THE HOOD ACADEMY

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THE HOOD ACADEMY

Squaw Valley, California

by

Robert D. Robinson

A Professional Paper Submitted in Partial Fulfillment of the Requirements for the Degree of

Bachlor of Architecture

Approved:

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Advisor

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Thesis Coordinator

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Director, School of Architecture

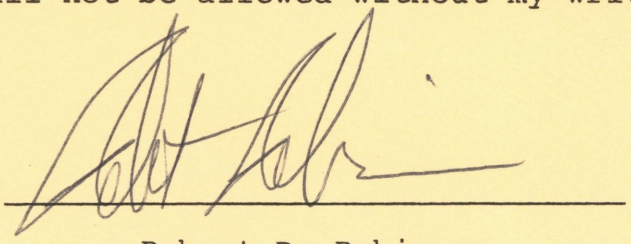
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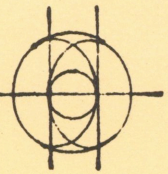
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Robert D. Robinson

THE HOOD ACADEMY



DEDICATION

This document is dedicated to the people most responsible for making me the person that I am. To my mother, Ms. Patricia Wagner Hood, for giving and sacrificing of herself so that she might fulfill the needs of her children and also for teaching me what it means to care. To my sister Ms. Dominique Ochoa for teaching me to look not at a person's outward covering but at their inner beings, and of course to the rest of my family, Mary, John, Dorthy, Robie and Rickie.

There are some things that can never be repayed.

During my initial attempt to solve this thesis project (Winter 1986), it became clear that the scope of this project was just too broad. The entire project, as outlined in this document, could nt be dealt with in enough detail or resolution to successfully complete the project. In other words, I had spread myself out too thin.

After consulting with Jerry Bancroft (advisor) and Tom Wood (committee person) the following changes were agreed upon.

The scope of the project will be changed to master planning the site to meet the original design goals, and then to concentrate design efforts on the teaching and learning structure (the school). In this way, the school can receive the attention that it properly needs.

The school building(s) needs to express the dynamic nature of an experimental school. A building that does more than just sit on the site and perform a function, but a building that could actually make one think about what this building is doing on this site. To this end the building needs to integrate itself with the site, the creek in particular, on which it rests.

The student body has been increased to become more realistic from 26 students to 70 students. This is a 7 to 1 student/teacher class ratio with ten full-time instructors. In addition, about half of the

student population would come from the local communities while the other half would live on campus, as outlined in this document.

The following is the program for the Hood Academy reflecting the changes made.

Art Studio	650	
Bathrooms	500	set
Ceramics	330	
Classrooms	1080	(4 @ 270)
Computer Lab	500	
Dark Room	144	
Director's Office	270	
Entry/Reception	300	
Glaze Room	390	
Green House	360	
Gym		
Exercise	250	
Court	5800	
Locker Room	1400	(2 @ 700)
Storage	250	
Lecture Room	1400	

Library	
Stack	2000
Periodicals	176
Control	100
Reading	750
Math Lab	270
Mechanical	
Multi-Purpose	1500
Point Area	200
Record Rom	64
Science Lecture Area	250
Science Lab	640
Small Stage Area	600
Student Lounge	320
Study Hall	230
Storage	1000
Teacher's Bath	50
Teacher's Office	1300
Teacher's Lounge	250
TOTAL	23,300

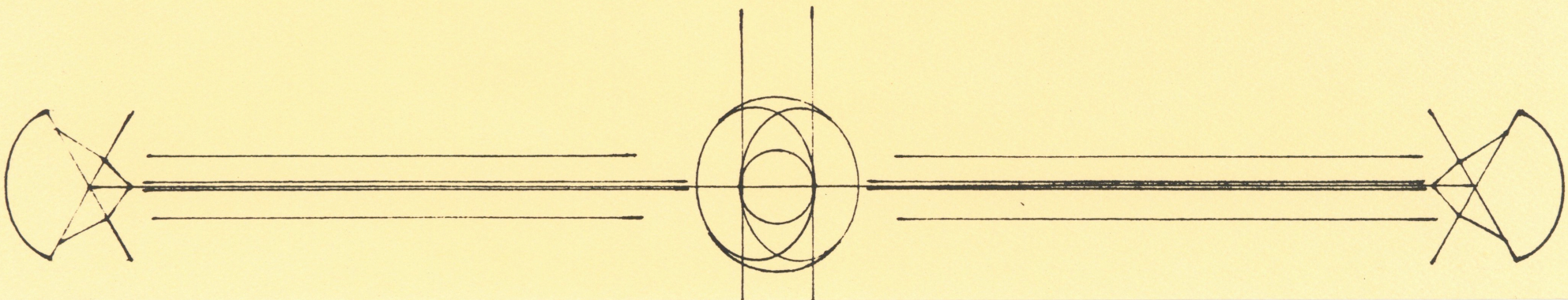
15% Mechanical and Circulation	3,500
TOTAL	26,800

