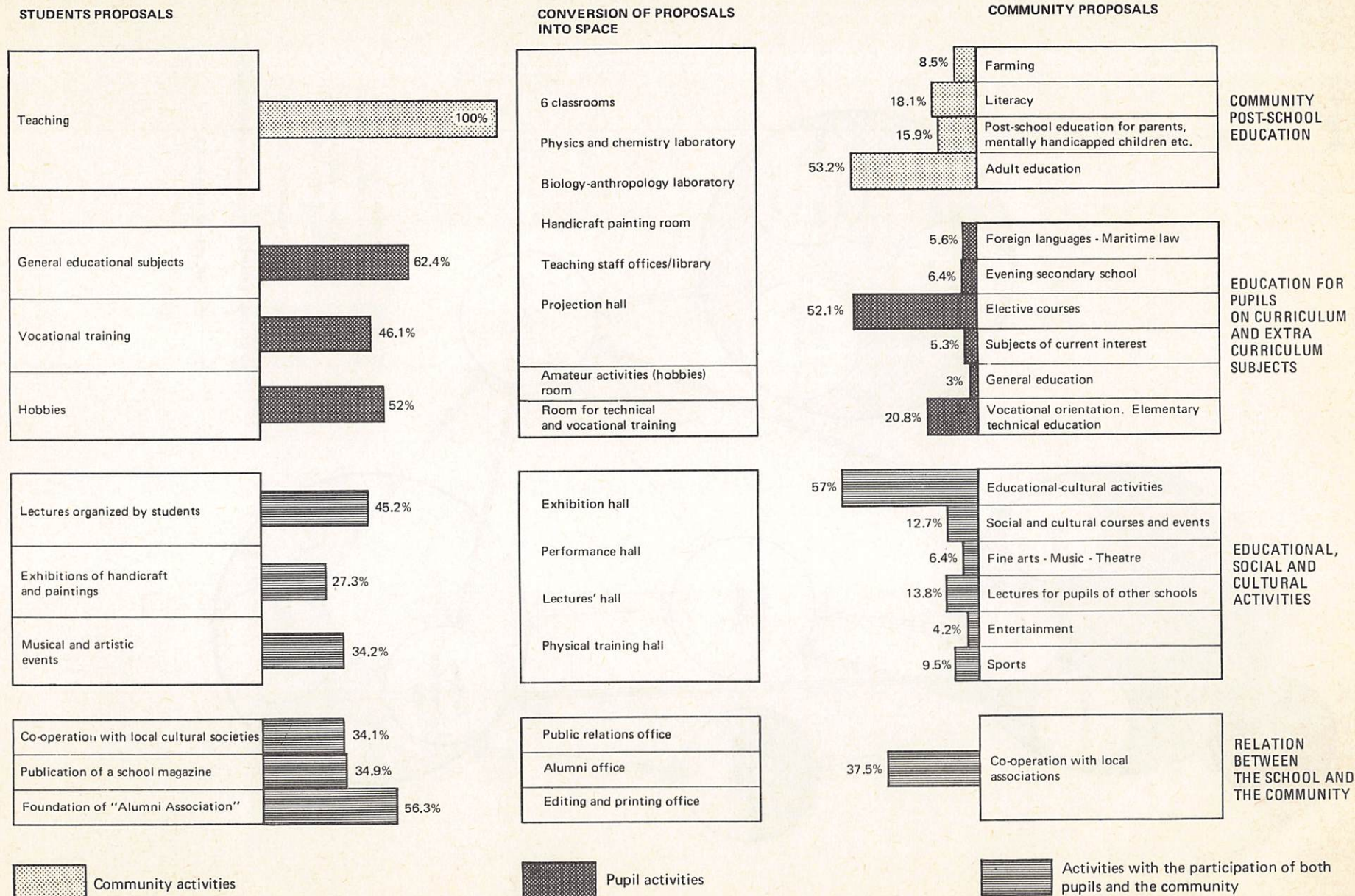
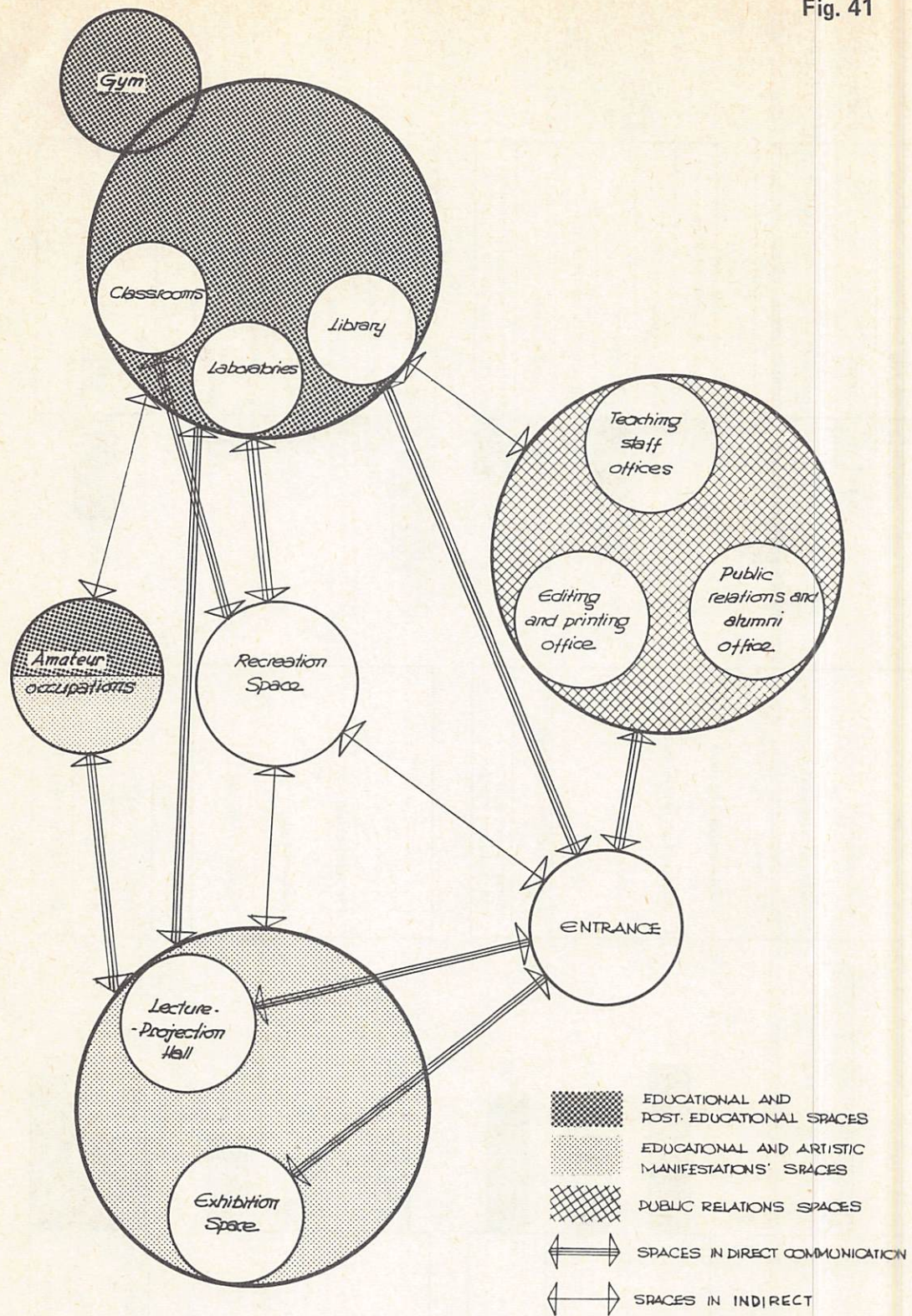


Fig. 41



[illegible]

space. The public relations office and graduate students' office are to be the same. Physical training is held in the town's gymnasium.

Figure 42 illustrates an attempt to devise a time-table for the use of halls in the building during an ordinary working day, an ordinary working day when schools are closed - such as during summer holidays - and a public holiday, such as Sunday.

A comparison of the working days and holidays in a calendar year is also illustrated, emphasizing the savings resulting from community use of the school building for activities additional to the mere attendance of classes. In the first case, classrooms are full during the morning hours with regular lessons, but in the afternoons, good use is made of them by both students and community members pursuing additional studies. In the second case, concerning general public holidays, if post-graduate lessons are being taught, then the classrooms can be shared by students and adults while greater use should be made of the spaces in the afternoons for arts and entertainment purposes.

The functional diagrams in Figure 43 show how the various activities can be grouped, having regard to available space in the building concerned. This diagram also reflects design restrictions and requirements such as approaches, entrances, views, and so on.

Description of the proposed facilities

The building consists of three complete and one partial storey on level A, a result of the land slope towards the sea. (See architectural plans Figures 44 and 45). Building accesses are on two levels, from the main street through two symmetrical entrances on level C and from the side-street on level B.

For the building to serve the requirements of the structural programme, modifications affecting the position of the staircase and second atrium, or central court, will be made. Certain partition walls will be knocked down to enlarge space for classrooms of 30 to 40 students, and for workshops, laboratories, and offices to serve a six-form girls' secondary school.

All vertical supports will be maintained and all wooden sections such as staircases and floors will be replaced with reinforced concrete. The external view of the building will remain unchanged.

Actual school teaching and graduate education will be held in the upper two levels, with the latter in session when the school is not being used for regular teaching hours. Level B will be excavated and rearranged as an open space for gatherings and communications between the students and the community. For these functions there will be a performance and lecture hall with 130 seats, an exhibition hall, handicraft workshops, an art studio, and a library on the mezzanine. The internal atriums, converted into small gardens, will be accessible from this level and will become part of the rest of the space. At terrace level they will be covered by a glass roof.

The free space on level B, together with the perimeter corridors of the central atrium at the other levels, will be

the main circulation areas during class breaks. There are additional possibilities for recreation space on the terrace and along an extension of level A on the side by the sea.

Cost estimates

Recent economic data released by the School Buildings Organization (1974-1975) show the cost of new school building construction in the Athens area to vary between 3,500 and 6,000 drachmas per square metre. Buildings erected by this organization are more or less standardized and are constructed of the usual materials found on the Greek market. Cost variances relate to special conditions such as type or shape of land plots or number of storeys, and refer to already-completed constructions. On the other hand, the Ministry of Education figures show that buildings being constructed for the Senior Technical College, financed by the World Bank, are estimated at 7,000 drachmas per square metre.

Since the building proposed in this study is in fairly good condition, with the outer and inner supporting walls to be left intact as well as all apertures and balconies, the usable structure has been estimated as representing 20% of the total cost involved.

Based on the price average given for completed buildings by the School Buildings Organization, at 4,500 drachmas per square metre, the total cost for converting the proposed building into an educational unit should be around 8,000,000 drachmas or \$270,000.

This figure is made up as follows:

(a) Total area of the building	2,300 sq.meters
(b) Average building	4,500 drachmas/sq.meter (150/M ²)
(c) Total cost (4,500 x 2,300)	10,000,000 drachmas (335,000)
(d) Less cost of usable structure (20 per cent)	2,000,000 drachmas (65,000)
(e) Net final cost	8,000,000 drachmas (270,000)

Integration with the community

The relationship which can be developed between the new educational unit and the other cultural units, public institutions and professional associations (theatre, library, gymnasium, workmen's clubs, etc.) are shown in Figure 46. Integration of the unit with the rest of the town's facilities and the resultant mutual influences would help develop the optimal human and material potential of the town.

The linking and development of educational facilities and their further integration with existing noteworthy buildings in the community constitute a broader objective. If the community can be rejuvenated from within and through the educational and cultural development of its residents, the existing architecturally rich heritage would be even further validated.

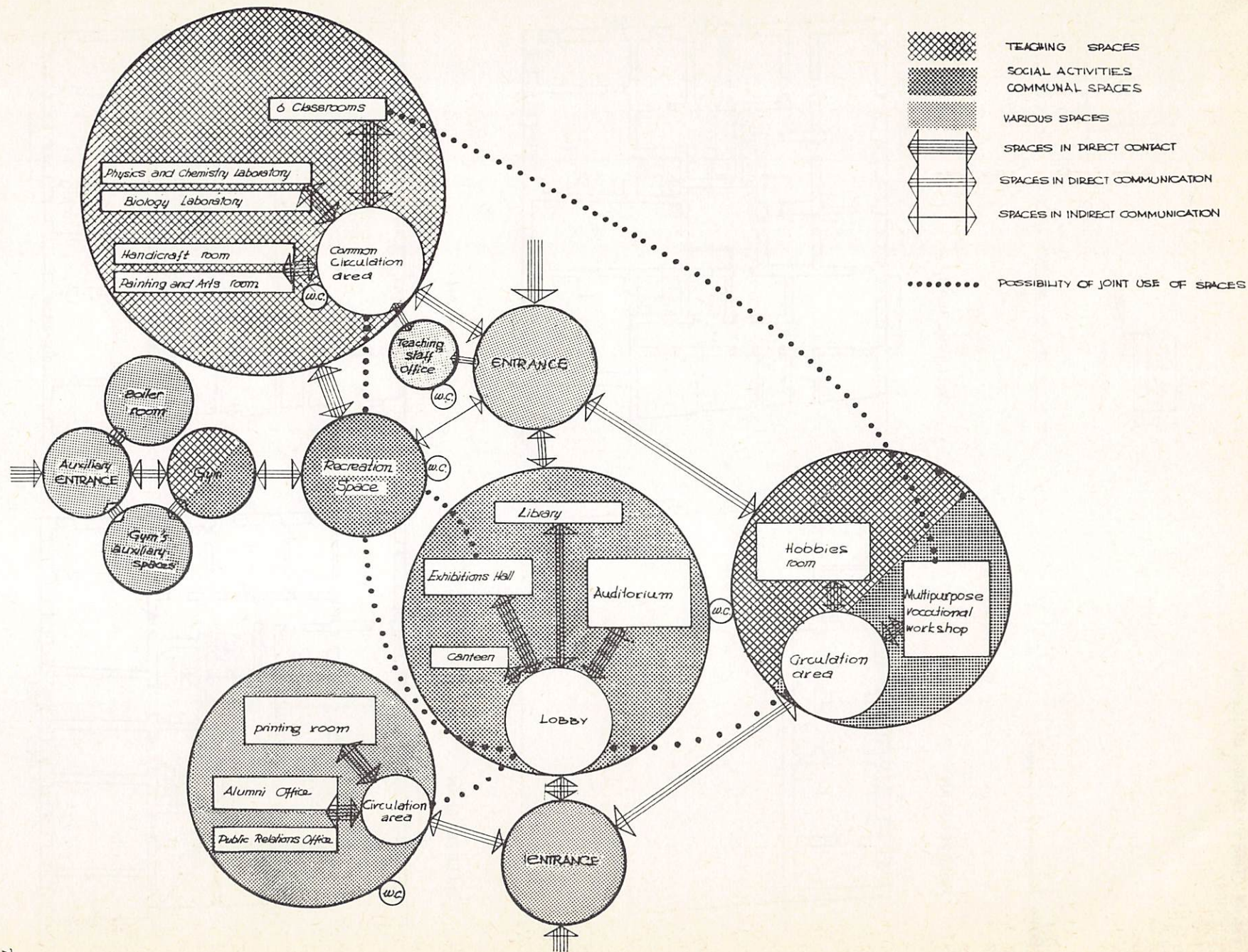
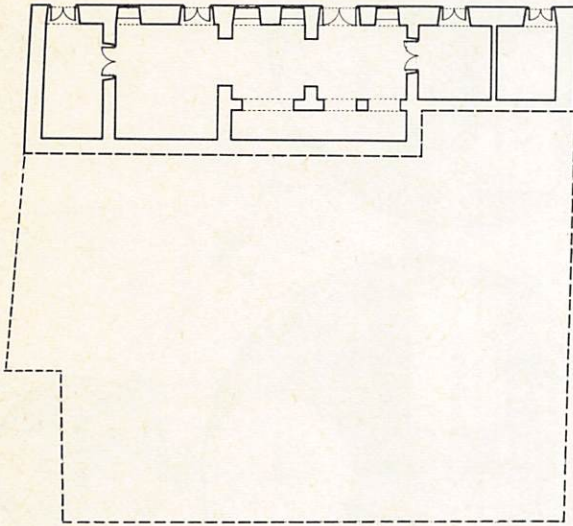


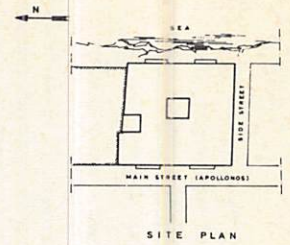
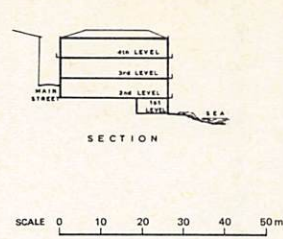
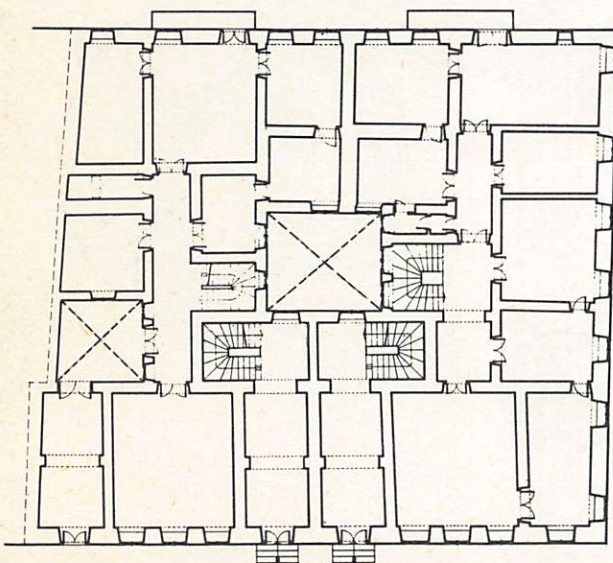
Fig. 44 THE EXISTING BUILDING

Scale 0 5 10 m

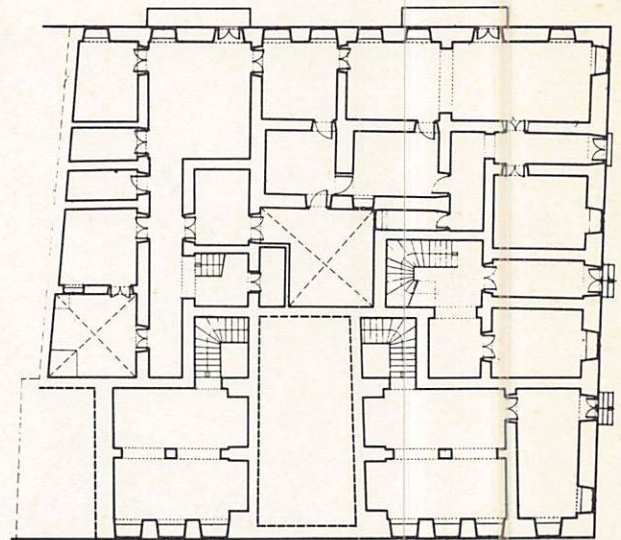
1st LEVEL PLAN



3rd LEVEL PLAN



2nd LEVEL PLAN



4th LEVEL PLAN

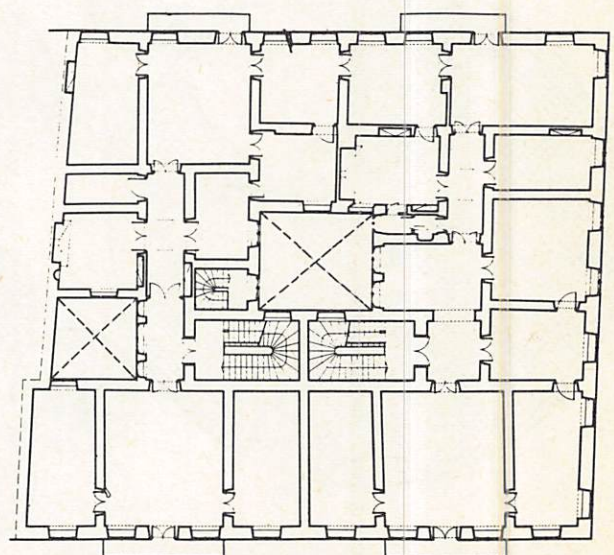
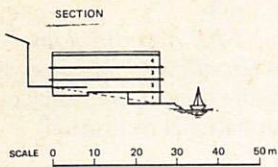
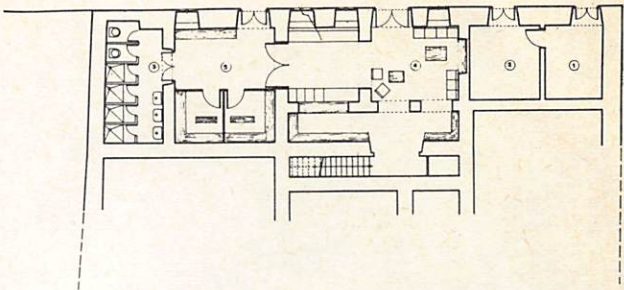


Fig. 45 THE PROPOSED BUILDING

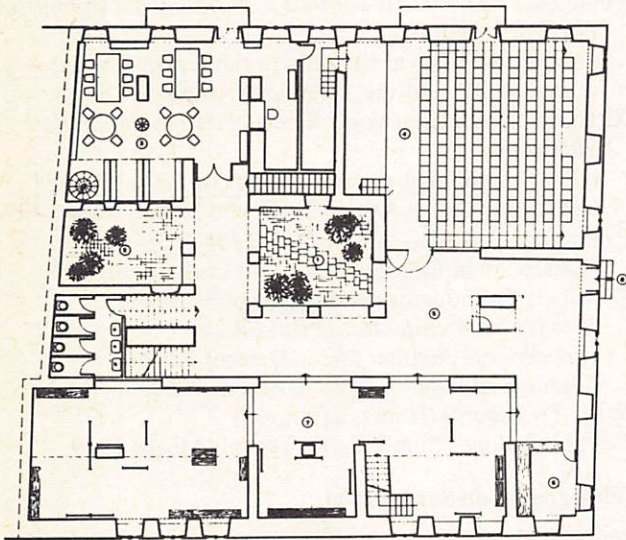


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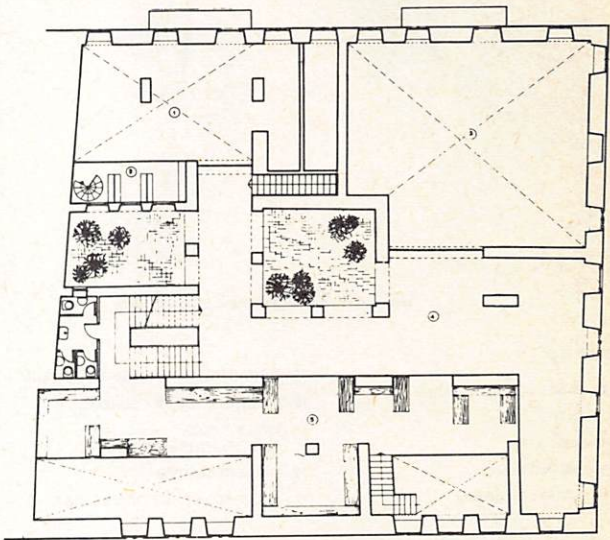
1st LEVEL PLAN



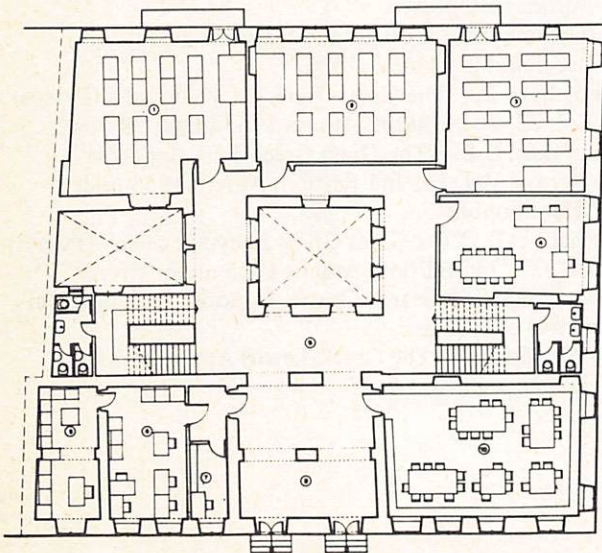
2nd LEVEL PLAN



MEZZANINE LEVEL PLAN



3rd LEVEL PLAN



4th LEVEL PLAN

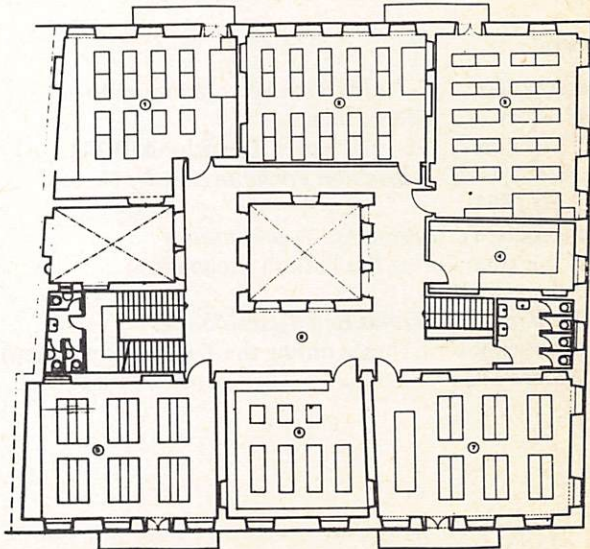


Fig. 46



LEGEND

- | | |
|---------------------------|--------------------------------------------------|
| 2. CLUB-MUNICIPAL LIBRARY | 11. COMMERCIAL SECONDARY SCHOOL |
| 3. THEATRE | 12. BOYS' SECONDARY SCHOOL |
| 4. PREFECTURE | 13. GIRLS' SECONDARY SCHOOL AND TECHNICAL SCHOOL |
| 8. YACHTING CLUB | 15. LABOUR CENTRE |
| 9. MUNICIPAL STADIUM | 17. PROPOSED EDUCATIONAL UNIT |

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Students' questionnaire (translation)

The Chair of Architectural Design of the National Technical University of Athens, under a Unesco contract, is carrying out a research study on "Educational Facilities and the Community" in Greece. This same subject is being studied by other university groups in other parts of the world.

