DESIGN AND CONSTRUCTION IN THE NATIONAL YOUTH SERVICE

REPORT TO THE GOVERNMENT REPUBLIC OF SEYCHELLES

HUBERT MURRAY ARCHITECT
P O BOX 14920 NAIROBI KENYA
Telephone 61515 / 61516 / 60152

DESIGN AND CONSTRUCTION IN THE NYS: CONTENTS

THE SEYCHELLES NATIONAL YOUTH SERVICE

DESIGN AND CONSTRUCTION IN THE NYS: Report of a three-week mission undertaken by Hubert Murray, architect: 1st to 22nd March, 1981

1.0.0 TERMS OF REFERENCE:

1.1.0 My terms of reference were set down in my proposal of January 1981 :

1.1.1
- to make a positive critique of the design and construction of the NYS Village at Port Launay
- to formulate a brief and programme for a second NYS Village
- to develop a curriculum co-ordinating the programme of the students and animateurs with the programme of the building process.

1.1.2 The following report refers to the activities and discussions which took place during my visit to Port Launay from 1st to 22nd March 1981. The proposals put forward are largely informed by the principles outlined in my paper 'Design and Construction in the NYS' (September 1980) included as a chapter in "The Seychelles National Youth Service: the Seed of a New Society".

1.1.3 The principles put forward in this paper are I believe essential to the practice of a socialist architecture. The NYS is conceived and guided by socialist principles which have been clearly stated in the theory and are already manifest in practice in some aspects of the NYS life (I refer particularly to the organisation and dynamics of cluster life). These principles I feel to be conspicuously absent in the architecture of the NYS both in terms of the process of design and construction and in terms of the final product itself, i e the built form.

1.1.4 The reasons for this absence of socialist principles in the architecture of the NYS are basically twofold:

- the size and scope of the project: the numbers involved are enormous. This has conditioned many of the decisions regarding the volume of construction work, generating a tendency to look for the conventional answers in order to get things completed on time.

- the very tight programme leading up to completion. With such a tight programme conventional solutions to what are seen as conventional situations have been implemented.

- the two pressures of time and numbers have put maximum emphasis on execution and completion as a result of which the NYS village at Port Launay is now functioning. This can only be regarded as a success in terms of getting the whole NYS programme under way and any criticisms that are made here are all subordinate to this major positive achievement.

1.1.5 Specific criticisms are made in the main body of this paper. Criticism is made in the belief that one of the main social principles of the NYS is to encourage positive, co-operative criticism and self-criticism.

The main general criticism is that because of the dual imperatives of time and numbers there has been inadequate briefing of the 'professional services' (architects, engineers etc) in regard to the social and political objectives of the NYS. This briefing would involve time for discussion and research. This time will never be available

unless it is made so. It can be made available by motivation to include it in the design programme. Two hours per week for 5 weeks would be enough to start discussion within the design team on what is meant by the new approach to architecture and what seems to be implied spatially by the NYS curriculum. The NYS is not a school; it is the seed of a new society founded on the integration of domestic production, communal production and re-creation based on co-operative effort. The whole programme is not education as narrowly conceived by 'modern' convention; it is a broad social and political experiment. The architecture is the physical vessel in which this action is taking place; the process of architecture and the built form determines and is determined by this programme of social and educational change.

Action: NYS Co-ordination Design Team

1.1.6 One aspect of the socialisation of the architectural process is the imperative of encouraging and enabling participation by the users (staff, workers and students) in the work of design and construction. In the early stages this will be time-consuming. In the long run the rewards will be fundamental; firstly, an environment will have been created which is responsive to the physical, social and aesthetic wishes of the users.

Action: Design Team

Secondly, the users as participants in the mental and manual labour of design creation will be more understanding and competent to undertake their own design, construction and maintenance tasks. This will be to the obvious benefit of the NYS Village itself and also, most importantly, to the society as a whole.

1.1.7 In the light of these remarks I think it is essential that the technical production staff (eg architects, engineers, surveyors, construction workers) be briefed

on the practical aspects of the sort of architecture the NYS wishes to encourage and develop. I would refer to my paper of September 1980 for a statement of these principles and practical applications.

Action: NYS Co-ordinating Design Team

2.0.0 CRITICISM OF NYS VILLAGE AT PORT LAUNAY

2.0.1 The criticisms of the NYS Village at Port Launay are derived from comments made by the users who are variously students, teachers, animateurs, co-ordinateurs, production workers. The criticisms recorded here are not culled from a specific questionnaire circulated to a carefully selected 'representative' group; they have no statistical weight in that they are not graduated in order of importance according to how many people expressed one view or another. The comments recorded derive from three main sources:

- two small groups of students who met as 'project groups' on two Wednesdays; their comments were recorded as part of the discussion generated by a handout giving broad open guidelines for making criticisms of the buildings;

Appendix 3

- various personal interviews with teachers, animateurs, co-ordinateurs and production staff. Some of their comments were in response to the guidelines in the handout given to the students, other comments were self-generated, mainly specific to the individual's particular task: eg the Co-ordinator for Health made specific and detailed comments about the design of the clinic; the maintenance staff made specific comments about waste and soil disposal systems; teachers made comments specific to their subject area.

- personal observations made by myself, mostly discussed and assessed already before being committed to paper here.

2.0.2 The comments therefore make no pretence to having scientific or statistical validity. They are recorded here as being, in the opinion of those mentioned above and of the writer, worthy of thought and discussion. I suggest that the Architect and his team make remedies where possible in the case of those buildings already completed, and in the case of future developments, submit themselves and their proposals to frequent and open comment and criticism before building. This would be one part of the intended practice of user participation in the design and construction process.

Section 1

2.0.3 The criticisms and comments are divided into five broad categories:

- Site location, layout, size
- Cluster and Unit
- Study Centre
- Production Units
- Use of Resources

Some of the comments are pertinent only to the existing buildings at Port Launay; to these comments there may or may not be a response by changing or adding to what is already built. Some comments, while applying to Port Launay, may also apply to future developments either in the same Village or in subsequent developments. These comments should be taken as part of the brief for the future building programme.

Section 4

2.1.0 <u>SITE LOCATION, LAYOUT, SIZE</u> :

2.1.1 Everyone spoken to was of the opinion that the site at Port Launay was an excellent choice for the first NYS Village. The area comprises over 31 hectares of flat land which can either be built on or is easily cultivated. There is an extensive hinterland

of steep densely wooded hillside for production, study and recreation. There is also an excellent beach for sport, swimming, study and fishing in the Bay. The extensive mangrove swamps should also provide potential for production and educational study.

2.1.2 The layout of the site evoked specific criticism from many groups of users because of the great distance between the clusters and the Study Centre and the Production areas (workshops, crops, animals). Most people conceived this simply as an inconvenience - for example students tend to be late for certain activities on account of having to walk to and fro to change or to get things. They also get wet when it is raining.

2.1.3 This separation of functions in the layout must also be seen as theoretically contradictory to the stated aims of the NYS. The aim is to integrate the three spheres of daily life:

- the Domestic sphere
- the sphere of Production
- the sphere of re-creation

That is to say, Living and Learning and Producing and Cultivating Body and Mind are seen as closely related aspects of the same reality. The physical division of these 'spheres' perpetuates the theoretical and practical divisions characteristic of traditional boarding schools. The NYS is not a boarding school; it is the prefigurative form of the new society. The architecture must substantiate this aim.

2.1.4 The Cluster size of 48 is almost unanimously considered to be a success both as a social community and as a political unit. The system of 'Brother -

Sister' Clusters is likewise a valuable social and political relationship established in the framework. Whether the Cluster should be sub-divided into 3 units or 4 is debateable; such an arrangement for future development may depend on topological or technical considerations as much as social. In general, the system of Cluster and Unit works very well in breaking down the total village population to a manageable size, into groups in which even the shy do not feel too intimidated or unable to participate.

2.2.0 CLUSTER AND UNIT :

2.2.1 Repeating the point of the preceding paragraph, the system of 16 students to 1 Unit, 3 Units to 1 Cluster works well. The reason the system works well can best be understood by watching and participating in the activities of the Units and Clusters. I put it forward as a very strong suggestion that the Architect and his team spend some evenings - say three evenings picked at random, from about 6.00 p m to 9.00 p m - visiting the Clusters, eating there and witnessing what goes on. In my opinion the activities of the students in the Clusters is very positive, very strong, full of vitality and as such an excellent basis for the political, educational and productive life of the Village. For this reason it is of central importance to get the design of the Units and Clusters right. Any compromise which might impede this centre of domestic, social and political activity from playing such a positive role in the Village community should not be entertained. We are not necessarily talking of lavish expenditure, rather lavish thought.

Action : Design Team

2.2.2 The following activities were observed to take place in the Clusters :

Eating	Whole Cluster
Cooking	Small Group
Washing Up	Small Group
Laundry	Individual
Ironing	Individual
Sewing	Individual

Activities of social and political recreation :

Meetings/Elections	1 or 2 Clusters
Teaching (but see 2.1.2)	Class of 30
Films / Slides	2 or 3 Clusters
Dancing	2 Clusters
Music / Singing	Small group, 1,2 Clusters
Drama	Small group, 1,2 Clusters
Quiet games, dominoes, cards etc	Small group
Radio / Tape	Small groups
Talking / Discussion	Small groups
Reading / Writing	Individual

2.2.3 The Cluster is the focus of all domestic re-creation. The centre space (without the kitchen) between the three Units has worked very well as a spatial interpretation of this social need.

In terms of the large scale group activities there must be communal space for at least a gathering of Brother / Sister Clusters to see a film, having a meeting, or to dance. In terms of the small group activities there must be space for 3 or 4 of these to go on independently of each other with space between.

The present size of the communal space (without the kitchen) is ideal; this should be the last place in which to cut costs; see 2.2.1 above.

2.2.4 Specific criticisms :

These criticisms apply to the Cluster and Unit in general. Immediate action on the already existing situation should be taken by the Project Groups of Production Staff and students. However the Architect may take note of these criticisms and take relevant action with regard to future building.

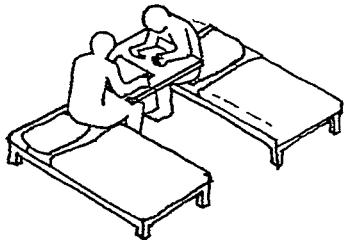
- Notice board out of wind and rain

- Letters Board / Pigeon Holes

Action: Design Team / NYS Project Group

- Storage place for tools

- Concrete floor preferable to sand
  - for hygienic reasons
  - sand tracked into Units



Reading Table by the beds

- Dry place for firewood

- Desk for reading and writing by beds (this could be arranged between beds using the beds as seats)

- Rain comes in through roof vents - this applies to all buildings with this detail. Architects to remedy

- Shutters to be louvre-vented; as it is shutters are closed at night for security and psychological reasons as a result of which the internal atmosphere lacks ventilation. This should also apply to classrooms.

- Ventilation holes should be made in the walls at low level to offer better circulation of air within the rooms.

- Timber panels should be used rather than blockwork walls. They are lighter and are local (see Section 2.5.0). This is a design recommendation for the second village.

2.2.5 Kitchen area:

Unanimous preference for the kitchen to be out of the central space. The modification of having the kitchen was recognised as being a last minute decision and some of the criticisms made can easily be eradicated :

- need for food storage away from the sun. The afternoon sun even on a blank concrete wall causes considerable heat build up.

- covered way between kitchen and dining space.

- make a space to keep the firewood out of the rain.

2.2.6 Heat for cooking :

Project Group to make survey of wood consumption by Village

Cooking for a community of 800 three times a day consumes a lot of firewood. So far only cinnamon wood already cut has been used (there have been exceptions to this); the students report that they are having to go further and further to gather this wood. Before the end of the year it is felt that there may well be a firewood crisis.

Remedies:

- Import wood from other places. This cures the symptom but doesn't get at the cause of the problem. Also the NYS is supposed to be self-sufficient where possible. The NYS must pioneer new solutions out of an old problem. This is an old solution and the problem is still with us.

Project Group to set up experiments

- Solar cooking: Known to be good for slow cooking at low temperature. Also for water heating. Several models exist.

- Bio-gas: Good, efficient, cheap source of heat. Used extensively in India and China. Many drawings and specifications available. Needs expert co-ordination in construction and management. A Project Group has been set up to design and construct a Bio-gas plant next to the piggeries with the intention of piping gas to the Refectory. (See also 2.2.12)

Project Group to continue

2.2.7 Water for cooking:

There is a lack of water available (see below); it is strongly suggested that rainwater catchment tanks are designed into every Cluster to collect rain from the roofs. Either galvanised iron tanks can be used or some may be made from thin shell concrete moulded around gunny bags. Papers describing the method and process have been given by me to the NYS Library.

Project Group to take action

Every Cluster should make its own solar water heater(s); the water could be heated for the washing of dishes and for cooking primarily. If each Cluster undertook to build according to designs which differ slightly one from the other, an experiment could be conducted which would hopefully reveal optimum design and location. Various plans have been given by me to the NYS Library.

Project Group to take action

2.2.8 Kitchen and other waste:

Garbage is waste animal or vegetable matter and therefore 'bio-degradable'. Vegetable matters should be composted or used as bio-mass for the bio-gas plant. Animal matter should be used for fish farming.

Trash - non-biodegradable matter, e g tin cans, bottles etc. These should be separately disposed of, possibly used for land reclamation eg the Treasure Hole.

All Clusters should be disciplined on this point. It may seem non-architectural, but the proper management of refuse affects the systems which service the buildings.

Action: Animateurs Health Team

2.2.9 Showers and shower area :

Shower usage should be carefully monitored. According to the student Project group each student takes three showers a day:
- one in the morning after the run,
- one after production
- one in the evening

This does not appear to be unreasonable and yet it is plainly more than was allowed for in the designed capacity of the storage tanks. A student project group or each Cluster and Unit should carefully monitor use of water and record the use pattern throughout the day. This will help the designers size the tanks according to actual needs and use patterns.

Action: Student Project Group

2.2.10 Shower area :

The shower area should be one step down to enable the space to be swabbed out at least once a day. 3 double showers are needed, not two as at present. The double shower should be slightly further spread apart. None of the students expressed any concern or embarrassment about sharing a shower stall. Outside showers on the other hand are probably not desirable as the students did not wish to be seen showering in public.

2.2.11 WC's are satisfactory. Urinals in the boys' units are of the right number but more space should be provided.

2.2.12 Sewage :

Action: Student project group and Engineer

- toilet usage to be monitored
- water usage to be monitored
- sewage system to be adjusted accordingly

For the second NYS Village careful thought should be given to alternative methods of sewage disposal. In particular two forms of sewage disposal should be considered in preference to the traditional septic tank:

- the production of methane from biogas generated by the anaerobic decomposition of human and animal excrement and vegetable matter. The methane can be used for cooking, lighting, small combustion motor power.

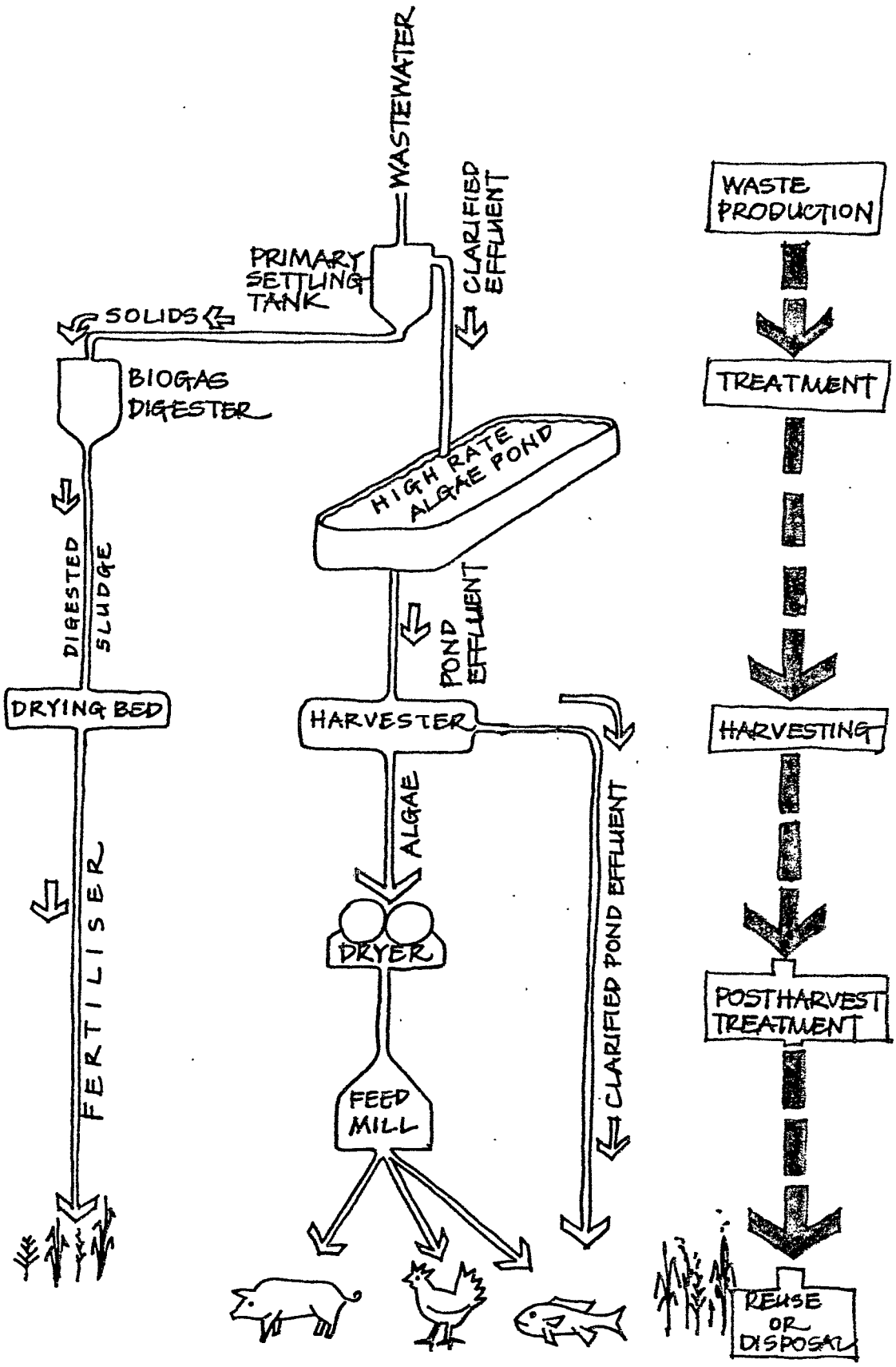
See 2.2.6 above

See diagram on next page

- the installation and management of high-rate algae ponds. The algae use waste nutrients and solar energy to grow and when harvested can be used as a protein-rich component of livestock feeds. The treated water can be used for irrigation. There is considerable expertise and experience in this type of sewage disposal in various parts of Asia and in Israel.

2.2.13 Animateurs' Houses - General :

The animateurs have a very different job to perform in the NYS. They are on duty from 6.00 a m to about 9.30 or 10.00 p m with only occasional breaks throughout the day. They are teachers, leaders, organisers, workers, and above all exemplary comrades. Their task needs a good deal of physical and emotional energy guided by sound political and personal judgement. During my stay I was impressed to see the excellent quality of some of the animateurs; I was also impressed by the



SCHEME FOR WASTEWATER TREATMENT AND RESOURCE RECOVERY THROUGH ALGAE PRODUCTION IN A HIGH RATE POND.

Adapted from: WASTEWATER TREATMENT AND RESOURCE RECOVERY

BOX 8500, OTTAWA, CANADA.

need for them to have an opportunity to get out of their job and relax, if only to refuel for their next task. The modest housing accommodation for the animateurs is an additional expense which may in the planning of the next Village be seen as an area for cost cutting. This would be a mistake; each animateur that I spoke to valued his or her place as a 'retreat' from the demands of the job, a space to be private, a space in the Village, near the Cluster but far enough away to do or to think outside the role of animateur. The expense and the space may be seen as a luxury, but I think it should be seen as a luxury the animateurs deserve and cannot do without.

2.2.14 An economical compromise might be seen as providing a room within the Cluster for the sole use of the Animateur. This may be economically attractive and less demanding in overall use of space. On the other hand, giving the Animateur private space within the Cluster does not give him or her the necessary distance from the job which I believe to be psychologically necessary. If this is an issue in future planning I would strongly suggest that the animateurs are consulted on the matter and that their stated views and feelings should be given due weight.