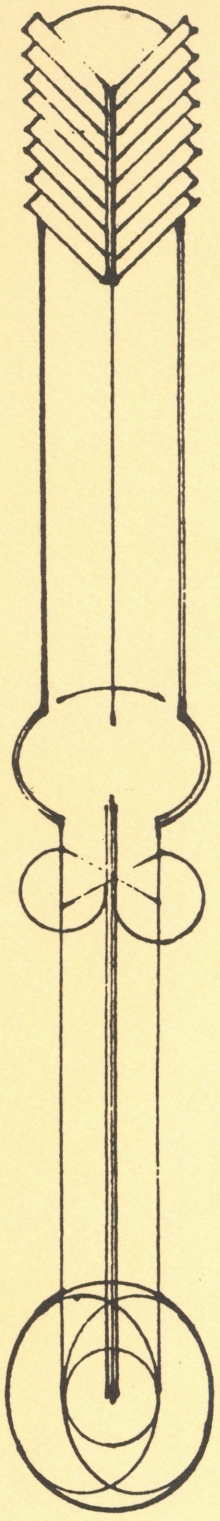
THE HOOD ACADEMY

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Introduction

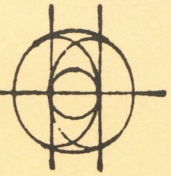


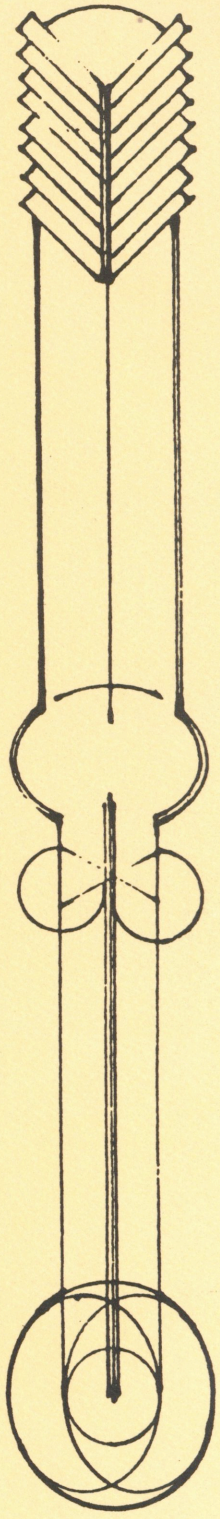


FORWARD

In choosing my thesis project I wanted to do something special - a project that meant something to me, as well as exicted me, both personally as well as architecturally - something that would keep my interest for two intense quarters. What means the most to me are people. I have been described as a bleeding heart by many of my friends. They are probably right, but then when it comes right down to it, the only thing that really matters in life are people. The aspects of architecture that hold high interest for me are the non-typical building problem and spaces that are meant to be lived in. These values and interests are represented in the Hood Academy.

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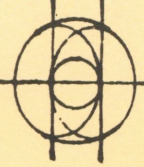


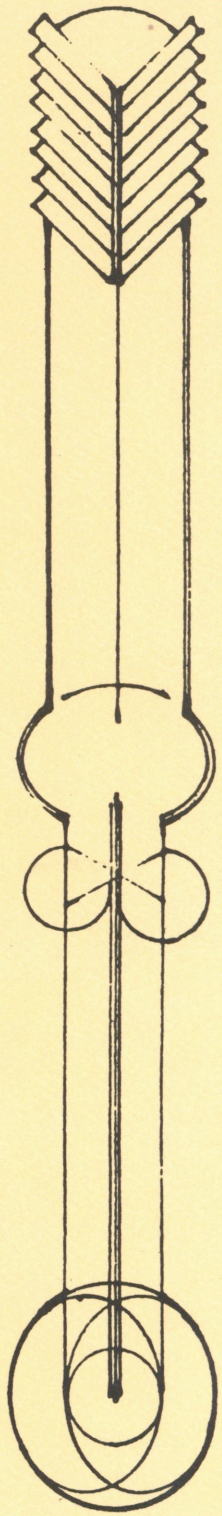


PURPOSE

My intention is to design a high school for students with undeveloped talents. The public education system today is geared toward the mass teaching of students with little concern for the individual student. This can be seen in impersonal teaching formats as well as the institutional architecture used in most of the post-1940's school designs. A mythical average student, who does not exist, is being addressed educationally and architecturally by these schools. With the Hood Academy as a vehicle, I hope to avoid what I feel are the short comings the educational system and in doing so, have purposely choosen the "non-average" student as a subject matter. I am also investigating creative solutions to architectural problems.