Hermoupolis was chosen for theoretical application of the Greek study because of its significant educational and cultural tradition and because of its economic potential.

As this research would not be complete without the opinions of the senior students in the secondary schools, we are asking you to be kind enough to reply to the questions below. We thank you for this contribution towards the success of our efforts.

Question 1. How do you hope to spend your time when you finish secondary school?

Replies (a) University studies, technical school, etc.
(b) Senior college studies;
(c) Employment in trade or industries (clerks, technicians etc.);
(d) Join the Merchant Marine;
(e)

Question 2. If, as students, you had free time, would you have liked to follow extra-curricular educational activities (such as sports, hobbies, additional courses)?

Reply Yes or no
If yes, in which field(s)?
(a) General education subjects;
(b) Amateur occupation (hobbies);
(c) Vocational training (accounting, typing etc.);
(d) Note any other areas that might interest you ...

Question 3. If you answered yes to the last question, would you like the additional lessons, lectures, or laboratory work to be offered in your present school premises?

Reply Yes or no.

Question 4. How, as a student body do you think you could contribute to the activities of your town?

Replies (a) With lectures by student groups;
(b) With arts and crafts exhibits, etc;
(c) By organizing artistic or musical events;
(d) By publishing a school magazine;
(e) By co-operating with local cultural societies.

Question 5. Would you like to maintain ties with your school after you graduate?

Reply Yes or no.

If yes, do you believe that as graduates you could contribute towards the development of your school and its activities. If so, how?

(a) By founding an Alumni Association;
(b) By helping the school financially;
(c) Any other means you can suggest.

Question 6. Do you feel your school could play a broader part as a local cultural centre in your town?

Reply Yes or no.

Adults' questionnaire

The introduction to the adults' questionnaire is roughly the same as that for the students'. Adults' questionnaires read as follows:

Question 1. Assuming that the school is the most fundamental educational unit in any community, do you feel that, beyond its purely educational rôle, as officially defined at present, it could develop cultural activities in other directions as well?

Reply Yes or no.

Question 2. If your answer to question 1 was yes, which such activities would you suggest?

Reply (a) Further elective studies such as history, arts, economics, technical studies;

- (b) Educational-cultural displays by students with the co-ordinated participation of the community;
- (c) Any other suggestions.

Question 3. In addition to enrolled students, do you feel that the school, with the aid of teachers and students could offer educational programmes to other community residents, and if so which groups of residents?

Reply

Question 4. Do you feel that if school buildings were suitably rearranged they could house other educational and cultural programmes of general interest, as a sort of local cultural centre?

Reply Yes or no.

Question 5. Do you feel that your community school should more specifically serve local needs and therefore become different to corresponding schools in other districts?

Reply Yes or no.

Question 6. Do you feel that your community, considering its unique economic, historic, and cultural features could,

or should, influence the curriculum and additional activities of its school and if so, how?

Reply

Question 7. Through what local agencies do you feel such an influence should be expressed?

Reply

Question 8. What do you feel your community should contribute to the school?

- Reply*
- (a) Buildings;
 - (b) Financial Aid;
 - (c) Teachers for selected subjects;
 - (d) Co-operation by local cultural or professional associations;
 - (e) Any other suggestions.

Kindly fill in:

- (a) profession
- (b) age male . . . female . . .
- (c) name and surname

A multi-service community centre in Kenya: the needs and problems of communities in transition from rural to urbanized settlements*

Kawangware is one of several low-income communities subsisting on the outskirts of Nairobi. The chief characteristics of these areas are high population densities, low capital investment in housing, and rapid changes from rural life styles and relationships to a predominantly urban setting. The problems caused by these phenomena are exacerbated by the residents' relative poverty and by a lack of access to the administrative mechanisms and resources of the urban systems with which they are confronted.

It must be emphasized that the present study is based on previous work in Nairobi undertaken by the Department of Architecture's education, research, and participation programme. The programme starts from the premise that many problems characteristic of this type of community can be significantly alleviated through the reinforcement of existing community-based institutions within a neighbourhood and through their subsequent expansion into other fields of need. The guiding conviction is that only through locally-based and locally-concerned social institutions can members of a community jointly or separately educate, and act effectively for, themselves within urban systems.

This approach must be contrasted to the system of dispensing social welfare services by the more centralized administrative structures common to most cities. There is ample testimony to the failure of this type of structure in answering the actual needs of urban communities. Broadly speaking, this failure may be attributed to the unavoidable trend towards bureaucracy in any large administrative structure - the isolation of one department from another and from the public it is supposed to serve - and the resulting lack of sensitivity to individuals' needs and changing circumstances.

Earlier studies within the Department of Architecture's programme (see Annex) have shown that the most successful responses to changing community needs have been through community centres, social halls, self-help co-operative building networks, and through small-scale social services networks - these last operating on a casual basis,

both within and beyond official limits. The major areas of concern within these framework are access to housing resources and the generation of employment opportunities.

Contrary to the general tendency towards centralization, the City Council of Nairobi has a Social Services Department which assigns its welfare officers to various community centres, and the Community Development Department of the Ministry of Social Services makes similar arrangements. Social services volunteers are based in the neighbourhoods they serve. But even these field workers, who appear to be the most trusted and approachable agents of their institutions, are still subject to rules and policy decisions made by centralized authority, which by its nature rather than design tends not to be sensitive to local conditions. Thus, great importance is given to linking social welfare workers with a pivotal community institution.

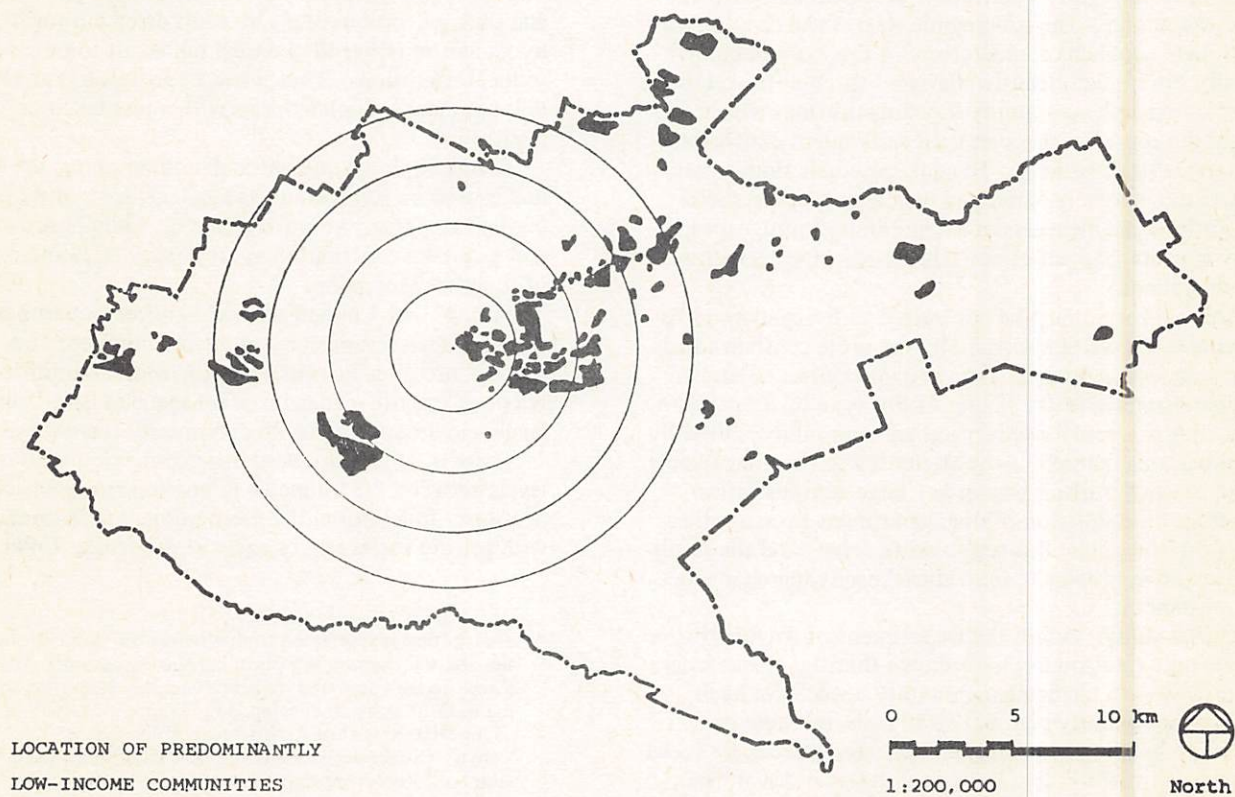
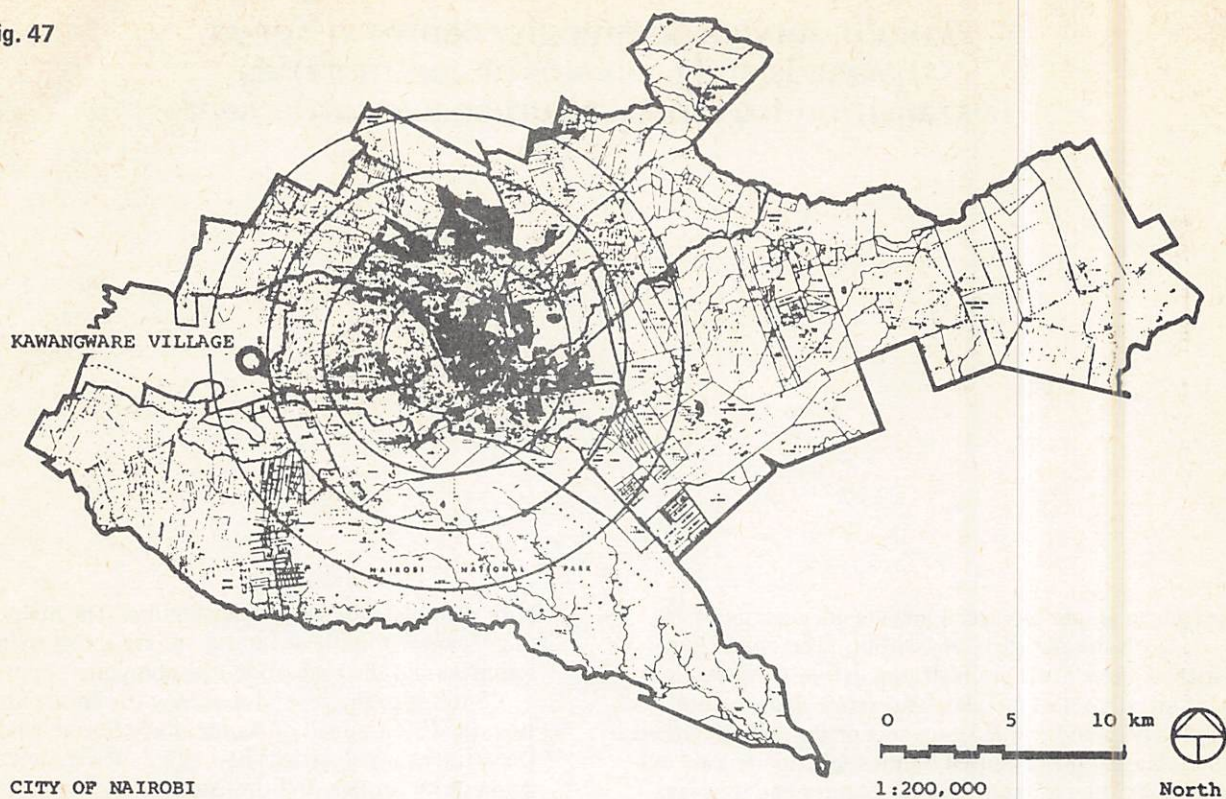
For example, in one particular community, the social hall is used on some evenings as a legal aid centre. These services are largely voluntary, and depend upon the time and expertise contributed by university staff and members of the legal profession.

Nairobi City Council's Social Services Department has recently been responsible for introducing several community centres into already existing and new communities. A few religious and other social welfare agencies have been early leaders in attempting to fill community service gaps.

There is, at present, very little connexion at intermediate levels between the Council's Education and Social Welfare Sections. In addition, the mechanisms for co-operation with private social service agencies are weak. However,

* This section is abstracted from a report on "Educational Facilities and the Community-Multi-Service Community Centre in Kawangware" prepared by Bruce Creager, Senior Lecturer, on the basis of material developed by a group of fourth-year students of the Department of Architecture, University of Nairobi, Nairobi, Kenya. The report presents the conclusions of a study carried out under a Unesco contract.

Fig. 47



studies have proved that a multi-service community centre (MSCC) would stimulate inter-agency co-operation and emphasize community participation in policy decisions. To explore the idea of a multi-service community centre further, the peri-urban community of Kawangware was chosen as a specific test case. Data from previous studies of this community by students and staff in the Department of Architecture and from Council surveys were used in defining relevant socio-economic patterns.

To participate in this study, fourth-year architectural students were familiarized with the community situation and with the idea of an MSCC. Its eventual location, selected from among three sites, was at the extended market place adjacent to one of the community's main pedestrian routes. Teams were chosen and, through group gaming techniques individuals' awareness of complex planning issues was heightened.

When the basic activities and patterns of interaction within and between areas of the centre and site were agreed upon, each individual was encouraged to submit a short succession of sketch designs which finally led to a preferred design solution. Of a total of 38 designs, four were selected for presentation here. These designs respond to a specific situation and as such are not meant to be prototypical solutions. The purpose of this design exercise was to prepare student architects for guiding, and being guided by, an MSCC design workshop composed of community members and concerned agencies. The Kawangware community has contributed substantially in deciding upon the basic design determinants. However, the project has entered a stage of direct community involvement in programming and design processes. The immediate task is the presentation of the MSCC proposal to the Kawangware community, the Nairobi Provincial Administration and the Nairobi City Council.

Community involvement will be given special emphasis in all phases. The MSCC and Community Education Network envisaged in this study will enable community institutions to reinforce community development only if decision-making and follow-up action is locally focused.

Financially, the proposed MSCC seeks to pool some capital through co-operation among agencies and to reinvest these gains into other MSCC activities as the co-operative ideas prove successful.

There are many other communities like Kawangware within the Nairobi city limits and on its periphery. These communities differ in specific needs and in their sizes, but they share a common need for better access to housing and employment opportunities at a locally institutionalized level. The designs and implementation suggestions for Kawangware may serve as a model for work in other communities.

KAWANGWARE VILLAGE

Kawangware is an "urbanized" village in Dagoretti. About nine kilometres west of the Nairobi central business district, Dagoretti was outside the city boundary until 1963. It was part of a major African tribal "reserve" delineated by the

colonial government. After the Emergency in 1959, the villages of Dagoretti were consolidated as satellite labour pools for Nairobi. After Independence, freehold land titles were issued as political rewards to all Dagoretti residents.

Kawangware today (Figures 48 and 49) with its recently-built one-room tenements, functions as a dormitory village. Even though the 1963 city boundary changes brought it under the city's building by-laws, these regulations are rarely enforced.

The population of Kawangware was 4,100 in 1969 and is at present estimated at approximately 8,000. By 1979, Kawangware is projected to have a population of 15,000. The combined total for Kawangware proper and the surrounding population it serves is estimated at 14,000 and this is projected to be 32,000 by 1979. While incomes range from low to middle, mostly low, the per-capita income in Kawangware is not among the lowest in Nairobi.

Kawangware is predominantly residential, with some commercial activities - corner shops, hotels and bars - and an over-crowded wholesale-retail market at the north-western end of the community. These commercial buildings are, in one or two cases, three storeys high, with most of them built to two storeys only in the early '70s. A large number of small-scale popular industries have developed randomly along Kawangware Road at the entrance to the community and north of the open market along the village edge. These industries range from the production of household equipment to building components and sales of building materials.

The open market, situated opposite the commercially built-up area, has grown to such an extent that it attracts buyers from all over Nairobi at both the wholesale and retail level. The market has been within the domain of the Kawangware Market Committee since 1966, but it was not until the mid-'70s that the land was graded for such a simple amenity as surface drainage. A privately-owned water tap is located near the market at Kawangware Road.

At the southeastern end of the community is another open space which accommodates the primary school and a playing field, though the playing field is flooded during the wet season. Between the main commercial centre/market area and the primary school is a heavily-used pedestrian path linking a network of smaller footpaths.

To the west of Kawangware, within easy walking distance from the community and a bus stop on the Naivasha Road (which leads to Nairobi's centre) are a Council Health Clinic and a National Council of Churches of Kenya wood workshop. The Health Clinic serves a population larger than Kawangware's, accommodating residents from outside the village proper. The NCCK wood workshop centre produces furniture for primary schools in the area and is a training area for general and specialized carpentry work.

A small temporary church, to be replaced by a permanent one, is in the vicinity, and a church near the primary school is building a social hall to serve the neighbourhood.

The segment of land west of Kawangware - at present dependent upon subsistence farming - is one of the major expansion zones for the growing Kawangware population.

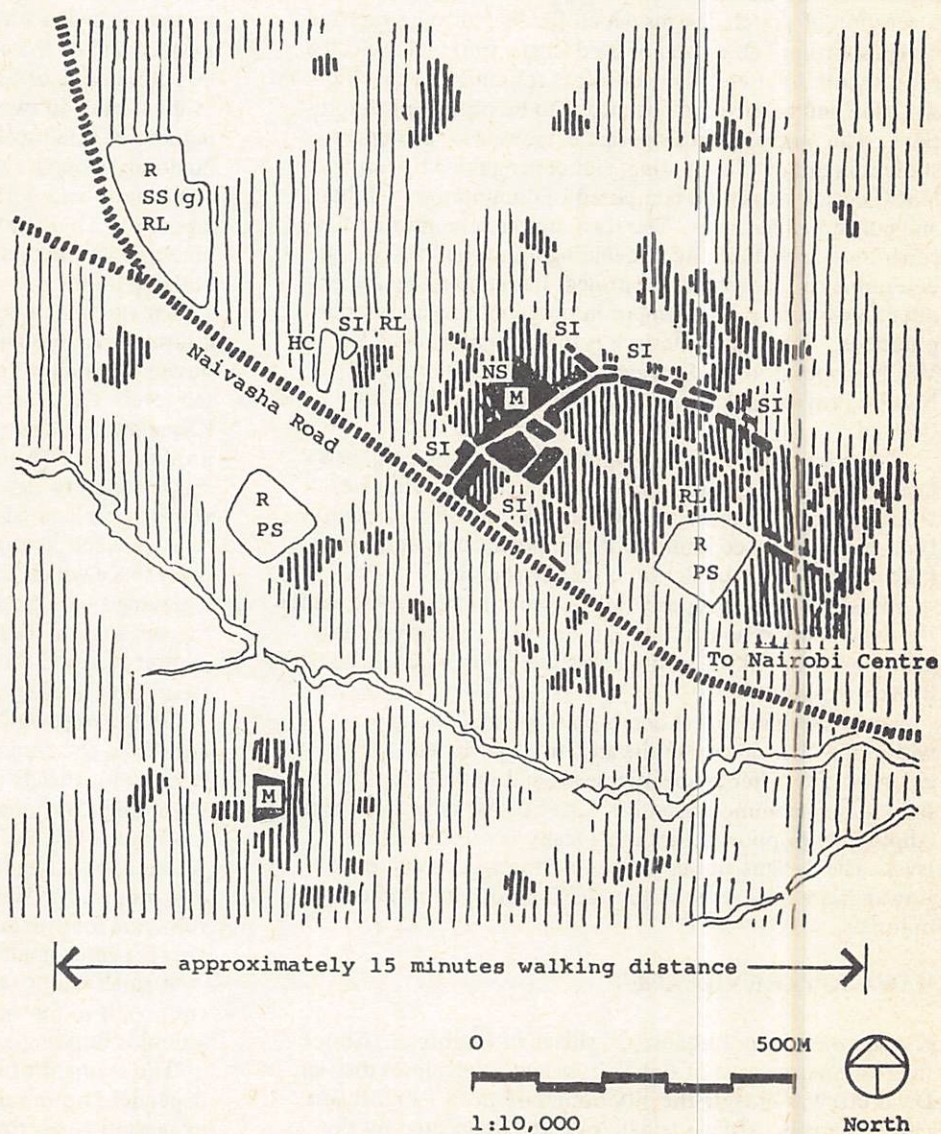
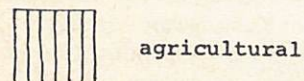
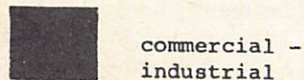
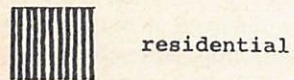
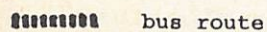
The figure consists of three side-by-side aerial photographs, each showing a different land use pattern. The first photograph on the left shows a predominantly agricultural landscape with large, irregular fields and some scattered buildings. The middle photograph shows a predominantly tenant-rental area with a dense, grid-like pattern of small, rectangular buildings. The third photograph on the right shows a predominantly commercial area with large, rectangular buildings and a more organized street layout.

Predominantly Agricultural

Predominantly Tenant-Rental

Predominantly Commercial

MC maternity clinic
PS primary school
SS(g)secondary school
P police
HC health clinic
R recreation
RL religious
M market and shops
SI small-scale industry



Part of this land has been chosen by the Council as the site of a district commercial and administrative centre including, inter alia, a large wholesale market and small-scale industrial zone.

The buildings at the far west of the community are a maternity hospital and a girls' school staffed by the Catholic Mission. The community has no access to either of these facilities, nor to the playing fields which are under the same ownership and administration.

There are water mains, albeit highly unreliable, running throughout the village and, while private connexions may be had, they are rarely made. There are no sewers and although the Council plans to improve the situation gradually - over five years or more - there has been no projected funding for the purpose. Electricity, too, is available, though few dwellings are connected and the main consumers are the shopping centre merchants. Footpaths which do not border the roads are not lit.

IDENTIFICATION OF COMMUNITY NEEDS

Before presenting the response deemed appropriate to the needs of Kawangware, the steps involved in defining the needs and the resultant possible solutions will be briefly presented.

As patterns of social and economic development would indicate, there has been a shift in life styles from one of subsistence farming to one of property ownership. Many small farms have been subdivided into even smaller plots and small rental units in the form of temporary shelters. As the plot subdivision and the construction of rental units have increased to provide quick profits from property sales, the rather complicated traditional landownership structure has made it difficult to channel commercial activities through modern legal structures. These complications have also discouraged landowners from making improvements or adding services to individual plots.

To make matters worse, the fixed standards required under Council building by-laws have further contributed to uncontrolled, and in the long term potentially unproductive, building investments.

Owners' reluctance to provide running water and effective waste disposal to rental units is a health hazard to the tenants. The combined lack of access to effective public institutions, expensive professional services and a building code responsive to rapid urbanization is seen to be detrimental to effective community development.

One solution to this situation would be to establish a kind of community housing clinic in the area. Such a clinic would provide advice on services and on building construction and design and stimulate the co-operative purchasing of materials and the organization of building groups. It would also offer legal advice on property ownership and tenancy issues.

Some long-term residents, for one reason or another, have been unable to shift to incomes based on the rental units. These residents continue to function at a subsistence

farming level, resulting in stagnant or downward mobility socially and economically. For them, access to building materials, loans, or more information on imaginative methods of intensive urban farming would increase their chances of survival.

Critical problems for the newly-arrived urban residents are such primary needs as access to jobs for casual labourers, close proximity to cheap food and temporary shelter. At present these needs are met through casual work opportunities within quasi-legal and thriving small-scale services at the edge of Kawangware, through opportunities to buy vegetable "seconds" at the end of the day, through inexpensive meals at local tea kiosks, and though an availability of cheap though crowded, lodgings.

For those residents who have recently made this transition - Kawangware serves as a place offering temporary and reasonably-priced lodging. More importantly, the chance to set up a self-operated shop or small-scale industry within Kawangware temporarily increases employment security. For those who wish to become more permanent members of the community, own land and build a home, the future is still insecure.

These transitional communities would greatly benefit from on-the-job training and employment offices, access to legal advice on problems ranging from marital difficulties to landownership, and from more responsive health clinics and referral services. Programmes in "urban farming" to introduce better ways of raising the nutrition levels and productivity of available crops as well as development of hardier varieties, co-ordinated with courses on nutrition and cooking, would help in supplying more nutritional food and permit financially viable urban farming. Sewage treatment plants could be designed and located to supply intensive urban farming areas with treated water.

At present, all newly-arrived Kawangware residents meet socially at church activities, the market, tea kiosks and hotels and local bars. There is, however, a need for reinforcing a broader collective involvement in community development through a forum or meeting space identified with the whole community instead of just isolated groups and their particular activities. There is a concurrent need for meeting and project space for new and existing community organizations as well as for social services groups. A community development clinic could stimulate further involvement between laymen and professionals in stating and acting upon community issues. An open-air area would contribute to reinforcing such activities as outdoor theatre, films, bazaars, and traditional performances.

Analysis of these needs indicates that individuals in the community require better access to public institutions, professional consultants and skills development.

Existing resources could be better used and marshalled to meet those needs if they were combined and a responsive institution formed.

Thus it was recommended that a multi-service community centre be established in Kawangware that would provide information, consultation, extension services, short courses, and facilities for crafts skills development and recreation.

SITE IDENTIFICATION AND SELECTION: THE MARKET

In looking for an MSCC site in Kawangware, three options were analysed for the advantages and disadvantages of their locations.

The existing primary school site

Advantages

- potential link to school and use of the classrooms and play areas;
- construction of new Council primary school (near completion) on the site of existing school;
- proximity of main pedestrian path;
- services available due to location of new school.

Disadvantages

- linking MSCC activities to the use of school facilities would require attitude shift;
- MSCC might reduce the size of playing area on site;
- one-third of the site is flooded during the heavy rains;
- location is not at the community's future "centre of gravity".

Proposed District Commercial and Administrative Centre

Advantages

- more than adequate site area for MSCC and playing fields;
- potential for co-ordinating MSCC design with those of other new facilities;
- proximity of existing Council health clinic.