Action: Animateurs Design Team

2.2.15 <u>Animateurs' houses - Design criticism</u> :

Overall the animateurs liked the design of their accommodation. The following points cropped up in conversations :

- the shared kitchen is too elaborate as main meals are provided by the Cluster. Equipment for making hot chocolate or a cup of coffee would be sufficient.

Action: Design Team

- Many animateurs expressed a desire for some sort of laundry space outside as a substitute for the

more expensive stainless steel kitchen sink provided.

- the shared bathroom facility is considered adequate and efficient.

- many would prefer a shared sleeping place (for the two animateurs) and a common living room. Some have already organised their houses in this manner.

- the terrace is hardly ever used. The comment was that if one were to relax on the terrace one would still be exposed to the demands of the outside world, i e the students would still regard the animateur as being 'in circulation' (see general remarks in 2.2.5 above).

2.2.16 Clinic :

The design of the Clinic is unsatisfactory both as a conventional Clinic and as a centre for health education and practice in the NYS. It appears the design was prepared without the consultation of any member of the nursing profession, nor of anybody involved with the promulgation of the Health programme in the NYS.

The deficiencies of the Clinic can be seen on the practical level as :
- poor building design
- lack of fixtures and equipment

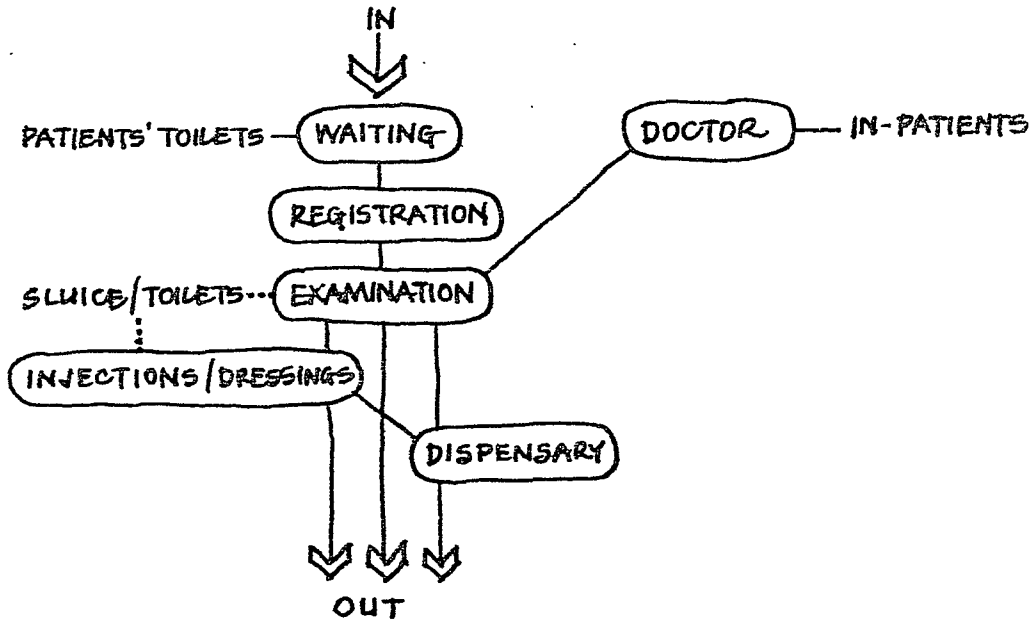
2.2.17 Clinic - Building Design :

Circulation is the fundamental key to the successful design of medical buildings; the circulation of medical staff between their resources (books, equipment, medicine) and their patients; and the

circulation of patients in and out of the treatment areas.

Example:

Outpatient relationship diagram



In the NYS Clinic there is confusion and congestion in the waiting area, the treatment area, the doctors room and the way out. Proper study should be given to this issue for the next Clinic.

Action: Health Team
Design Team

Beyond the conventional design thought should be given to the particular type of health care which the NYS is trying to promulgate. Students (the community) are being asked to take care of themselves. As patients they are also pupils; they are not simply consumers of health care but before long they will be producers of that care themselves. The 'production' of health care in the clinic is to be combined with the 'education' of health care. To this end the Health team at the NYS should be consulted on the incorporation of a gathering space (a 'classroom' in conventional terms) into the Clinic accommodation. It should also be borne in mind that the system of health care developed in the NYS will serve as a model for the Community Health care throughout the Seychelles. Physically, the design of the NYS Clinic will reflect this role as a prototype.

2.2.18 Clinic: Finishes, fixtures and equipment :

Particular comments on the NYS Clinic at Port Launay. Action: to improve and add at Port Launay; to incorporate in subsequent Clinics.

Action: Student production project groups (Port Launay) Design Team (for the future)

- Walls to be plastered (for hygienic reasons),
- PVC tiles to be laid on floor (to minimise dirt and dust),
- Planting of shade trees, bushes (no pollen) and grass around clinic to allay dust and heat,
- Blinds (raffia, coconut matting) to be hung on outside of verandah to take the heat off the waiting space. This would alleviate the present congestion within the building (referred to in 2.2.14),
- a larger sluice would be desirable,
- a set of bed pan shelves necessary in the sluice toom.

2.2.19 In-Patients :

Action: Health Team Design Team

The level of accommodation is to be reassessed. Most of the time the beds are empty but if there were to be a disaster or an epidemic there would be little room. The possibility of turning over a whole cluster to the Clinic in such a circumstance is possible. This should be discussed with the Health team.

Action: Project Group

Hot water absolutely necessary, particularly for patients with chills. Hot water to the dispensary and the shower room could be provided by solar water heaters on the roof.

Means for providing privacy around beds requested. Most patients who stay in the clinic are in good enough condition to look after themselves. On the principle of lessening consumerism and the dependency

syndrome here as elsewhere provision should be made for the patients to prepare their own light meals. A kitchen sink, an electric ring, a kettle and a food store and food fridge (small) should be provided. A small space for eating with a table and 4 - 6 chairs.

Action: Health Team

Louvre shutters rather than solid ones would be healthier. The roof vent should be modified to prevent rain coming in.

Action: Production Project Group

2.2.20 Communal Facilities :

While it is obviously a good idea to have a small library, an animateurs' common room, a games room and so on, it is apparent that very little thought has gone into the design of these spaces on the Port Launay site. The buildings devoted to these functions are long, barrack-like structures which will presumably be divided up and made to serve the stipulated purpose. However it is unfortunate that rationality and sensitivity were subjugated to expediency in these central institutions of cluster life.

Action: Horticulture Project

It is recommended that extensive planting of flowering and fruiting plants, bushes and trees be undertaken to disguise the external appearance of these buildings. (See also 2.2.22)

2.2.21 External Spaces - Buildings :

With the exception of the central area (see 2.2.20 above) the Clusters are well planned and allow the possibility of developing space between buildings for movement, sports activity, planting and landscaping. In an area over 600 metres from end to end and consisting of more than 800 students the feeling of community is there and that is a quality not

lightly achieved. However the individual buildings and the groups of buildings tend to look somewhat similar; there is no way an outsider, even an outsider with passing familiarity of the Village, could tell the difference between say B2 and B3 or G7 and G8. Landscaping will undoubtedly help this, but it is also suggested that there be some form of external decoration to the buildings to give them an identity in the crowd and to liven up the general dullness of concrete block and corrugated iron. An art project group could take large scale drawn elevations of the buildings and plan forms of wall-art for the entire Cluster area. By planning and painting on paper first, discussions could be held with each Cluster so that the proposals could be modified or else act as catalysts for fresh ideas before the decoration starts.

Action: Art Project Clusters

2.2.22 External Spaces - Landscaping :

Many clusters have already undertaken the preparation of gardens, decorative and productive and sports areas are in constant use. Some attempt has been made to co-ordinate what had already become a cluster-autonomous development but much remains to be done in planning and execution.

Action: Horticulture Project

The Horticulture Project Group were undertaking some duties to co-ordinate planing and landscaping around the Clusters. For the first year or two at least this group can undertake major planning exercises and build up a good foundation for an intensively cultivated, tightly landscaped environment. To a great extent there is strong productive potential in the Cluster-cultivated garden to supplement the main farm crops. Trees should be planted to provide shade, sweet smells, fruit or timber; the Clusters might even be regarded as a potential area for a

botanical garden where various species are propagated for scientific and educational purposes as well as aesthetics.

Action: Design Team

It is strongly suggested that the advice of a Landscape Architect, a Botanist and possibly a Silviculturalist be solicited since trees in particular are as long-term an investment as buildings.

2.3.0 STUDY CENTRE - PLANNING :

2.3.1 As stated before (see 2.1.3) the general layout of the Village represents the separation of functions and activities which in fact the NYS is trying to integrate. This issue is particularly crucial in the case of the so-called 'Study Centre' which despite the name, is clearly conceived and designed as a regular set of secondary school classrooms. Education is seen as a common uniting thread through the Three Spheres of Daily Life (the Domestic Sphere, Production and Recreation) but in the design of the Village it has been separated physically from these other daily activities. The idea of establishing an education based on the mutual sustenance of theory and practice has been lost in the planning. While the curriculum pulls one way, the buildings fail to respond.

2.3.2 The curriculum proposes a system of 'Block Courses', integrating Education (theory) with Production (practice). A 'Block' refers to the idea of teaching through activity based project work sustained over a prolonged period of time. The proposal as it now stands is to have study periods of one month each in which groups will engage in 'Blocks' on :

See NYS Discussion Papers: No 2 - Feb 1981 No 4 - Mar 1981

Agriculture
Animal Husbandry
Construction
Health
Fishing
Information
Technology
Culture

Throughout the year there will be a continuing curriculum for the basic skills in English, French and Maths..

2.3.3

Attention: Design Team

The curriculum therefore strongly suggests the physical integration of production activities with domestic activities, with cultural activities, with education.

The classrooms must be decentralised towards the scenes of action :

- the production units must have laboratories and classrooms;
- the library must incorporate a teaching space;
- the Resource Centre must be used as a centre of production (eg printing and broadcasting for the NYS);
- the Clusters must be close to the library and resource centres and the Cluster spaces can also serve as classrooms.

There are obvious limitations to this integration. For instance noise from the workshops suggests that they must be placed far from the library and Resource Centre. Nevertheless some integration and combination of spaces can take place in a manner which is compatible with functional principles.

2.3.4 This action can still be taken in the planning of the Study Centre at Port Launay. The detailed design of the Library, the Resource Centre, the Administration and the Production buildings can incorporate such a policy of integration of theory with practice (see Section 3). Detailed design must be discussed by the Design Team and the Village Committee or other representatives from all the spheres of the NYS life.

Action: Design Team Village Committee

2.3.5 Study Centre - Classrooms :

The classrooms measure 7.6 x 7.6 metres giving a net internal space of about 55 square metres or (allowing for 40 students) roughly 1.375 square metres per place. These space standards are minima for so-called under-developed countries where teaching is carried out in the traditional manner (eg straight rows of desks and the teacher at the front of the room).

2.3.6 In a situation where the education is project-based and the activities and functions of the classroom are intended to promulgate a two-way flow of information, or even multi-dimensional flow, where space is needed for rearrangement of furniture according to circumstance, it is generally agreed that an extra 10% of area is necessary beyond the standards for conventional classroom teaching.

The Regional Educational Building Institute for Africa has made recommendations for space standards in secondary schools in Africa. These are compared with those adopted by the Ministry of Works in Kenya and proposals made for primary schools in Ghana:

	No of Pupils	Area/ Place	Total	(+10%)	
REBIA standards	40	1.7 m^2	68 m^2	(75 m^2)	
Kenya MoW	40	1.52 m^2	61 m^2	(67 m^2)	
Ghana (primary)	46	1.62 m^2	74 m^2	n a	
UK (Primary)	-	2.43 m^2	-	-	
Seychelles NYS	40	1.38 m^2	55 m^2	)	Standard
	30	1.83 m^2	55 m^2	)	classrooms
	20	2.75 m^2	55 m^2	)	as built

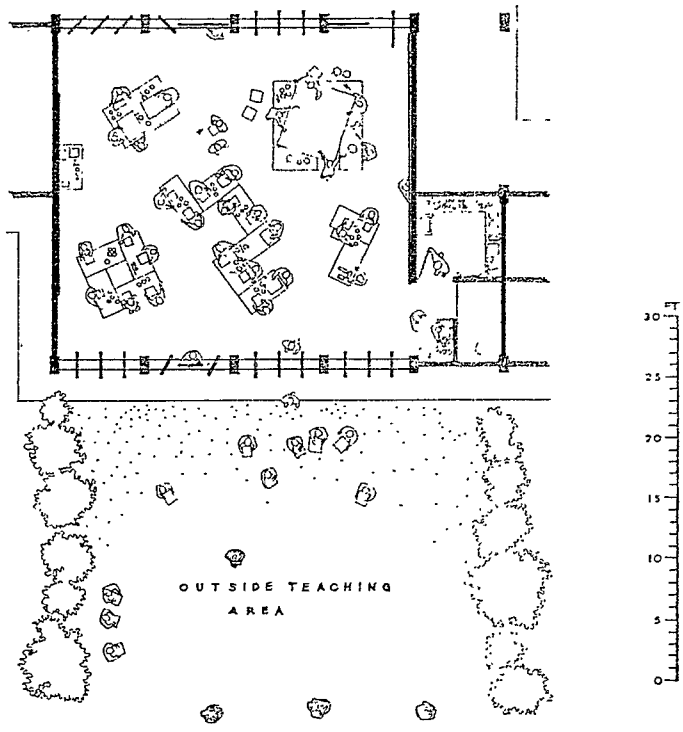
From this comparison we can see that the existing classrooms are generous for a class of 20, right for a class of 30, too tight for a class of 30

2.3.7 Now that the NYS curriculum is taking shape it should be established with the teachers what the numbers are to be and how they envisage group work being carried out. If a class of 40 is to be split into 8 groups of 5 then thought should be given to providing an area approaching 70 m^2 for at least the remedial classes. As with the clinic, the NYS curriculum and classroom planning will act as a prototype for the whole society; the NYS is a test bed for new forms, not a repository for traditional forms derived from educational curricula with different aims.

Action: Education Working Committee and Design Team

2.3.8 The amount of area devoted to each student can be diminished somewhat if the design takes into account the use of verandahs or outside space as part of the total classroom space. The present design of the window shutters for instance should be extended to make them shutter/doors right to the ground, thereby opening at least one wall freely to the outside. This would improve the space use and incidentally, the ventilation.

From:
Pat Wakely - Development of a Primary School Building System for Ghana (Kumasi 1968)

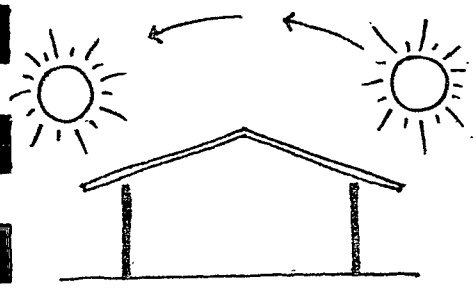


In this respect the external spaces should be thought of as classroom; shade trees and ground cover should be planted forthwith so that the outside can be used to advantage.

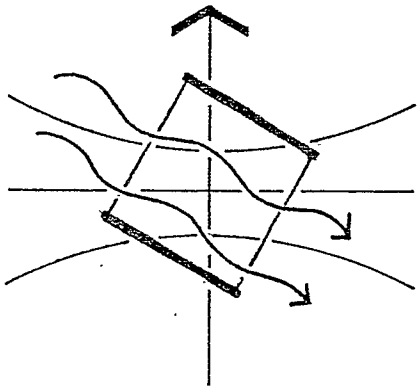
2.3.9

Attention: Design Team

The present layout of the classrooms at Port Launay is quite unsatisfactory. Considering the three major factors which might influence the relationship of the buildings with one another, none are properly satisfied.



- <u>solar orientation</u>: even though there is no glazing in the window openings, there is still considerable heat gain on the walls of buildings in the morning and afternoon sun. Shade trees might alleviate this problem.



- <u>prevailing wind</u>: in the humid atmosphere of the Seychelles ventilation is of the utmost importance for maintaining some degree of comfort in internal spaces. The monsoon blowing in either direction along the NW-SE axis (depending on the time of year) affords such ventilation. The science blocks in

the Study Centre are oriented in such a way as to catch the wind which is however blocked to the main areas of accommodation by other classrooms placed at right angles. Thus wind ventilation is almost nil, as a result of which the degree of discomfort in the classrooms is quite high.

- function: as noted in 2.3.6, the flexible use of outside space and its integration with functions inside the classroom is not possible. More thought might be given to this in future design.

2.3.10 Classrooms - Details :

The following criticisms were voiced by teachers and students.

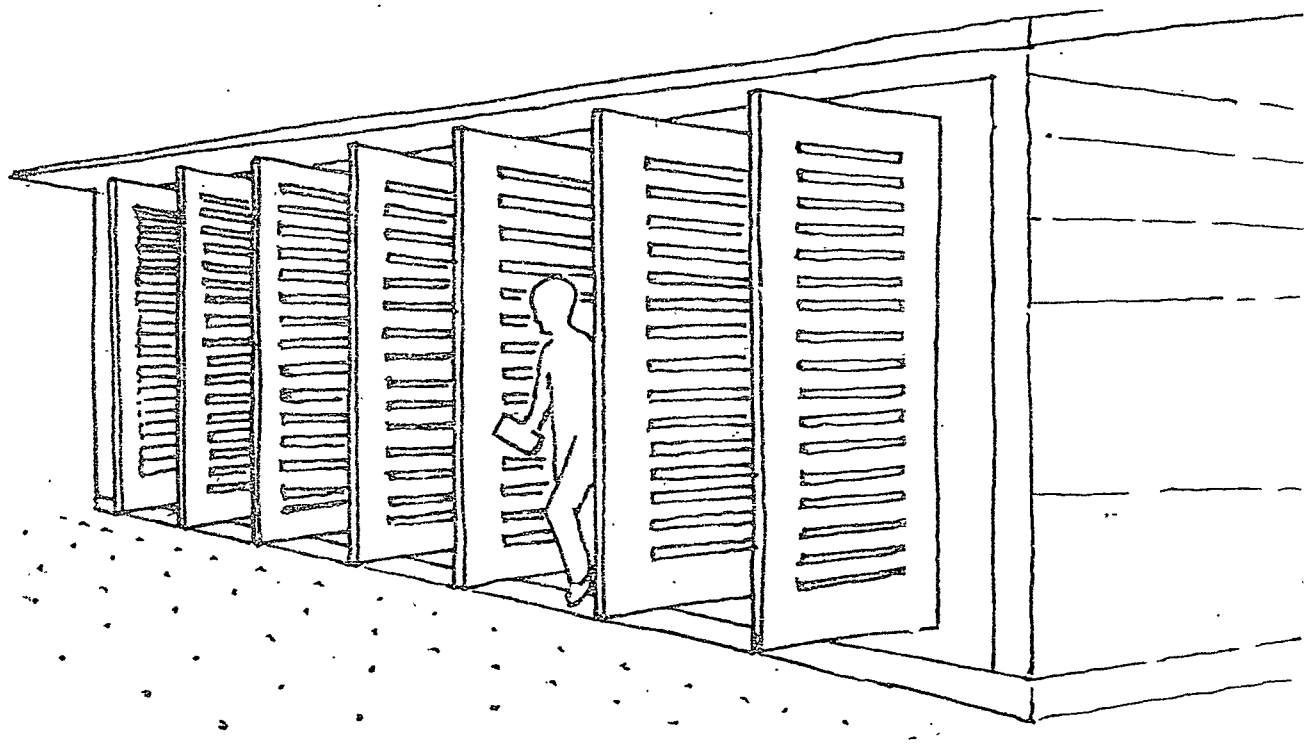
Attention: Design Team

The greatest complaint was of the noise created by rain on the corrugated iron roof. An alternative form of roofing material must be found for the classrooms (the noise is not really a problem in any of the other buildings).