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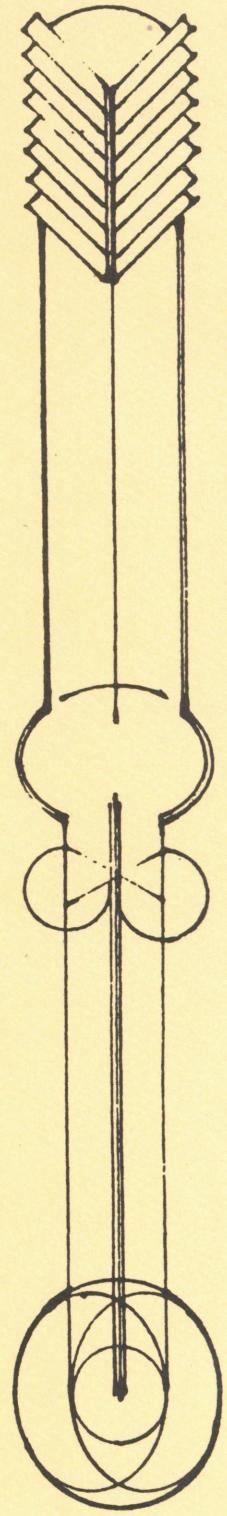


SCOPE

The Hood Academy, in its very early developmental stage, was a project inspired by imagery of a small intimate school and a living environment playing off one another. Taking the dynamic energies of spaces in which the activities of living take place and a creative learning environment and melding them together to create a complete architectural expression was my idea. It became evident upon thinking the project through, that Hood Academy represented the opportunity to explore creative use of spaces, non-traditional living and the better utilization of educational facilities.

In order to meet these goals, I intend to design a school of the exact description to follow later in this document. The concerns of architectural order, space, form, functionality and sting will all be addressed, but the focus will be on those goals presented earlier and explained in more detail later. Issue of economics have been handled as a given, based on the Cambridge Experiment.

Social issures have been developed with the help of Dr. Anne Williams. The education issues have been developed with the help of Dr. Robert Thibealt. As a whole this thesis is not an exploration of these concerns, but still it is important to address them in order to understand how they relate to the architectural needs of the Hood Academy.



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FOCUS

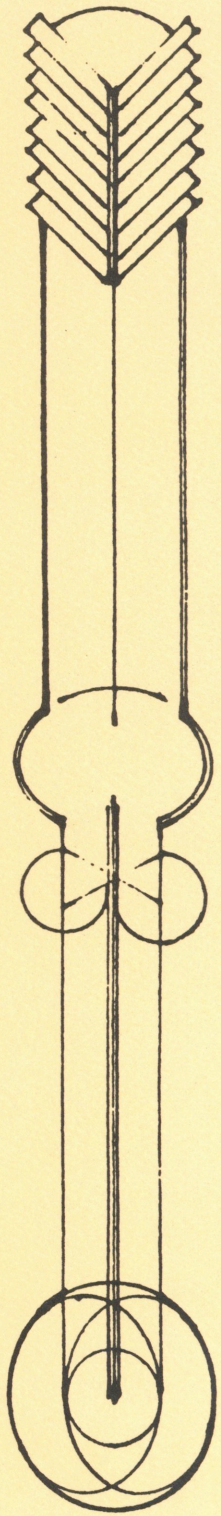
1) Finding an architecture that stresses the individuality of each person and avoids institutionalized architecture.

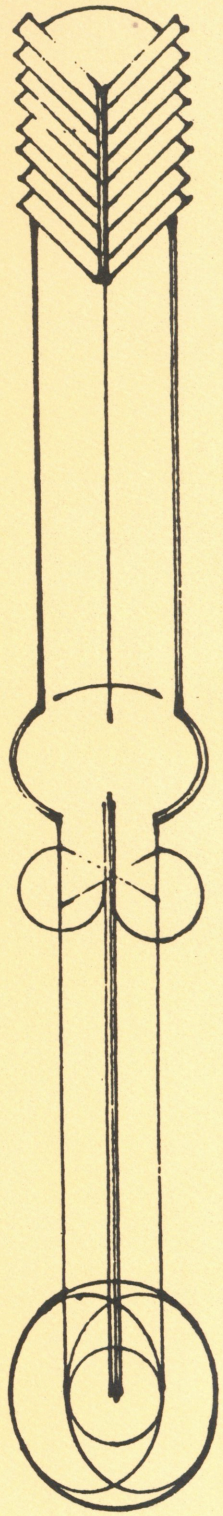
2) Architecture that relates to a human scale.

3) Investigate flexibility of spaces to get the maximum use of a space or group of spaces without sacrificing the use or quality of those spaces.

4) The rethinking of the classroom and its support service.

5) Exploration of creative solutions to architectural problems for a school of this nature.