Disadvantages

- location is too far from the present community's "centre of gravity";
- confusion of identity may arise - is this district or community activity?
- new services to the site are required.

Market site

Advantages

- the location is already the main centre of activity and the future "centre of gravity" of the community;
- potential of co-ordinating MSCC design with plans to improve the market;
- mutually beneficial relationship which would tend to reinforce both institutions;
- services easily available.

Disadvantages

- area required by present market and MSCC must be effectively rationalized;
- potential conflict between some functions of MSCC and market activities requires careful planning and design;
- staging of MSCC construction with on-going market activities needs careful organization.

Of the three site options for the MSCC, the market site was chosen because of its potential reinforcement of the market activities as an existing, highly valued socio-economic

institution. Furthermore, as a new centre for community resources, the MSCC and the market's activity zones will together form a place for people to meet, for recreation and for skills learning.

The disadvantages were seen as constituting a situation which could be rationalized during intensive sessions between the market committee, public policy-makers and designers.

Market activities in Kawangware were initially established at the primary school site near the main pedestrian way, and later shifted to the main shopping centre. The lack of space for expanding market activities (at one point in the market's expansion, activities were located on both sides of Kawangware Road, causing hazardous conditions for market users) and the need for more shops in the shopping centre influenced the Council's decision to establish the market on the present site and under the care of the Kawangware Market Committee.

During its early development on the present site, the market shared part of the space with a nursery school. In the past year, conflicting needs of an expanding market and the nursery school have forced the latter to relocate.

The market was originally established to sell vegetables on Tuesdays and Fridays, these being the weekly wholesale market days. The aerial photograph (Fig. 50) shows the level of activity on a market day in 1972 with only half of the site being used by a few temporary shops and tea kiosks on the eastern corner.

With the increasing demand for vegetables, household goods, and clothing by a growing population (and the growing popularity of the market among those outside Dagoretti) the market has expanded to a 90% use of the site on Tuesdays and Fridays, reducing coverage on the other five days of the week to 25% with marginal vegetable sales. (Fig. 51)

The Market Committee is becoming increasingly aware of the need for site improvements (effective drainage, public amenities and shelter for produce are still critically needed), and for a gain in operating cost revenues to the Committee from stall rental. A balanced use of the market site with minimal fluctuation in market activity from one day to the next would also reduce pressure on already limited resources and make at least 50% of the site productive throughout the week.

Should the Council's proposal for a wholesale market and a small-scale service-industries zone adjacent to the proposed district commercial and administrative centre be implemented in the near future, the size of Kawangware market should stabilize.

The latter development suggests that the potential for a mutually beneficial relationship between the market and MSCC so as to encourage people from within the community to co-ordinate their activities and opportunities becomes even more plausible.

A senior member of the Kawangware Market Committee has stated that the Committee would be receptive to the idea of sharing the present site with the kind of MSCC being proposed as long as market activities are not curtailed or diminished.

Fig. 50



THE INTRODUCTION TO GAMING AND DESIGN CONSIDERATIONS

To assess the variables in building a community centre in Kawangware, a list of initial considerations general to the area and unique to the building was drawn up.

Following this, a gaming technique was devised to assist the public and professionals in directly participating in the formulation of a brief. This gaming technique is simply a graphic method whereby various elements and requirements of a community centre may be seen in relationship to one another before they are actually built. An important aspect of the game is that small-scaled graphic forms depicting the elements can be freely moved around by those

involved in the design and policy-making dialogue. (See Figure 52)

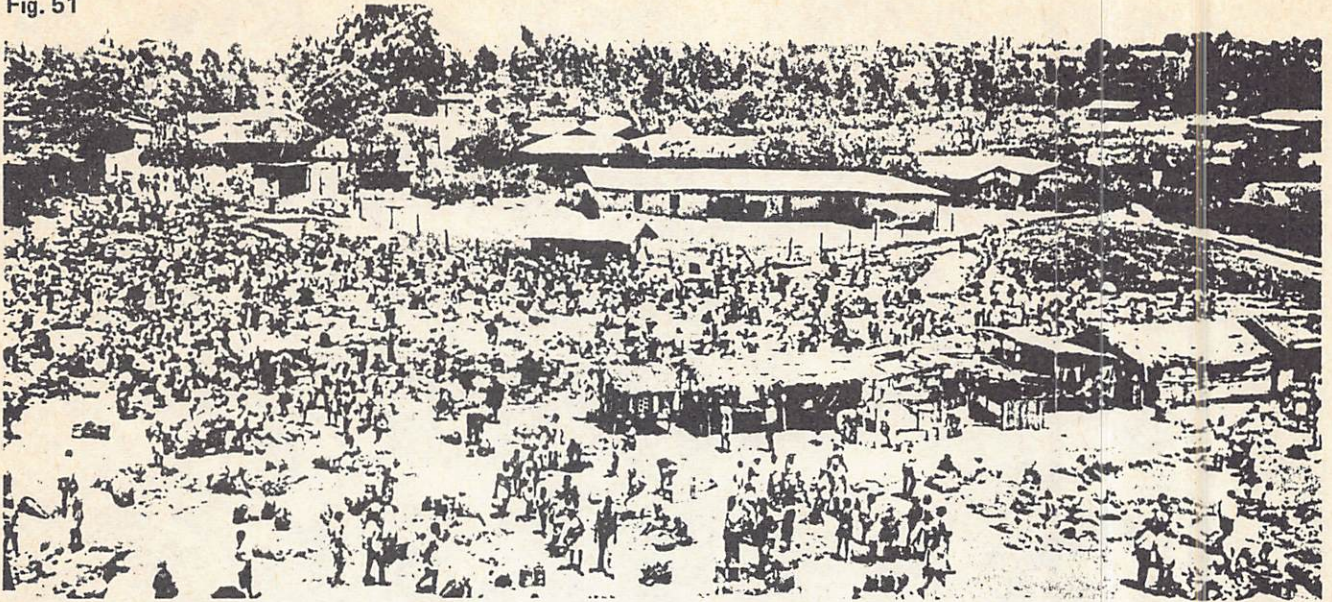
There is no "correct" combination of elements, and therefore no intention towards evolving a prototype.

The proposal is to provide a Multi-Service Community Centre at Kawangware. It would act as a social catalyst and as a fund of special services to the community. In an analysis for a brief, one can distinguish three main functions within any proposed building:

Consultation services staffed by social workers and other trained personnel dealing broadly with matters pertaining to family, education, health, housing, employment, finance and budgeting, and the law.

Community Support Services which in general would

Fig. 51



entail providing room and facilities for community-generated activities. This includes provision of spaces for large or small meetings, discussion groups or small-scale technical projects, a self-service information centre and library, a child care centre, and various forms of recreational facilities.

Administration, i.e. office space for staff, other staff facilities, kitchen space, toilets and wash rooms and the housing of functions directly related to the running of the centre and its activities in the community.

The following considerations are those which would be of particular relevance to building a Multi-Service Community Centre in Kawangware, acting as a primer for drafting a brief by the community involved.

General considerations

1. District

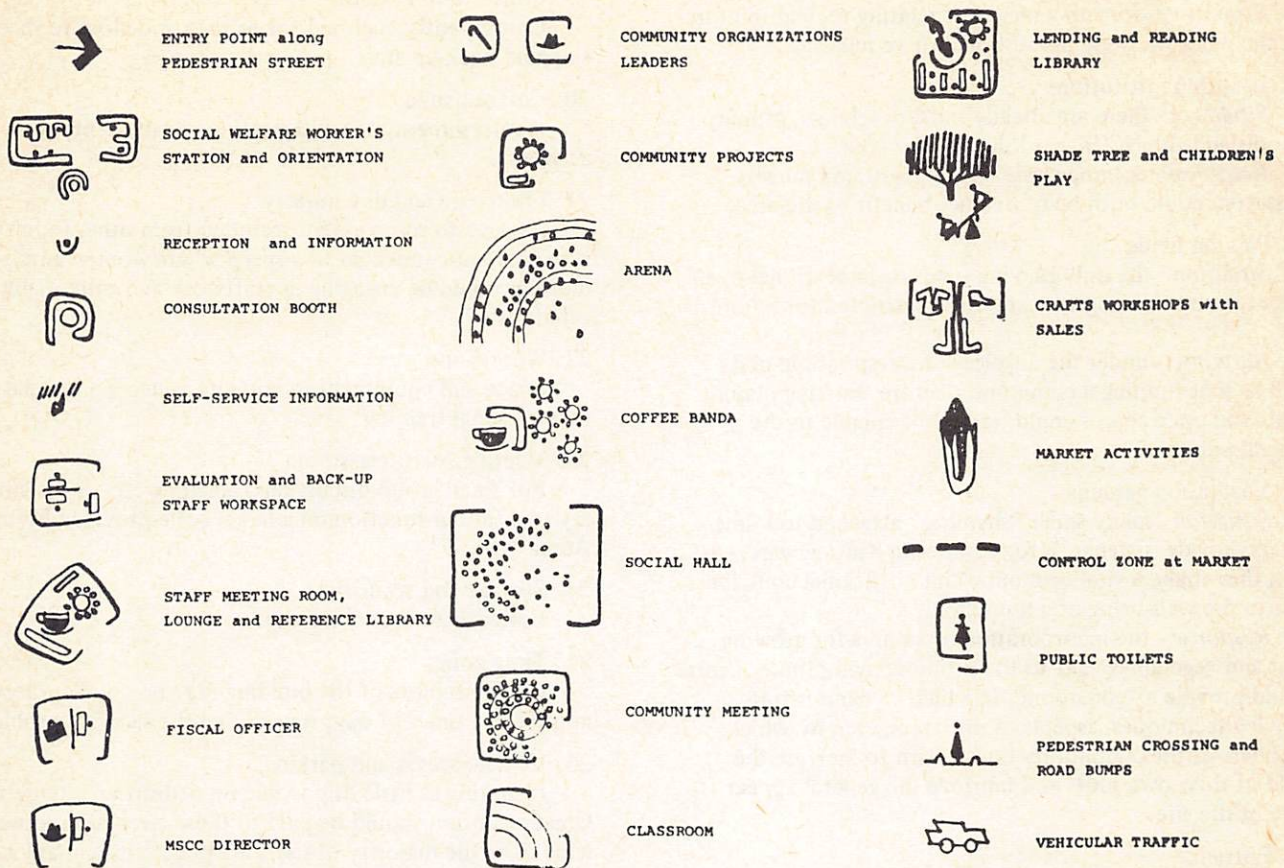
Situation - rural-urban situation on outskirts of Nairobi. Attention to be paid to its function in city structure, growth patterns, population movement.

Response - continuing analysis of needs of this changing community, synthesize response. Solicit aid from social services, government departments.

2. Location

Situation - Market site, school site in Kawangware village, both a focus of social activity, easily accessible to population.

Fig. 52 THE BASIC GAMING SYMBOLS



Response - relate building to market site (more intense focus) to provide direct response to groups and individuals for whom this is already a basic institution. Solicit response from potential users, Market Committee.

3. Population

Situation - growing in size, changing in character as regards age, socio-economic status, employment.

Response - diversity of services for wide range of needs; flexibility over time.

4. Socio-economic patterns

Situation - rural urban transition zone, itself changing; high density.

Response - as for (3) above.

5. Vocational centres

Situation - one voluntary training institution (NCKK workshop).

Response - develop training facilities directly related to local activities in market, small-scale industries, self-built housing, etc.

6. Market/shopping centre

Situation - thriving shopping centre and market acting as principal focus for population of Kawangware and surrounding villages. Expanding population will intensify demand.

7. Small-scale industries

Situation - existing manufacture of small items for principally domestic use. Chief characteristics - low capital investment, re-use of materials, simple skills, self-employment.

Response - reinforce situation through technical, business advice and training. Encourage and facilitate co-operative buying and marketing, provision of sales outlets.

8. Health facilities

Situation - existing clinic acting as advice centre, first aid post and dispensary. Inadequate for present (and future) needs.

Response - develop a service to supplement the work of clinic, particularly in matters relating to maternity advice, family planning, domestic hygiene, nutrition, etc.

9. Religious institutions

Situation - two churches exist in the immediate neighbourhood providing for spiritual and some social needs.

Response - develop a means of relating to, and reinforcing the work of, these institutions where relevant.

10. Learning institutions

Situation - there are already nursery schools, primary schools and the NCK workshop in the area.

Response - evening classes and a registered nursery classroom could both be of distinct benefit to the area.

11. Playing fields

Situation - the only playing fields or recreational open space around Kawangware are those restricted for school use.

Response - under the auspices of a responsible body such as that running a community centre, existing playing fields and open spaces could be made available to the general public.

12. Vegetation gardens

Situation - many small "shambas" attached to homesteads provide sustenance for families in Kawangware. As such they make a vital economic and nutritional contribution to the well-being of a household.

Response - the incorporation of an area for growing fruit and vegetables next to the proposed community centre would provide a "classroom" in which to demonstrate growing techniques, aspects of nutrition, etc., by which members of the community could learn to increase the yield of their own plots and improve the general appearance of the site.

13. Entrance

Clearly visible, easily accessible and welcoming from main street.

14. Reception

Next to entrance. Alcoves staffed by NCK and other types of social worker who will in effect be acting as co-ordinators and advisory personnel to the centre.

15. Waiting room

An area adjacent to service bureaux must have informal seating where users may talk and relax while waiting for attention.

16. Arena/forum

At the hub of the centre should be a large area which may be used for public meetings, rallies, theatre, films, etc. When not being used as the venue of such organized activities it should serve merely as the central point from which other facilities and activities in the centre may be seen and as a space where people may stop and chat, sew, weave, etc. A flexible roof covering, affording protection against rain and sun should be possible.

17. General and executive office

Working spaces with or without partitions according to function. Quiet zone.

18. Self-service information and library

Information library, reference books and card-indexing

of local facilities: increasing public access to information goods and services. Back-up staff to supplement.

19. Consultation booth

Conveniently enclosed for privacy and close to reception and back-up staff.

20. Coffee banda

A refreshment area with seating - in the centre of activities.

21. Child care and day nursery

An area to some extent secluded from other (adult) activities but connected to a space where women and mothers could be engaging in craftwork and other light activities.

22. Workshops

Space and equipment in separate zone. To be related to vocational training.

23. Meeting room/classroom

For small group discussions, teaching etc. Supplementary to a similar function on a larger scale provided by the Arena (16).

24. Storage and security

For each zone and activity.

25. Time zones

Different parts of the building may be open or closed at different times of day, simplifying the security problem.

26. Vehicle access and parking

Intruding as little as possible on pedestrian circulation. Great attention should be paid to these circulation problems since the majority of users are pedestrians, many of whom are children. Do not over-provide parking spaces or it will become a general public parking lot.

27. Pedestrian circulation

Allow free circulation in and out of building and be sensitive to existing patterns and "desire lines".

28. Expansion

Growth of centre to be considered (though beyond a certain size it may be a better idea to start another).

29. Materials and technology

A judicious use of locally available materials and techniques (see separate section for detailed treatment of this).

THE MSCC: CONSULTATION SERVICES AND ADMINISTRATION CENTRES

Self-service information and consultation services are clearly visible to the user from the common focus of the MSCC Arena. Receptionists for inquiries and appointments are placed between the public thoroughfare and consultation/interview booths. Behind this control point are the interviewers, back-up staff, and programme evaluators, who are related to particular consultation services and are distributed along an internal communications route. A common staff meeting area is located along this route at the consultation zone's centre of gravity.

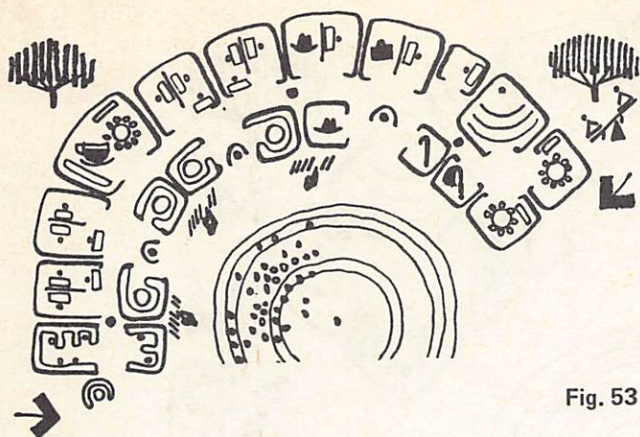


Fig. 53

Linked to consultation services and located at one major pedestrian entry to the MSCC are the social workers' station and the introduction area. The social workers play a vital rôle in orienting individuals to the MSCC and in participating in the consultation activities, besides their usual field work in the community.

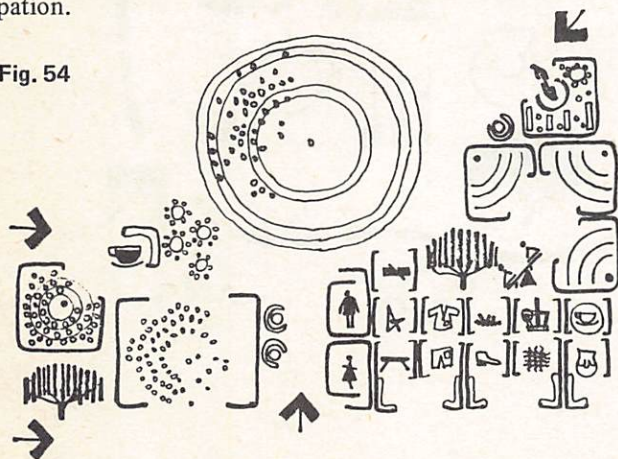
At the other end are the MSCC administrative staff, such as the Director and Fiscal Officer, off the communications route and behind a control point. Community organizers are located off the Arena thoroughfare and closely linked to community project work spaces situated at another entry point to the centre, opposite the lending/reading library.

The consultation and administrative sectors are located farthest from the market activities to avoid conflicts of noise and communication levels.

THE MSCC: COMMUNITY SUPPORT SERVICES SECTOR

This sector partially frames the Arena, joining, through various entry points, the market and the MSCC by way of the social hall and crafts workshop/sales area. A community meeting space and lending/reading library are located at two entry points across the social workers' station and community project spaces, respectively, providing a conspicuous activity area that encourages participation.

Fig. 54



Classrooms and child care activities are along and off the Arena, with the crafts workshops acting as a necessary buffer. Men and women working at crafts activities can also continue their traditional supervision of the children's play while working and chatting.

A coffee banda offering snacks and coffee as well as additional information about the centre is just off the Arena, next to one of the main MSCC entrances and convenient to the consultation services.

THE MSCC: THE MARKET SECTOR

The market retains its prominent position along Kawangware Road for easy servicing and high visibility of activities. The colour and noise of the market are excellent complements to MSCC activities. Sheltered and open sales spaces with shade trees and well-drained surfacing comprise the internal area of the market. Control lines are indicated at Kawangware Road with entries at pedestrian crossings.

Plots surrounding the market and MSCC will gradually develop into shops with housing above and behind. The access routes around the edges of the site are primarily for pedestrian use with vehicular delivery and pick-up at scheduled times.

Synthesis of all activities on the site demonstrates the mutually necessary activity areas which bind the MSCC sectors and the market together. This complex cohesiveness is perhaps one of the most important factors affecting the success of the plan, yet is one of the most difficult to achieve.

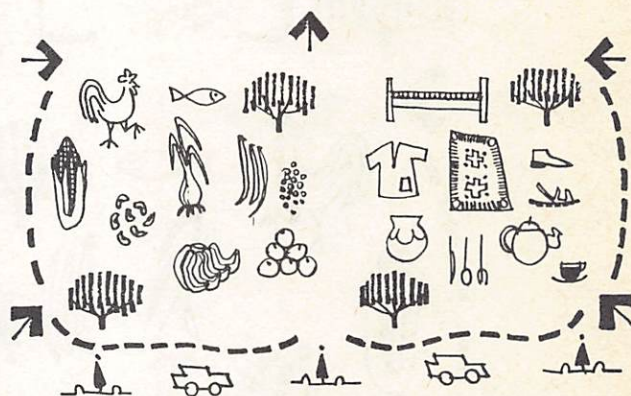


Fig. 55

THE MSCC: THE DESIGN SYNTHESIS

Three designs

The following three design solutions were selected from a total of 38 produced by fourth-year students in the Department of Architecture in 1974-1975.

The first design (Fig.57) combines a basic building technique with imaginative shifts in the arrangement of linking

Fig. 56

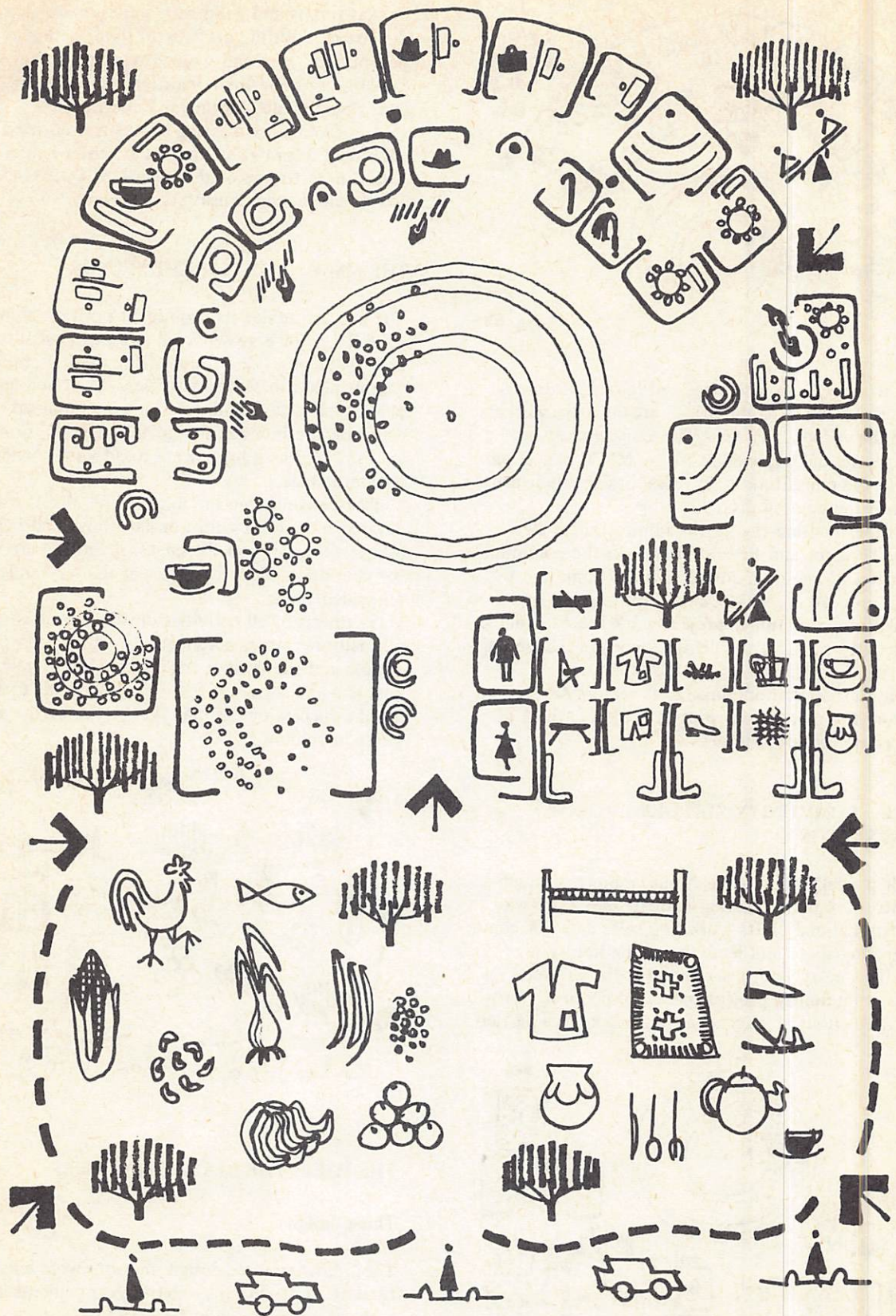
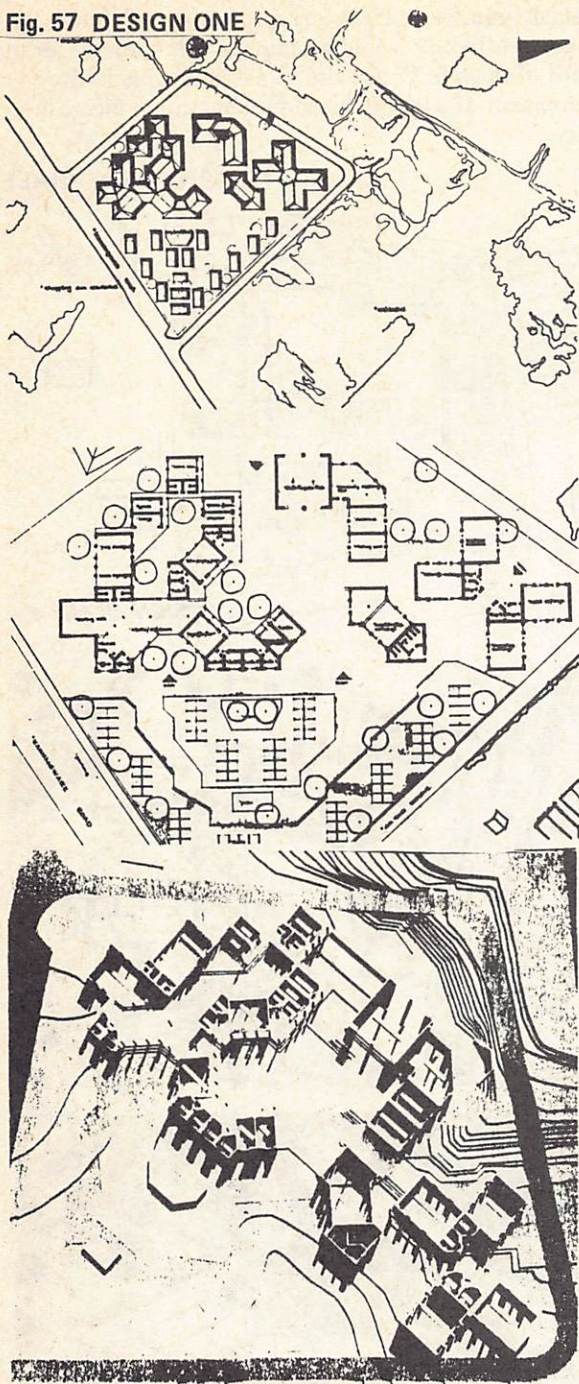


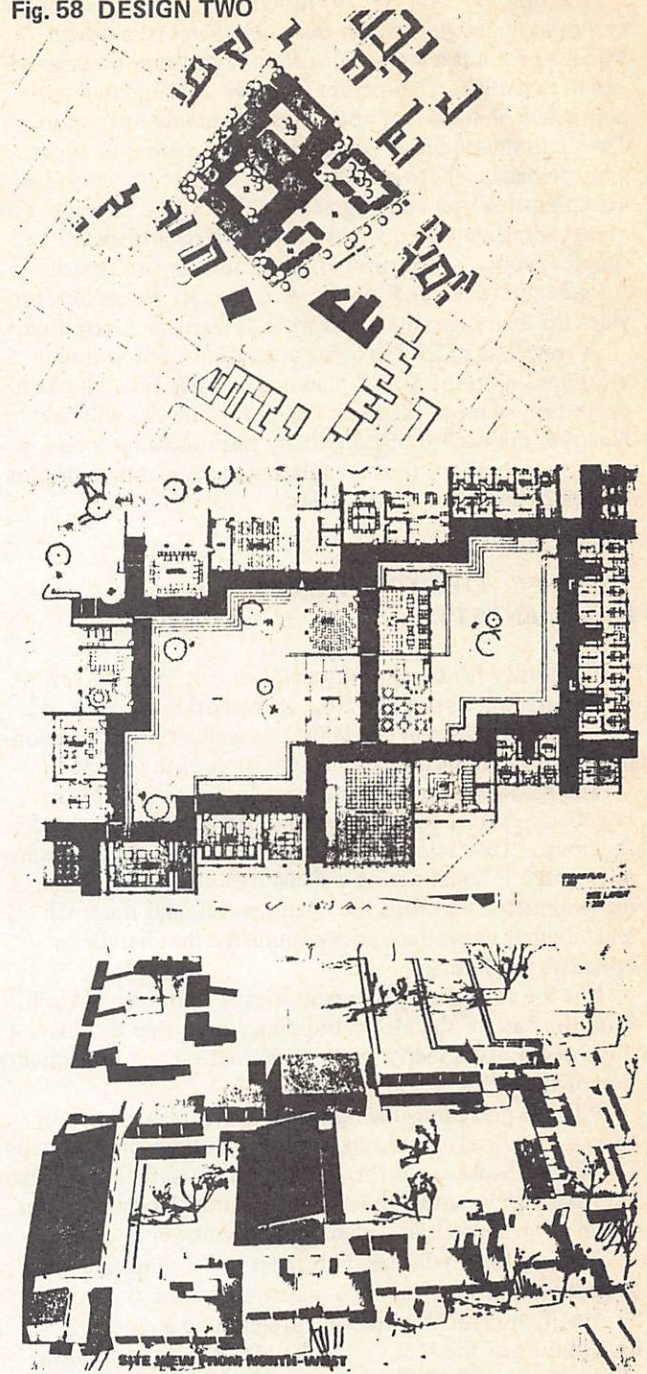
Fig. 57 DESIGN ONE



spaces. The layout likewise lends itself to construction in phases. The plan divides the site diagonally, which makes one corner of the MSCC accessible to Kawangware Road. The market can flow into the community projects section of the Arena and through to the craft workshops and sales at the opposite corner of the site.