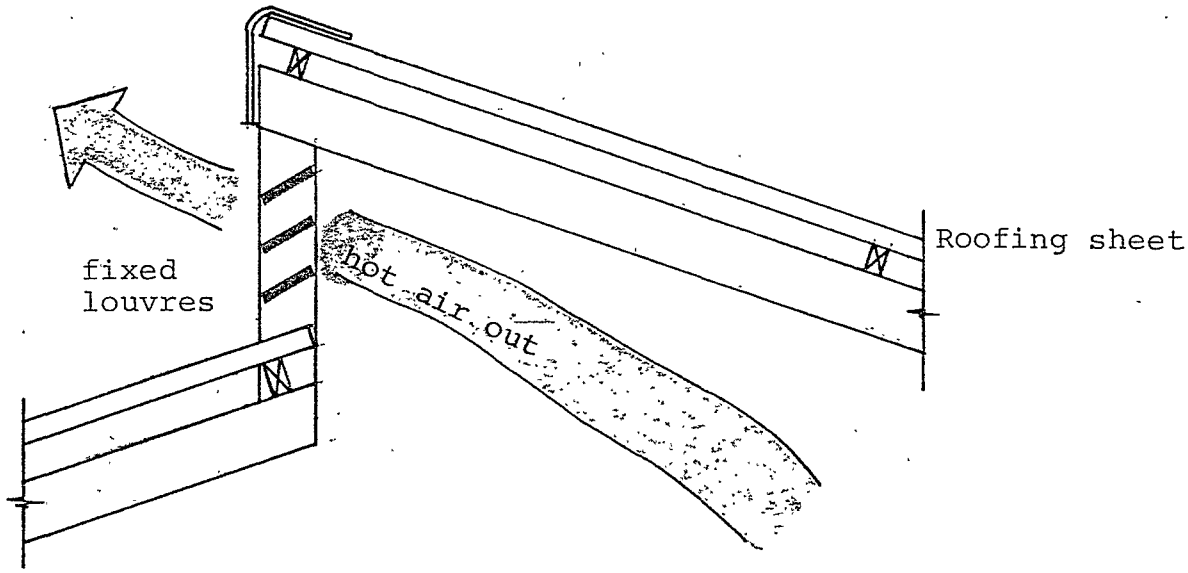
- The ventilation ridge in the roof is so designed as to let in the rain (this applies to all buildings with this detail). The Architect will remedy this.

- The heat build up within the classrooms is such as to send the children to sleep (assuming the teachers not to be the cause !). The remedies are these: to increase the volume of air within the room; to increase the flow of air; to lower the temperature. Either one or all of these three can be accomplished by :

- raising the roof level by two or three block courses;
- increasing the pitch of the roof, leaving the eaves at the same level. This would increase the volume or air but on the other hand would make the verandah somewhat constricted;
- making vent holes in the wall at floor level to better the chances of cool air entering the room;
- installing louvred shutters in place of the solid ones;
- extending the shutters to the floor so that the wall becomes in effect a 'shutter wall';

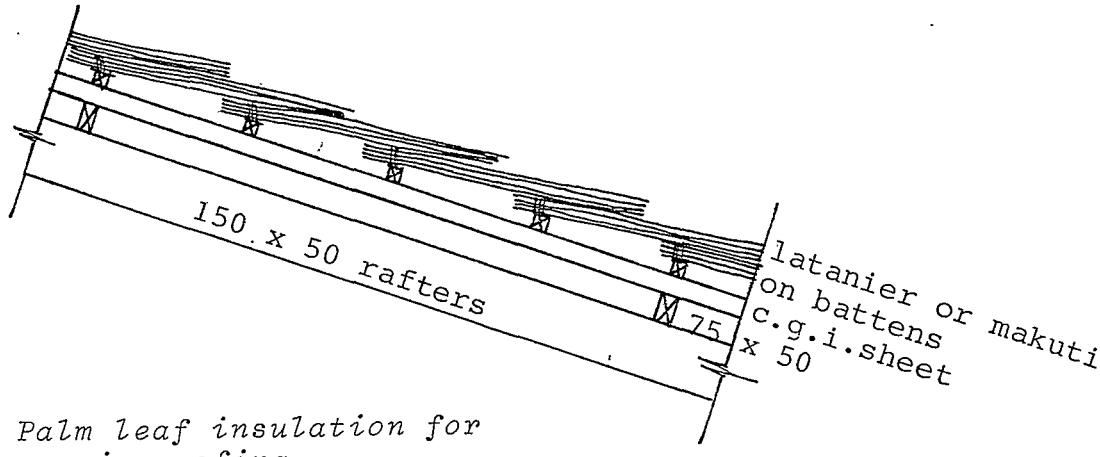


- extending a verandah all around the building;
- to modify the top vent detail thus :



- short of changing the roofing material, to modify the c.g.i. detail so as to provide some thermal resistance. For example, latanier leaves attached to battens would not only help the sound problem, they would also contribute to the 'heat lag' of the roof;
- trees providing shade over the roof would also help.

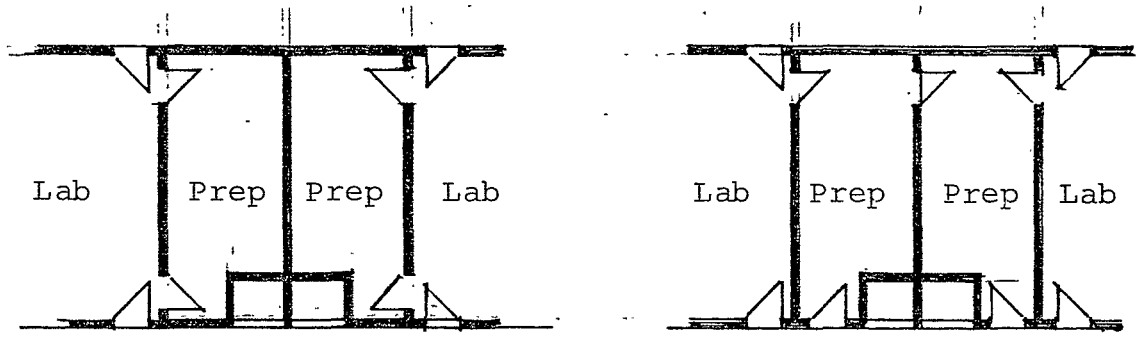
See Section
2.5.4
2.5.6



Palm leaf insulation for c.g.i. roofing

2.3.11 Science labs :

The doors to the preparation rooms should be re-arranged thus :



Existing Modification

Proposed modification to Science Laboratory Preparation Rooms (consult science teachers)

Waste pipework in the labs should be bracketed to the wall.

2.3.12 WC's :

Washbasins bracketed to the wall almost always come loose, even in high class, high cost buildings. The detail should be modified to give the wash basins solid support from the floor.

Is Armitage Shanks sanitary ware really the most economical range available ?

The whole lavatory and WC area should be designed with an upstand at the door to the corridor, a completely free floor inside and good floor drainage. In this way the whole area can be swilled out and brushed clean.

2.3.13 Landscaping :

Refer to Section 2.2.22; the same remarks apply to the Study Centre.

2.3.14 Additional Buildings in the Study Centre :

Refer to Section 3 for a Brief for the following buildings :

Resource Centre
Library
Art and Pottery Studio
Dance / Theatre Workshop
Gymnasium
Assembly Hall
Administration Offices

2.4.0 PRODUCTION UNITS :

2.4.1 The role of production in the NYS Village has two main aspects: firstly, production in all subsistence goods is aimed towards self-sufficiency of the community; and secondly, the process, organisation and content of production must be educational. That is, the principle of NYS education, learning through doing, the linking of theory with practice, must necessarily be focussed on production. This should mean that the teachers and students in the NYS are not merely purveyors and consumers of a fixed body of classroom knowledge, they are participants in the production of their own self-sufficiency. Likewise the administrative staff and the production workers are working within a framework which asks them not to be wage labourers but to be teachers and participants in an active and practical education which involves the total community.

2.4.2 One of the points of this approach from the point of view of any participant in the process, is to develop in the individual and the group a maximum positive control over the conditions of existence. That is, to understand processes and techniques both in theory and in practice, to understand the principles of participatory organisation in which each can make a contribution and be involved in establishing the strategy and tactics of work; this is to fully realise the meaning of personal, communal and national liberation.

2.4.3 The political structure for such development within the NYS is in the process of being established. But the theory, the politics, and the organisation of production must be supported by the spatial planning

of the Village. Unless the Village is designed with these principles in mind, the achievement of such aims will be made all the more difficult. The two principles of planning must therefore be:

- integration of the '3 spheres' of daily life :
  the domestic sphere
  the sphere of production
  the sphere of re-creation

See 2.1.3 2.3.1 above

- decentralisation of organisational and political control.

See 2.3.3 2.3.4 above

2.4.4 How do these two principles affect the planning of the buildings and the land in the sphere of Production ?

Each Cluster must be in charge of significant production in crops and animal husbandry. This means that land must be available around the Cluster for the crops to be grown. Animal pens must be constructed within the area of control of the Cluster so that the students in the Cluster can take care of the animals and be made responsible. This brings the practice of production much closer to social reality; that is, the Cluster becomes the communal farmstead instead of being merely a dormitory providing labour on a centrally controlled State Farm. The cluster becomes the focus of production and decision making.

2.4.5 The integration of production and consumption is achieved in this manner. We have already advocated the practice of the production of bio-gas being produced from human and animal excreta. We have also advocated the employment of high-rate algae ponds which produce bio-mass for feeding to the bio-gas digesters and fertiliser for use on the fields.

By physically integrating the physical plant (bio-digesters and algae ponds) with agricultural production (crops and animals) with the location of domestic production and consumption (cooking, eating, digesting) greater technical efficiency is achieved.

2.4.6 An argument will be brought forward about health, that it is not healthy to have animals too near the living quarters. It must be pointed out however that in most parts of the world farmers live either next to their animals under the same roof, or on the floor over their animals under the same roof, or commonly within the same compound or courtyard as their animals. There is no health danger so long as proper sweeping and cleaning take place every day. The degree of understanding of animal care will in this manner be vastly increased. Understanding is part of the process of control.

2.4.7 Lastly it must be said that if agricultural production (in crops and animals) is decentralised and integrated with Cluster life in this manner, the understanding and responsibility of the students for the processes of production will be vastly increased and therefore contribute to the foundation of democracy within the Village.

2.4.8 In a similar manner technical workshops such as woodworkshops, metalworkshops, building yards, sewing and knitting rooms and typing rooms can be integrated with the Clusters. No one is going to be disturbed by the noise of these workshops during the day and no one will be working there in the evening. Such close integration with the Clusters means that students from each unit or Cluster will be able to make use of the workshops for maintaining their own buildings without the inconvenience of having to walk at least a mile to

find a screw and screwdriver. Also those who would like to sew or to knit or to mend their clothes, or to practice typing in the evenings may do so without great inconvenience.

2.4.9 The planning of the Village at Port Launay has physically embodied the artificial fragmentation of daily life as developed and perpetuated in advanced capitalism. We are suggesting here that the fragmented parts should be brought together again through the principles of socialist education and production practised at the NYS. Physically this means integrating the buildings and different functions as much as possible. The only criteria for separation of function are noise and perhaps smell. Classrooms, Study Centre, Resource Centre and Administration need a relatively quiet atmosphere during the daytime. On that basis it is sensible to isolate the activities from the noise producers, e g the workshops, the cowsheds, the pig pens (although one might say that animal noises are not so disturbing). Just so, it makes sense to locate animal excreta slurry pits downwind of the sleeping and study areas.

2.4.10 It cannot be too heavily emphasised that the social and educational principles which the NYS is attempting to promulgate must be supported in principle and in practice through the integrated planning of the buildings. Port Launay fails to do this.

2.5.0 USE OF RESOURCES :

2.5.1 In my paper presented to the Department of Youth and Community and Development in September 1980 I put forward basic principles for the practice of design and construction in the NYS. I repeat a paragraph from that paper here :

2.5.2 "In terms of labour, technique and material the NYS must exemplify in its own physical construction and in its pedagogical system the means for establishing a communal autonomy in both social and material terms. All possible resources of the islands must be explored before resorting to the outside; so a local boat-builder might prove to be more useful than an expatriate architect, coral lime mortar might be considered adequate in preference to imported cement, palm leaf thatch might be used as a substitute for imported corrugated iron .... Material, tools and techniques are suggested on the criteria that they should be low-cost, locally available, of a scale which is suitable to the community, of a complexity which is comprehensible to the users. If these criteria are satisfied or even approached, the conditions exist for once again establishing community control over the means of subsistence and production in intellectual, political and practical terms."

2.5.3 For this report I identify the most serious matters for improvement as follows :

Roof construction
Wall construction
Energy systems

These three areas of concern are discussed below.

2.5.4 Roof construction: This is an expensive and important part of the construction of buildings. In the Seychelles roofs must have the following characteristics :

- they must be waterproof;
- they must not fly off in high winds;
- they must be mechanically sound, i e there must be no danger of their being easily destroyed by e g coconuts falling on them, or even people falling through during maintenance;
- they must provide good insulation against the heat;
- in some cases they must be soundproof;
- in general they should be cheap and locally available;

2.5.5 Corrugated Galvanised iron: There are major objections to this material, functional, environmental and economic :

- g i makes a tremendous noise during a rainstorm so that all talk has to stop;
- g i offers very little protection from solar heat gain within the space;
- g i rusts easily, even when painted;
- g i is imported and uses up precious foreign exchange. Whether it is bought, or whether it is 'given', the dependency relationship is perpetuated.

The only advantages of g i roofing are that it is relatively cheap (not for long as fuel costs increase), and it is easy to use.

Serious thought has to be given to the required design performance of classroom roofs. If teaching is to take place a means of construction must be found which allows teaching to continue throughout a rainstorm.

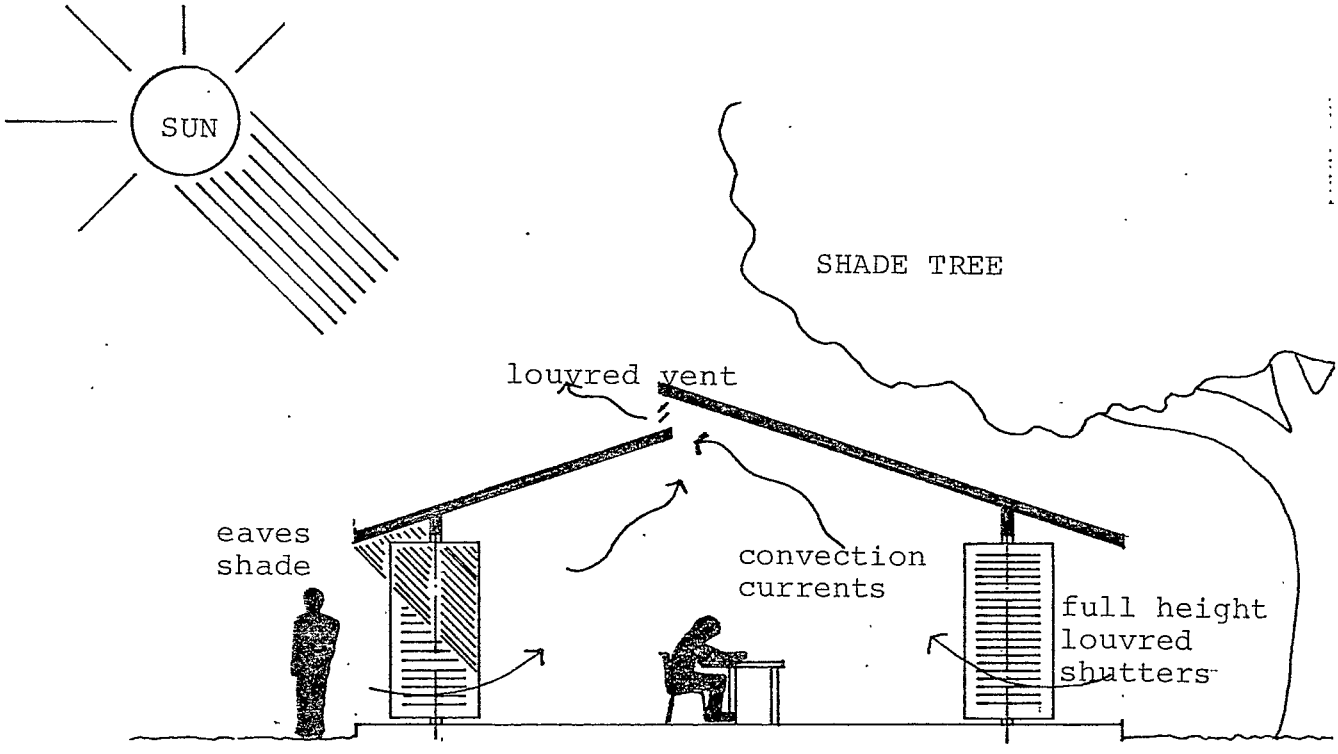
Rain is sufficiently frequent in the Seychelles for this to be a relevant objective. It may be that it would be more economical educationally to pay more for a material which has adequate performance. It does not make sense to pay (in foreign exchange) for a bad material.

2.5.6 Alternative materials are listed on the following page. The design team of National Consultancy Services should seriously consider these alternatives and make appropriate recommendations to the Government.

MATERIAL	AVAILABILITY*	COST*	LABOUR	MAINTENANCE	STRUCTURE	NOISE	HEAT INSULATION	SPECIAL REMARKS
c.g.i sheets	Imported	Cheap/ medium	Semi-skilled	Rust problem especially in sea air.	Light	Very bad	Very bad	Not worth it for teaching spaces.
c.g.i sheets & ceiling	Imported	High	Semi-skilled	Rust problem especially in sea air.	Light	Bad	Reasonable	Air volume in space reduced by ceiling.
Palm thatch on battens over c.g.i sheets	Imported/ local palm	Medium	Semi-skilled	Rust problem especially in sea air.	Light	Reason-able	Reasonable	Has been effectiv in rural clinics
Asbestos sheets	Imported	High	Semi-skilled	Good	Medium	Reason-able	Reasonable	
Fibre-cement sheets	Local fibre/ imported cement	Medium	Semi-skilled	Fibre gets brittle in 4 or 5 years	Medium	Reason-able	Reasonable	Being developed in University of Nairobi
Aluminium sheets	Imported	High	Semi-skilled	Good	Light	Very bad	Reasonable	
Clay tiles	Local poss ?	Medium	Skilled	Good	Heavy	Good	Good	Possibility of local production
Cement tiles	Imported cement/local manufacture	Medium	Skilled	Good	Heavy	Good	Good	Possibility of local production
Shingles	Local poss.	Cheap	Skilled	Cedar good. Others need treatment	Light/ medium	Good	Good	Possibility of local production
Latanier/ Makuti	Local	Very cheap	Skilled (local)	Replace every 5 years	Light	Excellent	Excellent	Possible fire ris in workshops, kitchen. Other-wise excellent. Local technique or East African readily availabl

* To be ascertained by Design Team

2.5.7 Wall construction : In a warm humid climate such as that of the Seychelles there must be good ventilation throughout the interior spaces in order to promote reasonable bodily comfort. This is achieved partly by designing walls to be as perforated as possible to allow air to freely permeate in through the space. Ventilation in the roof space allows hotter air to rise and escape while the cooler air comes in at low level. Generous overhangs at the eaves and verandahs help keep the thresholds of the building cool.



2.5.8 Concrete block is by its very nature heavy, opaque and enclosing as a wall material. In opposition to this one could consider timber frame structures as light, open and freely ventilating. As it happens the materials for concrete block have to be imported into the Seychelles whereas timber is locally abundant. Alternative materials and methods of construction are considered on the following page.