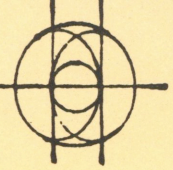




METHODOLOGY

The methodology for the programming of the Hood Academy is somewhat different. I did not rely on case studies as a strict way of getting rough square footages and configurations of spaces of the Hood Academy. Instead, I thought through each space individually, looking at each space's design rationale. In short, the case studies were idea generating forces from case studies I looked to various reference manuals and code books (for a full description of sources see source list that follows this section). From there, I attempted to design the space from the ground up. Sometimes this process may have led me in a circle back to previous, slightly altered case studies. This process helped to reinforce my understanding of the space's needs and the programming procedure.

The following is a list of the steps that I undertook in developing my project. They are in a rough order but many steps took place concurrently with other steps. They are listed in order of when they directly entered and



effected the development stream.

1) Identify the needs of the Hood Academy, this includes different code requirements and needs of the educational program. As such, I also had to design the educational curriculum and schedule.

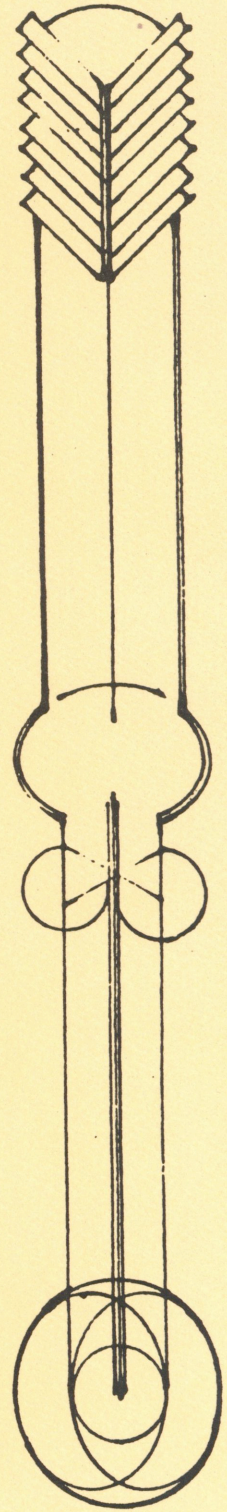
2) Identify what major spaces will be required to meet the Hood Academy's needs.

3) Identify the needs within each major space defined in step 2.

4) Identify the spacial requirements and their relationships in order to meet the major space needs.

5) Develop imagery from my own personal tastes and case studies that have been interjected into the program. Much of this step takes place concurrently with 1-4 and somewhat with

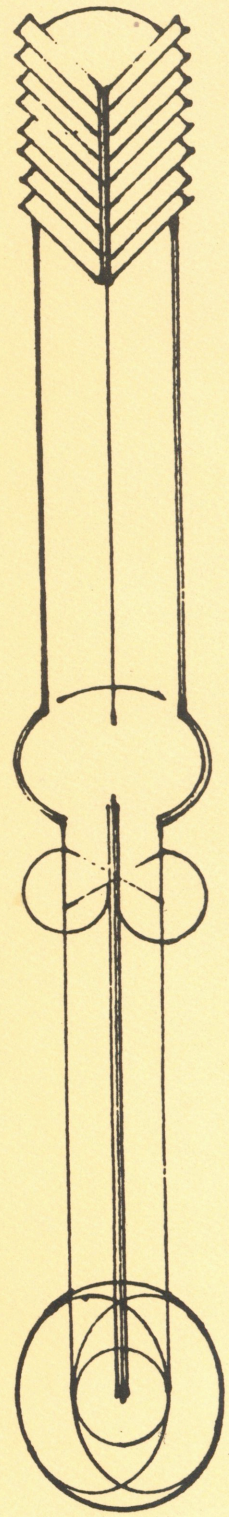
6) Integrate site forces and climate conditions into the program and design process. This step also occurs

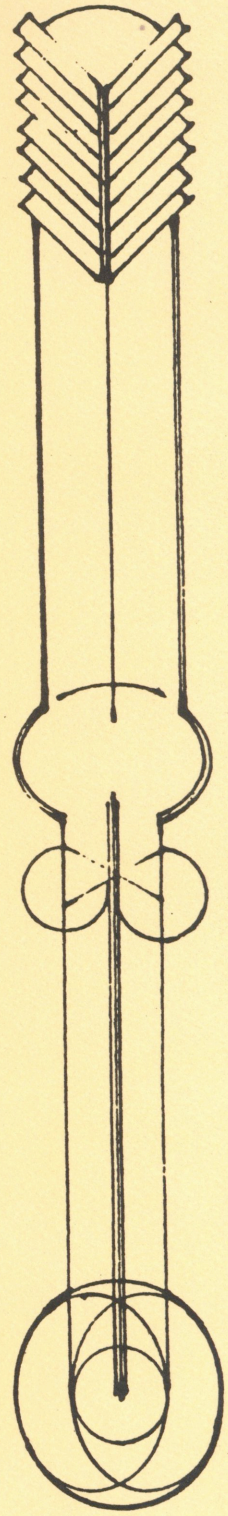


concurrently with steps 1-5 and 7,8.