The second design (Fig. 58) shows an expanded MSCC with smaller market activities that have stabilized on a daily basis. Workshops, community projects space, and the social hall link the MSCC to the market zone. Internally,

Fig. 58 DESIGN TWO



the MSCC provides two open spaces, one off the workshops and classrooms which can be used by the market on specific days, while the other is reserved for consultation services and administration. These two zones are linked by a covered area containing recreation facilities, a coffee banda, and a lending/reading library. Simple columns, bearing wall and single pitched roof systems, are used throughout, with the exception of the social hall which demonstrates an imaginative use of the inverted truss.

The third design (Fig. 59) shows the transition from the preliminary design through the final phases of a design which surrounds a large auditorium with the various activities of the MSCC. The market is shown consolidated with permanent shelters and operating on a stable daily basis. The preliminary design sketch illustrates perhaps a more realistic balance between MSCC and market site coverage. This plan also uses an imaginative shift in, and treatment of, spaces along a covered street in a very straightforward and simple layout. The introduction of outside workspaces staggered between and joining various craft workshops provides for demonstrations and work to expand as required.

A travelling exhibit is being assembled to disseminate information on the MSCC planning and designs. The demonstration of more than one design for one site will help illustrate the variety of potentially responsive options for a specific situation, thus stimulating participants to discuss situations and game possibilities.

THE MSCC: CONSTRUCTION AND IMPLEMENTATION

The necessity for community involvement in all aspects of the programme is stressed from its inception through to the actual activities of the MSCC, as well as in the decision-making process and the implementation of the proposal.

The Kawangware community is obviously capable of organizing special committees to achieve the goals of specific groups. Examples are the existing church building committee that is constructing a social hall, the market organizing committee that runs the open market, and the small-scale industries product sales committee that handles co-operative marketing.

It is the community's organizational resource that will form the base of the MSCC building committee and involve the community directly in the construction and implementation of the MSCC.

With the prevailing unemployment situation, an labour-intensive method of building would be ideal for the programme. The hire of local contractors/builders, a few skilled technicians, semi-skilled carpenters and masons and unskilled manpower would be an appropriate use of local manpower resources.

The existing small-scale industries in Kawangware are a substantial source of capable craftsmen whose skills could be amplified through a training programme included in the building of the MSCC. As the MSCC is to be built in phases, the first facilities constructed could serve as a training ground for local craftsmen and would later serve as the MSCC workshops.

Professional advice, possibly from the Department's Housing and Research Development Unit in the university, may be required for the basic rationalization of layout of the study of optional foundations as well as the structure and roofing systems.

Various fill-in systems for walls, doors, and treatment of openings for light and ventilation, although rationalized by designers, can be easily produced locally, on-site, in

the small industries. Therefore, production of almost all components locally would be emphasized, not only for the benefit of the MSCC, but also to aid in the qualitative development of a locally-based building components industry.

Fig. 59 DESIGN THREE

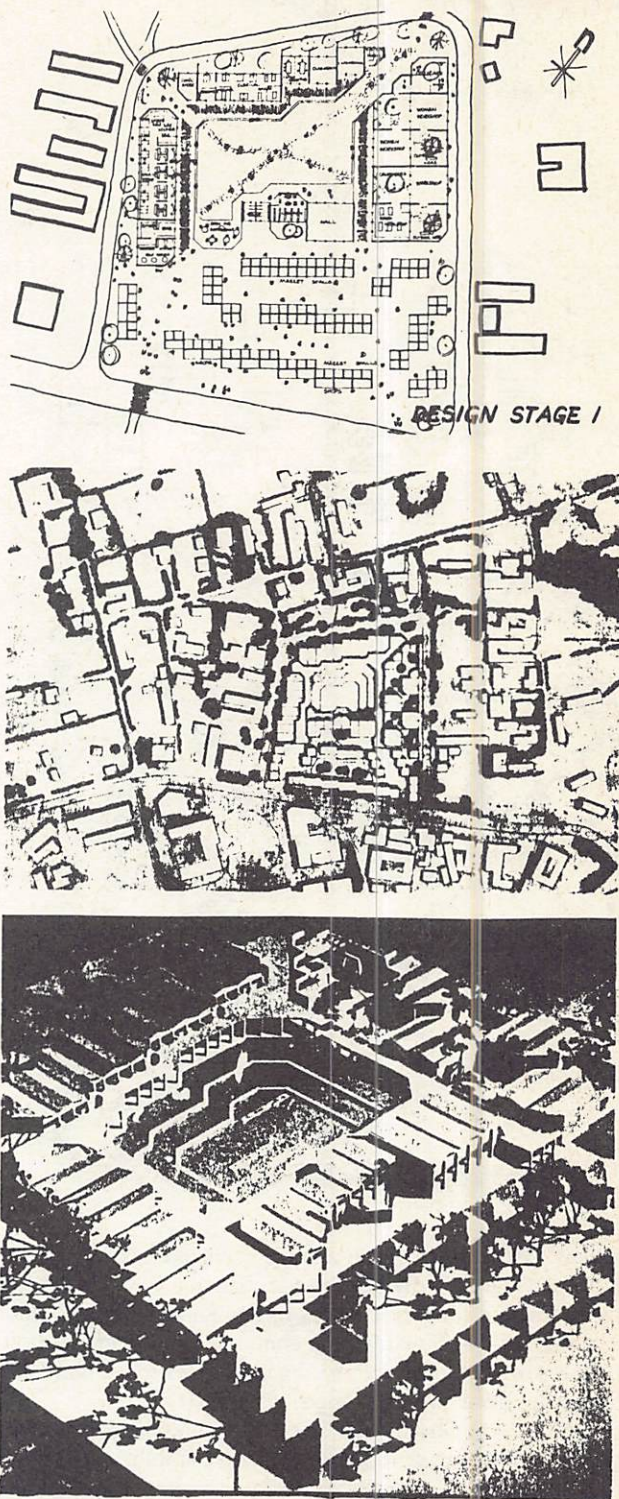


Fig. 60

BUILDING COMPONENTS	MATERIALS	AVAILABILITY	APPLIED CONSTRUCTION	MAINTENANCE	DURABILITY	ECONOMY	REUSABILITY	RECOMMENDATION & Notes
FOUNDATIONS & FRAMING	Wood Poles & Columns	Abundant & Available	Easily Constructed	None	Fair (1)	Cheap	Poor (2)	CONCRETE BLOCKS FOR ALL FOUNDATIONS (1) Termites (2) Decay (both subject to treatment) (3) Breakages
	Concrete Blocks	Abundant & Available Made Locally	Easily Constructed	None	Good	Cheap	Good	
	Stone Masonry	Available from outside Kawangware	Easily Constructed	None	Good	Expensive	Fair	
	Bricks	Available from outside Kawangware	Easily Constructed	None	Good	Expensive	Poor (3)	
FLOORS	Wood	Abundant	Skilled Labour	Regular Polish	Good	Expensive	Good	CONCRETE FLOORS (4) Unless laid in pre-cast panels
	Concrete	Abundant	Easy Construction	None	V. Good	Fairly Cheap	Poor (4)	
FLOOR FINISHES	Wood	Abundant	Skilled Labour	Regular Polish	Good	Expensive	Poor (5)	TIMBER AND CONCRETE FOR WET CORES - EITHER TERRAZZO OR GRANO (5) Bad reworkability
	Cement Screed	Abundant	Easy	Little	Good	Fairly Cheap	Poor (5)	
	Terrazzo	Available	Skilled Labour	None	V. Good	Very Expensive	Poor (5)	
	Grano	Available	Skilled	Low	V. Good	Very Expensive	Poor (5)	
	P.V.C. Tiles	Available	Skilled	Low	Good	Expensive	Poor (5)	
WALLS	Wood	Abundant	Skilled Labour	Painting Required	Good	Fairly Expensive	Good	CONCRETE BLOCKS OR TIMBER (6) Breakages (7) Breakages
	Concrete Blocks	Manufactured on the site	Easily Constructed	None	Good	Cheap	Fair	
	Bricks	Available from Ruwaka	Easily Constructed	None	Good	Expensive	Poor (6)	
	C.I.S.	Available	Easily Constructed	Painting Required	Fair	Cheap	Fair	
	Masonry	Available from Njiru	Easy	None	V. Good	Expensive	Poor (7)	
OPENINGS	Wood	Abundant	Semi-skilled Labour	Painting Required	Good	Cheap	Fair	TIMBER FOR DOORS STEEL FRAMED GLASS WINDOWS
	Steel Framed Glass	Available	Semi-skilled Labour	Low	V. Good	Moderate	Good	
	Aluminium Framed Glass	Available	Semi-skilled Labour	None	V. Good	Expensive	Good	
ROOF STRUCTURE (a) PITCHED (b) FLAT	Timber	Available	Semi-skilled Labour	None	Good	Cheap		PITCHED ROOFS WITH STEEL TRUSSES SHOULD BE USED. (8) Bad reworkability
	Steel	Available	Semi-skilled Labour	None	Good	Expensive		
	Timber	Available	Semi-skilled Labour	None	Good	Cheap	Good	
	R. Concrete	Available	Semi-skilled Labour	None	V. Good	Expensive	Poor (8)	
ROOF COVERINGS	G.C.I.	Available	Easy	Painting Required	Fair	Expensive	Good	ASBESTOS CLAY TILES G.C.I. OR CONCRETE TILES
	Asbestos	From Uganda	Easy	None	Fair	Expensive	Fair	
	Shingles	Readily Available	Semi-skilled	Little	Good	Expensive	Fair	
	Clay Tiles	Readily Available	Semi-skilled Labour	Little	Good	Expensive	Good	
	Concrete Tiles	Readily Available	Semi-skilled Labour	Little	Good	Expensive	Good	
	Bituminous Felt	Readily Available	Semi-skilled Labour	Little	Fair	Cheap	Fair	
CEILINGS	Timber	Readily Available	Semi-skilled Labour	Good		Expensive	Good	SOFT-BOARDS
	Celotex	Readily Available	Semi-skilled Labour	Good		Cheap	Good	
	Soft-Boards	Readily Available	Semi-skilled Labour	Good		Cheap	Good	
	Asbestos	Readily Available	Skilled Labour	Good		Cheap	Good	
FURNITURE	Wood	Readily Available	Semi-skilled Labour	-	Good	Cheap	-	TIMBER FURNITURE
	Steel	Readily Available	Skilled Labour	-	Good	Expensive	-	

The reader is referred to Fig 60 for an analysis of local material resources.

The location of activity areas in the design should accommodate construction phasing of the MSCC - as funds become available, as community centre needs grow and change, and as the market makes the initial transition towards consolidation. It is imperative that the MSCC's construction cause as little disturbance as possible to market activities.

This proposal for the general development of the market site and the construction of an MSCC, if incorporated into the Kawangware community development programme, would be initiated by a grant from the central government to the district of Dagoretti, and administered by Nairobi City Council in co-operation with the relevant ministry and local community organization.

The MSCC: Administration and management

The city of Nairobi is divided into five administrative divisions with the Provincial Commissioner's Office as headquarters. Each administrative division is headed by a District Officer, a chief and several sub-chiefs. These personnel handle the division's administrative responsibilities and represent the central government.

Grievances concerning welfare, utility services, and proposals for new development projects are discussed by city counsellors at local government levels - in this case the City Council of Nairobi - and members of parliament at the central government level.

Each administrative division is made up of several electoral wards with a councillor in each ward. Each electoral constituency is made up of several electoral wards with an MP in each constituency, but the wards need not be in the same administrative division. In terms of public welfare it is the administrative division that matters. In every division, therefore, there is a Divisional Development Committee which is made up of the District Officer as Chairman and councillors, MPs, and other influential local leaders.

Educational services in the community are mainly undertaken by the Nairobi City Council, headed by the Chief Education Officer. Central government education proposals are introduced to the Council from the Ministry of Education through the Provincial Administration Office. It is important to note that the Provincial Commissioner is a co-opted member of the Council's Committees and acts as an intermediary between the central and local governments.

Thus, it is logical that the Nairobi Provincial Administration should bring these various agencies together in a co-operative effort to initiate the proposed MSCC and the community education network. The administrative structure for the proposed project will use the existing system through the Divisional Development Committee for management and implementation.

It was also proposed that the Provincial Administration provide the enabling mechanism for setting up a community education and resource network (CERN). Such a committee would bring together representatives from central and

local governments, community committees, and service agencies.

A director for the MSCC and for CERN for Kawangware and vicinity should be hired by the Nairobi City Council with the approval of the Provincial Administration, Ministry of Education and Ministry of Social Services so that all financial and administrative decisions can be made more directly and without initiating new legislation.

CERN: THE COMMUNITY EDUCATION AND RESOURCE NETWORK

As Kawangware is already an established community with a market, health clinic, primary school, etc. the needs of the community are for additional services, reinforcement of existing facilities and the joining of various institutions into a more effective educational resource network. At present, the various community facilities are dispersed with only informal links, or none at all.

With the addition of the MSCC at the market site and the development of a large market and small industries site west of the community, such a network becomes not only possible but very necessary.

The MSCC is envisaged as giving guidance to CERN and therefore as the mechanism through which CERN is co-ordinated.

With the population of Kawangware and vicinity growing rapidly, the MSCC will become actively involved in community development. It is the one ingredient which can both monitor and respond to community needs at a highly participatory level.

Figure 61 shows the present informal service system and the proposed community education resources network.

ANNEX

Case studies

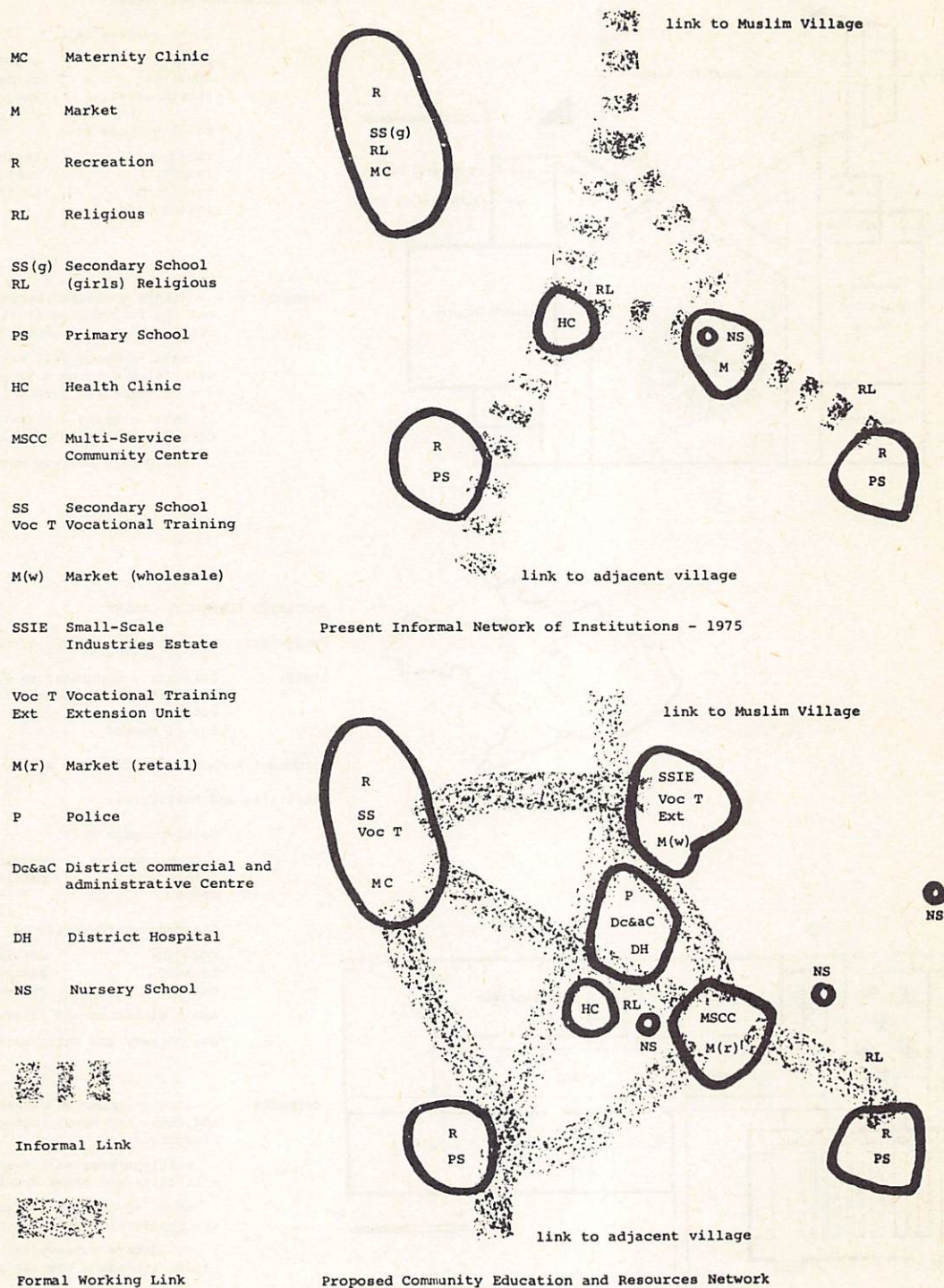
In the early phases of this project the students undertook field surveys of community centres which were representative of those existing in various predominantly low-income sectors of the population in Nairobi.

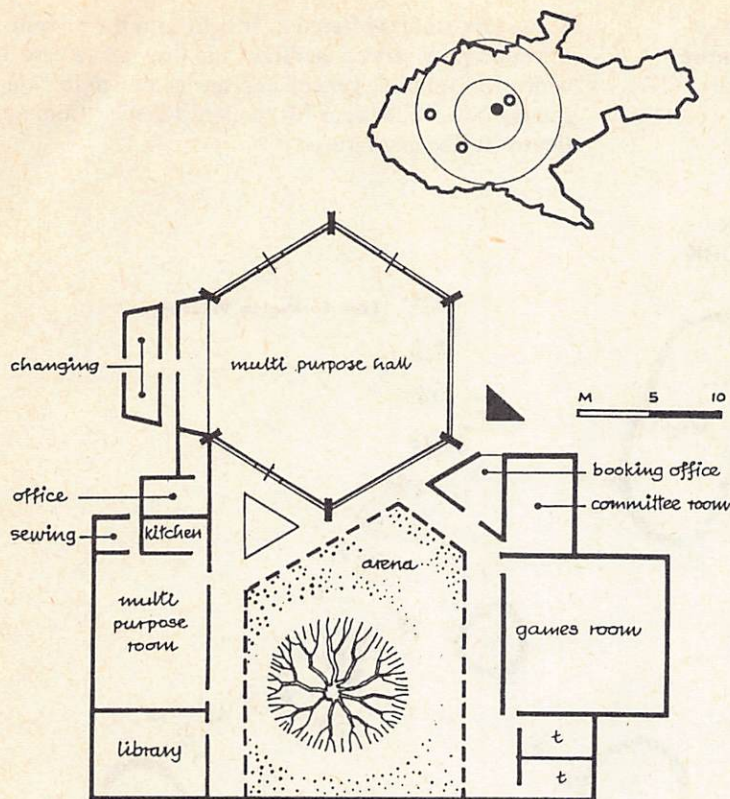
Although it was readily recognized that these community facilities were making a considerable contribution to the development of skills and providing access to consultation services within their respective communities, it also became quite apparent that there was considerable duplication of physical facilities and manpower through a lack of co-ordination between the various bodies concerned with community services. In contrast to this occasional tendency towards the duplication of services, we identified many situations where communities had almost no adequate social services facilities.

We concluded that by encouraging co-operation amongst community service bodies, groups and individuals, a more responsive and economical approach to community services would be possible.

These case studies offered an insight into the present state of community service facilities, and provided a base upon which to formulate general and special design to guide in gaming optional designs for the Multi-Service Community Centre at Kawangware.

Fig. 61 COMMUNITY EDUCATION AND RESOURCES NETWORK





KARIOKOR SOCIAL HALL

Management: Housing and Social Services Department,
Nairobi City Council

Staff: Council Assistant Welfare Officer
Council Estate Officer
Council Social Officer
Maendeleo ya Wanawake Representative

Catchment Population: 30,000

Facilities and Activities:

Multi-purpose Hall

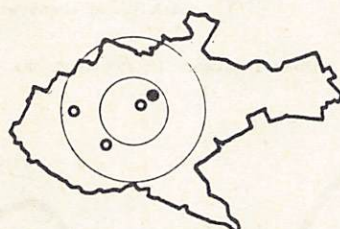
parties	weddings
meetings	films
church services	indoor games

Multi-purpose Room

cooking	sewing
laundry	embroidery
nutrition	knitting
infant care	

Comments:

- . little connexion between the centre and the surrounding institutional resources of the community.
- . multi-purpose hall used intermittently with films drawing a large crowd of 8 - 12 year-olds from the community.
- . short-courses are run only on an occasional basis due to lack of facilities
- . child-care nursery service unavailable.



EASTLEIGH COMMUNITY CENTRE

Management: Presbyterian Council of East Africa

Staff: Director - appointed by P.C.E.A.
Community Development Officer
Pastor
Social Worker

Catchment Population: 35,000 - 45,000

Facilities and Activities:

Multi-purpose Hall

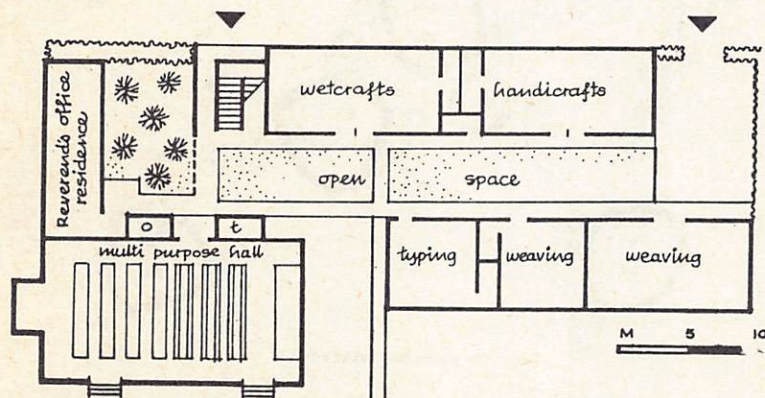
church services	weddings
films	parties
drama	

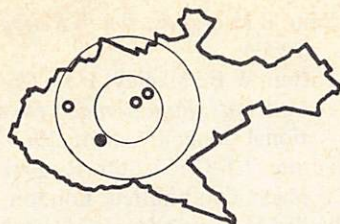
Classrooms and Workrooms

cooking	weaving
laundry	sewing
nutrition	pottery
adult education and literacy classes	
day nursery and child-care centre	

Comments:

- . strong connexion between the centre and community needs through responsive direction.
- . multi-purpose hall used intermittently with films and drama drawing varied users
- . on-going courses and craft workshops are popular and well attended.
- . child-care nursery for children of adults attending courses and workshops.