MATERIAL/ TECHNIQUE	AVAILABILITY	COST	LABOUR	MAINTENANCE	STRUCTURE	STRENGTH	SECURITY	SPECIAL REMARKS
Concrete block	Imported material local manufacture	Medium	S/Skilled	Good	Heavy/ Medium	Strong	Good	Reasonable material
Stone	Local	Expensive	Skilled and labour intensive	Excellent	Heavy	Strong	Good	Pleasing aesthetically
Rammed earth/ stabilised blocks	Local	Cheap	S/Skilled	Frequent patching	Heavy	Weak	Medium	Topsoil in short supply
Sun dried bricks	Local clay	?	S/Skilled	Frequent patching	Heavy	Medium	Good	- ditto -
Baked bricks	Local clay	?	S/Skilled	Good	Heavy	Strong	Good	- ditto -
Coral Rag and lime mortar	Local	?	Skilled and labour intensive	Good	Heavy	Strong	Good	Protection of coral
Coconut timber frame with infill panels	Local	Cheap	Skilled	Reasonable with preservation	Light	Strong	Medium	Coconut structural technology not yet fully developed but full of potential
Coconut particle board	Local manufacture	Cheap	S/Skilled	- ditto -	Light	Medium	Medium	- ditto -
Palm weave partition	Local	Cheap	S/Skilled	- ditto -	Very light	Weak	Poor	Local skills put to use
Other timber frames and panel	Local	Medium/ Cheap	Skilled	- ditto -	Light	Strong	Medium	Seytim factory fully capable

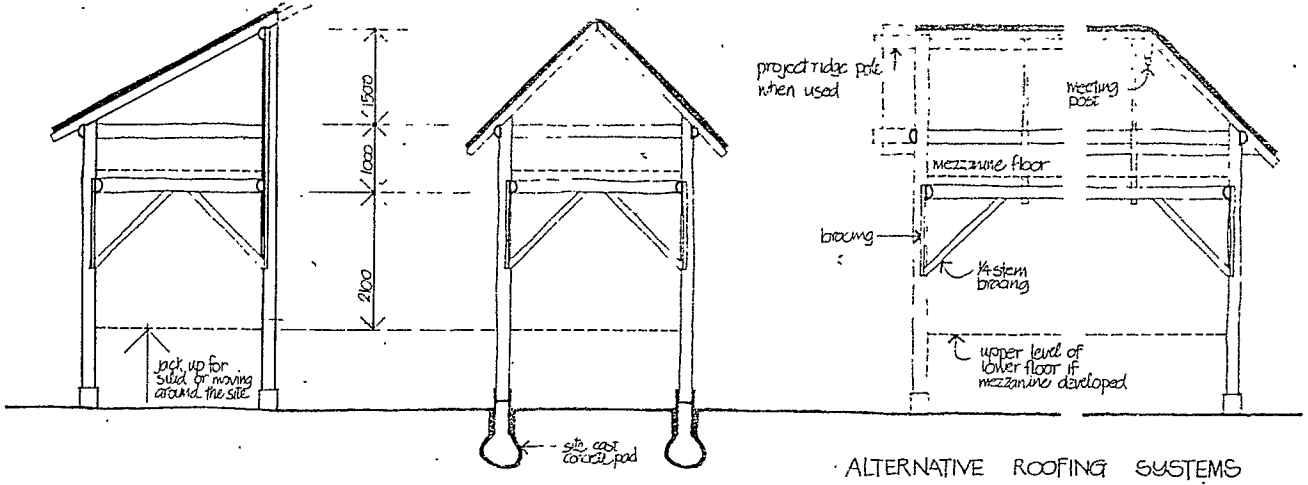
2.5.9 Notes to preceding table :

i) - Rammed earth or baked bricks: While there is a certain amount of clay soil in parts of the Seychelles there is relatively speaking a lack of topsoil. To develop a national policy of using rammed earth or baked brick might make sense in the short run, but in the long term it is my relatively uninformed opinion that the country cannot afford the topsoil.

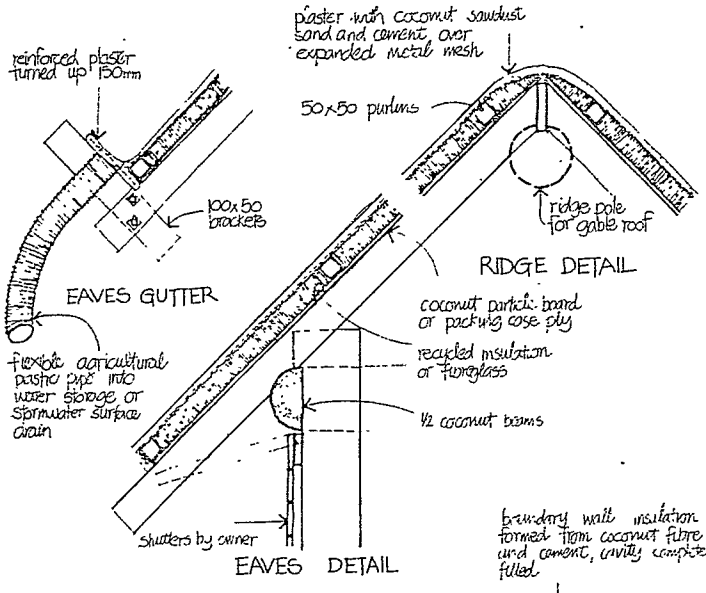
ii) - Stone: This is a common mode of construction in the Seychelles and there are skilled workmen to do it. However stone-laying is both highly skilled and labour intensive. The Quantity Surveyor of National Consultancy Services will be able to put a cost weighting on this mode of construction.

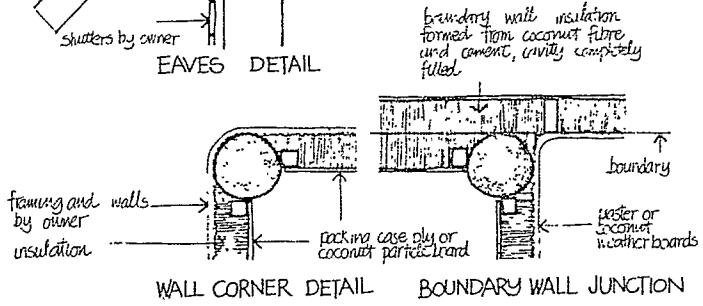
iii) - Palm weave partitions: Quite suitable for lightweight internal screens. Possible danger of fire if there is smoking or cooking.

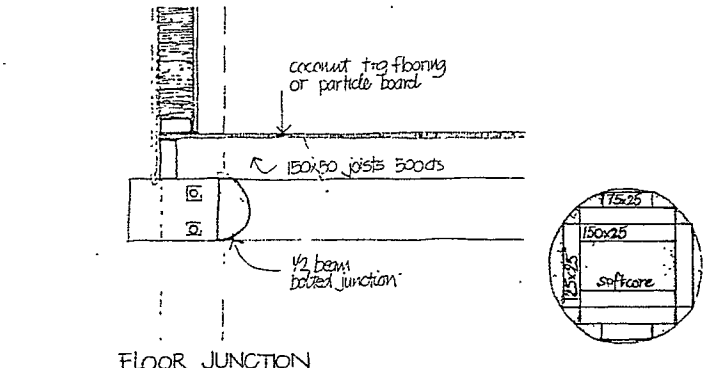
iv) - Timber panels: A visit was made to the Seytim Factory and it is quite clear that there is potential for developing a good and economical timber panel from local forest products. The timber panelling in the NYS at Port Launay is of high quality and provided to be a quick and economical way of building. More extensive use of this should be contemplated in the design of the 2nd NYS Village. The main advantages are: use of local skills and resources; lightweight for ease of transportation;

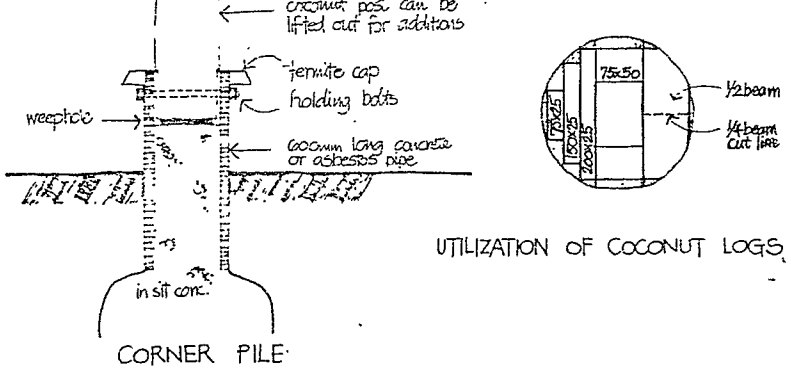


ALTERNATIVE ROOFING SYSTEMS









USES OF THE COCONUT TREE FOR STRUCTURE AND CLADDING IN BUILDINGS

from Ian Athfield's winning design for the Manila Housing Competition Architectural Record May 1976

high quality possible by factory fabrication; ease of assembly for the semi-skilled.

v) - Coconut structure and panelling: Many coconut trees are of an age where they are no longer bearing any fruit and are therefore ready for felling. Serious consideration should be given to the possibility of using the timber in construction (as in Sri Lanka, Malaysia, Phillipines, Borneo etc). See page 40 for design details.

2.5.10 Energy Systems: In the NYS Village at Port Launay there has been no attempt at all in incorporating systems for the collection of natural resources of cheap energy, nor for the efficient disposal of processing of 'wastes'. Electricity from the National Grid and wood are the sole sources of heat and light, the conventional type of water supply has been found to be inadequate and waste disposal is utterly wasteful.

2.5.10 Proposals have already been made for the incorporation of various techniques and equipment, summarised here:

See 2.2.5 to 2.2.12

WATER
- Rainwater catchment from roofs
- Solar distillation of seawater

SOLAR ENERGY
- Solar water heating for kitchens, the clinic, laboratories, the Administrative offices;
- Solar cookers for continuous low-grade heat.

METHANE - Production of methane from human and animal excrement, algae, crop bio-mass

ALGAE - High rate algae ponds for the re-processing of bio-degradeable waste.

2.5.12 It is absolutely essential that these systems be incorporated in the second Village, and as far as is now possible that they be incorporated in the Village at Port Launay

Some systems can be readily incorporated into the buildings at Port Launay and into the design proposals for the second Village. Amongst these I would include :

Rainwater catchment tanks
Solar water heaters
Solar stills
Solar cookers
Simple bio-gas plants

For these projects I have already furnished the NYS Library with appropriate literature and drawings. It is suggested that at Port Launay these proposals should immediately be formulated as student projects. For the second village the Design Team should design for maximum use of these systems and techniques.

2.5.13 More specialist advice is needed for the installation of large scale methane plants and for the high-rate algae ponds. Well-informed, practical, professional advice and action is required for the installation of these systems and it is strongly suggested that such professional expertise should be sought to formulate a National Domestic Energy

Policy for the Seychelles through the practice of the NYS. As I have said before the NYS should be used for this purpose as a living research establishment with the full participation of staff and students.

2.5.14 If the NYS fails to incorporate any of these systems either at Port Launay or in the second village, and instead reverts to conventional systems of water collection, heat generation, lighting and sewage disposal, I think it would not be too strong to suggest that a very great opportunity would be missed.

The opportunity is to develop the techniques in themselves but also to train a well-informed and practical extension service from the student body which by its very nature is in a unique position to disseminate knowledge and attitudes throughout the country.

3.0.0 ADDITIONAL BUILDINGS AT PORT LAUNAY

3.0.1 Additional buildings are needed for the Village at Port Launay and they must be accommodated within the structure already imposed upon the lay-out. Scheme designs are put forward here for the most technically demanding of the buildings required - the Library and the Resource Centre. The other structures required are :

Art and Pottery Studio
Dance and Theatre Workshop
Gymnasium
Assembly Hall
Administration Offices

While the Library and the Resource Centre are buildings which have quite specific performance

requirements - the Library must keep the books out of the sun, dry and sand-free and the Resource Centre must provide air-conditioning for some of the equipment - the other buildings do not need to meet sophisticated demands and must simply provide cheap comfortable sheltered space. In these instances the structure may be built from timber frame and palm thatch to satisfy the requirements.

3.0.2 Some of the buildings present a particularly good opportunity for students to participate in designing and building simple structures; those structures which lend themselves to this form of participation should not be designed by professionals and built by professionals but should be incorporated as part of the curriculum. Too often Socialism has defeated itself by institutionalising free handouts from central authority, generating a passivity and ensuing incompetence amongst the recipients. Building and designing must be seen with other disciplines as a fertile ground for encouraging communal participation in decision-making and labour.

3.1.0 Art and Pottery Studio:

3.1.1 For the moment an art and pottery studio can be made out of the shell of the piggeries close to the *Salle de Badamier*. The Art teachers appeared to be well informed and energetic and can make the creation of such a studio into a student project with occasional ad hoc advice from the Architect. The measurement of the pig pens was already set up as a student project for the Architecture Group so it is to be hoped that such self-help can continue.

Appendix 1 I enclose the submission by Dorys Tremblay for certain facilities required for pottery.

3.1.2 In the long term a timber frame, palm thatch structure should be designed to accommodate these activities.

3.2.0 Dance and Theatre Workshop :

3.2.1 As with the Art studio the dance and theatre workshop is a structure required to give simple shelter and a firm ground surface for dance, mime, theatre and eurythmics. A timber framed, palm thatched structure of about 8 metres square, situated near the beach should be ideal. No walls are needed. A firm surface is needed for confidence in movement. This structure can be designed and built by the students with a bit of weekend advice from the architect.

3.3.0 Gymnasium :

3.3.1 A gymnasium is urgently required, particularly for Judo and Boxing, both popular sports within the Village. In the first instance a timber framed open sided palm thatch building of about 12 metres by 15 metres floor area is required. An engineer should be asked to design the roof structure for such a span but otherwise the construction technology should be within the capabilities of the students. A site for the gymnasium is suggested in the layout plan on page 64 . The considerations for such siting were based principally on noise. The gym would be placed close to the Workshops and the refectory on one side and the playing fields on the other side.

3.4.0 Assembly Hall :

3.4.1 An assembly hall for approximately eight hundred people is to be designed and built. This has already

been designed by the Architect and his Design Team. It is suggested that it should be sited in some sort of formal relationship to the other major buildings, to the south-west of the *Salle de Badamier* as indicated on page 64 . This particular location affords a reasonably generous amount of outside space surrounding such a large scale structure. This is a particularly important consideration in view of the large crowds likely to be coming in and out of the building. Its situation close to the beach will ensure maximum ventilation.

3.5.0 Library :

3.5.1 The design for the Library put forward here is based on the brief put forward by myself and discussed with the co-ordinating committee in March 1981.

3.5.2 Purpose: To function as the centre of all written material supporting the activities of the Study Centre. To provide space for individual study and group study.

3.5.3 Accommodation: Final capacity of approximately 12,000 volumes classified as

Fiction (much of which will be physically housed in Clusters)
Non-Fiction
Reference
Maps and Atlas Section
Project Files and Worksheets Section
Magazines and Periodicals section with display, storage and reading accommodation
Catalogue Desk (Author/Title/Subject references)
Librarian's Office and Processing Room - extensive desk space for gluing, titling, cataloguing, etc;

sink; shelving; glazed screen all around to offer maximum visibility of work spaces

Individual work areas (chairs at a large table) for approximately 50 students)

Group work area (sound-proofed from the main area) for approximately 20 - 30 students

Check-Out desk by entrance/exit

Staff preparation work room (approximately 12 places)

Small exhibition area

Display area / Bulletin board by entrance

3.5.4 Design considerations :

Natural light where possible

High ceiling and natural ventilation

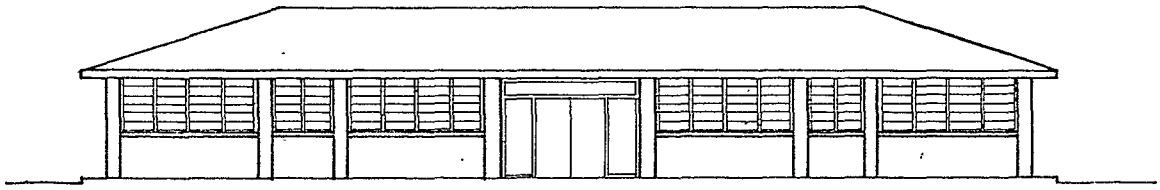
Simple construction

Library can be designed and built for total capacity of books but other activities can be housed until books arrive to fill up the space.

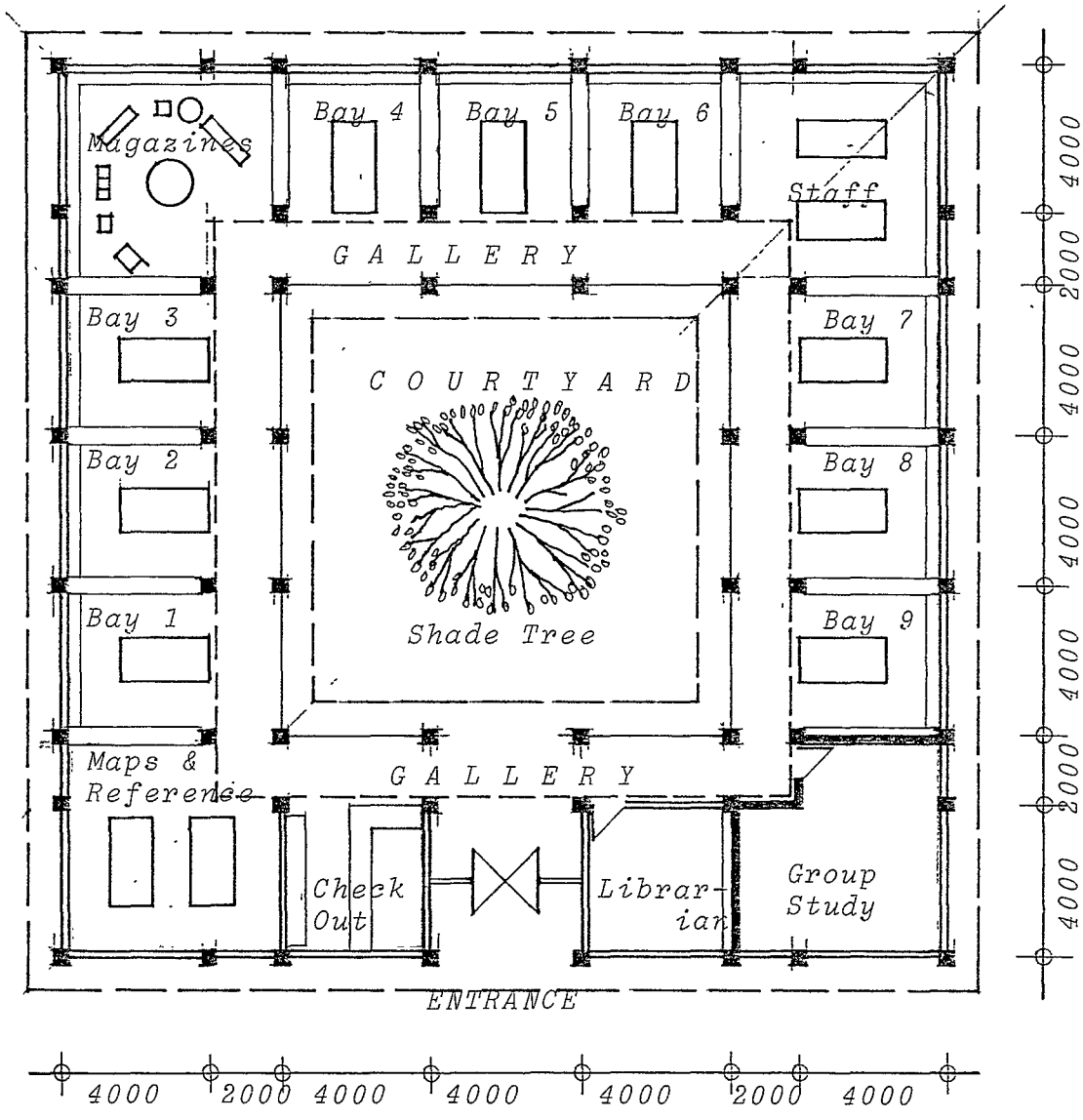
3.5.5 The design put forward here offers the following accommodation :

- Approximately 10,000 volumes in total with about 900 to 1,200 books in each of the nine 'Bays', depending on the subject matter.
- Seating for 60 students working individually, allowing writing space at tables for 6 or 7 students per 'Bay'.
- Working space for about 12 members of staff.
- Group working space for about 25 to 30 students in a separate room.
- Total gross area (excluding the central court-yard) of 432 sq metres.