7) Define and consider the building's circulation problems and needs along with organizational systems.

8) Work backwards from square footages, relationships, imagery, organization patterns and circulation considerations and interject them into the sub-spaces of major spaces. I build up to major spaces, then to the building's overall plan.

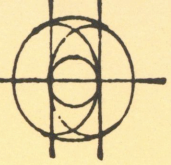




UNDEVELOPED TALENT

In my program-document, a student with an undeveloped talent is a student of the following description.

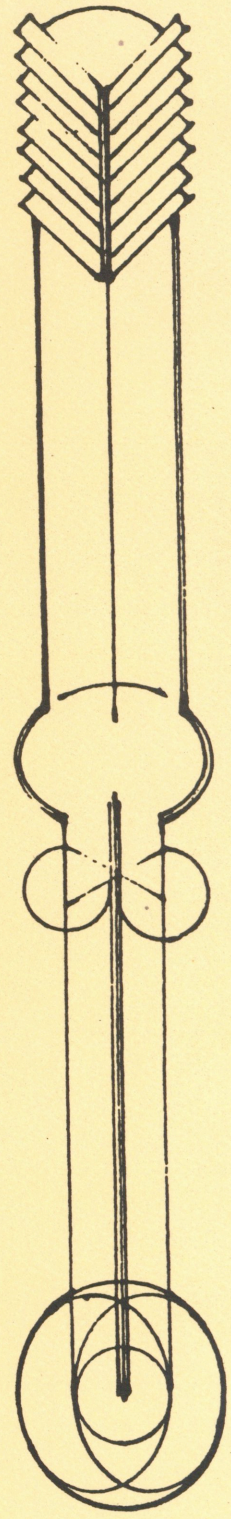
A talented student is a high school age teenager, highly skilled in one particular field, who has exceeded the capability of their current environment to further develop these skills. The range of "talents" is open-ended but will include academically accelerated students in the areas such as Mathematics, English (writing), or Social Sciences. It will also include the Fine Arts such as Ceramics, Painting, Drawing and Sculpture. The Musical Arts would include gifted instrumentalists and composers. Other performing artists would be considered on a very special basis of how well the school could effectively assist them. Performing artists would most likely have living and basic educational needs on campus, while special instruction would take place in the local community because of lack of peer development at the Hood Academy. In addition, the Hood Academy will deal with more technical fields

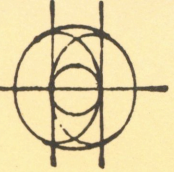


such as computers and the sciences of Physics, Biology, Geology and Chemistry. The school could also address other, more specialized, fields, for example, a student who is a potential world class chess champion.

It is possible that some students may be of genius level intelligence while others may just be "talented" in a narrow area. They may have average or possibly slightly below average abilities in other areas. The program will allow for the flexibility to deal with this situation.

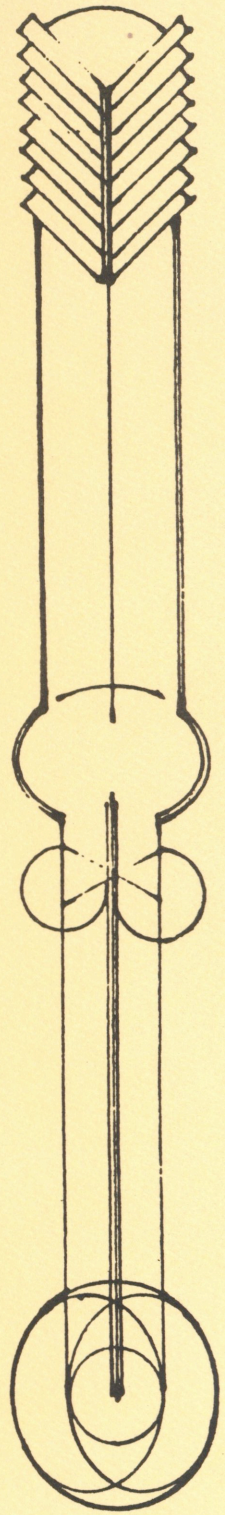
A student in this school is a person who is not in a position to make the most of the "talent". A particular student could be from a family who cannot financially afford any special tutoring to develop the student's "talent". It could also include a handicapped student whose handicap may prevent the development of their skills. Finally, a student could be in a location, such as an isolated rural area, where resources to develop their talent are limited or non-existant. These students would be eligible for