JOSEPH KANGETHE COMMUNITY CENTRE

Management: Housing and Social Services Department,
Nairobi City Council

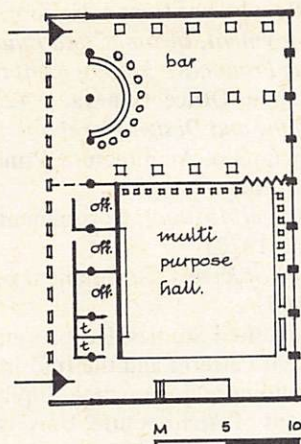
Staff: Council Welfare Officer
Council Estate Officer
Council Social
Maendeleo ya Wanawake Representative
Headman

Catchment Population: 5,000 - 10,000

Facilities and Activities:

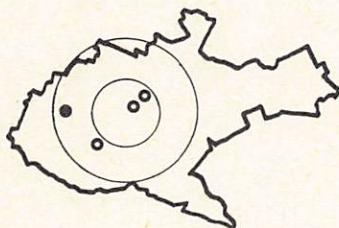
Multi-purpose Hall

church services weddings
parties dances
indoor games meetings
outdoor games field and courts
consultation services



Comments:

- . growing link between the centre and community needs.
- . multi-purpose hall used frequently - with a bar and music for dancing.
- . space for outdoor sports.
- . short-courses offered intermittently.
- . social welfare consultancy and emergency services are established.



KANGEMI COMMUNITY CENTRE

Management: Housing and Social Services Department,
Nairobi City Council

Staff: Assistant Welfare Officer
Social Worker
Maendeleo ya Wanawake Staff

Catchment Population: 15,000 - 20,000

Facilities and Activities:

Multi-purpose Hall

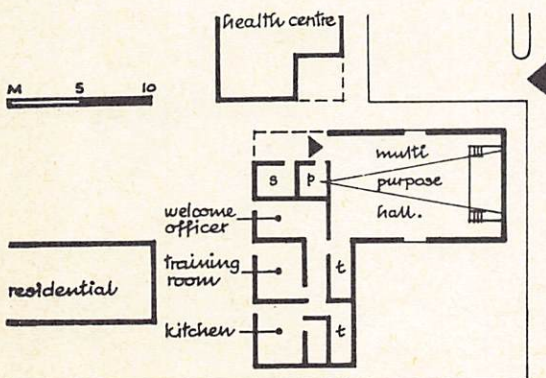
church services weddings
parties television viewing
films indoor games

adult literacy classes

weaving cooking
spinning laundry
nutrition infant care

dispensary operated by Council

Child-care Nursery



Comments:

- . growing connexion between centre and community needs through strong local community involvement.
- . multi-purpose hall used intermittently with television viewing very popular.
- . adult education classes are offered intermittently.
- . day-care nursery for children of adults attending courses - in close proximity to homecraft workspaces.
- . full-time Council dispensary in close proximity to centre.

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Urban community schools in the United States of America: educational facilities as a resource for community-wide education and service*

The planning of educational facilities has been drastically influenced in recent years by two major developments, one connected with the "open plan" concept and the other with the "community/school" concept. The open plan was the logical consequence of the increasing need for flexibility of space in order to accommodate changing methods and philosophies of instruction. The community school idea was initially the major result of economic considerations: to reduce the cost and help the financing of facilities that would otherwise have to be built separately, by planning them to serve a wider range of educational purposes and programmes beyond those of the conventional school.

This study comprises an investigation of a number of concrete examples of the concepts that education is a life-long process and that the scope of educational facilities can be expanded to serve a wide range of educational needs in a community. The application of these concepts varies from one case to another, because each reflects a different set of circumstances concerning programmes and community needs served. Moreover, because of a lack of precedents, their planning was of necessity experimental and their objectives not always sufficiently explicit or consistent. On the basis of the analyses and findings in the examples studied, some general conclusions for wider applicability are drawn. These conclusions have been applied in a case study as an illustration of conceptual guide-lines that could be used in designing a new educational facility.

The information and material presented in this report have been collected from the metropolitan areas of Washington, D.C., and Baltimore, Maryland. The two neighbouring areas, with a population of about three and two millions respectively, reflect all the characteristics of urban conditions that are typical of the Eastern Seaboard and other densely populated parts of the United States.

These areas have witnessed a high rate of population growth in recent decades. Expansion has occurred in outlying suburbs, which have absorbed the greater part of migration from outside, in addition to the population exodus

from the inner city. With no corresponding influx to the city's centre, the population there has been declining. The phenomenon has been accompanied by serious socio-economic changes in population composition and its geographic distribution: the outlying areas have been inhabited mainly by the affluent and middle-class groups, while the inner city, with the exception of some exclusive sections, has become the residence of mostly lower income groups, with a high percentage of ethnic minorities.

The economic base of the inner city has thus declined and environmental conditions have deteriorated, while the need for social services has increased. This situation, despite occasional remedial measures, has at times become critical and has gradually created an increased awareness on all sides of the need for more drastic and far-reaching initiatives concerning the future of the urban community. Among such initiatives are those concerning education and its relationship to community needs.

SELECTION OF FACILITIES STUDIED

The use of educational facilities for community purposes, in the limited sense of making certain school spaces such as the auditorium, gymnasium and library, available for occasional community use after school hours, is not a new idea. The significance of recent trends in this respect lies in the expansion of the widely established practice in the form of more systematic development of programmes for community education and recreation which are housed in existing schools. Currently, in Baltimore and in Washington, D.C., there are 11 and 15 schools respectively which

* This section is abstracted from a report on "Educational Facilities and the Community" prepared by George Skiadaressis, Professor of Architecture and Planning, and a team of research assistants of the School of Architecture, University of Maryland, Maryland, U.S.A. The report presents the conclusions of a study carried out under a Unesco contract.

are used intensively after school hours for various community programmes as well as for more structured adult education.

Compared with such examples, the educational facilities selected for investigation in this study differ in so far as they have been from the outset deliberately conceived, planned and designed to be used as a resource for community-wide education and service. Thus they presumably reflect more clearly the implications of this approach, not only in their physical layout, but also in their administration and management. The Washington "School Without Walls" does not belong to this category, but it has been included for its significance as an example of the reverse and possibly complementary approach, whereby the community is conceived as a resource for school education.

The conclusions should therefore be more directly applicable to the planning and design of new facilities conceived as community schools. It is, however, hoped that they will have a bearing on the wider range of community programmes carried out in existing schools as far as the necessary physical and administrative adjustments are concerned.

The investigation focuses primarily on those aspects of educational facilities which deal with the relationship of school and community. Other aspects of school planning that do not affect the school/community relationship have not been included, as they lie outside the scope of the study.

PAUL LAURENCE DUNBAR HIGH SCHOOL - BALTIMORE, MARYLAND

The school is located in the Dunbar community in East Baltimore, an inner-city urban renewal area, consisting primarily of low- to moderate-income black families. The area has been extensively redeveloped in recent years and more is planned, particularly for new housing and related community facilities. Dunbar is one of the five Baltimore schools with city-wide enrolment so it is not limited to a particular school district. The actual community served by the facility has a population of about 150,000. The school has a capacity of 1,600 students and was opened in the Autumn of 1974.

Planning considerations

The new educational facility was needed to replace an existing high school. In order to respond to particular community needs, an intensive "charette" was set up at the initial planning stage, involving political groups, community representatives and students, faculty, school administrators, representatives of government agencies, planners and architects. Planning at this stage was funded by the State Board of Education, as well as by city and federal agencies. The main result of the "charette" was the expression of a strong desire, shared by most participants, to plan for a facility that would serve a wider range of community needs. Among the recommendations was the pro-

vision of such services as the following: a child-care centre, a community-owned bank, community-owned retail stores, a "comprehensive family health centre", a "Neighbourhood City Hall", i.e. a decentralized office of city government services.

Another significant conclusion of the "charette" was the expressed desire of community representatives to relate community service facilities and programmes to the academic curriculum of the school

Activities and programmes serving the community

The following are the main community-oriented activities and programmes now offered at Dunbar: cultural arts project, comprising music, band, dance, arts and crafts, photography, drama; adult education programme (Dunbar is one of several bases serving the Baltimore City public schools adult education programme), and a swimming programme.

Special education and recreation programmes can be initiated upon expressed interest by an adequate number of community members.

In addition to programmes of the above nature, the following community services and offices of public agencies are provided at the facility:

Day-Care Centre: A child day-care programme for 60 children. Included is an infant care programme for children of students enrolled in the school, mostly unmarried.

Department of Social Services: Case finding and evaluation, counselling, information and referral, applications for financial assistance, certification for food stamp programmes, etc.

Mayor's City Hall office: Administrative assistance and co-ordination of all other service programmes.

Social Security Administration office: Administration of social security services.

Department of Public Works, Division of Consumer Services: Deals with complaints concerning water supply, trash collection, repairs of alleys, streets, pathways, lights, etc.

Department of Manpower Resources: Employment counselling and placement.

Department of Juvenile Services: Youth counselling, problems of juvenile offences, etc.

Office of Model Cities Agency: Provides a variety of services to citizens related to health, housing, recreation, etc.

Maryland State Department of Parole and Probation: Counselling, referral and employment guidance to people placed on parole by the courts.

Youth Service Programme: Offers preventive counselling service.

Generally, the school is used by the community not only through structured activities and programmes but also in various informal ways. Community members, both individuals and groups, are encouraged to look on Dunbar as essentially a community resource, with free access to its facilities and services at any time or by special arrangement, depending on the case.

Administrative aspects

The facility is owned by the City of Baltimore which leases space to the principal users. These are, on the one hand, the Board of School Commissioners and, on the other, the various municipal, state and federal agencies, which are located at the ground level and are responsible for their respective community service activities and programmes.

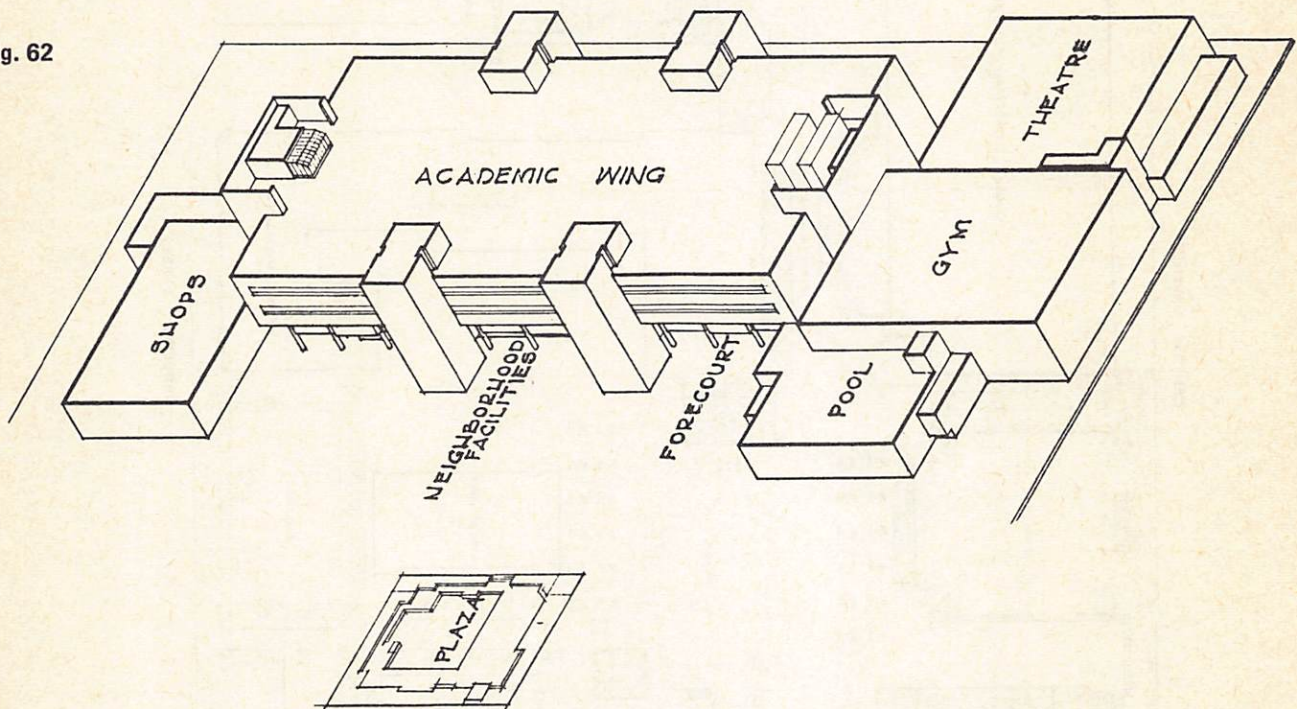
The school proper is administered by the Principal, and the programmes of all other agencies are co-ordinated by the Director of the Dunbar Neighbourhood Services, who reports to the Mayor's Office. Any part of the whole facility can be used by the community not only after school hours but also during the day. To this effect, the Director of Dunbar Neighbourhood Services works closely with the Principal, while one assistant principal is in charge of co-

ordinating and scheduling the use of space within the school.

The various agencies using the facility have their own budget and operating costs. A special community school budget contributes funds for expenditures for maintenance, repairs, custodial services, and so on, related to the use of the school spaces for community programmes.

An important rôle in general policy matters is played by the locally elected Dunbar Community School Council. An outgrowth of the original Parent/Teachers Association, the Council has no statutory jurisdiction over the administration of the facility. However, it is politically very influential and has a strong interest and effective involvement in the operation of Dunbar as a community school.

Fig. 62



Physical aspects

Characteristics of layout (Figures 62-67)

- The main building is on four levels, with the ground level devoted to spaces used jointly or exclusively by the community.

- The day-care centre and Social Services Department are situated on the same site but in a separate, two-storey structure with independent access. Both the day-care centre on the ground floor and the social services on the upper floor offer easy "street front" access, by taking advantage of the change of grade on the site.

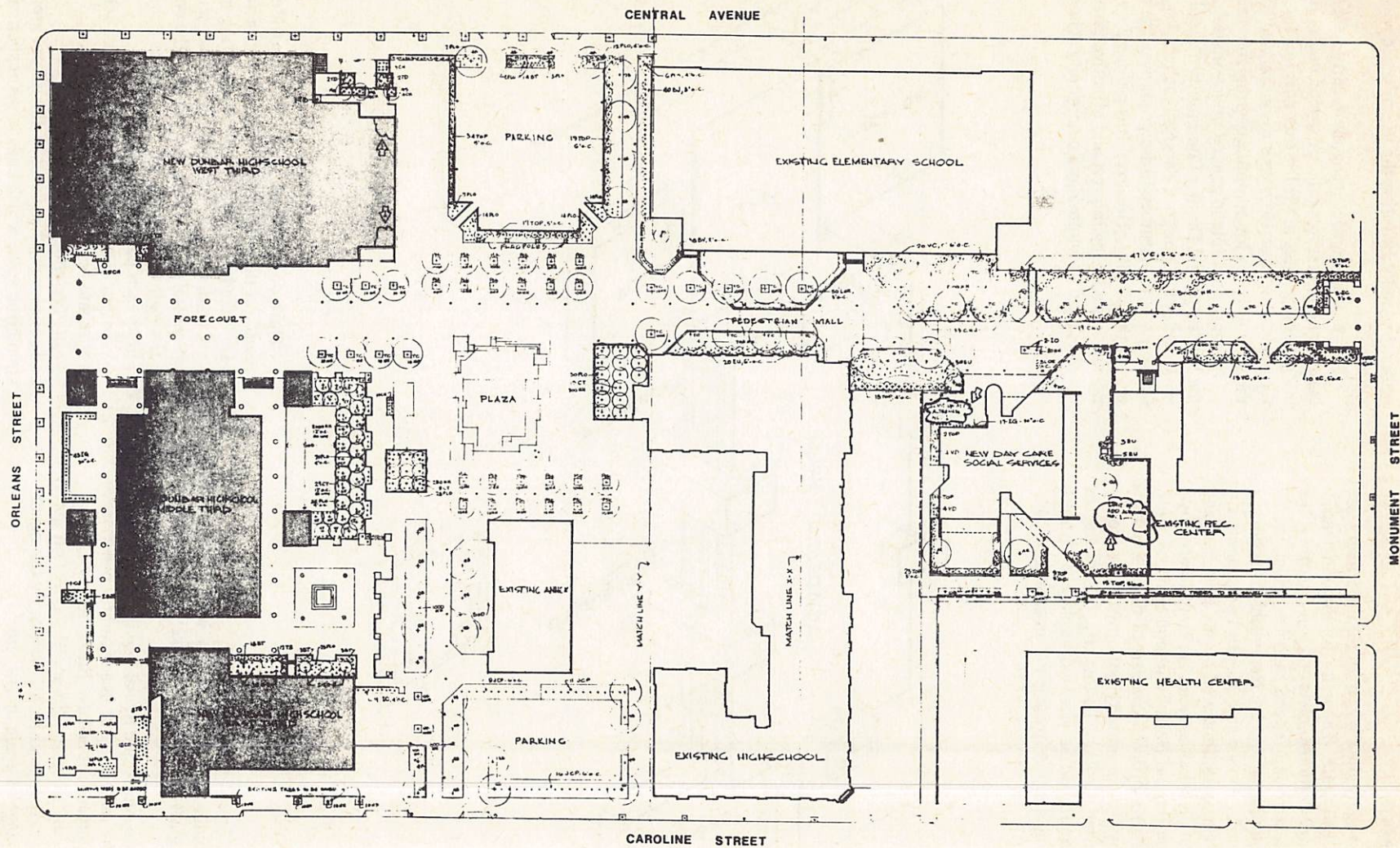
- The layout of the school proper provides for four "houses" on the first floor, which serve as a home base and are linked in pairs by a common seating space.

- A central kitchen at the ground level serves an adjacent central dining space accessible to the community and, through vertical connexion, supplies a serving area that links each pair of "houses".

- A student lobby is provided near the vertical circulation core and next to the administration.

Floor plan relationships (Figure 68)

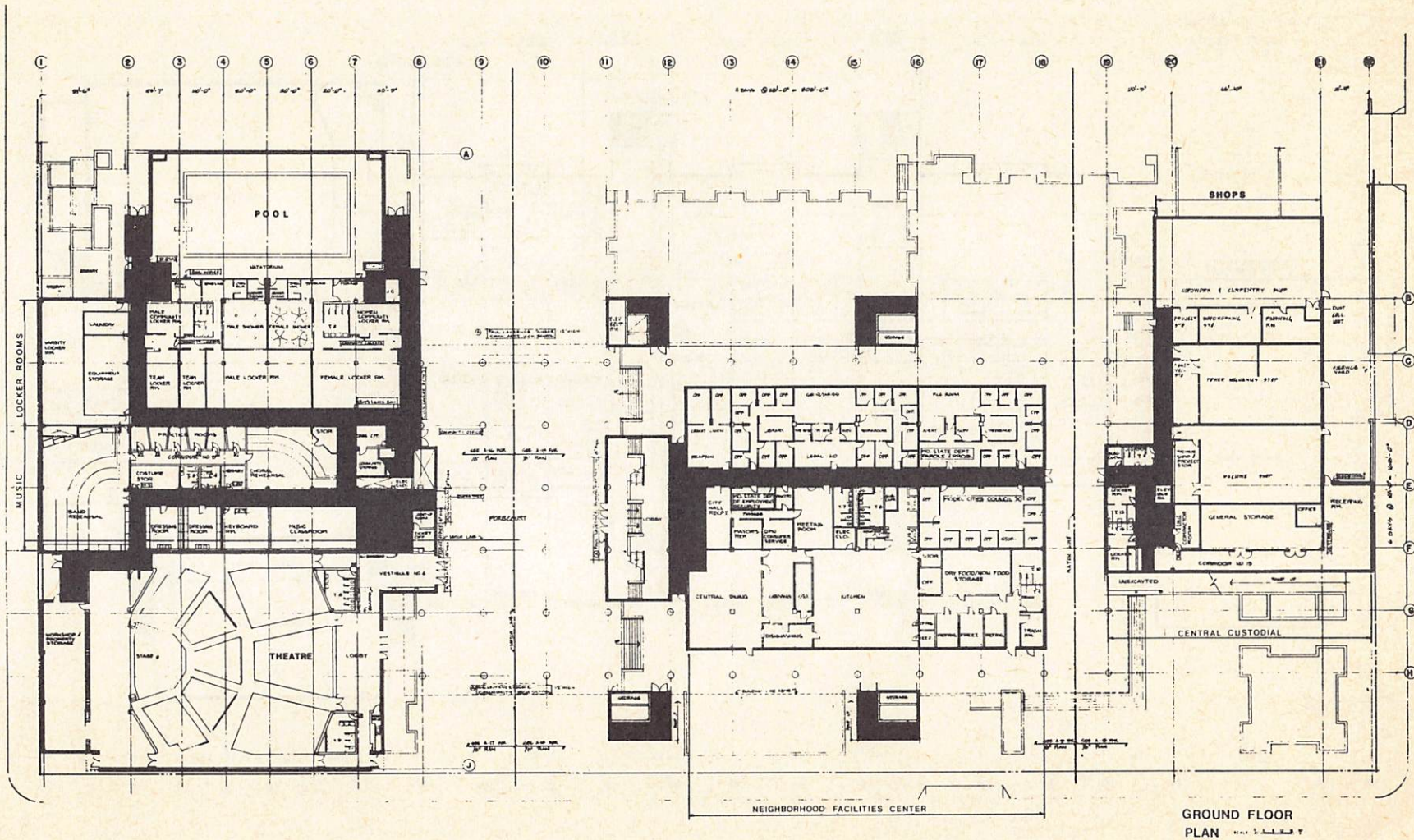
At all four levels, the spaces of the school are placed along a circulation spine which ends in vertical circulation cores.

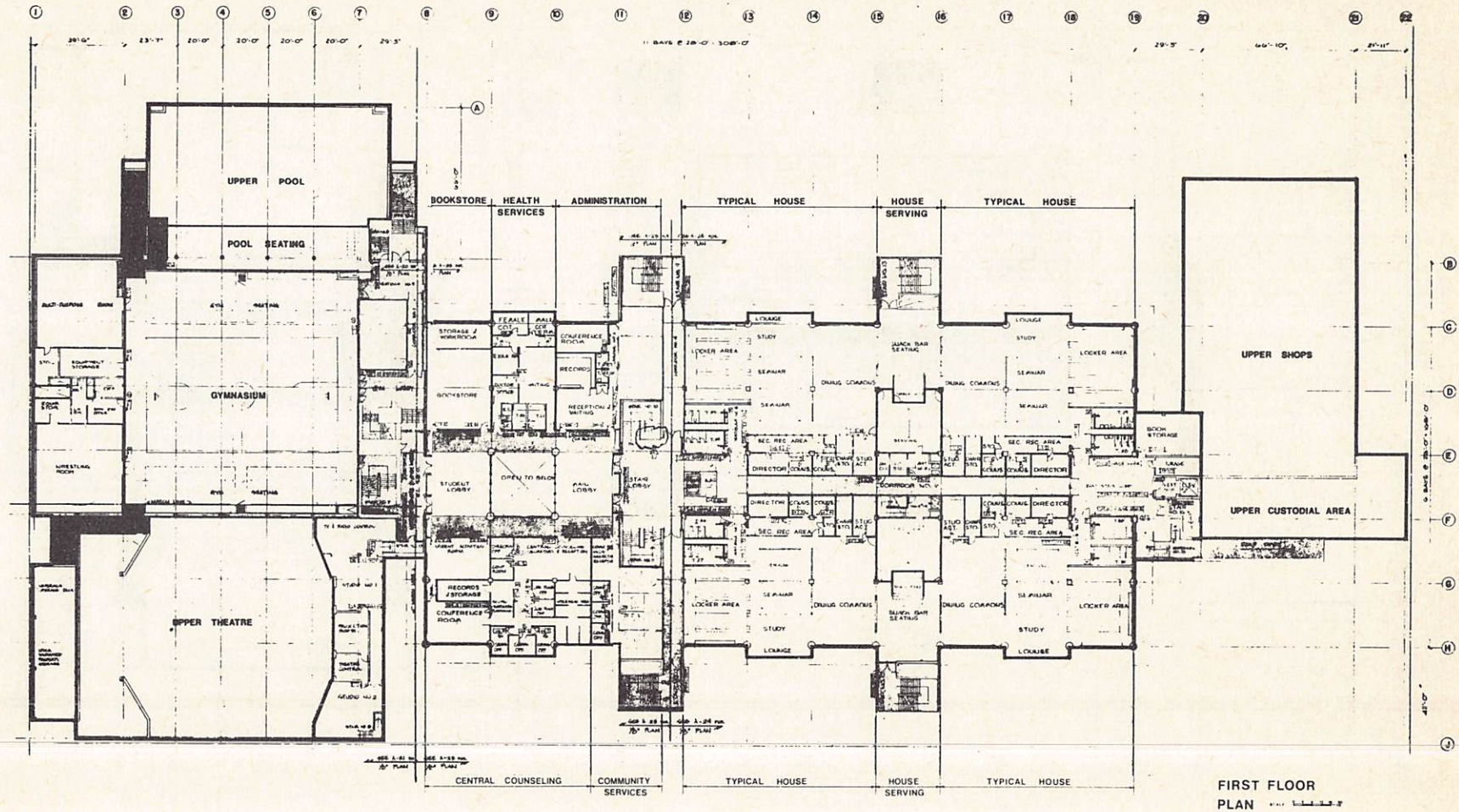


**SITE DEVELOPMENT
PLAN**

SCALE: 1" = 20'

Fig. 64



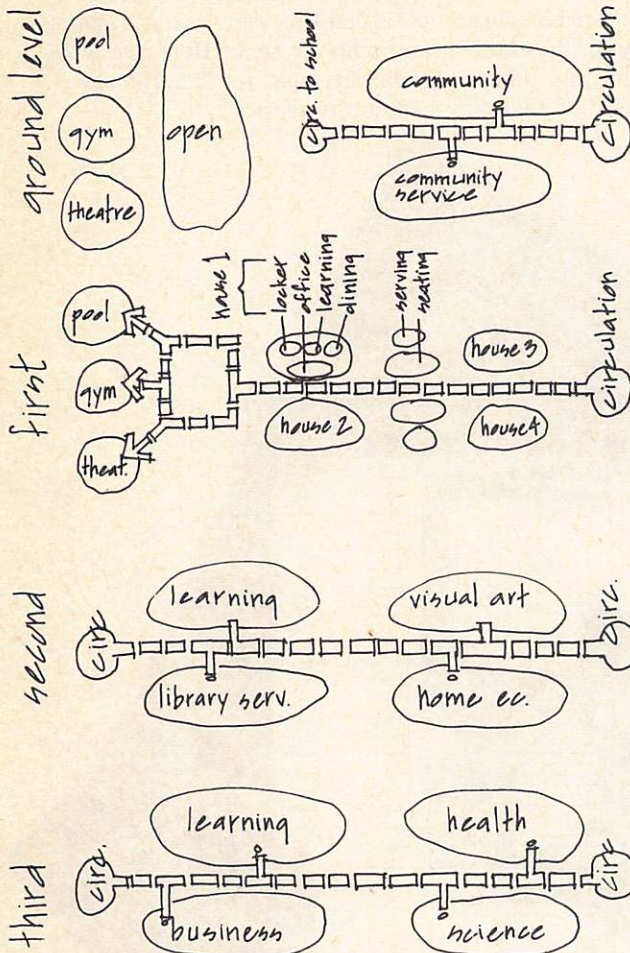






The spine acts like a double-loaded corridor and determines to some extent relationships among spaces, as in the first floor, where the "houses" are arranged in groups of two. At the ground level, the circulation spine is interrupted by the open arrival space, the forecourt, which provides access to the main entrance of the school and to the theatre, gymnasium and swimming pool.