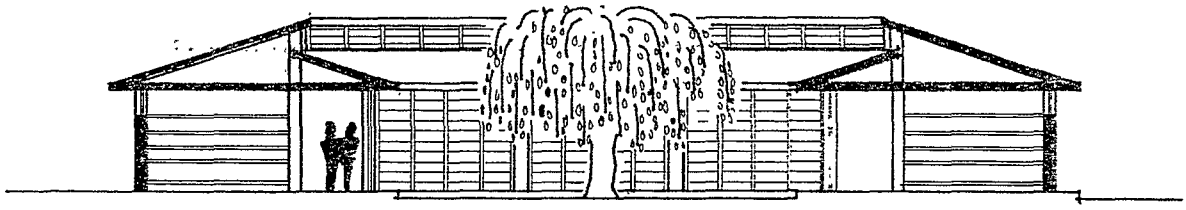
3.5.6 The idea of the design was to create a quiet inward looking space suitable for study and concentration. This has been achieved by creating a central court-yard with a shade tree, shut off from the busy and



ENTRANCE ELEVATION (South)



PLAN - Scale 1:200



SECTION - Scale 1:200

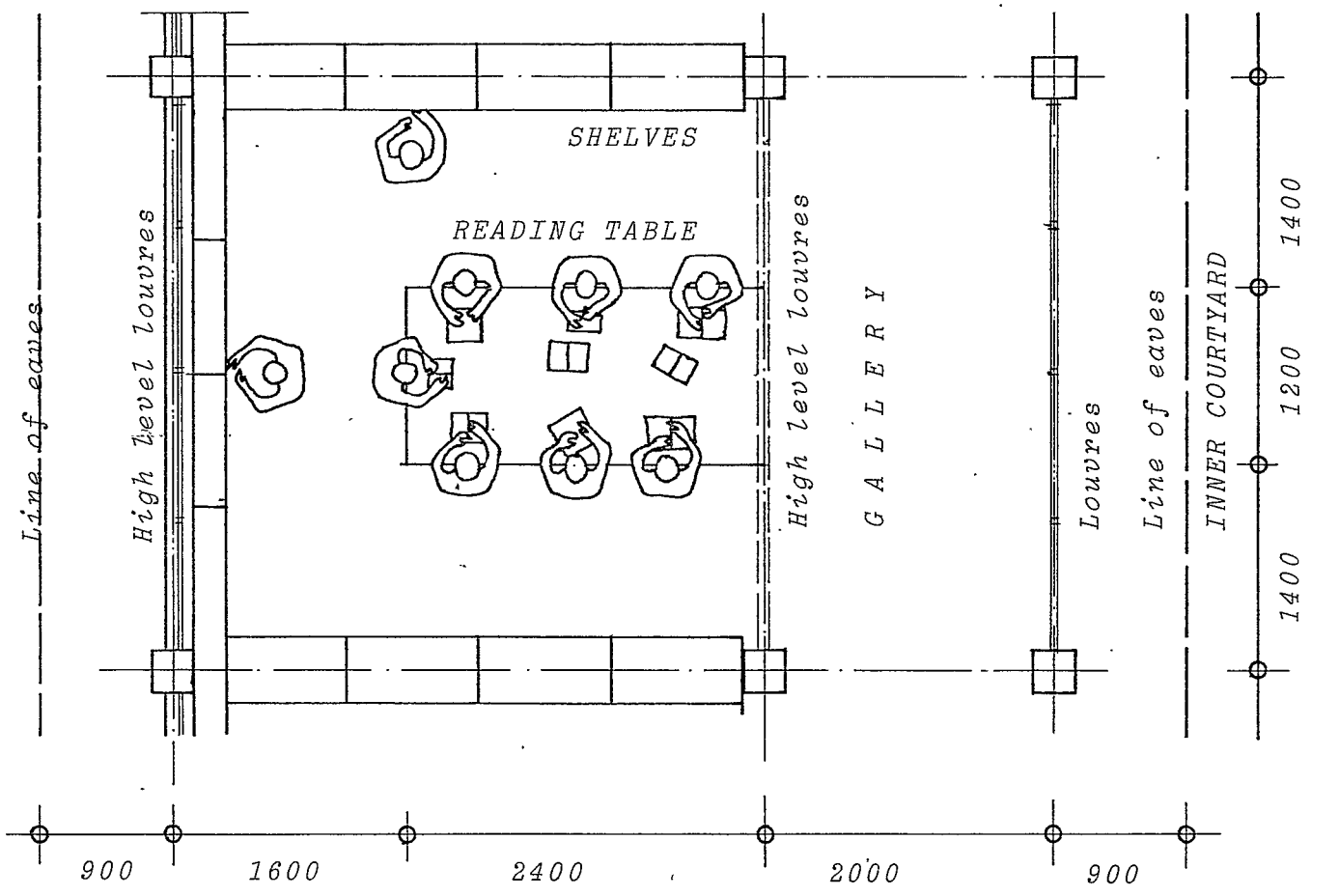
N

NYS LIBRARY

PLAN AND SECTION

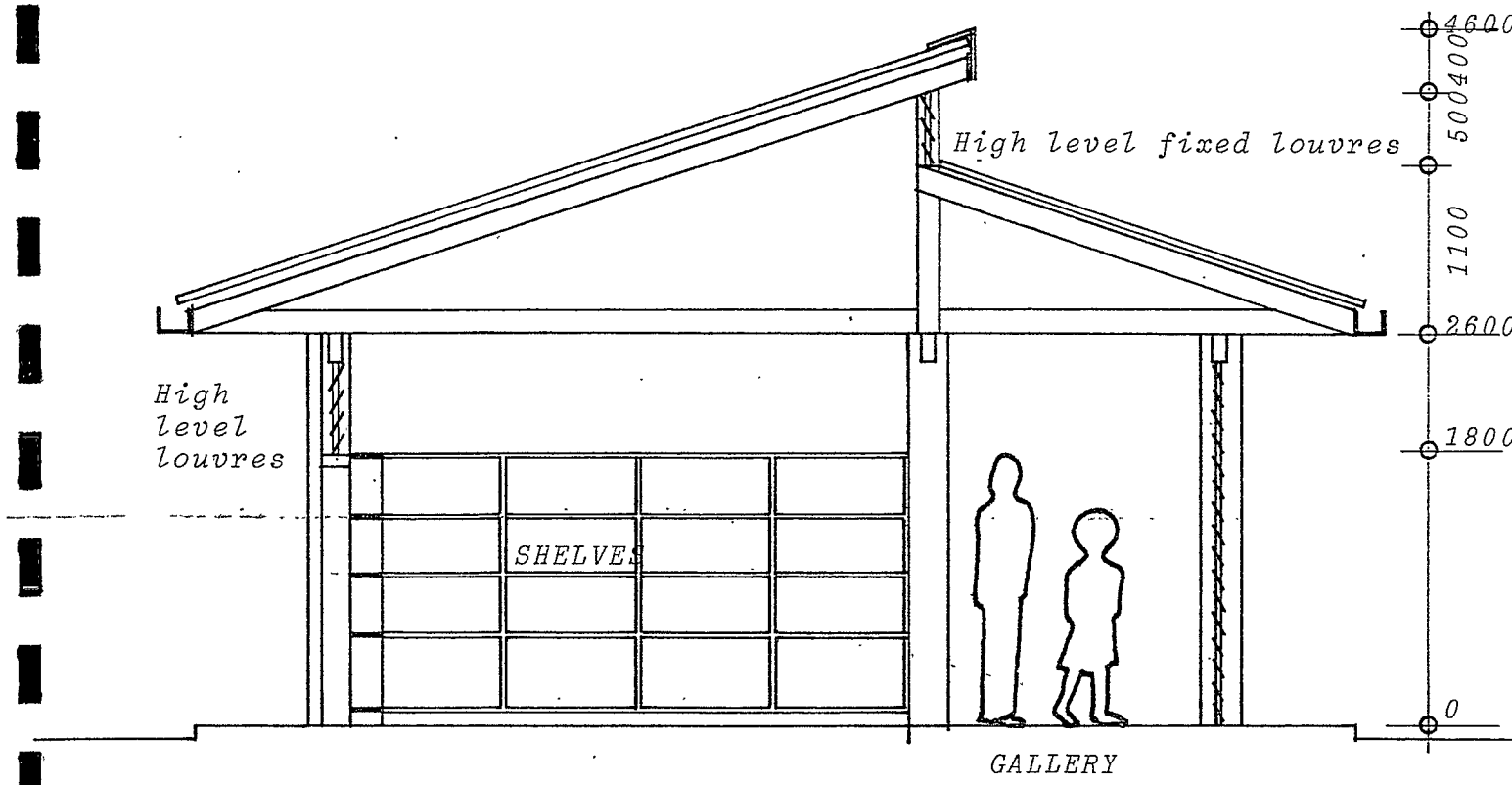
Hubert Murray
Architect 1981

0 1 2 3 4 6 8 12
Metres



NYS LIBRARY: TYPICAL BAY

Plan : Scale 1 : 50



NYS LIBRARY : Section of Typical Bay

Hubert Murray Architect 1981

noisy outside, and around which the interior spaces of the library arrange themselves. The interior 'walling' around the courtyard is entirely louvred glazing allowing a free-flowing visual connection between the inside and the outside space. The louvres allow adequate protection against rain but also allow excellent ventilation. Around the courtyard, within the building itself, is the main circulation which is more generous than a corridor and may be seen as a Gallery which becomes a pleasure to walk along.

From the Entrance door one arrives immediately in the Gallery facing the access to the central court. From the Gallery one has access equally to all the spaces strung around the square; the check-out, the catalogues, the map and reference room, the bays, the magazine room, the staff study and the group study area. Each of these spaces is defined by three sides of shelves which rise just above eye height of an adult giving small group privacy for study but allowing ventilation throughout the interior space. High level louvre windows on the outside wall shut off the outside world but allow in light and air. High level vents (fixed glass louvres) at the ridge of the roof allow upward flowing convection currents to circulate and also provide extra natural light to the reading space. The books are well protected from direct sunlight.

3.5.7 The planning of the spaces on a regular module of 4 metre by 4 metre bays with 2 metres by 4 metres in the gallery firstly allows a certain planning flexibility in the use of the spaces, but is also suitable for very economical and simple construction methods. The type of construction shown in the drawings suggests a frame of columns and beams with infill panels and a timber roof structure with either

tile or sheet roofing. The structural frame may be concrete with concrete block infill outside walls, or it may be timber frame with timber infill panels on the outside walls.

3.5.8 It should be pointed out that this design may be considered appropriate not only for the Village at Port Launay, but also at Cap Ternay. It is to be seen as a model from which to work and from which alternatives may be generated.

3.6.0 The Resource Centre:

3.6.1 The design for the Resource Centre put forward here is based on the brief discussed with the co-ordinating committee in March 1981. Some of the functional requirements have been eliminated or combined with each other for reasons of economy.

Appendix 2 I enclose comments on the establishment of video equipment as an educational medium from the Assistant Representative of the British Council in Nairobi who has furnished me with additional data. From his experience he was strongly against an initial major capital investment in sophisticated buildings and equipment. He suggested an approach that would begin on a modest investment and be capable of growth later.

3.6.2 Video Centre:

Studio: Purpose - Group viewing of videotapes and discussion; video recording - live talk, music etc; display work recording; sound recording.

Capacity - One project group = approximately 30 students.

Area - approximately 60 sq metres.

Fittings and equipment - TV screen; projection screen; loudspeakers; pinboard.

Special requirements - sound-proofing; acoustic treatment; special lighting/high ceiling; power, light, sound console linked to control room.

The Video studio and Film Projection auditorium should probably be combined.

3.6.3 Control Room :

Purpose - Control room for video deck; cine projector; slide projector; tape deck.

Area - approximately 16 sq metres.

Fittings - workbenches, storage cupboards, projection window, hatch for control of Video/ tape recorder from Studio, sound light and power console to Video studio and to film auditorium.

Special requirements - air-conditioning (heat and humidity control); Control room to be in central position to Studio and Film auditorium.

The Maintenance Workshop could house this function.

3.6.4 Maintenance Workshop :

Purpose - To maintain all video, film, sound equipment. Supervisor to be in charge; students to be instructed in basic maintenance.

Area - approximately 16 - 20 sq metres.

Fittings - benches, storage cupboards, ranks of power plugs, jackplugs etc.

Special requirements - to be near to Video studio to avoid long distance carrying; air-conditioning necessary for Video.

NB: The Maintenance Workshop and Projection Room may be doubled up for economy.

3.6.5 Library and Tape Store :

Purpose - Storage and classification of

Original tapes)
Master copies)
Copies) Video and sound
Blanks)

Controlled lending facility within NYS.

Area - Approximately 20 sq metres.

Fittings and equipment - Limited display facility for checking content of tapes; shelving for video tapes, sound cassettes, sound reel to reel, records; catalogue space; workbench about 900 mm deep; 1 TV Monitor and playback facility.

Special requirements - Air-conditioning.

3.6.6 Video Library :

Purpose - editing of video and sound recordings; instruction of students in small groups.

Capacity - 6 students and 1 instructor.

Area - approximately 16 sq metres.

Fittings and equipment - Workbenches for two units of video and sound recording equipment; storage of equipment and tools.

Special requirements - Air-conditioning.

3.6.7 Film Projection :

Purpose - pedagogical films and slides / exhibition space (entertainment films in Clusters).

Capacity - 2 study groups = 60 students.

Area - approximately 100 sq metres.

Fittings and equipment - Screen (projection room from 2.2 above); folding softboard panels hinged from walls for exhibition and acoustic treatment; control console for power/light/sound back to control room.

Special requirements - mechanical ventilation; dimmer lights.

This area should be combined with the proposed video studio.

3.6.8 Radio Station :

Centre of NYS administrative co-ordination news, views, culture.

3.6.9 Studio :

Purpose - Recording / broadcasting interviews, music, project reports, NYS programme announcements.

Area - approximately 16 sw metres.

Fittings and equipment - Sound recording and play-back facilities; microphones, loudspeakers; power/sound console connected to Control Room.

Special requirements - Ventilation (AC not necessary); sound-proofing; acoustic treatment.

3.6.10 Control Room :

Purpose - To control sound recording and transmission; to store equipment - editing (5 students).

Area - approximately 16 sq metres.

Fittings and equipment - Transmitter (AM); cassette recorder; record turntable; amplifier; bench and storage shelves.

Special requirements - Glass viewing screen; console for sound/power; ventilation.

3.6.11 Radio Mast :

Maximum 10 metres from control room. Height to clear line of *cocotiers*.

3.6.12 Photographic Laboratory : To teach basic skills in photography. To serve the newspaper 'Vilaz Lazenes'; to illustrate project reports.

3.6.13 Darkroom :

Purpose - Developing, printing films and papers.

Capacity - 7 students.

Area - approximately 45 sq metres.

Fittings and equipment ; 5 enlargers; dishes etc; 2 film loading cubicles; safety lights; 2 double drainer sinks; small refrigerator for film and chemical storage.

Special requirements - Air-conditioning; light proof and air sealed door.

3.6.14 Preparation, Drying, Finishing Room :

Purpose -

Capacity - 10-15 students.

Area - 30 sq metres.

Fittings and equipment - Table 2.4 m x 2.4 m; benches; sink; guillotines; roller dryer.

Special requirements -

3.6.15 Photostudio :

Purpose - Portrait photographs, copywork.

Area - 90 sq metres.

Fittings and equipment - Pinboard; curtains; portrait lighting.

Special requirements -

This room can be incorporated in the preparation room.

3.6.16 Printing and Duplicating :

For the printing and duplication of all administrative work in the NYS: teaching material; project reports etc. Students to be taught how to operate the equipment. Administration typing and secretariat to be incorporated in this building.

Students to learn typing here. The building should be separate from the main Resource Centre mainly for reasons of vibrations being set up by the machinery adversely affecting the Video and sound equipment. There should be direct access between the Printing building and the Administration

3.6.17 Print Room :

To accommodate - 1 offset litho machine (small); 2 duplicating machines; 1 page collator; 1 automatic stapler; 2 guillotines; benches and tables to be designed.

Area - approximately 50 sq metres.

3.6.18 Preparation Room :

For the preparation of material to be printed. Newspaper 'Vilaz Lazenes' to be pasted up here.

To provide - large table (2.4 m x 2.4 m); extensive bench space; 2 drawing boards; 5 typewriters for students' use; 3 typewriters for Administration secretariat; 1 plan chest double elephant or Antiquarian size for storage of layout material; guillotines; cutting edges etc.

Area - 65 sq metres.

3.6.19 Paper Store :

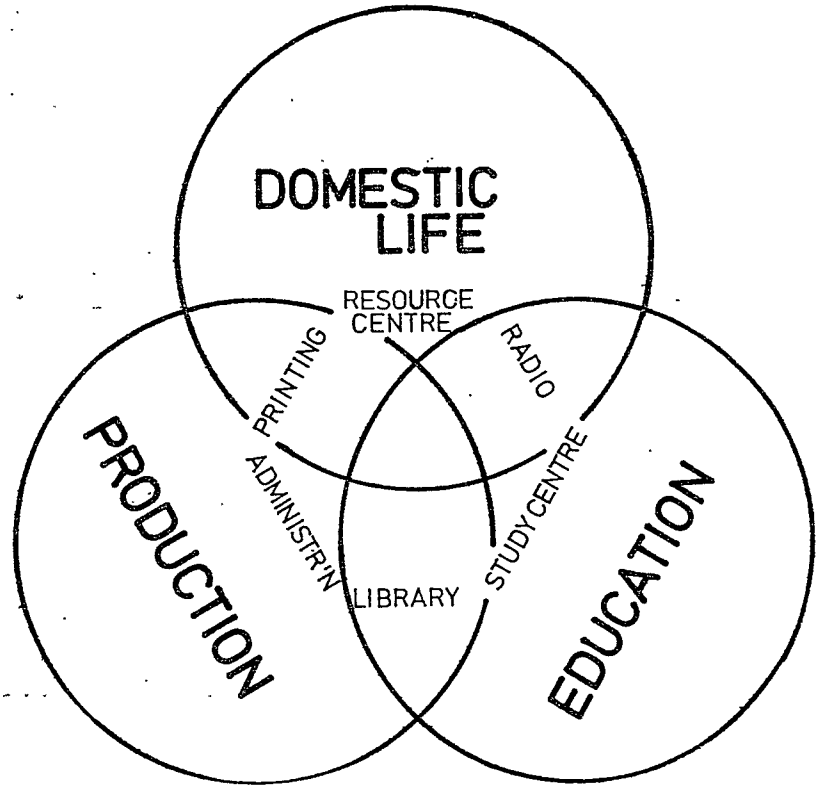
For bulk storage of paper.

Approximately 55 to 65 sq metres.

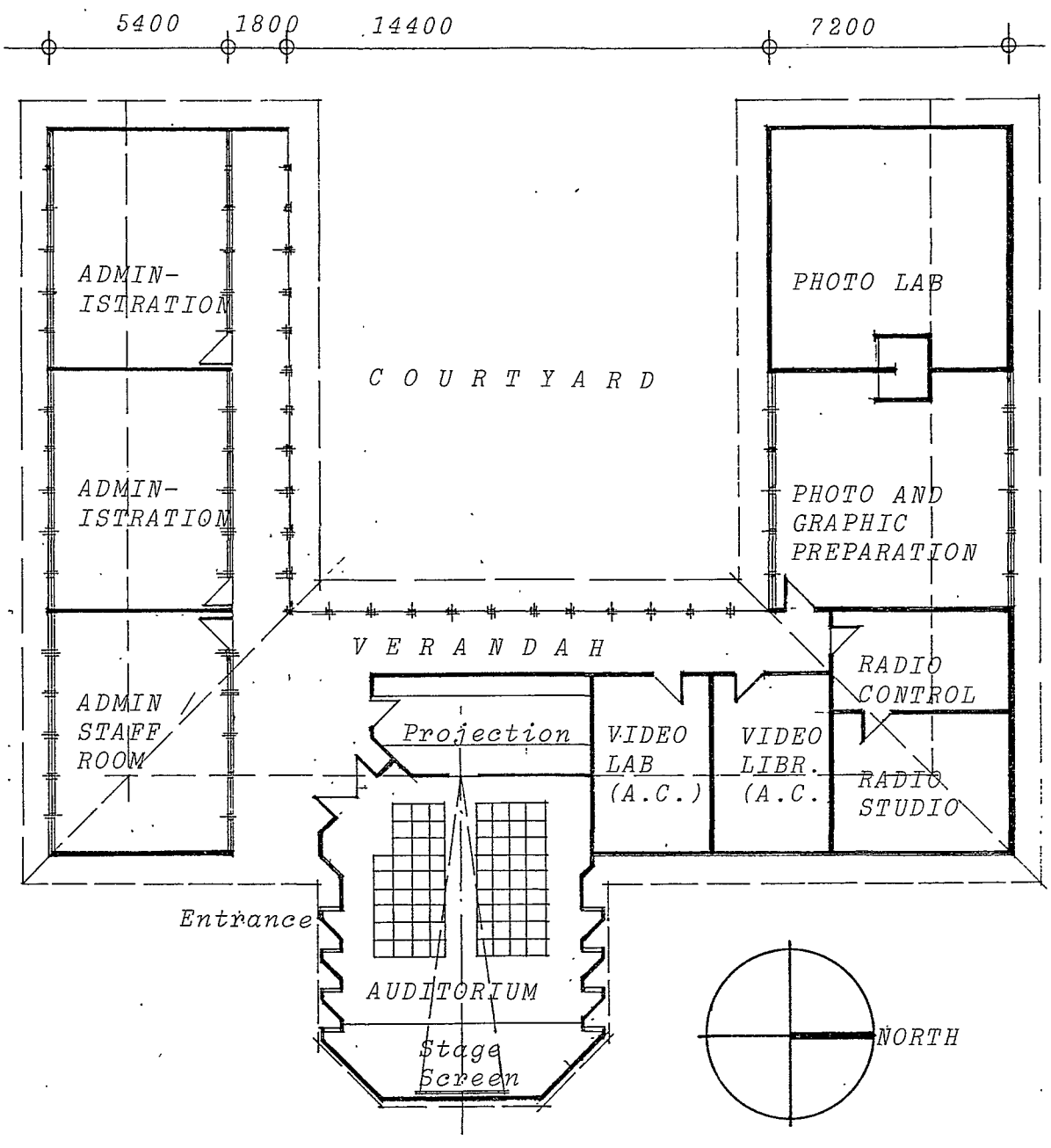
3.6.20 For reasons mentioned in Section 2 regarding the 'breaking-up' of the conglomeration of traditional classrooms it is envisaged that the printing and

duplicating section could be set up adjacent to the Resource Centre proper in two or three of the existing classrooms. New classrooms could therefore be built elsewhere following the policy of Decentralisation and Integration of the Three Spheres.