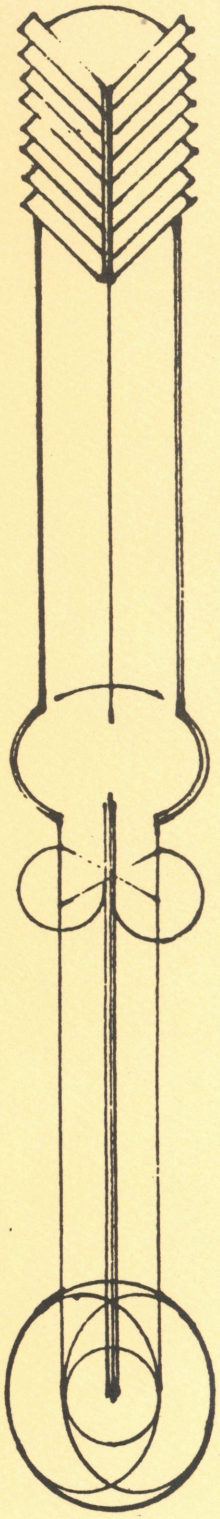


acceptance. These are the general guidelines for acceptance.

In general all costs are absorbed by the Hood Academy. An exception, though, might be if a wealthy family petitioned for the admission of a family member, that family may be required to pay for all the costs involved if they are accepted. In any case, the final decision on all admissions will be made solely by the Director under the guidelines of; how much potential talent, the developmental stage, the school's capability to effectively assist that student and the balance of the school's student population.



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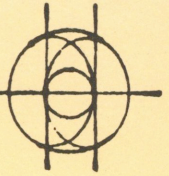


SCENERIO

In 1934, A gentleman named Richard Clarke Cabot agreed to fund a study on the effects of impoverishment on the arrest records of the youths in the New York City slums. The study observed 750 youths. Then a study group of 325 of the youths were provided with an enriched life. These youths were sent to summer camps, well-clothed, well-fed and provided with all the necessities of life and more. The remainder of the 350 youths were monitered strictly as a control group. The study lasted ten years, at an equivalent cost today of 16.25 million dollars.

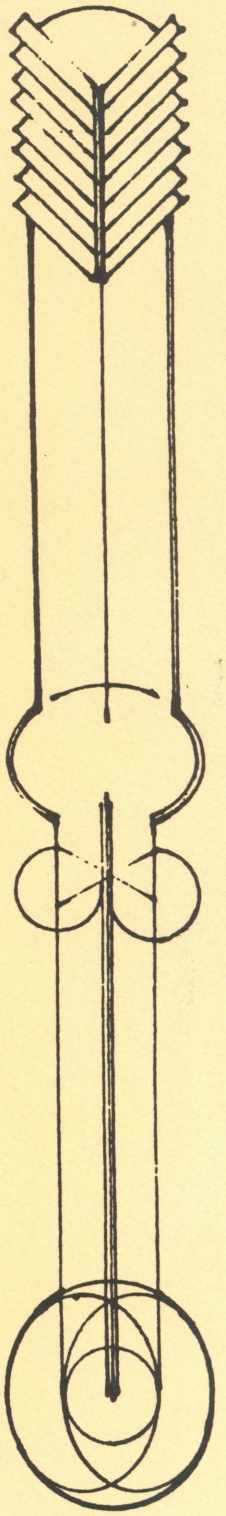
Dr. Cabot, a physician, had an acute interest in sociology and was well-noted for helping the young and impoverished. This is why he launced and funded the Cambridge Somerville Project, the inspiration of my project. The key generating link is that a very rich philanthropist would put a great deal of money and effort into the means for underpriviledged youths to reach their potential.

The means would be the Hood Academy, a specialized



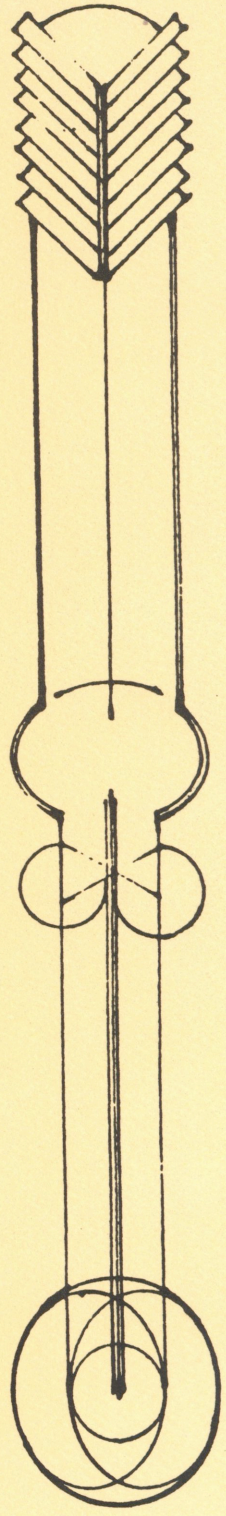
boarding school that assists high school students with a natural gift or talent in the Arts, Sciences or wide range of academic forums. Students would be taught a normal high school curriculum and also provided with private tutoring in each student's speciality. The tutors are to be pooled from the surrounding California communities and colleges. The school is the brain-child, financed and run by a mythical director, Ms. Taylor. Ms. Taylor is my equivalent to Dr. Cabot and will be personally responsible for interviewing and choosing each student. Her wisdom is a given asset.