Fig. 68 – Dunbar - floor plan relations



School/community relationships (Figure 69)

The diagram depicts the strong physical links between the community and the "community service" areas as well as the theatre-gymnasium-pool complex. Access to the student-occupied areas is considerably less direct and obvious.

Critical remarks

A strong physical separation of community-oriented spaces from the school proper reflects, and is probably the result of, the administration system of the facility.

The community-oriented spaces are clearly defined and easily accessible. Conversely, the access to school ad-

ministration as well as to other parts of the school is not sufficiently clear and identifiable from the outside. Despite the lack of direct access, the first-floor area housing the administration offices has, due to its layout, the potential of becoming a focal point of school and community contact.

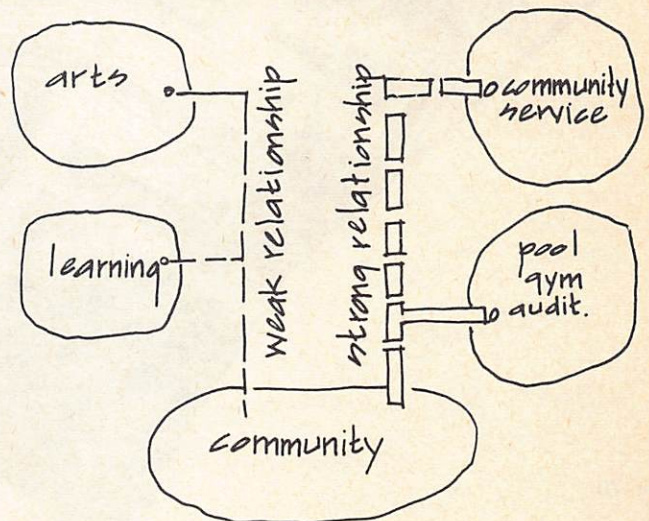
An emphasis on programmes for social services reflects the priorities of the community needs. In this respect, the fact that the facility is owned by the city, which leases space to various agencies, allows for flexibility in the selection of agencies and programmes as the priorities of needs may change over time.

The concept of "house" as base for home-meetings room, dining, and students' storage, helps students identify with a particular territory of their own. Its significance will be even greater if sharing of space with the community in the other learning spaces increases in the future, as appears to be the trend.

The community has no distinct base of its own in the school because the whole facility is regarded as a community school and presumably every part of it is available for shared use. This concept, however, is not reflected in the present system of administration and management, although it is realized to a considerable degree in an informal and improvised way.

The outcome of the planning "charette" introduced a spirit of sharing and of connexion between school and community, which continues to be the guiding force in the present operation of the school. Considering the short time since the school was opened, this spirit has to a large extent made possible the realization of a new concept about the rôle of an educational facility. So far, the lack of adequate statutory provisions to establish and safeguard this rôle is offset by the spirit of dedication and co-operation among the persons administering the facility and, in the last analysis, by the strong and influential interest and surveillance of the Dunbar Community School Council.

Fig. 69 – Dunbar - school/community relations



**FORT LINCOLN ELEMENTARY SCHOOL,
No. 1 - WASHINGTON, D.C.**

The school is part of the Fort Lincoln New Town project. Described as a "new town in town", the Fort Lincoln site is an undeveloped area, situated in northeast Washington, D.C. This school, as well as Fort Lincoln itself, is intended to serve as a prototypical model for the District of Columbia and to function as an active community centre for a population of about 5,000. It was to have been completed in September of 1975 and will have a capacity of 750 students.

Planning consideration

Planning the educational facilities of Fort Lincoln is, understandably, part of the overall planning effort for the new town. This has included a major study, which was funded by the District of Columbia Board of Education and was conducted by the General Learning Corporation (GLC). GLC also provided the specifications for the design of Elementary School No. 1, within the framework of the overall planning objectives.

Among the planning recommendations for the design of the school were provisions for early childhood programmes and for community programmes that would make joint use of the school's facilities for education and recreation purposes. For community activities, the provision of added space within the school was recommended as well as intensive use of the school facilities and grounds after normal school hours.

The experimental aspect in the planning of the new school is expressed in the following quotation from the Fort Lincoln planning report: "An important aspect of the Fort Lincoln schools is that they can serve as a laboratory for the entire district school system. Here new techniques and methods can be developed for the ultimate benefit of pupils throughout the district".

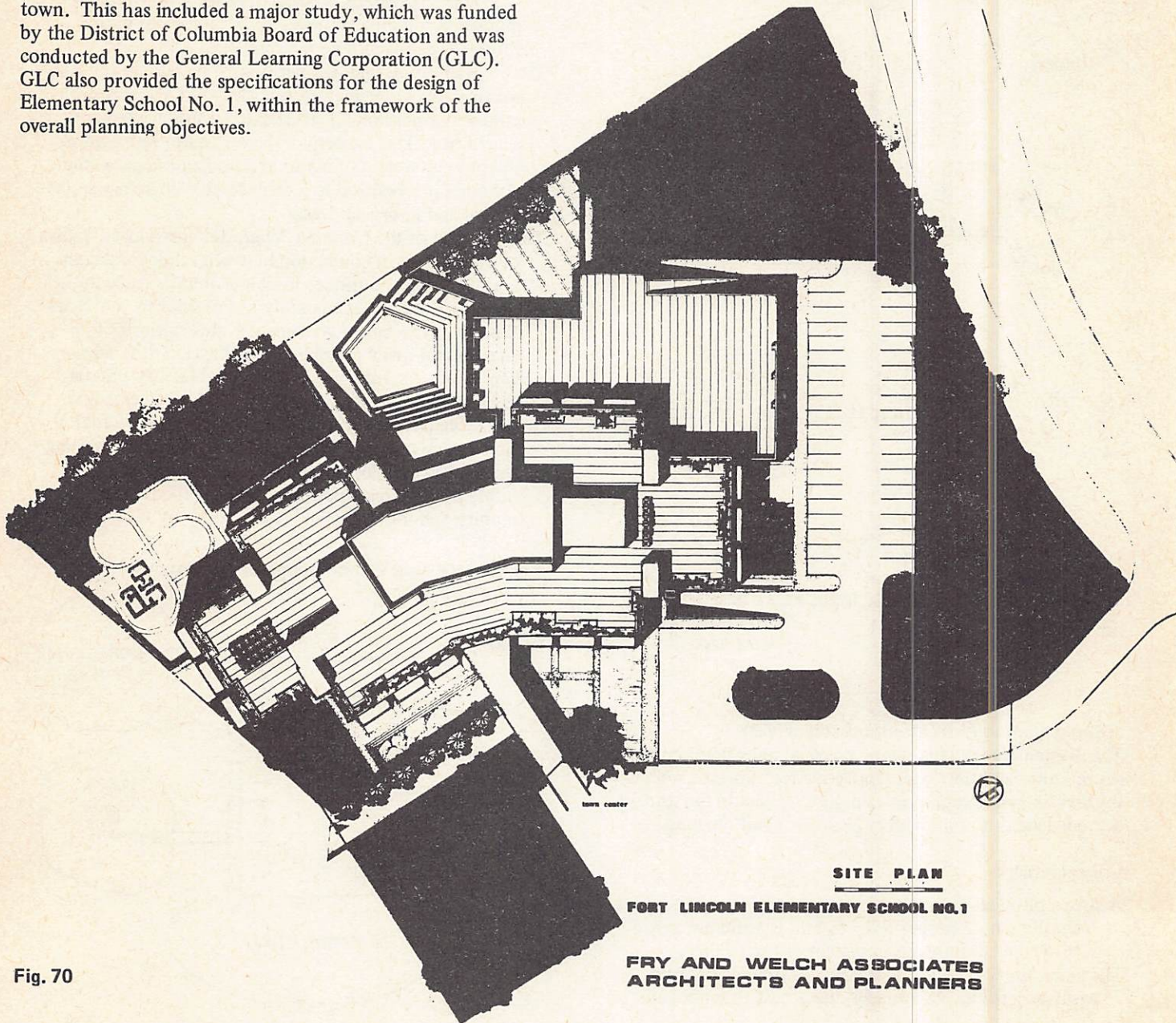
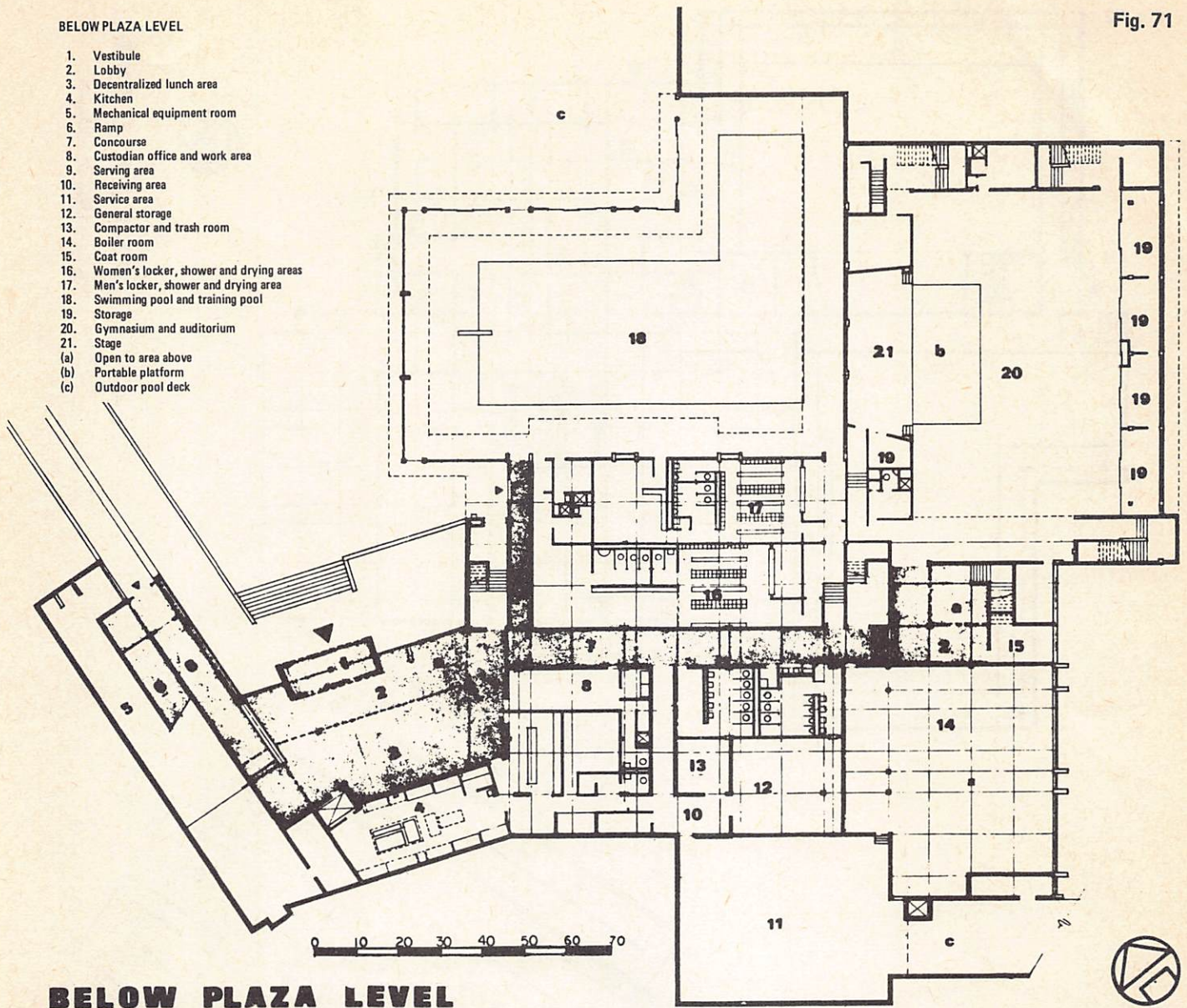


Fig. 70

Fig. 71

BELOW PLAZA LEVEL

1. Vestibule
2. Lobby
3. Decentralized lunch area
4. Kitchen
5. Mechanical equipment room
6. Ramp
7. Concourse
8. Custodian office and work area
9. Serving area
10. Receiving area
11. Service area
12. General storage
13. Compactor and trash room
14. Boiler room
15. Coat room
16. Women's locker, shower and drying areas
17. Men's locker, shower and drying area
18. Swimming pool and training pool
19. Storage
20. Gymnasium and auditorium
21. Stage
- (a) Open to area above
- (b) Portable platform
- (c) Outdoor pool deck



BELOW PLAZA LEVEL

Activities and programmes serving the community

Provision is made for the following community services and related activities and programmes: welfare office (to handle needs of community members and offer information and advice concerning welfare matters); community health centre (for walk-in patients); birth control office (to offer information and help in birth control); pre-school education (early childhood education unit for 1-4 year-old children); community multi-purpose areas; gymnasium, and swimming pool.

Administrative aspects

The Fort Lincoln School is financed and will be owned by the District of Columbia Government. Similarly, the ad-

ministration system will provide for a school principal in charge of the whole facility and an assistant principal for community programmes to deal with community-oriented activities.

There is not as yet any provision for a local Community School Board. It is expected that this matter will be resolved in conjunction with other, more general, administrative aspects of Fort Lincoln New Town, which are still under study.

Physical aspects

Characteristics of layout (Figures 70 to 75)

- The building is on four levels with a main vertical circulation core and two larger groups of spaces at each level.

PLAZA LEVEL

1. Lobby
2. Display
3. Lounge, orientation, meeting area
4. Pantry and serving area
5. Ramp
6. Activity display centre
7. Faculty-community planning centre
8. General instruction area (kindergarten)
9. Quiet area
10. Project alcove
11. General instruction area (pre-school)
12. Small group instruction area
13. Storage
14. Indoor play area and forum
15. Commons: audio-visual, dramatic presentations, exhibits, meetings
16. Recreation director's office
17. Gym-auditorium gallery
18. Bleacher seats
19. Administration area
20. Community multi-service centre area
21. Covered entrance area
22. Waiting area
23. Vestibule
24. Community health centre
25. Mechanical equipment room
- (a) Play-study structure (connected to upper level)
- (b) Portable platform and cyclorama
- (c) Open area to below
- (d) Covered play area
- (e) Demountable partitions (with chalkboard)
- (f) Demountable partitions
- (g) Swimming pool gallery and bleachers

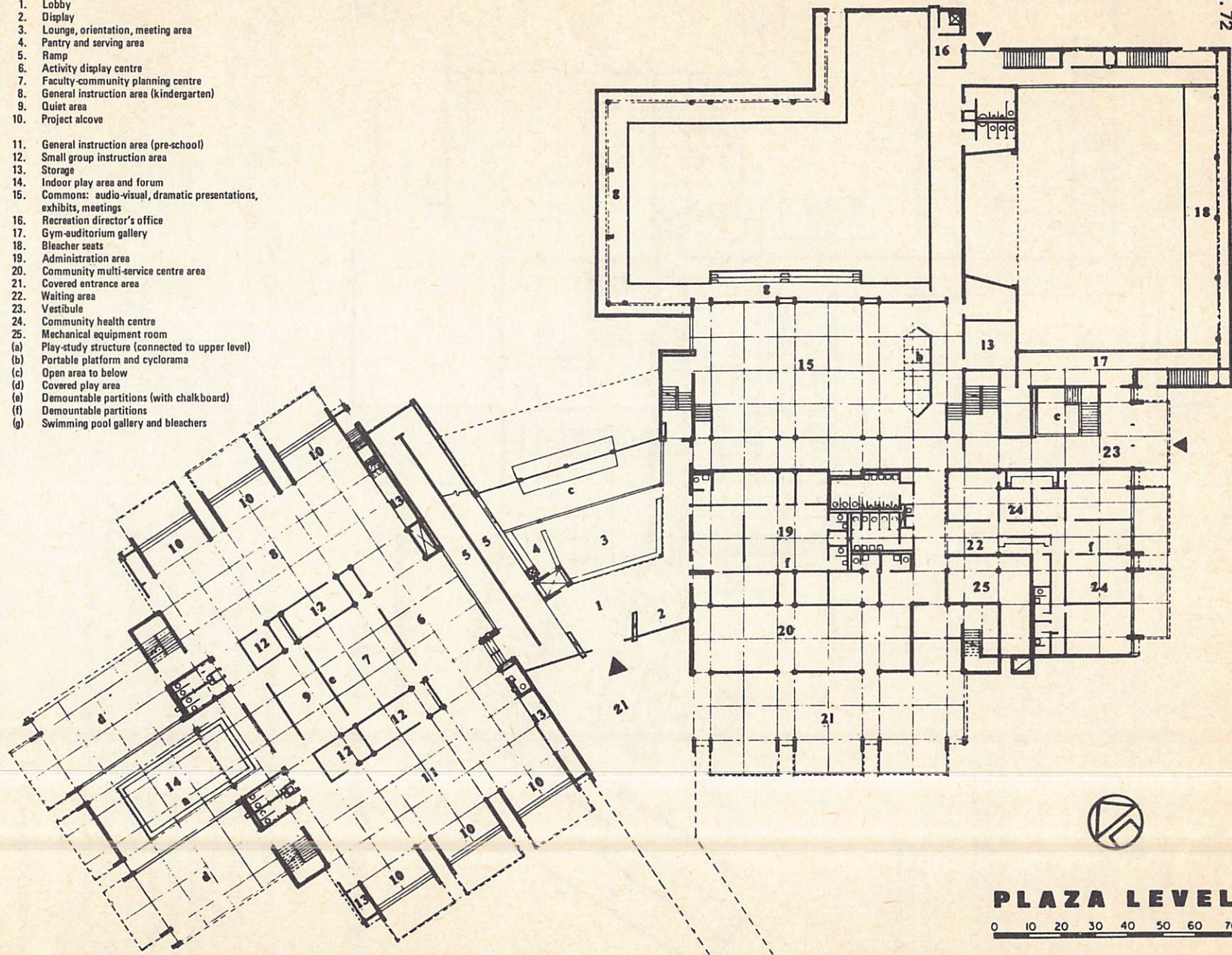


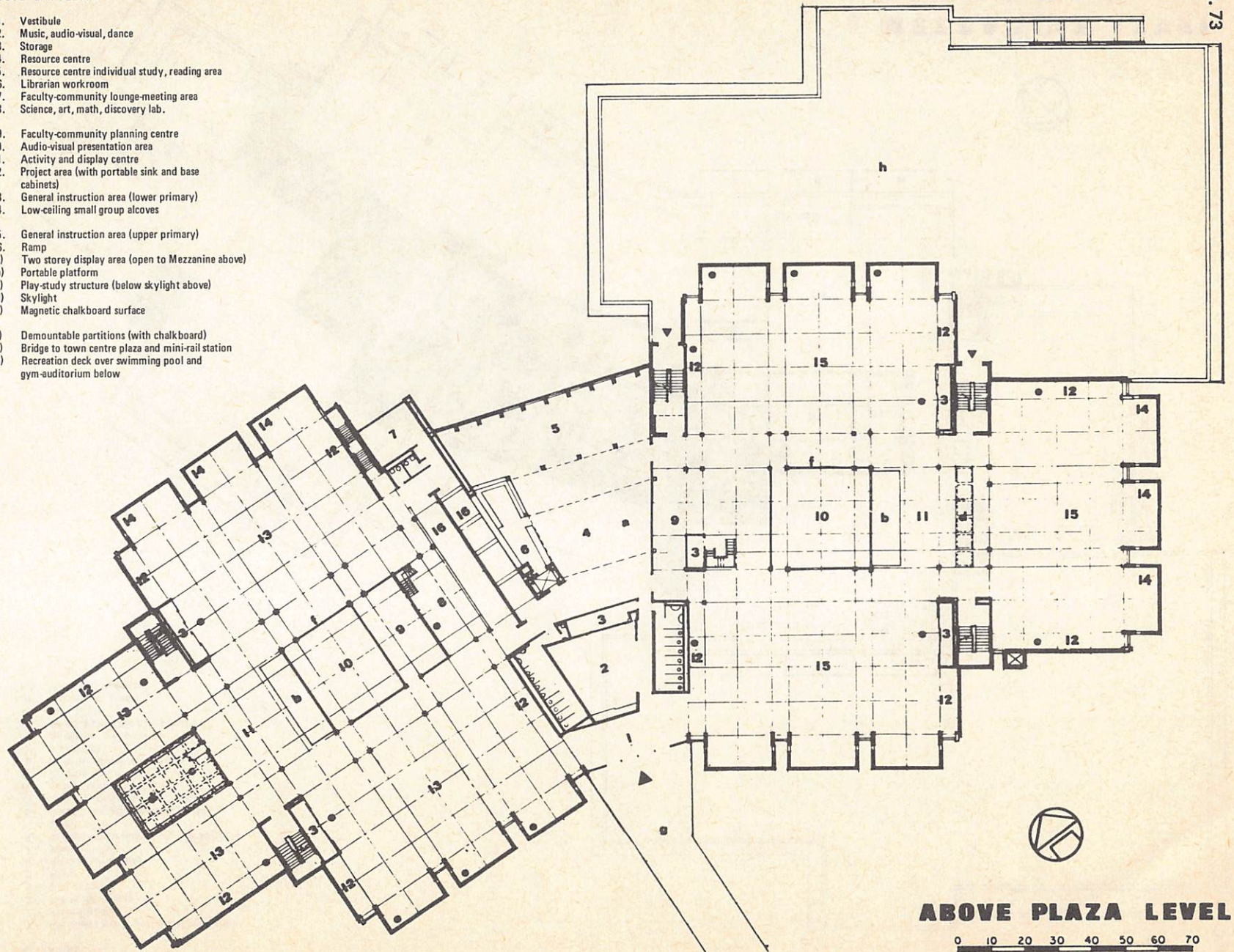
Fig. 72

PLAZA LEVEL

0 10 20 30 40 50 60 70

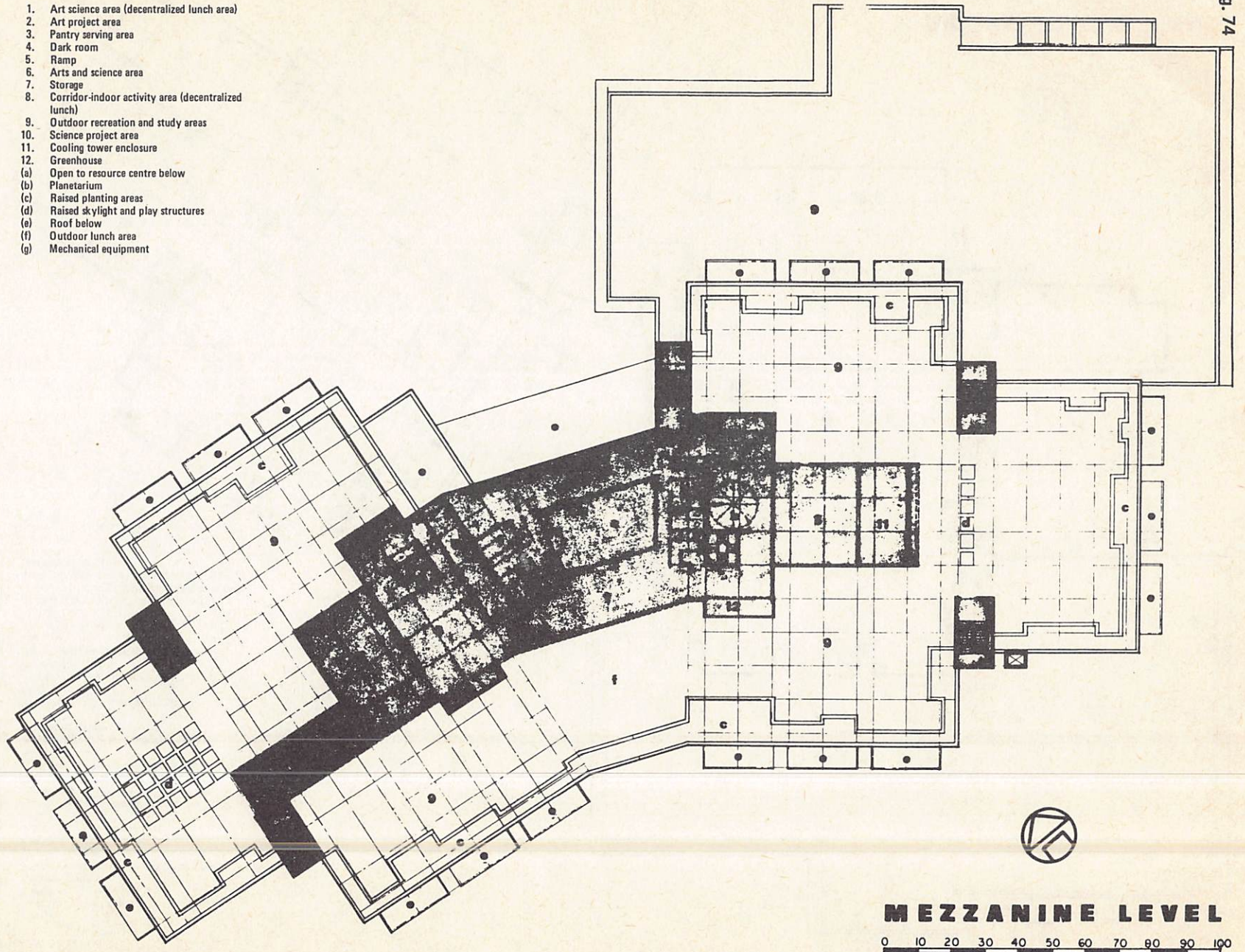
ABOVE PLAZA LEVEL

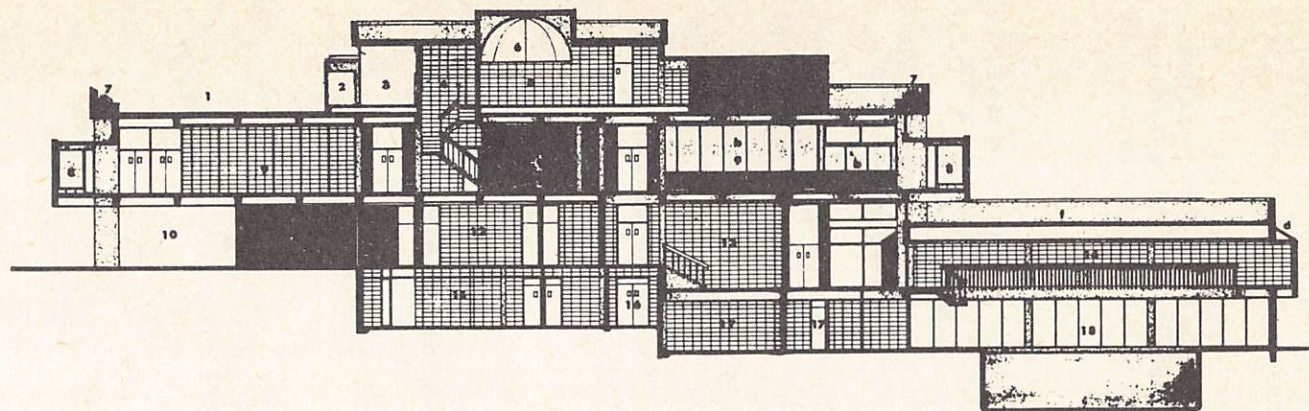
1. Vestibule
2. Music, audio-visual, dance
3. Storage
4. Resource centre
5. Resource centre individual study, reading area
6. Librarian workroom
7. Faculty-community lounge-meeting area
8. Science, art, math, discovery lab.
9. Faculty-community planning centre
10. Audio-visual presentation area
11. Activity and display centre
12. Project area (with portable sink and base cabinets)
13. General instruction area (lower primary)
14. Low-ceiling small group alcoves
15. General instruction area (upper primary)
16. Ramp
- (a) Two storey display area (open to Mezzanine above)
- (b) Portable platform
- (c) Play-study structure (below skylight above)
- (d) Skylight
- (e) Magnetic chalkboard surface
- (f) Demountable partitions (with chalkboard)
- (g) Bridge to town centre plaza and mini-rail station
- (h) Recreation deck over swimming pool and gym-auditorium below