3.6.21 The design of the Resource Centre is based on the notion that the facilities housed within this building are an essential support service for almost all the activities, educational, and productive that go on within the NYS. This central role is shared and multiplied with the Library, the Study Centre, the Printing Works and the Administration. Together all these represent the Resources of the National Youth Service. Together, they combine the spheres of domestic life, production and education.

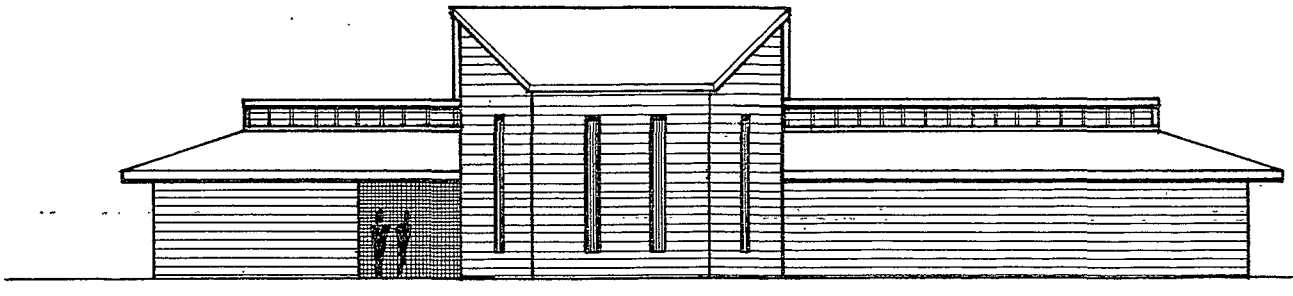


3.6.22 At Port Launay where the classrooms of the Study Centre have already been built, such a 'model' Resource Centre as presented in the drawings here can be related formally on axis



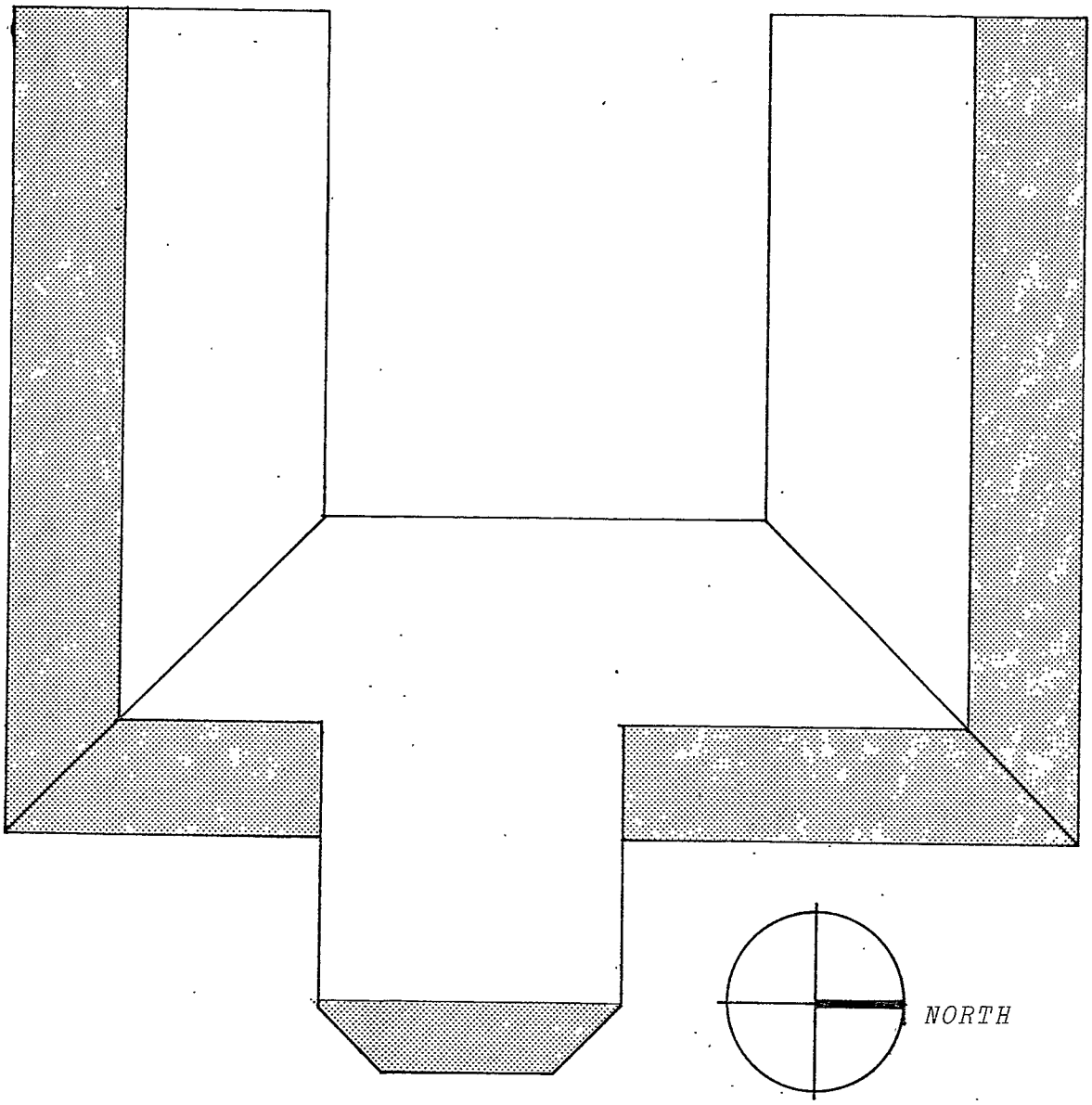
NYS RESOURCE CENTRE : PLAN
Scale 1:200

0 1 2 3 4 5 10
Metres



NYS RESOURCE CENTRE. : EAST ELEVATION Scale 1:200

Hubert Murray Architect 1981



NYS RESOURCE CENTRE
ROOF PLAN Scale 1:200

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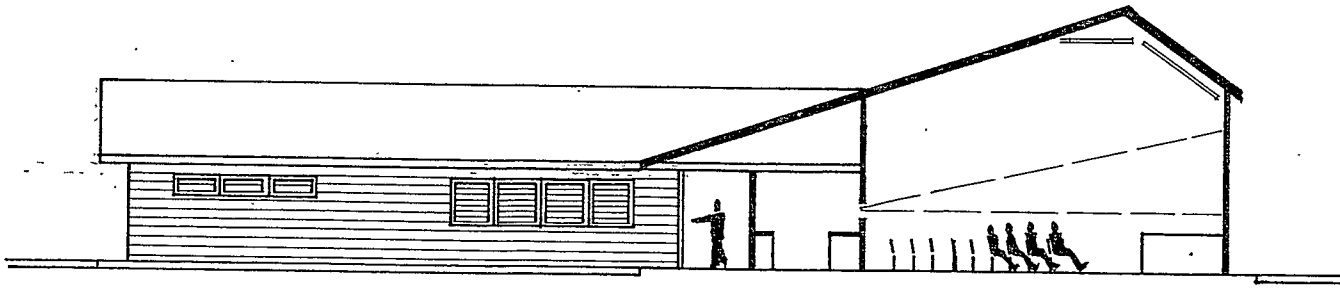
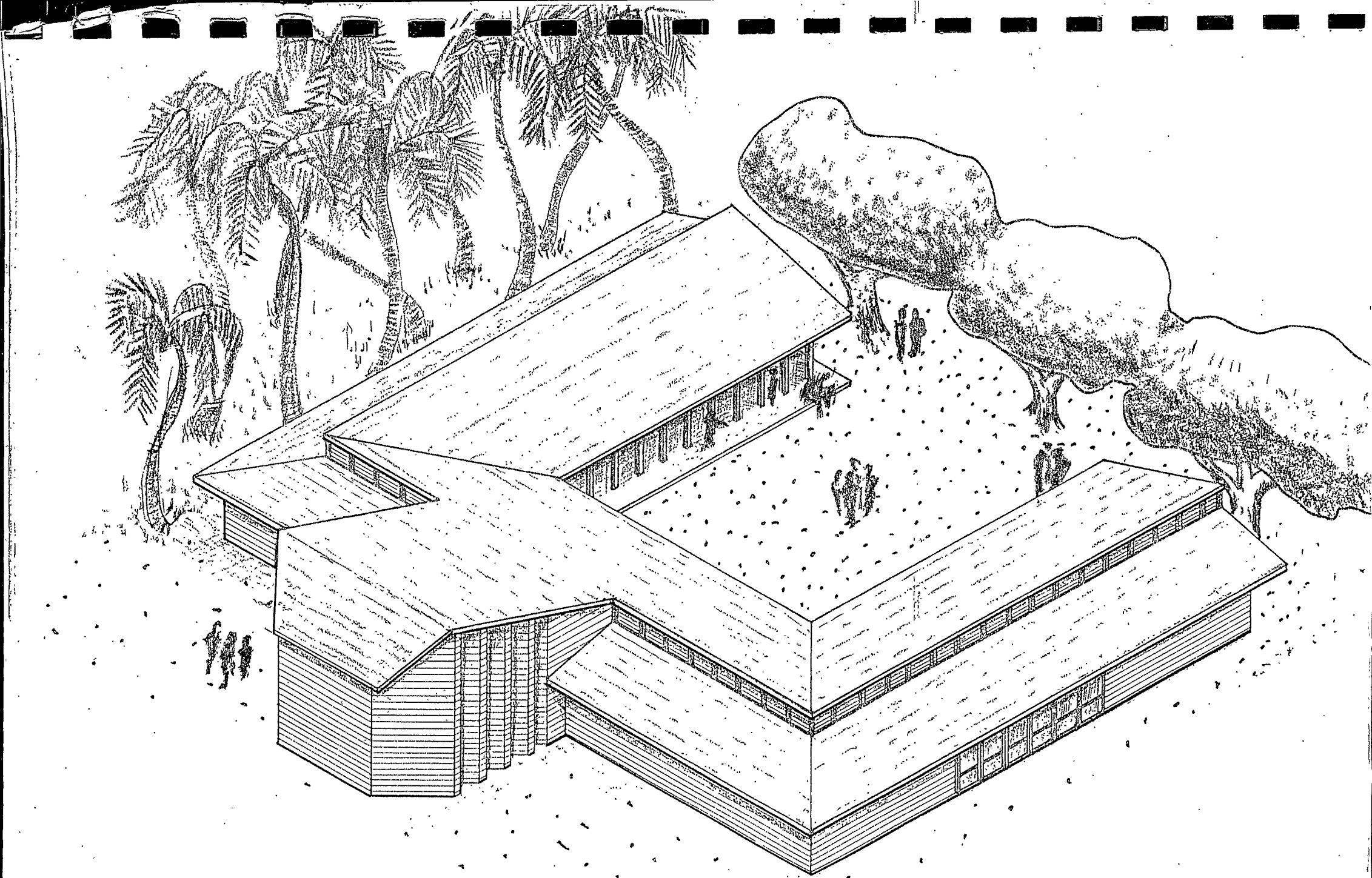
Metres



NYS RESOURCE CENTRE
SECTION THROUGH AUDITORIUM Scale 1:200

Hubert Murray Architect 1981



NATIONAL YOUTH SERVICE RESOURCE CENTRE - AXONOMETRIC VIEW *Hubert Murray Architect*

to the Library to make open outside courtyard of the space between the two groups of classrooms. Thus all the activities that go on within the classrooms (including Printing - see 3.6.20 above) and the Library and the Administration can focus onto this central meeting ground. Thus the facilities provided within the Resource Centre building itself are readily available and accessible in a central place.

3.6.23 The main functions accommodated within the building are :

- Administration (including a staff room);
- Video and Film facilities with an auditorium of capacity of approximately 60 to 70 students;
- Radio Station;
- Photographic darkroom and preparation room.

The total gross area of this building is 475 sq metres.

3.6.24 Air-conditioning is necessary for the photographic darkroom and for all the video facilities. It is necessary therefore to construct the building in substantial materials with good thermal resistivity in order to avoid overloading the air-conditioning system. It is suggested that concrete block wall construction and a tile roof laid over insulating material on boards would be suitable material. Concrete block also has a reasonable density for acoustic insulation of the Video Laboratory and the Radio Studio. The Radio Studio and the main Auditorium should also be given treatment on interior surfaces for achieving acoustic quality within the space. With this in mind the walls of the auditorium have been 'broken up' to soften the acoustic qualities of the space. It is also

suggested that acoustic baffles be suspended from the ceiling to further enhance the sound quality.

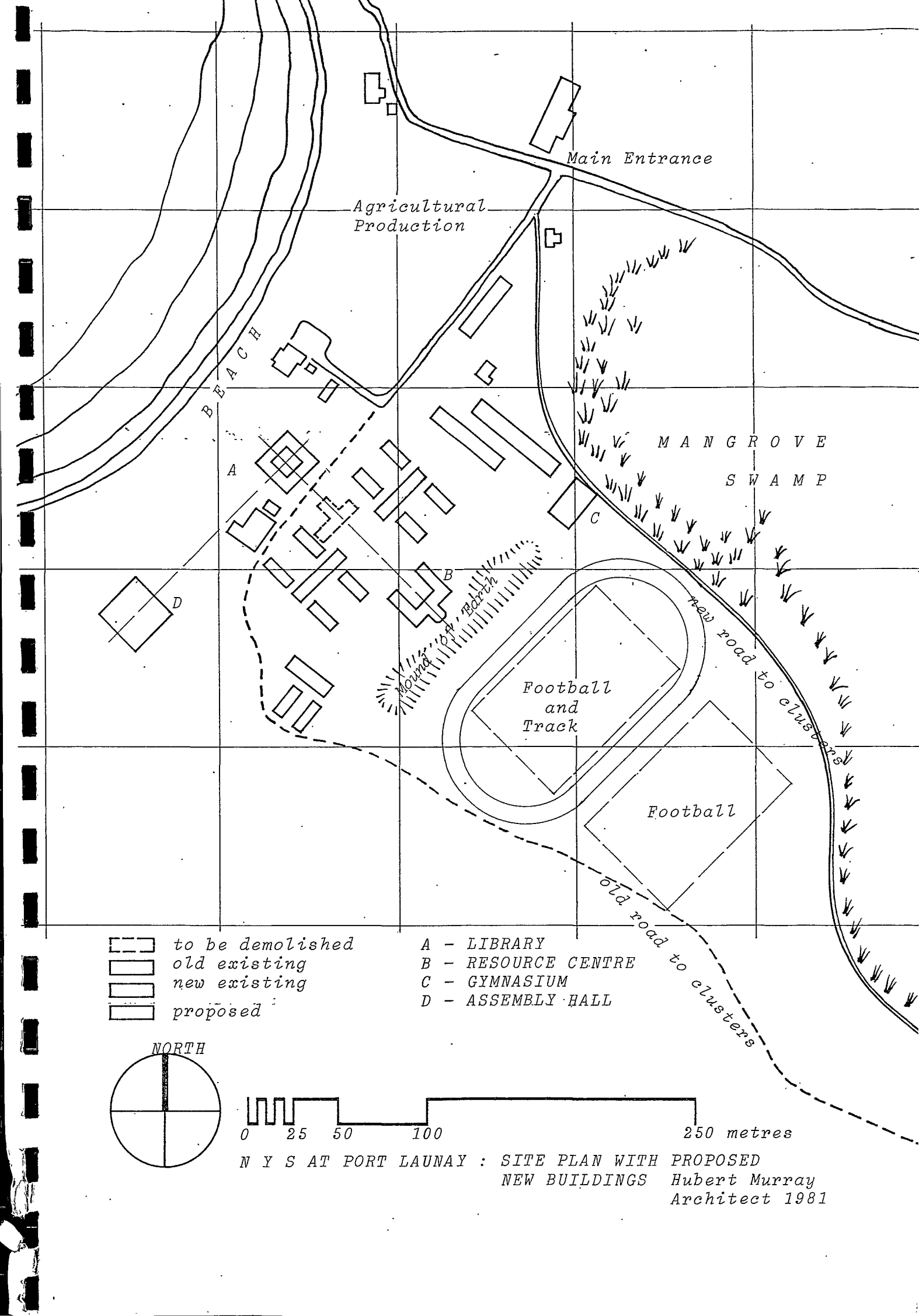
3.6.25 Apart from the air-conditioned spaces, natural light and ventilation is maximised by incorporation of ridge level louvres throughout the building allowing the upward flow of warm air out of the interior space. The oblique windows of the auditorium direct light towards the stage reflecting light off the wing wall to the seating area.

3.6.26 The issue of growth of the Centre is not confronted in any detail here. It is obviously possible to convert what have been labelled as Administration into accommodation for more video facilities or for a language laboratory. The building itself may grow on either arm of the U-shape. However, this design is put forward as a minimum first stage for such facilities.

3.6.27 As with the Library it is suggested that this Resource Centre be viewed as a model for application not only to Port Launay, but also to Cap Ternay.

3.7.0 Site Planning :

3.7.1 The map on the following page suggests possible locations for the proposed Library, Resource Centre, Assembly Hall and Gymnasium. In view of the geometrical formality of the layout of the Study Centre, a geometrical order has been continued, creating visual axial links between the main buildings. The courtyard created within the heart of the Study Centre by locating the Library and Resource Centre on either side of the open space gives this area an importance and



N Y S AT PORT LAUNAY : SITE PLAN WITH PROPOSED NEW BUILDINGS Hubert Murray Architect 1981

definition in terms of the outside space which so far seems to be absent within the Village. As mentioned before, the location of the Assembly Hall on an axis with the flank of the Library gives the two buildings an ordered link. The open space and flat land surrounding the Assembly Hall allows a crowd to overflow from the interior space without undue constriction.

3.7.2 It is also suggested that by relocating the road to the Clusters it would be possible to incorporate two 64 metre by 100 metre football pitches with a 400 metre track around one of them. The orientation of the pitches is better in terms of sun dazzle of the players than the existing pitch. The straight of the running track would allow spectators to watch events with their backs to the afternoon sun from a mound or banked seats located between the track and the Resource Centre.

4.0.0 BRIEF FOR THE SECOND VILLAGE :

4.1.0 In general terms, the attitude towards building a second village for the NYS is covered in the preceding three sections of this report. The criticism of the existing village at Port Launay contains the germ of positive design attitudes which must be employed in the planning of further villages. Close reading of these criticisms should act as a brief for the site planning, the building types, the construction techniques and the services to be implemented next time.

4.1.1 The designs of the Library and the Resource Centre likewise may be taken as prototypical and therefore applicable with perhaps certain modifications to the further villages which are planned for the entire NYS in the Seychelles.

4.1.2 What remains therefore is to make suggestions and comments which are specific to the particular site which has been chosen for the building of the second village. At the time of my visit to the NYS in March 1981 it was clear that the site at Cap Ternay was to be chosen for the next NYS village. I accompanied those responsible for decision-making to the site, I took students to the site to assist in making an architectural and landscaping survey and I made two further visits myself, all in all covering most of the terrain on the Cap Ternay peninsular and land on both sides of Baie Ternay.