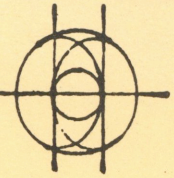
The student body has been kept small, 26 students, in order to give each student personalized attention. To qualify for possible admission to the Hood Academy, a student must have a potential gift that the student is not able to develop because they lack the means to do so. A great deal of the students could be made up of orphaned youths and as such that problem should be addressed. In

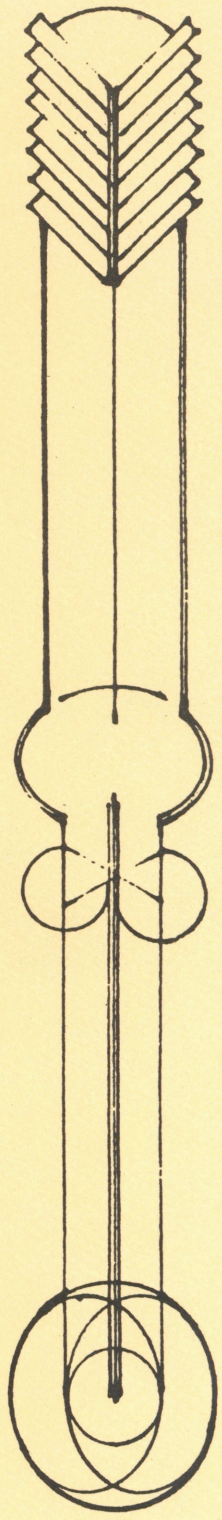


addition, the students will be choosen from the Western United States.

The goals of the Hood Academy are to give its students the opportunity and means to develop a gift to the maximum level that the student and the school are able to achieve.