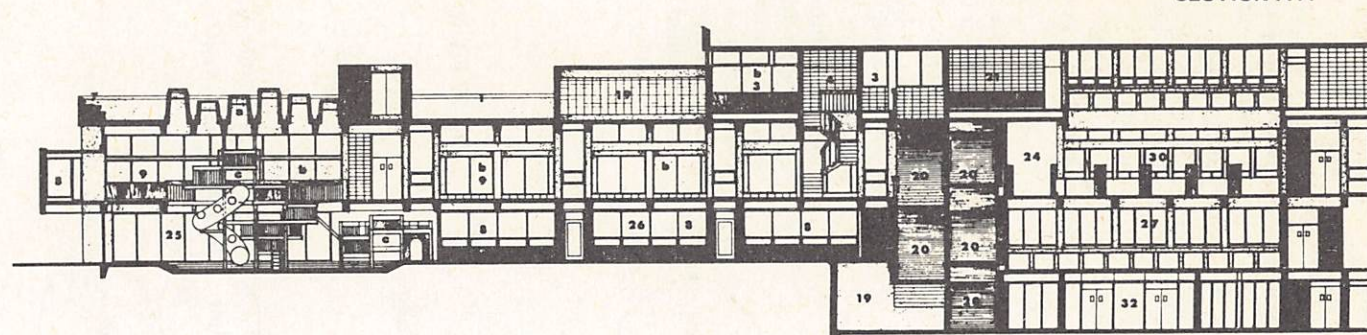
MEZZANINE LEVEL

1. Art science area (decentralized lunch area)
2. Art project area
3. Pantry serving area
4. Dark room
5. Ramp
6. Arts and science area
7. Storage
8. Corridor-indoor activity area (decentralized lunch)
9. Outdoor recreation and study areas
10. Science project area
11. Cooling tower enclosure
12. Greenhouse
- (a) Open to resource centre below
- (b) Planetarium
- (c) Raised planting areas
- (d) Raised skylight and play structures
- (e) Roof below
- (f) Outdoor lunch area
- (g) Mechanical equipment

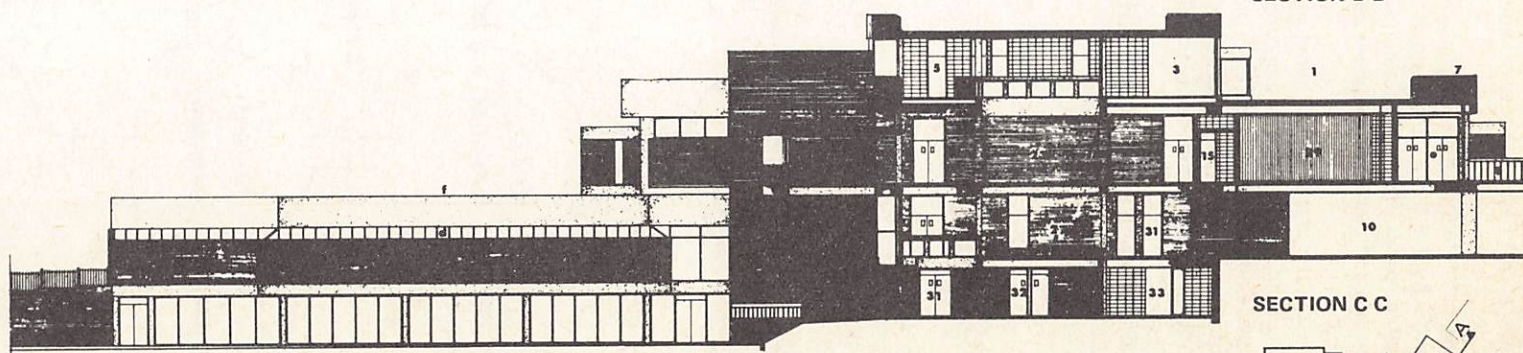




SECTION A A

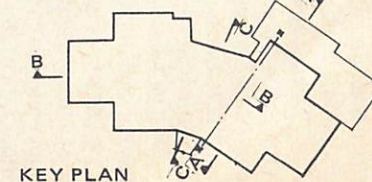


SECTION B B



SECTION C C

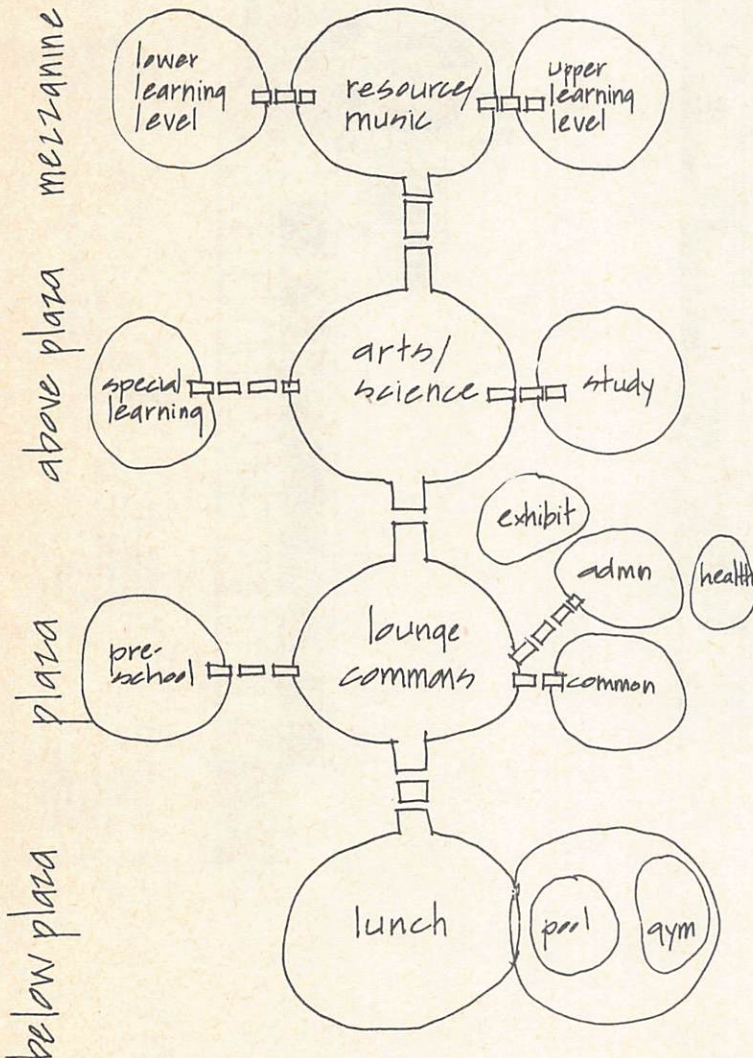
- | | | | | |
|----------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------|------------------------------------------------------|---------------------------------------|
| 1. Recreation - Study deck | 10. Covered entrance area | 17. Lockers | 26. Central instruction area stage I kindergarten | 33. Kitchen |
| 2. Greenhouse | 11. Community service | 18. Pool | 27. Lounge: orientation, meeting area | (a) Skylight |
| 3. Art and science area | 12. General administration | 19. Mechanical equipment | 28. Decentralized lunch area | (b) Magnetic chalkboard surface |
| 4. Stair | 13. The commons: audio-visual and dramatic presentation, exhibits, meetings | 20. Ramp | 29. Music, audio-visual, dance | (c) Play study structure |
| 5. Science project area | 14. Pool gallery | 21. Pantry serving area | 30. Resource centre (individual study, reading area) | (d) Skylight at swimming pool gallery |
| 6. Planetarium | 15. Storage | 22. Art project area | 31. Lobby | (e) Vestibule |
| 7. Planting area | 16. Concourse | 23. Resource centre - reading and display | 32. Decentralized lunch area | (f) Recreation deck over pool gym |
| 8. Small group instruction alcove | | 24. Librarian workroom | | (g) Bridge to town centre |
| 9. Central instruction area (students) | | 25. Indoor play area | | |



KEY PLAN

- The main circulation core with an entrance off a plaza level provides access to community-oriented spaces and shared facilities.
- Lounge space at core location of plaza level serves as a link between pre-school activities and administration and community-oriented spaces. The adjacent community health centre also has a separate, independent entrance from the other end.
- The level below the plaza houses shared spaces: gymnasium, swimming pool, kitchen and dining room.
- At upper levels, the core includes art-science area, resource centre and music rooms. At the same levels, the upper and lower elementary learning areas are located on either side of the core.
- The general instruction areas can be subdivided with movable partitions.

Fig. 76 F.L.N.T. — Floor plan relations



- Learning spaces are divided into a series of modules, each with individually adjustable environmental control systems.

Floor plan relationships (Figure 76)

The core is an activity area linking adjacent spaces and leading from "community" spaces at the lower levels to "school" spaces above.

School/community relationships (Figure 77)

The simplicity implied in this diagram reflects the directness and clarity of the building's organizational principle. Circulation is used as a potential link between community and school.

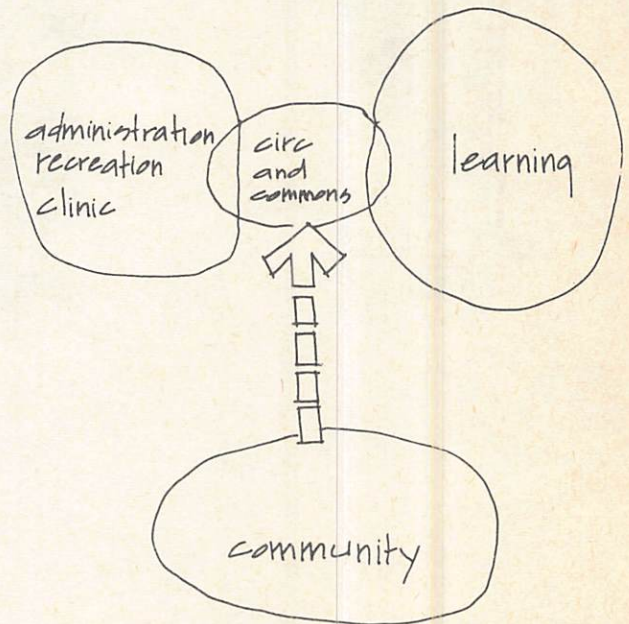
Critical remarks

The core acts as a unifying element for the whole school and as a "meeting and greeting" focal point with a potential for community/school interaction.

Spaces at the core (dining room, lounge, arts-science area, resource centre and music room) are easily accessible by the community.

Size and layout of learning spaces and system of environmental controls allow for flexible subdivision through movable partitions and large variety of arrangements. Community-oriented and shared spaces at the lower levels, although integrally connected with the rest of the school, have also separate entrance and relative independence (with kitchen and dining area) which should encourage and enhance community use.

Fig. 77 F.L.N.T. — School/community relations



SCHOOL WITHOUT WALLS - WASHINGTON, D.C.

This is an experimental senior high school, funded and operated by the District of Columbia School System and serving students from all parts of the city. The uniqueness of its approach to education lies in the use of the city as the "classroom", i.e. as the main resource for learning. In its three years of existence the school has had three locations. The first - and apparently the most appropriate - was in an office building in the centre of down-town, close to a public library, the Smithsonian Institution, galleries and museums. In the second year it was housed in an old school building in the city, together with another school. At present, another small school building, the old Magruder School, is serving as its own home base. It is in a down-town location, a few blocks from the White House.

Planning considerations

Washington's School Without Walls was proposed as an alternative to traditional high school education. The District of Columbia School Board endorsed the proposal on a five-year experimental basis, considering the possibility of replicating the project either individually or as an attachment to regular high schools.

Although the general philosophy of the School Without Walls, which regards the community as the main resource for learning, has wider implications for education, the school has addressed itself particularly to those senior high school students who either would not adjust to the disciplined programme of the regular school with its great number of students and its structured curriculum; or to those who did not find sufficient stimulus to fully develop their abilities and talents. Both categories were reflected in the drop-out rate in the city.

The intent is to provide the equivalent of the subject matter required for a high school diploma, but under conditions which are more adjusted to the individual student's interests and needs and related to direct real-life experience. This method relies to a large degree on the student's motivation and sense of responsibility, which is encouraged, guided, and checked by the school's system of administration.

Admission of students to the School Without Walls was initially very selective, but efforts are made to maintain a fair representation of various types of students.

School programme

The curriculum is tailor-made for each student, utilizing concepts to broaden the scope of a high school education while giving the student a standard high school diploma. Some of the aims are: exposure to the city and its working people; motivation to continue learning beyond formal schooling; education that is richer, more flexible, humanistic; experimentation with various curricula for possible further development in the District of Columbia school system.

Following are some basic methods employed and some examples of resources used:

Structured education. Attendance at classes at Georgetown University;

Apprenticeship. Working at radio station WRC; working with a professional photographer; law internship; internship in city councilman's office; real estate management training.

Teaching outside the school by individuals in a particular field. Biology and chemistry taught by Howard University medical students at the university; some language classes taught by graduate students at Georgetown University.

Services offered by students. Tutoring in Spanish; classroom aide in an elementary school; junior counsellor at Camp Roundmeadow.

Students' work is evaluated by one of the 10 teachers at the school and they are given credit towards fulfilling the requirements of the school system in a specific field, such as history, English, science, etc.

Administrative aspects

The total number of students in the School Without Walls is 150, a number that should not be exceeded if the personalized character of the student body is to be maintained. Following are some of its main administrative features:

- the overall administrator is the Principal, who reports, like all public school principals, to the Board of Education;
- there are 10 teachers, who may teach a particular class, such as mathematics or art. However, their main rôle is to act as evaluators, guides, advisers and contacts with the student's real teacher who in fact is the resource person in the city;
- there is one co-ordinator, who is responsible for seeking out resources in the city, establishing contact with them and checking with them twice a month on the students' progress and attitudes;
- particular resources can be suggested by the individual student as well as by teachers and parents. The school uses about 200 such resources.

Physical aspects

General characteristics

- The unique character of the School Without Walls and the relatively small number of students pose different physical requirements as compared to those of other educational facilities. It is characteristic that when it started it was housed in a down-town office building where it occupied one floor. The physical requirements are, in this case, of secondary importance, since the essential parts of learning take place anywhere in the city. It is, however, useful to note certain general considerations:

Based on its present operation and size, the following spaces should be regarded as necessary: one big all-activity room; four classrooms for the type of instruction which,

according to experience, can best be carried out at the school (e.g. mathematics, science); a media centre; office space for the principal and staff; one conference room; an eating space.

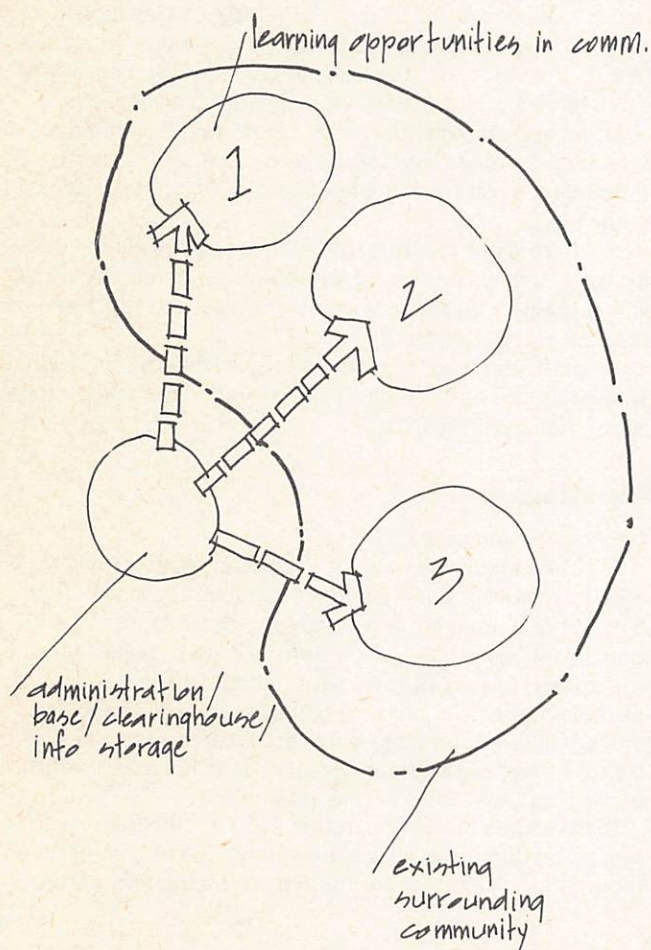
- Activities requiring special space, as for physical education, are accommodated in existing community facilities in the area.

- The school is centrally located for the purpose of proximity to potential resources in the city, such as museums, art galleries, institutions, libraries, professional and business establishments, etc. Even so, a relatively substantial amount of the student's time must be devoted to movement between house, school and community resources. Students are given free tickets to use the public transportation system.

Floor plan and school/community relationships (Fig. 78)

- There is no "floor plan" as such in the School Without Walls, since by definition the community serves as the classroom. In this sense, the individual resources, or learning opportunities, in the city provide the physical accommodation and consequently the same diagram illustrates both floor plan and school/community relationships.

Fig. 78 — School Without Walls-relationships



Critical remarks

The School Without Walls is a daring experiment which should be judged for its potential significance in education and not for specific accomplishments which, at least quantitatively, are of necessity limited at present. In any event, one indicator of its effectiveness is that an above-average percentage of its graduates continue with higher education.

The nature of the experiment, constituting a radical deviation from the status quo in secondary education, requires strong support from its sponsors, the District of Columbia Board of Education, for the accomplishment of its purpose. It is reassuring that a public agency has undertaken such an initiative. From talking to students, who generally have a serious interest in the school, it appears that more support, both material and moral, is needed.

The mobility of the school so far - three locations in three years - has had, as might be expected, a negative effect on the necessary physical adjustments and mainly on the morale of the school. Despite the fact that, in principle and by definition, the city is the classroom, a permanent physical identity for the school, no matter how limited its size, is always important.

The economics of the School Without Walls pose some particular questions. On the one hand, the overall student/teacher ratio of 15/1 (there is some argument in favour of lowering it to 10/1) makes the operational expenses considerably higher than those of the District of Columbia regular high schools where the ratio is 21/1. Furthermore, the capital investment for physical facilities per student (despite the abolishment of the "walls") is relatively high though the higher cost per student is justified if one considers the small size and the experimental significance of the school.

The policy of admission of students seems to be of critical importance. The character and scope of the school can be drastically affected by the relative preference given exceptionally gifted students, non-conformists and drop-outs, males or females, members of particular racial, ethnic or social groups, etc. Of equal importance is the selection of staff qualified for the purpose and "committed to the idea".

CONCLUSIONS RELATING TO EXISTING SCHOOLS

Planning considerations

In respect of educational facilities aiming to serve a wider range of community needs, the method of the "charette" offers a unique free forum for the expression of ideas, thoughts and views that should be considered at the planning stage. Provision should be made for adequate community representation. The "charette" that preceded the planning of Dunbar High School was a good example of intensive community involvement at the planning stage. Agencies that are expected or intended to use jointly a new facility should also participate in its planning. The selection of the architect should be among the first steps toward the

planning of the new facility. He should be a participant in its planning at all stages and at all levels, including the "charette" wherever applicable.

The joint use of space, if adequately planned and administered, can only be beneficial, for its obvious economic advantages, but also for its broader educational value. In this respect one can say that the higher the degree of sharing the higher also the educational benefit.

The particular programmes that can be accommodated or combined in the same educational facility can be of great variety and number and have to be determined in each case, depending on the circumstances. However, a general distinction can be made between activities and programmes that are related to education and recreation in the broadest definition of these concepts, as compared to those that are strictly for community service, such as health clinics or employment offices. The inclusion of any community service will in any case offer the economic benefit of sharing the cost of site and site improvements.

The "community" served by an educational facility can be defined in a number of ways: from the nearby neighbourhood or school district to the city-wide area comprising groups and individuals of various interests. Only local condition and needs can suggest whether at the planning stage the emphasis should be placed on the people living in close proximity, or on a more flexible interpretation of the concept. The latter interpretation can result in a wider range of types of activities and kinds of people served, as well as in helping to meet operational costs through renting space, without compromising on the service to the neighbourhood.

Administration and management

The idea of an educational facility serving as a community resource should be clearly reflected in administration and management. This should be regarded as a prerequisite for an effective realization of the concept.

Since community services and programmes are usually supported by different public agencies, it is essential that these agencies participate in the initial funding as well as in the operational financing of the educational facility. The particular model of inter-agency relationship will necessarily vary in each case, according to prevailing conditions of public administration.

The above consideration leads to the conclusion that, ultimately, education could be conceived as a total community service, one part being the present school system which is addressed to particular age groups. A community service for education thus defined would handle educational (and recreational) facilities as an intra-agency matter.

Until this approach to education is established as public policy, the use of educational facilities as a community resource has to rely to a large extent on inter-agency co-operation. The prospects for such co-operation are enhanced when the agencies involved have a common economic and administrative dependence at the same level of government (city, county or state).

The obstacles to be overcome in inter-agency co-operation are manifold. Many admirable ideas and initiatives can

easily be killed by bureaucratic technicalities, deep-rooted prejudices and traditions of jurisdictional separation. So far, cases of success seem to be largely the result of enlightened leadership on the part of the public administration or the community (or both).

The prospects for using educational facilities as a community resource will be enhanced when the public (the community) becomes sufficiently aware of the whole concept and its potential as a community service. Then public pressures will be built up, which will help to overcome administrative difficulties.

Physical relationships

A central core can effectively serve as an organizing element and connecting link among the main components of the educational facility. It can also potentially serve as an interface between the school, on the one hand, and the community, on the other. This rôle of the core presupposes a central administration and management with strong representation of community-oriented programmes. In the physical layout, the core should be clearly identifiable and should provide for multiple use and for easy access, vertically and horizontally, to spaces shared by school and community as well as to administrative spaces.

Conversely, the educational facility can be conceived as a series of physically interrelated but relatively independent units, serving different programmes and offering different types of education and community services. This principle of a layout allows for relative independence in the administration and management of each unit, assuming that each one comes under the jurisdiction of a different agency or programme. In this case, the degree of sharing of space and, more generally, the benefits from the combination of individual units will depend on the extent to which they serve complementary purposes and on the degree of inter-agency co-ordination both at the planning and design stages and in the operation of the facility. Depending, therefore, on the way in which this principle is realized, it may compromise the community school concept; but it may also constitute an advanced version of the same concept, if the whole cluster is conceived as a school in a broader definition of the word, serving the whole community, including its "school-age" members.