At the time I expressed my misgivings about choosing such a site on technical, social and planning grounds. Since the choice has been made to build at Cap Ternay however any of these misgivings must be put down here as site constraints

to which the Design Team must respond in order to reach a satisfactory resolution.

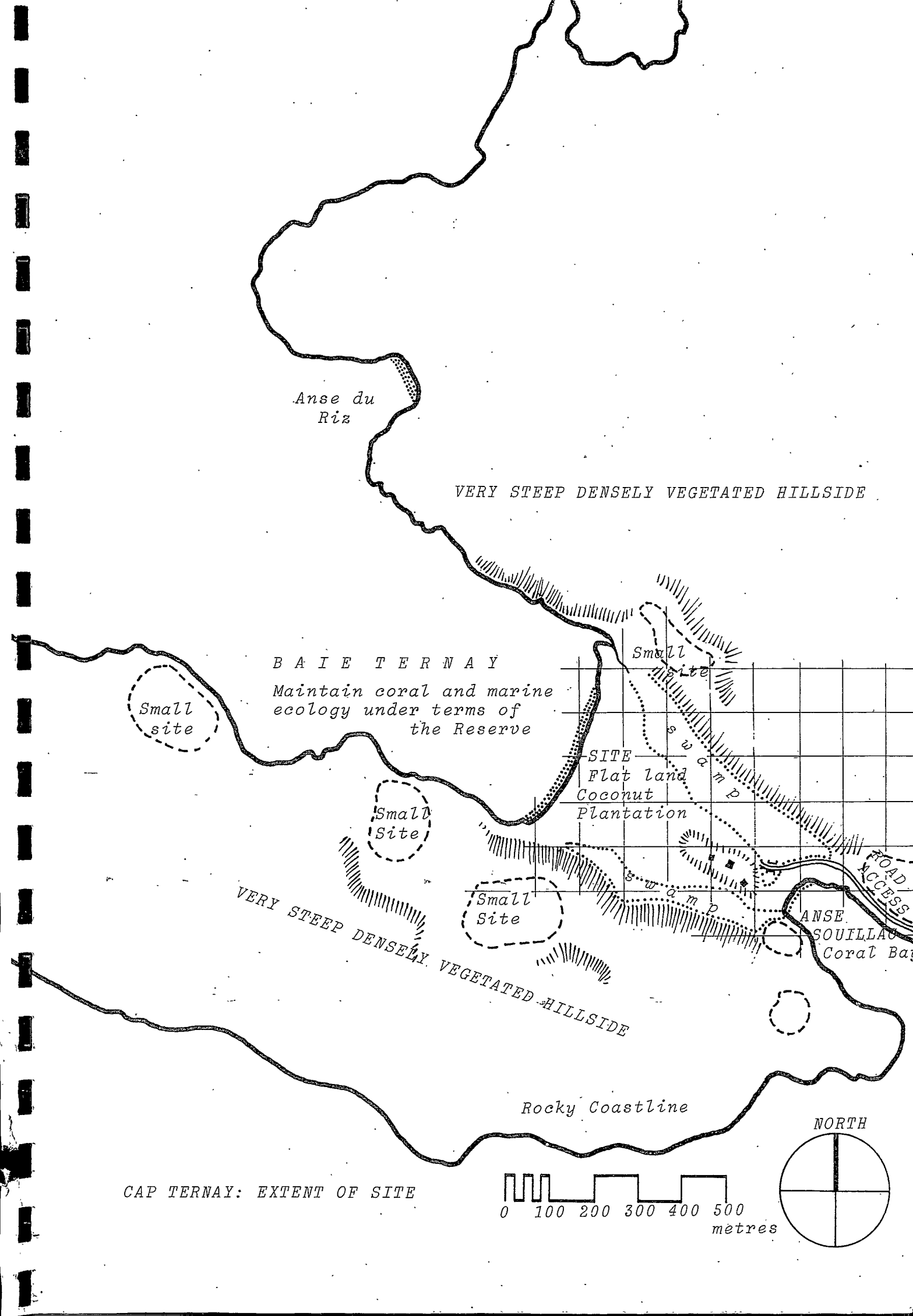
4.2.0 The site at Cap Ternay: The major constraint of the site is the limited area. After surveying the site it is clear that there are only about 9 or 10 hectares of flat land (excluding the swamp areas which could in the long term be reclaimed). This figure is to be compared with the flat land at Port Launay which amounts to approximately 31 hectares. Unless money is to be spent on expensive water and sewerage systems, most of the buildings (Clusters, Study Centre, Production Workshops, Administration) will have to be built on this flat land. Some of the land will also have to be devoted to sports. This leaves very little land for agricultural production.

4.2.1 There are three possible directions to take to solve this problem :

4.2.1.1 To cultivate the hillsides in a conventional manner. This would entail extensive clearing and terracing in order to avoid soil erosion.

4.2.1.2 To engage in highly intensive cultivation through hydroponic farming. Hydroponics is particularly suited to circumstances where there is little available land for conventional agricultural use. It is understood that action may be taken on this.

4.2.1.3 To concentrate on fish and shell fish farming in the swamp areas.


Anse du Riz
VERY STEEP DENSELY VEGETATED HILLSIDE
B A I E T E R N A Y
Maintain coral and marine ecology under terms of the Reserve
Small site
Small site
SITE
Flat land
Coconut Plantation
swamp
Small Site
Small Site
swamp
ROAD ACCESS
ANSE SOUILLAC
Coral Bay
VERY STEEP DENSELY VEGETATED HILLSIDE
Rocky Coastline
NORTH
CAP TERNAY: EXTENT OF SITE
0 100 200 300 400 500
metres

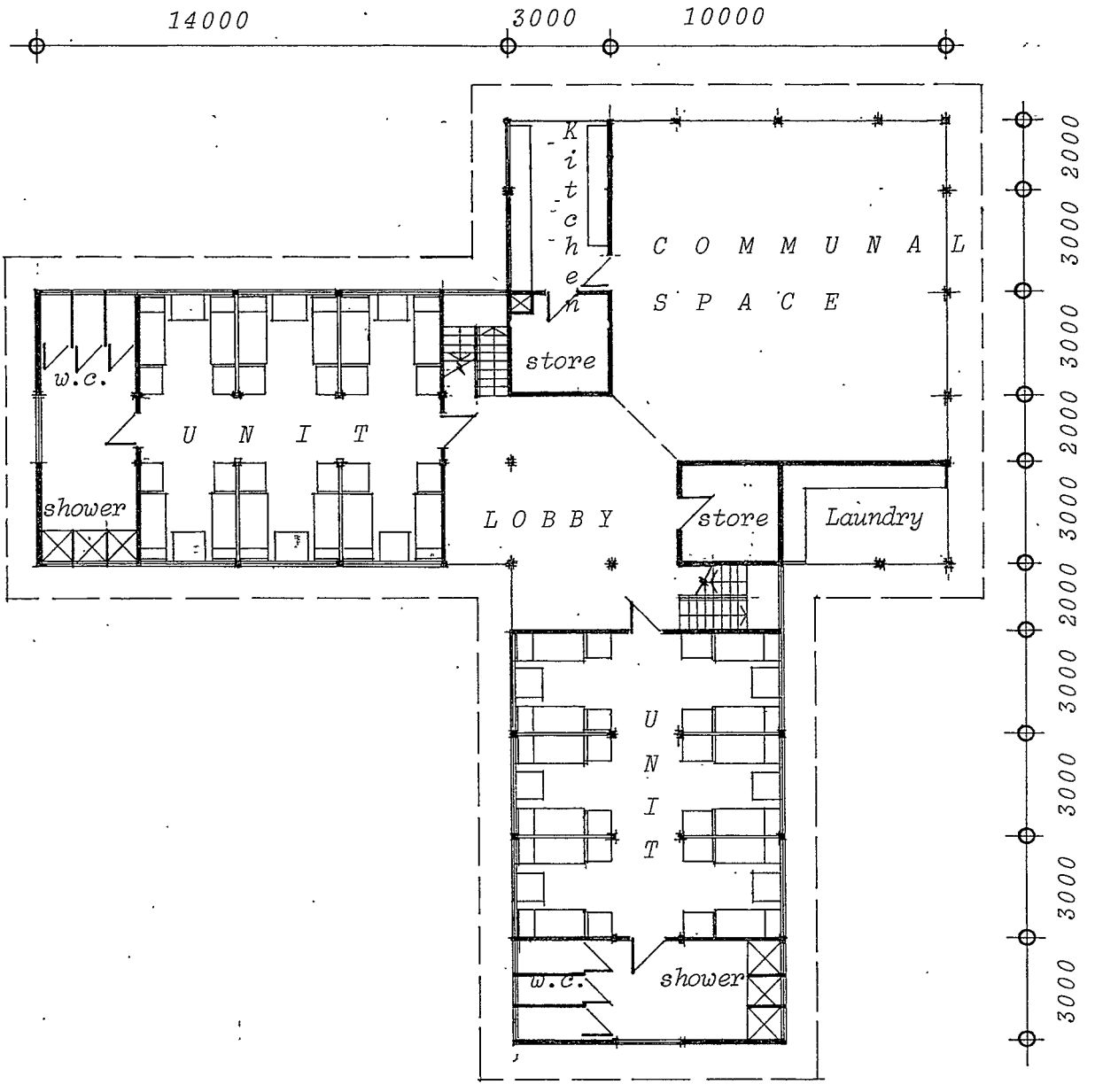
4.3.0 Clusters :

4.3.1 In view of the restricted conditions on the Cap Ternay site it is necessary to build the clusters in two storeys. This issue has been discussed and agreed with the Chief Architect of National Consultancy Services.

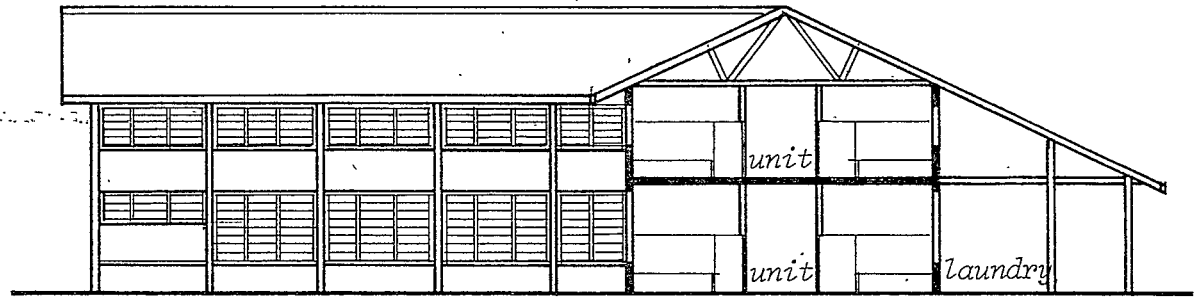
4.3.2 The design for the Clusters offered here has two-storey accomodation for 48 students, 24 on the ground floor and 24 on the first. The Unit accommodation is for 12 students each. The double storey units converge at right angles on to a large communal space (10 metres by 10 metres) whose interior space is a large single storey volume roofed by the continuation of the second storey roofline down to ground floor eaves level.

4.3.3 Overlooking this communal space is a generous balcony at the top of the stairs on first floor level. This balcony can serve as a quiet space where students may play quiet games or read or write letters or do their written project work during the evenings.

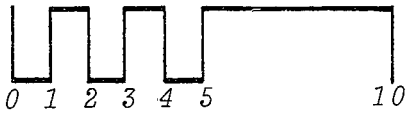
4.3.4 The communal space has been designed to be generous in size for precisely the reasons stated in the criticism of the existing clusters at Port Launay (Section 2.2.0). The space must be big enough for a film or for a dance or a political meeting which involves minimum 2 clusters of 96 children. Any attempt to reduce the size of this space will result in these activities being unduly constricted. It must be noted that this space may also be used as classroom space, thereby integrating education and domestic life where there is no conflict of function. This may also be seen as a very real saving in development costs.

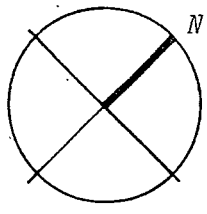


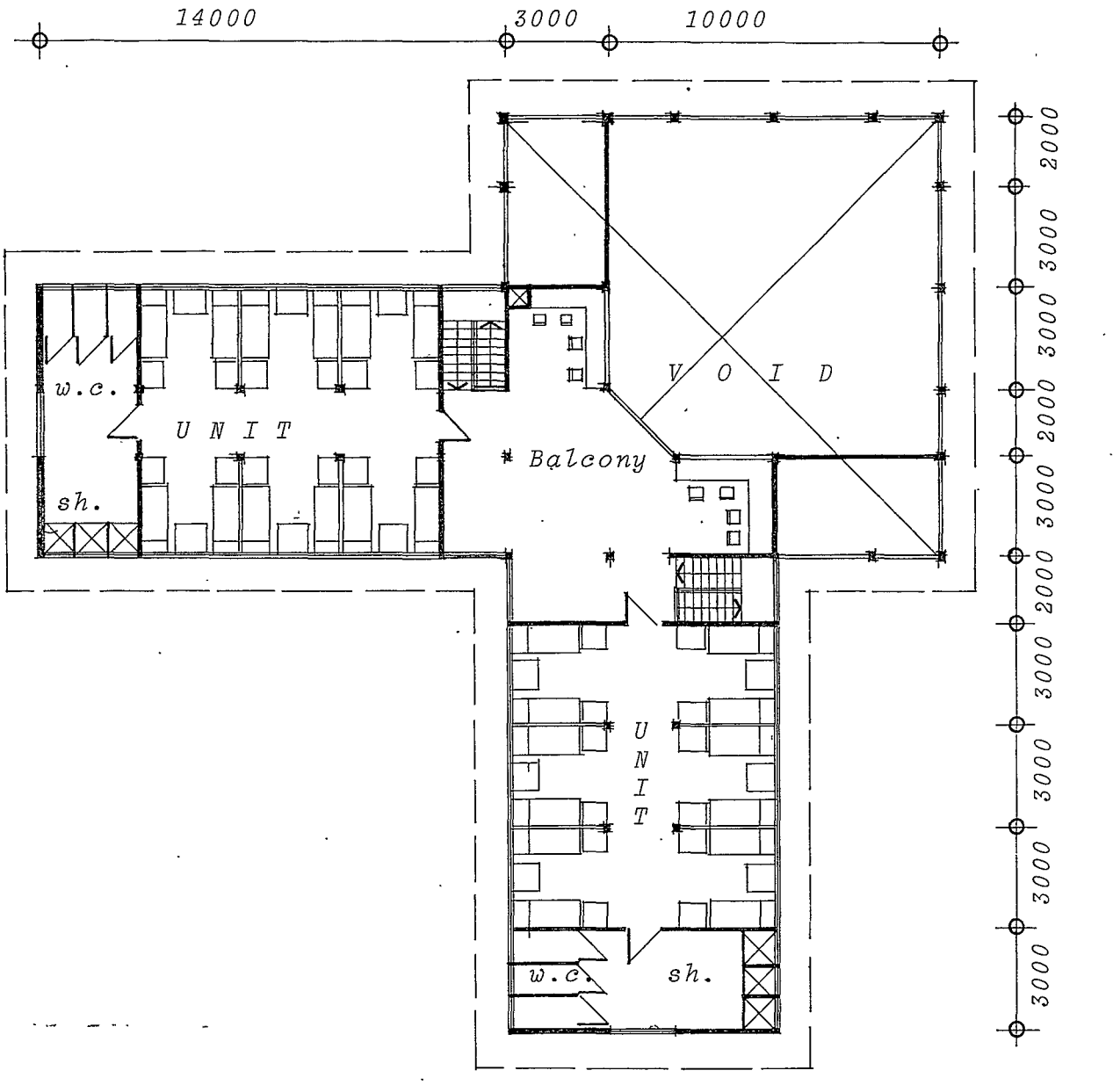
NYS at Capt Ternay:
CLUSTER GROUND FLOOR PLAN Scale 1:200



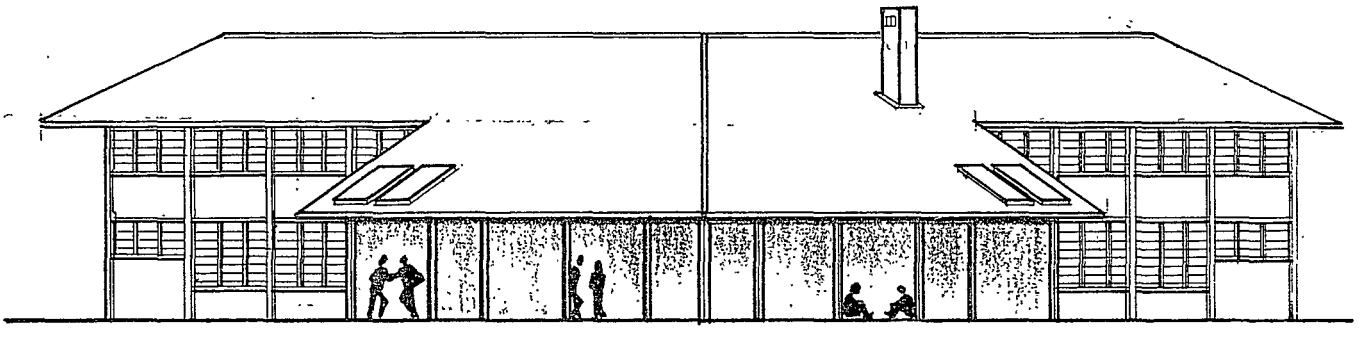
SECTION



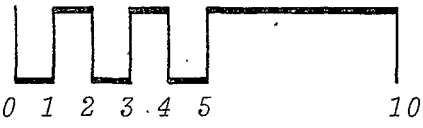


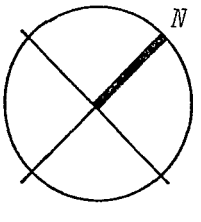


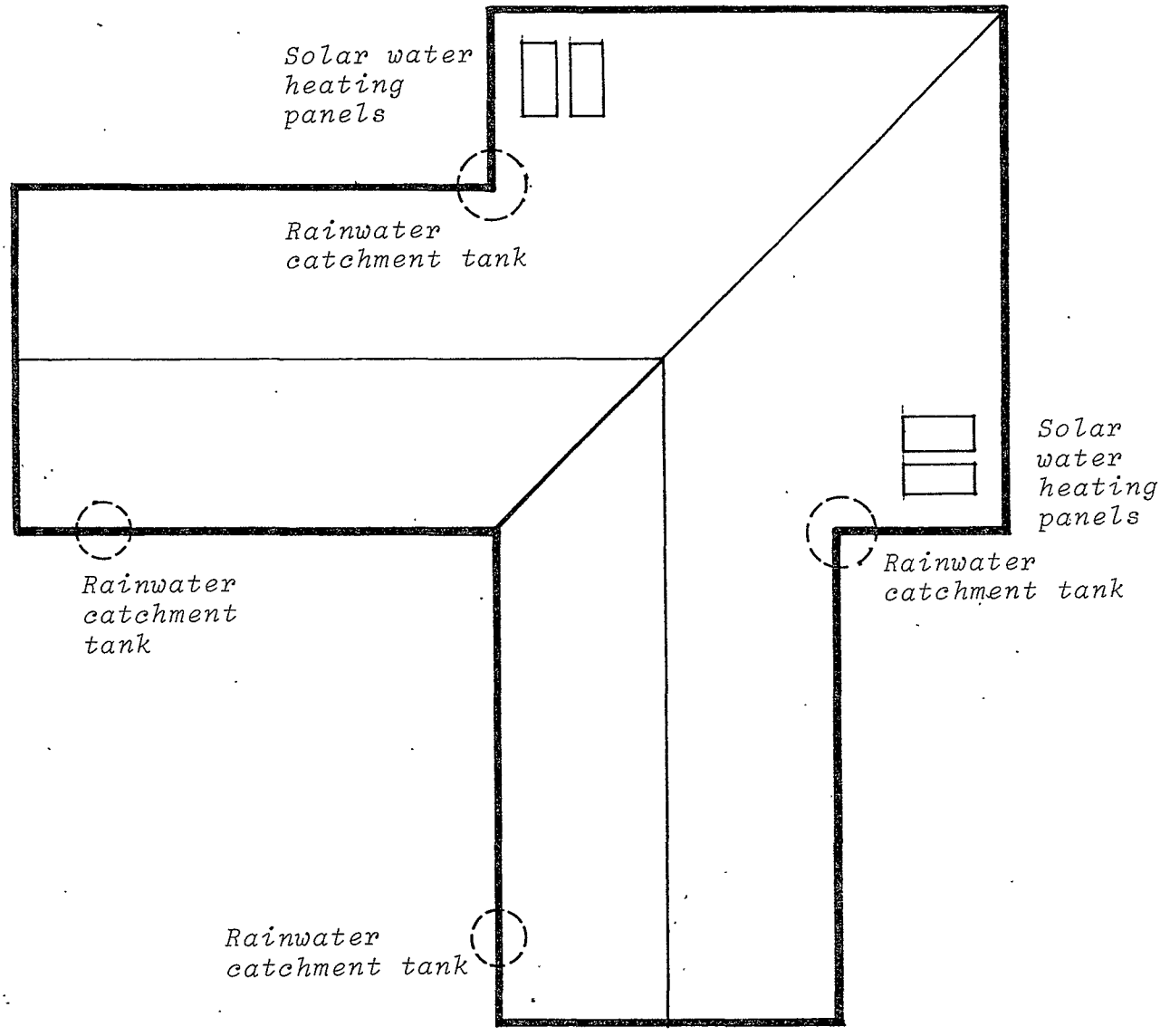
NYS at Cap Ternay:
CLUSTER FIRST FLOOR PLAN Scale 1:200



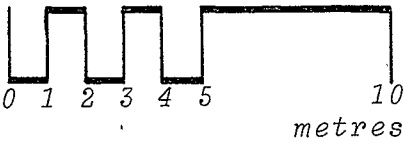
NORTH ELEVATION

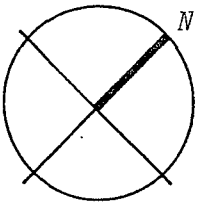






NYS at Cap Ternay:
CLUSTER ROOF PLAN Scale 1:200





4.3.4 On ground level the communal space is flanked by the kitchen and the laundry space which are however walled off from the main communal space from which access is indirect.

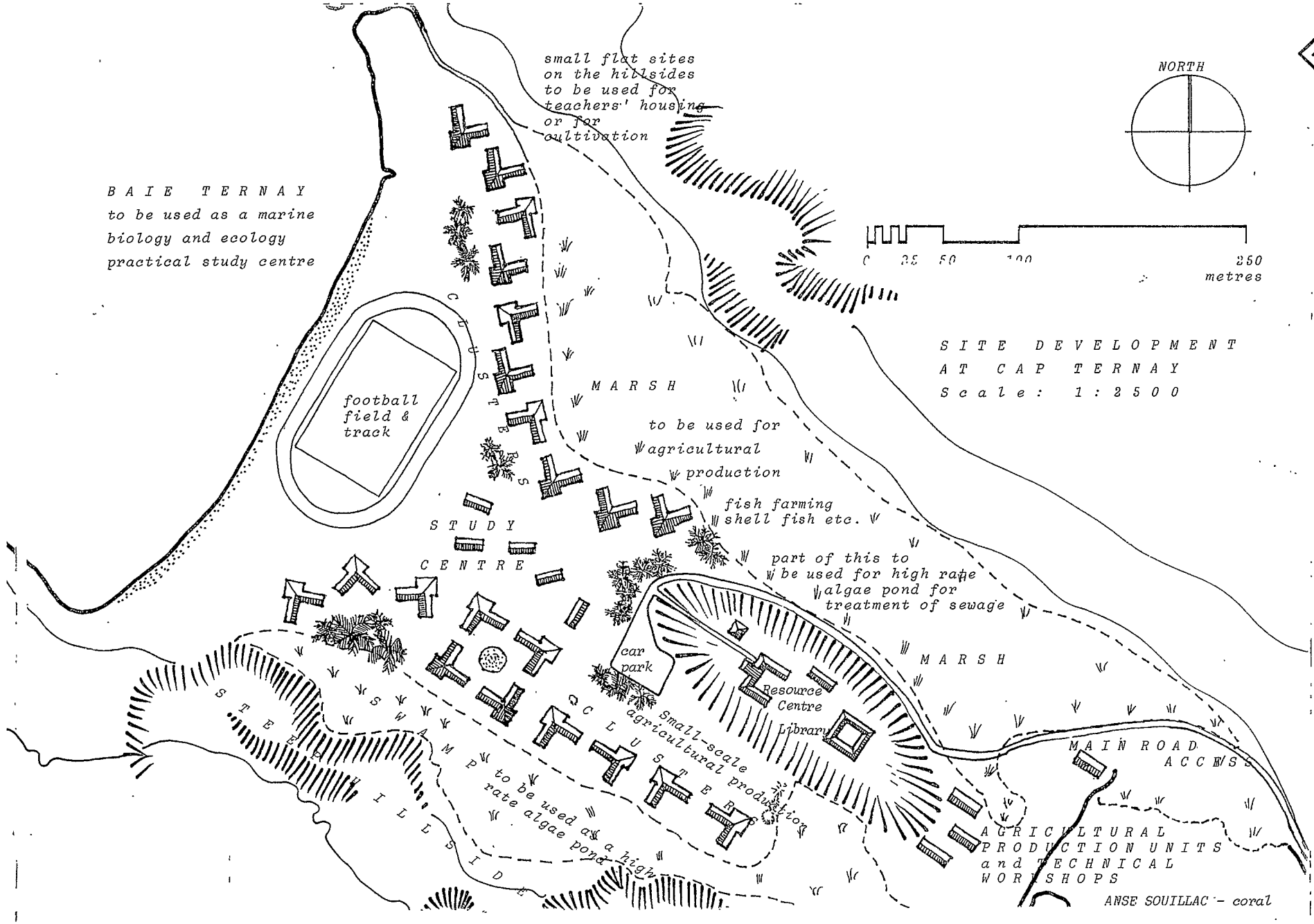
Technically the design can very easily incorporate solar water heating for the kitchen and the laundry which would in turn be fed from rainwater catchment tanks.

4.3.6 Drainage and sewage may be fed into bio-gas digesters or to a high-rate algae pond established on the southern swamp area running under the lea of the hill.

Construction of the Clusters may be in reinforced concrete frame with block infill or in timber frame with timber panel infill. The latter mode of construction would be lighter. It is strongly suggested that generous use is made of louvred panels to maximise ventilation, especially in the ground floor units which may become stuffy unless such measures are taken. The cill height of the openable shutters should be at 500 mm above floor level to enable students to see out from a position of lying on the bed.

Roofing may be in any of the materials suggested in Section 2.5.4.

4.3.7 The layout of the site plan is based on such a Cluster design and also incorporates the prototypical Resource Centre and Library described in Section 3.



5.0.0 CURRICULUM DEVELOPMENT:

5.1.0 A substantial part of the content of Section 2, the criticism of the existing Village at Port Launay, was based on discussions with and comments of students in the Village. I had two full Wednesdays with two groups of about ten students each, during which we discussed the existing buildings from their point of view as users. The discussion was prompted by a hand-out containing series of informal questions, some of which prompted answers, some of which led to more questions.

Appendix 3

5.1.1 The second Wednesday was spent with students in surveying the site at Cap Ternay looking for possible areas for building outside the main area of flat land. The students learned to read maps and to understand scales. Further development of a curriculum which encourages substantial participation of students in the process of design and construction rests upon the Curriculum Committee and members of the teaching or production staff who will undertake to pursue the idea. The Chief Architect of National Consultancy Services responded very warmly to the proposal and was keen to explain his designs and listen to criticisms. Such co-operation from the professional sector should be appreciated by the Curriculum Committee in developing design projects. There was also an indication that students would be employed in construction within the Village. Several of the animateurs have construction skills and were keen to employ them in such projects with the students.

APPENDIX ONE: BRIEF FOR POTTERY CENTRE

Submitted by Dorys Tremblay, Teacher, NYS:
March 1981.

Ce que pourrait être un atelier d'arts Plastiques dans le contexte d'un village comme celui du N.Y.S.

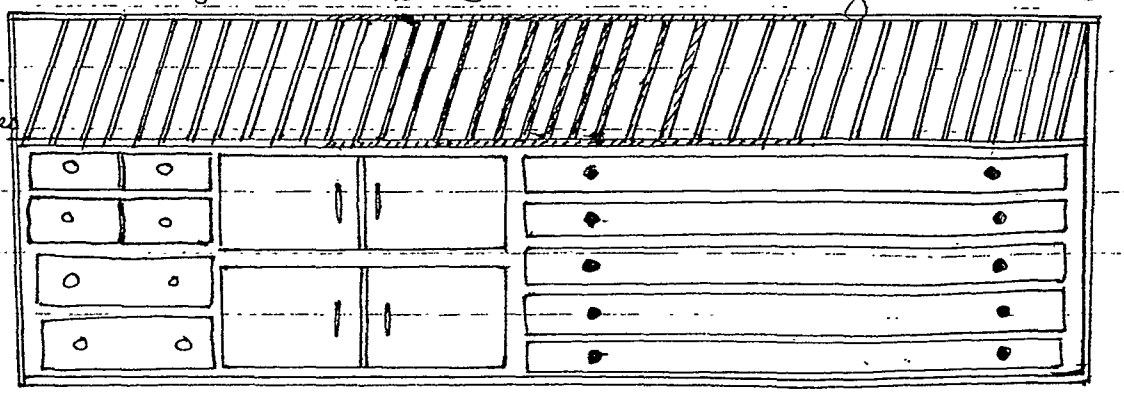
par: Dorys Tremblay.
N.Y.S.

Une espèce de classe ouverte, c.a.d. un grand espace avec un Toit de paille

Ce qui est Très important d'y retrouver, c'est ou plutôt ce sont: des longs et grands lavabo (facile à déboucher)
: des longues tables de Travail (pour des exercices collectifs)
: des armoires avec compartiments pour pouvoir remiser le matériel et fiche/chemise de chacun des participants (Tes).

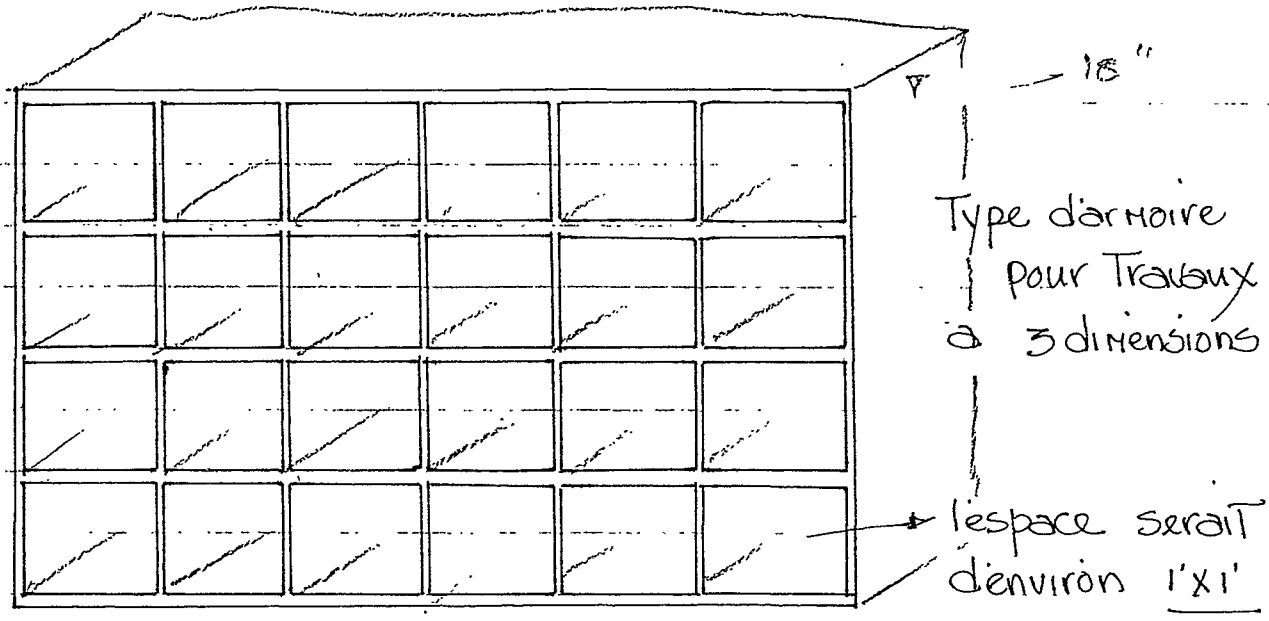
Voici donc une ébauche + descriptive d'un Type d'armoire pour Travaux 2dimensions

Considerant que chaque fiche Mesure: 18" X 24"
et qu'il faut ranger de grands papiers (à plat) des contenants de verres, des outils de Toutes sortes, et également des



Travaux en realisations: genre sculptures, poteries Modelages et autres... voir verso pour autre Modèle d'armoire pour Travaux 3dimensions

APPENDIX ONE: BRIEF FOR POTTERY CENTRE
(continued)



N.B → Pour ce qui est des Tables il serait d'une Très grande importance qu'elles se nettoient facilement pour Tous les usages. donc peut-être voir par là : de l'arborête. ???

APPENDIX TWO:

SOME EXAMPLES OF SMALL MEDIA WORK, SUITABLE FOR CREATIVE EDUCATIONAL ACTIVITY IN NATIONAL YOUTH SERVICE PROJECTS

1. Black and white photographic exhibitions

e.g. 15 pictures 10"x8" illustrating the work of a craftsman, or an entertainment presented by the students, or the daily life of an elderly person, or a two-year old exploring the world. The exhibitions should be mounted carefully, with attractive titles, hand-written captions, decorative features where appropriate.

2. Slides sets

e.g. 30 slides telling the story of a community project, the erection of a building, or local agricultural practice.

Both black and white photographs and transparencies should include some extreme close-ups (2" from camera). Extension tubes for a single reflex camera are not expensive (approximately Kshs.150/-). Also pictures copied from books, negatives or transparencies laid on top of each other to give unexpected and imaginative results.

3. Audio tapes

e.g. edited interviews with notable people, reports of research into local music and dialect, "radio drama", with sound effects, mixing etc.

A good portable open reel tape-recorder is needed, plus microphones. Also larger machines (e.g. Ferrograph) for editing and playback. Also small mixing unit.

4. Tape/slide

By putting together sound track and pictures, to tell a story, illustrate a theme or teach something, extremely attractive and persuasive programmes can be produced very cheaply.

5. Portable video

½" video with camera, recorder, playback machine and monitor. Can be used for recording events where movement and synchronised sound are important.

6. General

These five media have the following advantages as compared with studio TV:

- the skills can be learnt by anybody really interested.
- although equipment must be cared for you do not need a large staff of professional technicians.
- equipment is portable, so outside location pictures and audio recordings can be made easily.
- the technology is less likely to crush creativity than in studio TV
- more students can be involved in the creative work, many small and reasonably inexpensive projects can be produced.

(continued)

Even if the organisation is determined to invest large sums in TV studios, equipment, training and staff it is wise to master first the skills required by photography and audio-recording, and to build up an archive collection of pictures, voices and sounds. Also to learn the very considerable management skills you will need if you are to get value from investment in audio-visual facilities.

Most elaborate audio-visual centres fail either because the equipment breaks down, or because the results are felt by the clients to be not worth the effort of writing scripts and assembling all people needed for a production.

P F Hilken
Assistant Representative
(Non-Formal Education)
British Council, Kenya.

15th April, 1981

APPENDIX THREE

ARCHITECTURE PROJECT, MARCH 1981

VILAZ LAZENES : A POSITIVE CRITICISM

Aims of the Project:

- To make a positive criticism of the NYS Village at Port Launay
- To present our views to the Chief Architect
- From criticism to proposal; to formulate our ideas for the 2nd NYS Village.

Programme:

1st Session (½ hour): Introduction. How can we ask questions about the buildings we use and live in ? Can we list all the things we do in the buildings and the things we would like to do ? Prepare a list of our activities, our criticisms of the buildings, our questions.

2nd Session (4 hours): Architect's Presentation. The Chief Architect will present his plans and drawings for the village at Port Launay and explain his design. We shall ask him why - "Why did you do this ?" and make comments like "this is very good" or "we think next time you should do so-and-so". See questions listed below and over the page.

3rd Session (4 hours): From our understanding of the village at Port Launay and from listening to the Architect we shall formulate our ideas. We shall present our comments to the Architect to help him in his design for the Second Village. We shall also see what we can do to help ourselves: we shall make projects to improve our buildings; working together we can help ourselves and learn.

Criticism:

Comments and questions about the NYS Village at Port Launay. Please add as many questions and comments as you and your Cluster comrades can think of :

1. Site and Size :

- We are 800 in the village, 16 students in one unit, 3 units (48 students) in one cluster. Is this too many or too few or just right ?

- All the buildings have been placed on flat land. Should some buildings be on the hills ? How do we use the hills ? What activities must have flat land ?

- Is it good to be near the beach or away from the beach ?

- How far is it from the clusters to the study centre; how long does it take to walk ?

2. Cluster and Unit :

- Is the unit the right number of comrades ?

Discussing
Washing
Ironing
Schoolwork
Writing
Reading
Sewing

- Is 3 units in the Cluster a good idea ? Can you make a good meeting with 48 people ?

- What sports teams can you assemble from your cluster ?

- List all the activities that you and your comrades do in the cluster. Work activities / Play activities.

- What activities do you do <u>together</u> and what activities do you do alone ? Mark the lists you have already made.

Games
Cards
Radio
Films
Models
Singing

- What bothers you if you are trying to do something either in a group or alone ? Does the building have something to do with this ? Could a different design help the problem ?

2. Cluster and Unit (continued)

- Do you like the area just outside the cluster ? What would you like to do with the surrounding area ?

- Think of all your five senses as a check-list :

  Sight - Can you see things well (day/night) ?
  - Good view of bad view ?
  - Buildings look nice or could they look better ?

  Sound - Do you like to be quiet or noisy ?
  - What about the people in the next cluster ?

  Smell - Are there some good smells and some bad smells ?

  Touch - How does the floor feel ? The walls ? The beds ? The benches ? The tables ?

  Taste - Food - ask questions about the kitchen.

3. Study Centre / Classrooms:

- Do you go to sleep in the class ?
- Can you hear the teacher ? Can you hear your fellow students ? Who does the talking ?
- Where do you put your books and equipment ? Is that alright ?
- Is there enough or too much
  heat
  air
  light
  smell

3. Study Centre/Classrooms (continued)

- If your teachers ask you to find something out where are the places you would look ? In a book ? In the library ? On the farm ? Ask someone ? On the farm ? In your cluster ? How could the buildings help ?

- Do you have somewhere to read ? Do you have somewhere to be quiet ?

- Do you like to see out of the classroom or do you prefer not to be distracted ?

- How many students are in one class ?

- Do you stand up for some lessons and sit down for others ?

- Do you use the study centre for your project work ?

4. Production Units :

- What animals are being raised on the farm ? Should they all be in one place or would it be a good idea to divide them up all around the village ?

- What crops are being grown ? Should they all be in one place or should they be sown all around the clusters ? Or both ? If they were growing around the cluster who would look after them ?

- What workshops would you like to see in the production units ?

- What things would you like to make either by yourself or with friends and comrades from the unit ?

5. Use of Resources: Skills / Materials / Energy

If we are to learn to help ourselves, how do we do it ? We see what skills we have to make things, to do things, to organise, to create and imagine.

We see what materials we have to make things out of. We see how we can make heat and light and cold; we see where we get these from - from water ? From wood ? From steel ? From aluminium ? From cement and concrete ?

What things do we have here in the Seychelles ? Make a list of all the things we are importing to make a building. Do you know where they come from ? Can we do without these things we import ? Is there anything we can make here instead ? Is there something which will not be the same but it would do just as well ?

Third Session: After we have listened to the Architect we will revise our suggestions and comments and put them together to present to him.

We shall also know what other projects we can undertake ourselves. The next handout will be written by all of us.

ACKNOWLEDGEMENTS

My visit to the National Youth Service village in March 1981 was made possible by the provision of travel expenses by UNESCO in Paris.

I should like to thank my employer, Mr H Richard Hughes of Nairobi for allowing me leave of absence to fulfill this mission.

During my stay at Port Launay I was offered great hospitality and help from all those involved with the NYS and in particular I must thank the Chief Architect of National Consultancy Services Mr Peter Chaudhry for working with me in a comradely spirit. I must also thank the students of the architecture project group for applying themselves to these novel issues with such effort and good humour.

Lastly I must express great thanks to Mrs Anne Coutinho for her excellent typing and pertinent advice.

HUBERT MURRAY
May 1981