A third approach to the overall physical organization of a community-oriented educational facility can be based on the principal of providing separate and distinct spaces for school and community with independent access, physically interlocked in one unified structure, but without any particular component, like a central core, serving as a potential meeting ground. In this case, community and school spaces can function independently, without any mutual contact resulting from their respective layout. There can be various degrees of sharing of space, depending primarily on general planning premises and administrative commitments among agencies, as well as on the efficiency of administration and management of the facility.

The principle of joint use of space can conceivably be applied to most parts of an educational facility. However,

it may be desirable to reserve some distinct area, which the school, on the one hand, and the community, on the other, can identify with and regard primarily, if not exclusively, as its own.

In cases where site conditions necessitate a vertical layout at more levels, the spaces used by the community should be at the ground level (including basement) with sequence of location in upper levels analogous to the degree of space sharing.

A major design objective should be the integration of ground floor spaces with surrounding city development and circulation system for the enhancement of community access and use. Spaces used exclusively for community services, and otherwise not directly related to education or recreation, should have less immediate physical relationship and more independence from the rest of the facility. Depending on the type of service, a closer relationship may offer no mutual advantage, in fact in some cases may even be undesirable and have adverse effects. In this respect, the separation of social services from the main building in Dunbar High School seems to be appropriate.

A central kitchen at the ground level can provide adequate service to nearby spaces mainly used for community purposes, as well as to more individualized eating spaces in the school proper.

The conclusions outlined above refer mainly to the planning and design of new community-oriented facilities, but if broadly interpreted they may also be applicable in dealing with existing schools used for community-wide educational programmes. As mentioned earlier, there is a growing tendency in the two metropolitan areas of this study for community activity and various types of adult education programmes, which are housed in existing facilities of the public school system. At the same time, the student population in many parts of the same areas has been declining, because of demographic changes related to decreasing family size and number of children per family. This trend, which by all indications is general and is likely to continue, has already resulted in under-occupancy of many schools and, in some cases, even in their closing.

The two phenomena combined offer further justification for a change of policy in the planning of educational facilities along the lines investigated in this study. New schools will always be needed for the replacement of obsolete structures and to meet new demands arising in growing areas. But equally important may be the conversion or physical adaptation of existing facilities to meet a wider range of requirements, which had not been anticipated in the original design. If education is considered to be a community-wide service and a life-long process, the physical adjustment of facilities must be viewed from this broader angle in its various implications and must be paralleled by corresponding adjustments in financing, administration and management.

FOR LINCOLN SECONDARY SCHOOL: A PROPOSAL FOR IMPLEMENTATION

Selection and purpose

The secondary school planned for Fort Lincoln New Town in Washington, D.C. has been selected as a case study for the application of conclusions and principles arrived at from the preceding analysis and evaluation of educational facilities serving community needs.

For Lincoln has been conceived as "new town in town" to be built on a 362-acre site within the boundaries of Washington, D.C., on the northeast side bordering Prince Georges County, Maryland (see Figure 79). The realization of the project has been so far delayed as a result of general governmental policies, but the programme remains active and preparations are continuing for its implementation on the same basic planning premises. Thus, the existing extensive research, analyses and planning background, concerning the socio-economic, as well as the physical structure of the community, provide the necessary material for the more specific conception of a part of the overall development, in this case of the secondary school that is included in the plan.

In this respect the case study is as "real" as any study based on a specific plan and programme thoroughly prepared for implementation, which in fact could have been already carried out and is still intended to be carried out, depending on decisions of a mainly political nature. This provides the necessary specificity which would not have been feasible in another case, because of the difficulty in providing all the needed facts and detail information and data. To the extent that the main purpose is to test some principles and conclusions of wider applicability concerning the planning and design of community-oriented schools, any possible change in the details of assumed conditions does not affect the significance of the case study, which should be regarded as illustrative.

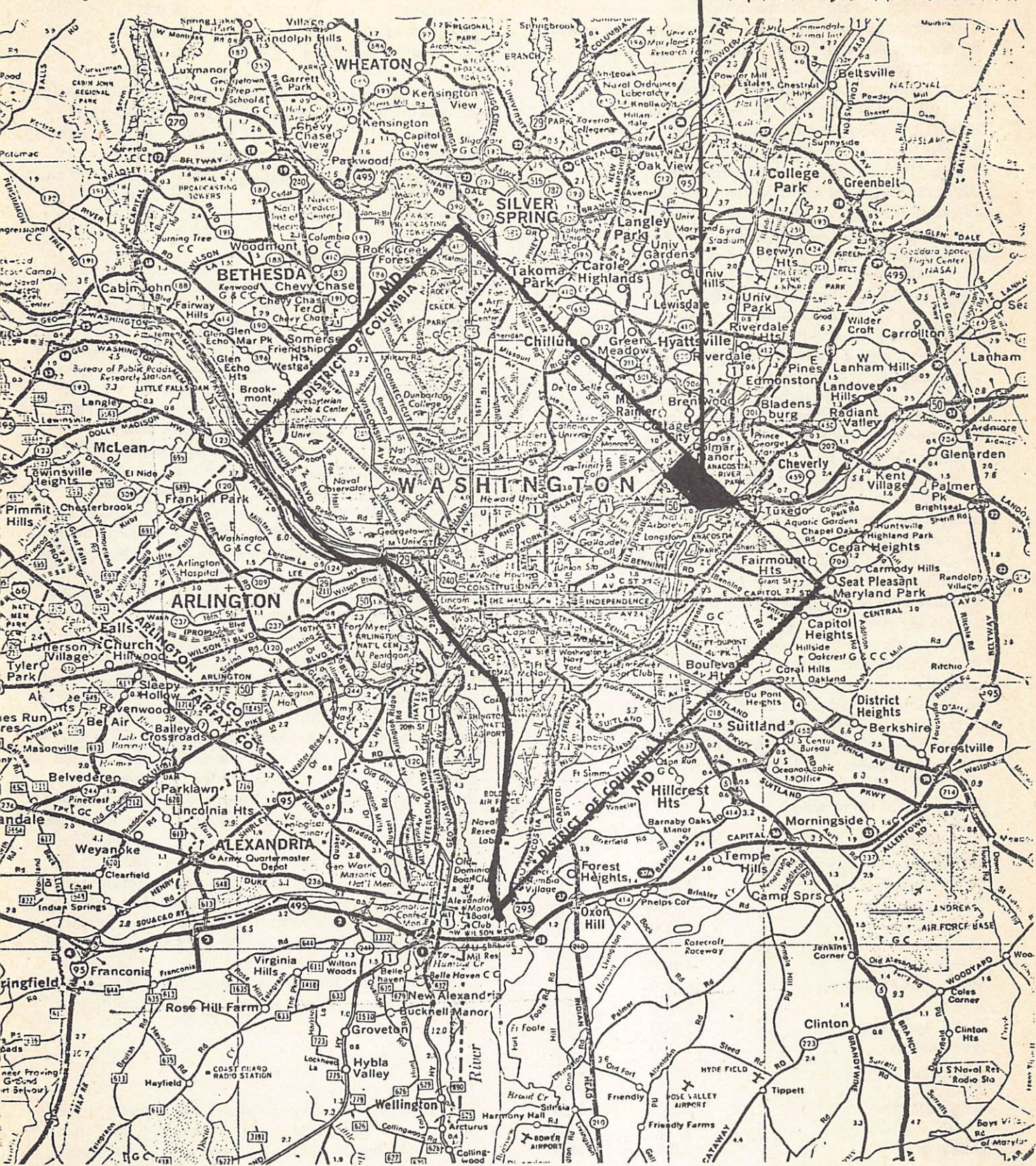
Facts about the community and the new facility

Fort Lincoln is planned for a population of about 16,000, comprising a balance of socio-economic groups. The educational system to serve the new community includes early childhood education (1-4 years old), elementary education (5-12 years old), secondary education (13-18 years old), and continuing education (over 18 years old). In addition, the plan provides for a branch of the Federal City College, which will serve the new town as well as a wider segment of the metropolitan area.

The early childhood education will offer day-care service, early learning and parent-child education and will be physically combined with the elementary schools, three in number, distributed in the residential areas. There will be one facility for secondary education, while continuing education (a variety of programmes for the needs of different groups and persons) will have no separate facility as such, but will use the space of elementary and secondary education, Federal City College and leased commercial space for

Fig. 79

PORT LINCOLN DEVELOPMENT



special programmes. Explicit aims in the approach to educational facilities are (a) to maximize their use for education, recreation and other community activities by providing for added space for these activities and for intensive community use of the facilities after school hours and (b) to use the whole community as a learning environment by developing programmes related to the Federal City College, the business district and the natural and historic features which are situated in the area.

Since Fort Lincoln belongs administratively to the District of Columbia school system, the same general conditions of funding and administration will apply as in other schools under the same jurisdiction, such as those investigated in this study. However, as was already observed in the investigated examples, there may be a variance in the degree of community involvement from one case to another. This allows for particular opportunities in Fort Lincoln, in line with the general objectives of the new town, which would encourage a relative independence and the highest possible degree of community participation in local community affairs. As far as the schools are concerned, the administration and management of the system will be jointly determined by a residents' group and the District of Columbia Board of Education.

More specifically for the secondary school facilities, the Fort Lincoln plan proposes that "they would be located in the town centre, accessible to the entire Fort Lincoln population. They would be close to office, business, health and federal city college facilities, allowing student interaction with major community functions. They would be used for adult education, recreation, and other community purposes."

The original planning called for a capacity of 2,400 students for the secondary school, but according to later estimates, a capacity of 1,500-1,700 students appears to be more realistic and desirable. Based on this capacity and on prevailing general curriculum objectives, a programme of spaces has been developed for the purposes of the case study, which appears in the following table.

Programme of major spaces

Type of space	Area (sq. ft.)	(Sq. m.)
Houses (commons) 3 at 6,000.	18,000	1,672
Social studies	6,400	595
Foreign languages	4,000	372
Mathematics	5,000	464
Science	9,000	836
Business	5,000	464
Media centre (library)	10,000	929
Music	6,000	557
Photo/Appl. arts	3,600	334
Industrial arts	7,000	650
Home economics	7,000	650
Kitchen	4,000	372
Administration	2,500	232
Health unit	3,600	334
Guidance	2,000	186

Alternative programme	3,000	279
Gymnasium	10,000	929
Swimming pool	8,000	743
Community base space	6,000	557

The school will comprise three units ("houses"), each with its own home base ("commons"). A separate unit will be made up by students (5-10% of the total number) following an alternative "school without walls" programme.

The community base space is intended primarily, if not exclusively, for community use, mainly for educational and recreational programmes.

A conceptual diagram

Among the conclusions arrived at in this study are certain alternative concepts with regard to the physical relationships between school and community.

The first concept would apply to an educational facility which is centrally administered and managed and would use a central core as an organizing element for the inter-relationship of the main components of the facility, as well as for linking the facility with the community. The second concept would apply to a facility with different administration and management, with the school proper being one among a number of relatively independent physical components, forming a more loosely-connected cluster. Finally, a third concept would provide for distinct and separate domains between school and community with overlapping areas of joint use. In this case, the degree of joint use would determine the need for central or separate administration and management.

In view of the fact that Fort Lincoln is planned as an integrated and cohesive community, whereby community ties are to be encouraged through close involvement and participation in civic matters, including the operation of the educational system, it appears that the first of the above concepts, with a strong core, would be the most conducive to the attainment of the above objectives. A generalized form of this concept is illustrated in Figure 80. Here the core represents a flexible element to which various rôles can be assigned, from a circulation node to a major common activity space. It unifies the various components which define its boundaries and can also serve as a link with the community. Finally, the diagram shows the reverse process, whereby the community can serve as a resource and learning opportunity for the school. This would be the case for special programmes, which could be included as an alternative to the regular curriculum by allowing for options of learning along the lines of the "School Without Walls", while still using various of the school's basic facilities.

Design guidelines

The physical environment

The major part of the area is taken up by residential development (see Figures 81 and 82). There is a central open space, including the old Fort, a lake and a 12-acre forest

A hand-drawn diagram illustrating the relationship between a central 'CORE' and various community-based organizations. The 'CORE' is at the center, connected by double-headed arrows to 'MEDIA', 'ARTS', 'ADMIN.', 'AUDIT', 'SPECIAL ED.', and 'LEARNING'. Below the 'CORE' is a large oval labeled 'COMMUNITY'. Three thick, dashed arrows point from the 'CORE' down to the 'COMMUNITY': one from 'SPECIAL ED.', one from the 'CORE' itself, and one from a cluster containing 'GYM/REC.', 'COMM. ENTER.', and 'COMM. PROG.'.

A hand-drawn map of the F.L.N.T. land use. The map is oriented with a north arrow pointing towards the top-left. It shows a complex arrangement of land use zones, including:

- RESIDENTIAL AREAS:** Indicated by a line pointing to a large, irregularly shaped area on the left side of the map.
- COMMUNITY MALL:** Two locations are marked with lines pointing to specific areas. One is located near the center-left, and the other is near the bottom center.
- OPEN SPACE:** Two areas are labeled 'OPEN SPACE' with lines pointing to specific regions. One is located near the top center, and the other is near the bottom center.
- WATER:** A central area is labeled 'LAKE'.
- LAND USES:** A dashed-line boundary encloses an area labeled 'LAND USES'.
- EDUCATION:** Two areas are labeled 'FEDERAL CITY COLLEGE' with lines pointing to specific regions. One is located near the top center, and the other is near the top right.
- Commercial/Industrial:** Two areas are labeled 'TOWN CENTER' with lines pointing to specific regions. One is located near the center-right, and the other is near the bottom right.
- Other Features:** A 'ROAD' is shown running vertically through the center-right. A 'RAILROAD' is shown running horizontally through the bottom. A 'PARK' is located near the bottom center.

The above elements of the town point to possibilities of linking the school to various learning opportunities. The forest preserve area could provide outdoor "environmental classrooms" and nature study areas. The site of the old Fort Lincoln lends itself to historical exploration. The community's elementary schools with their early childhood units could provide child development centres. The Federal City College could serve as a tutorial medium for students of the school. The Town Centre would be appropriate for establishing work/study programmes, art exhibits and theatre productions, while the lake area could provide for recreational programmes. Finally, the proposed shuttle system would make the school more easily accessible by community members and would also enhance contact with outside resources for a programme of the School Without Walls type, which would be attached as an option to the regular school programme.

F.L.N.T. area relationships

SHUTTLE BUS ROUTE

SITE: SECONDARY SCHOOL

LAKE AREA: SWIMMING

TREES, NATURE STUDY, ECOLOGY

HISTORIC AREA

TOWN CENTER - PERFORMING ARTS / THEATRE

FEDERAL CITY COMMUNITY COLLEGE

ELKMAN SCHOOL

OLD PORT

ELEVATORY SCHOOL

LELAND WOODS

Legend: A circle with a diagonal line through it.

Linkage with surrounding elements

A closer look at the elements surrounding the school site indicate possible linkages which might affect the physical organization of the school (Figures 83,84). For example, the theatre in the Town Centre near the school site can be used by both community and school, thus preventing duplication of the facility in the school proper. A zone of possibly shared spaces related to recreation, such as art studies, kitchen and eating space, pool, and gymnasium, can be oriented toward the lake, while the outdoor space for sports and other related events can be placed on the side facing the nearby elementary school, thus allowing for shared use. The main entrance would be related to the main access route on the southern part of the site.

Internal organization

Considering the gross building area required for the students and community needs in relation to the area of the site, it is concluded that the whole facility can be laid out in two main levels, thus minimizing the problem of vertical circulation and accessibility.

Fig. 83 — Case study. Site surroundings

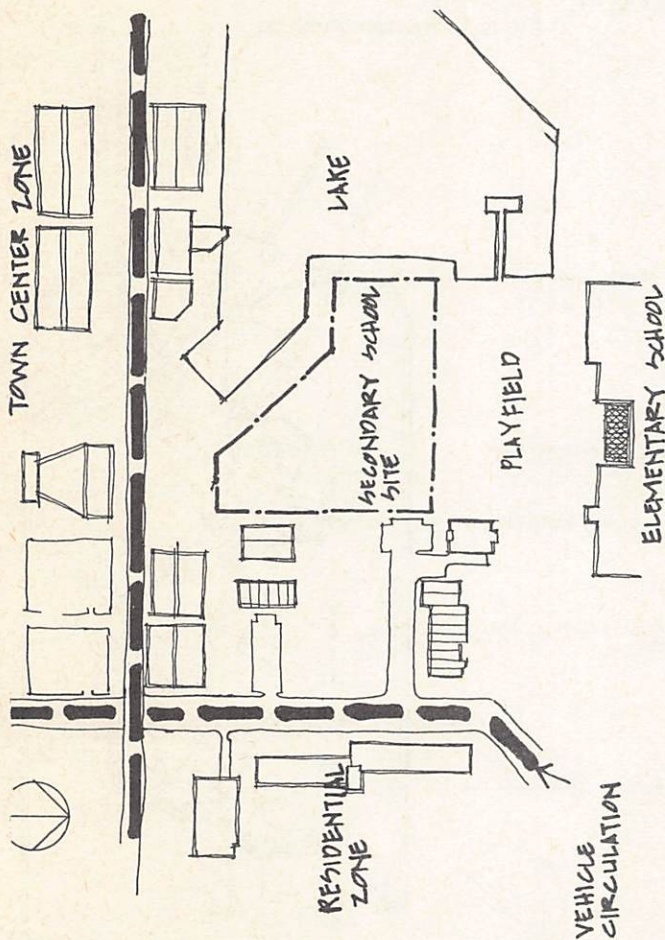
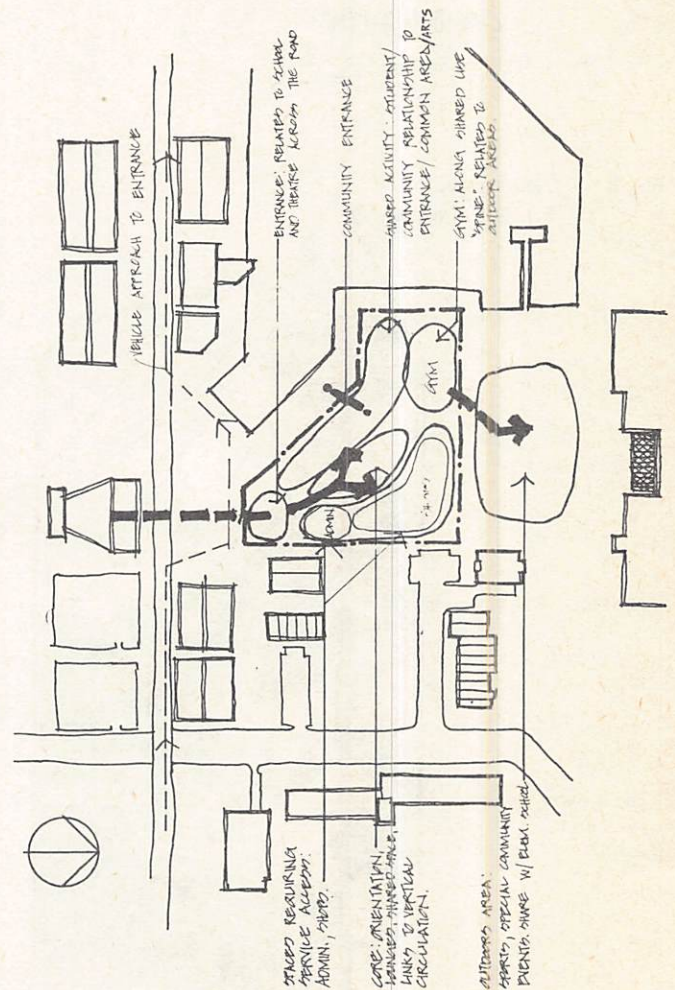


Fig. 84 — Case study. Site linkages



Figures 85 and 86 show the basic organization of spaces at each level, following the principle of locating at the ground level the spaces that lend themselves more to shared use, with the more specialized spaces located at the upper level. In accordance with the conceptual diagram, the interior core becomes the unifying element which connects spaces at both levels. In the space relationships of the plan, the core here assumes the rôle of a central activity space which can be used as an all-purpose room for the school and also as a potential setting for school and community linkage. As shown in Figure 87, the core would be open to the upper level, thus acquiring a particular significance as a central space, visually as well as functionally unifying the major components of the whole facility.

Special consideration must be given to individual elements which have a close relationship with the structured curriculum, but which also serve wider community needs. A case in point is the treatment of the Media Centre (library, audio-visual material, etc.). Figure 87 shows how the Media Centre could be maintained in close connexion with the "academic" components of the facility, while provid-

Fig. 85 — Case study. Ground level relationships

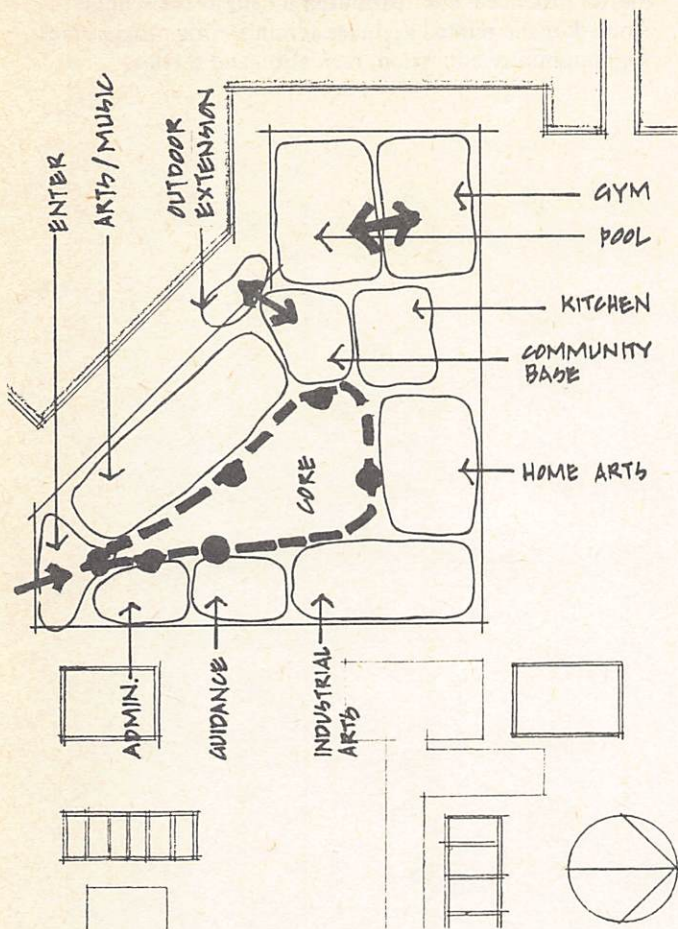
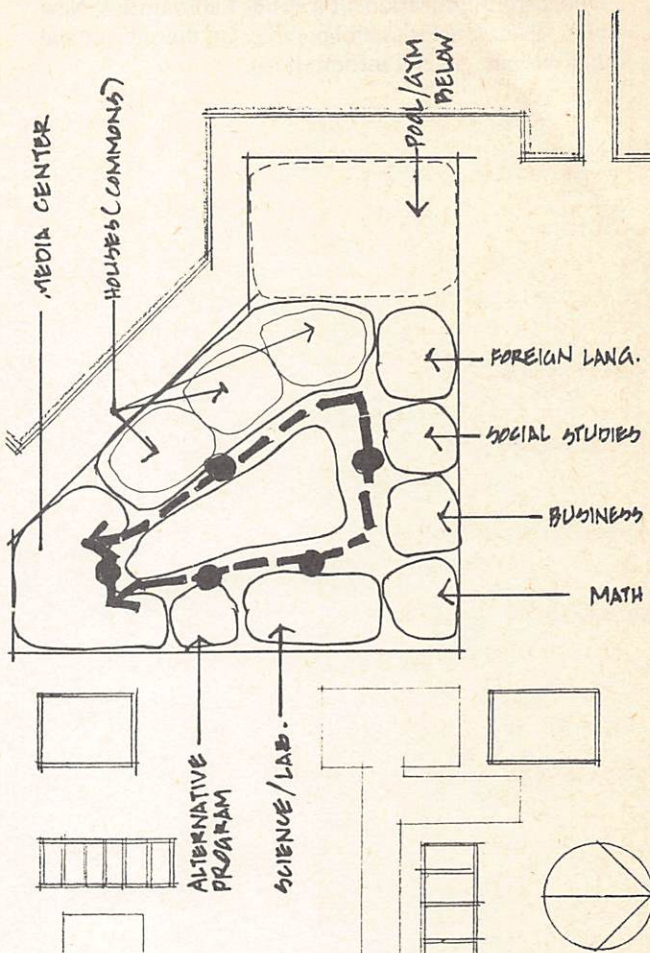


Fig. 86 — Case study. Upper level relationships



ing for direct and, if necessary, independent access by the community. In this case the access can be enhanced by public visibility of the Media Centre.

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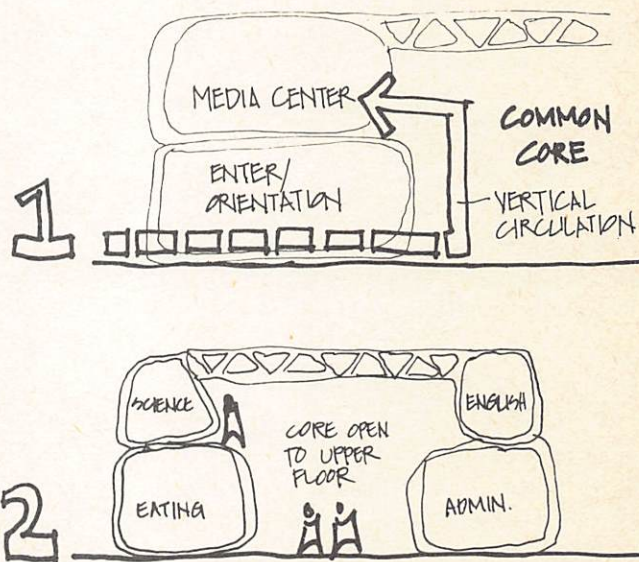
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Fig. 87 — Case study. Section relationships



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ISBN 92-3-101441-2