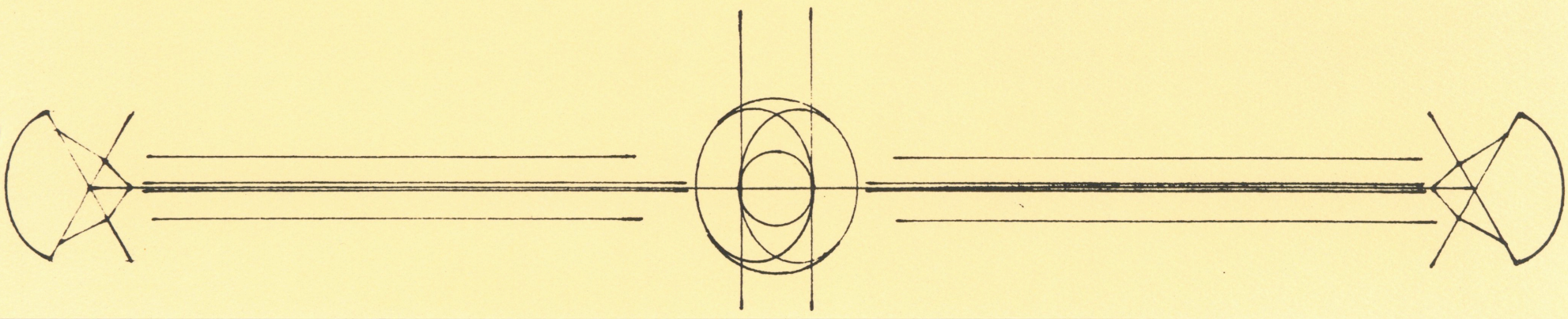


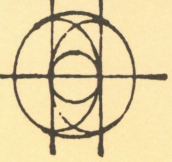


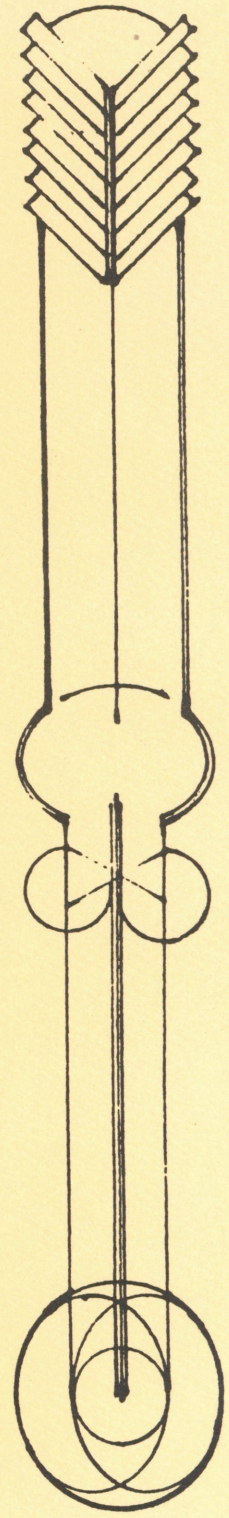
THESIS STATEMENT

The goals for my thesis are to investigate the Hood Academy as a new building type and to investigate the ideas of flexibility and creative solutions to the problems involved. I also plan to investigate this building as spaces for living by the incorporating of the student living quarters as a major concern of this project and by bringing the scale of these spaces to a personal, intimate level. This school is not an institution of learning, but a place of learning. For these reasons, and others mentioned previously, I have kept the student numbers low to allow myself the opportunity to explore these subjects properly.

The Site



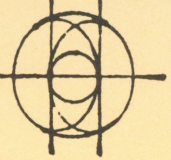




SITE

A rural setting was choosen to allow the school a direct link to nature. Originally, I had hoped to include such things as horse stables and trails to further take advantage of a rural setting. The stables were pared out though in order to bring the project down to a manageable size. In addition, a rural setting provided a socially less tense atmosphere than an urban setting and would allow the students to concentrate on school without the pressures associated with the hustle and bustle of the urban environment. Yet, still the site would need to be near an urban center with a large pool of possible tutors for the school and also close enough to a population zone that would allow the Hood Academy's students normal socialization with peer ourside of the school.

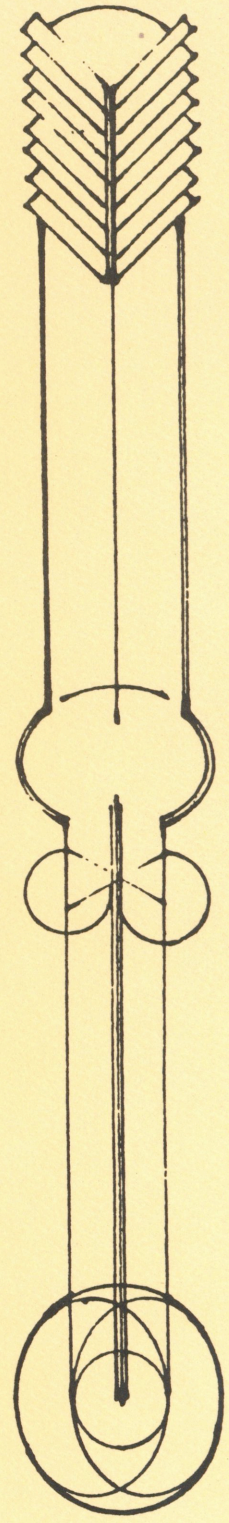
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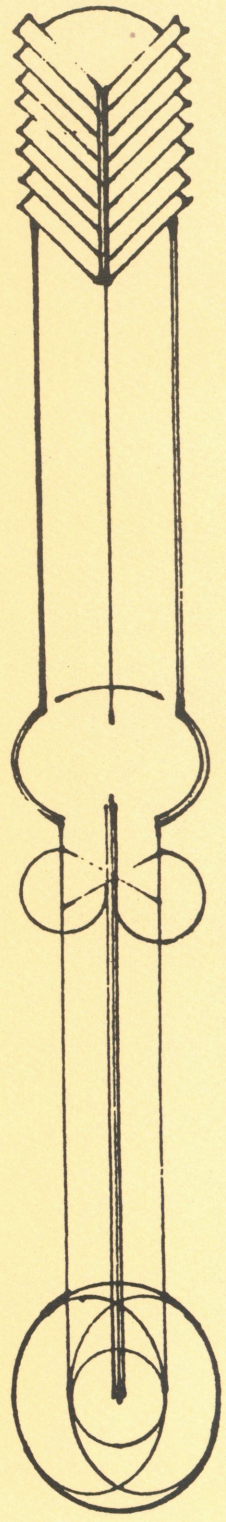
The site choosen for the Hood Academy is located in Squaw Valley, California. Squaw Valley is located at 36° 45' latitude about thirty miles directly east of Fresno, California and about seven miles west of Sequoia National Forest. Squaw Valley is a transitional zone between a desert climate to the west and the Rocky Mountains to the east. The climate is temperate and suitable to support a groud of vineyards.

Squaw Valley as a site for the Hood Academy was choosen for many reasons. The most important being that it allowed a rural setting while still being in a major population zone. Squaw Valley is less than five minutes by car from an urban zone. This would allow the Hood Academy to pool talented instructors from large local universities and communities. Other factors that led to choosing Squaw Valley were the temperate climatic conditions and the pure beauty of the site and surroundings.

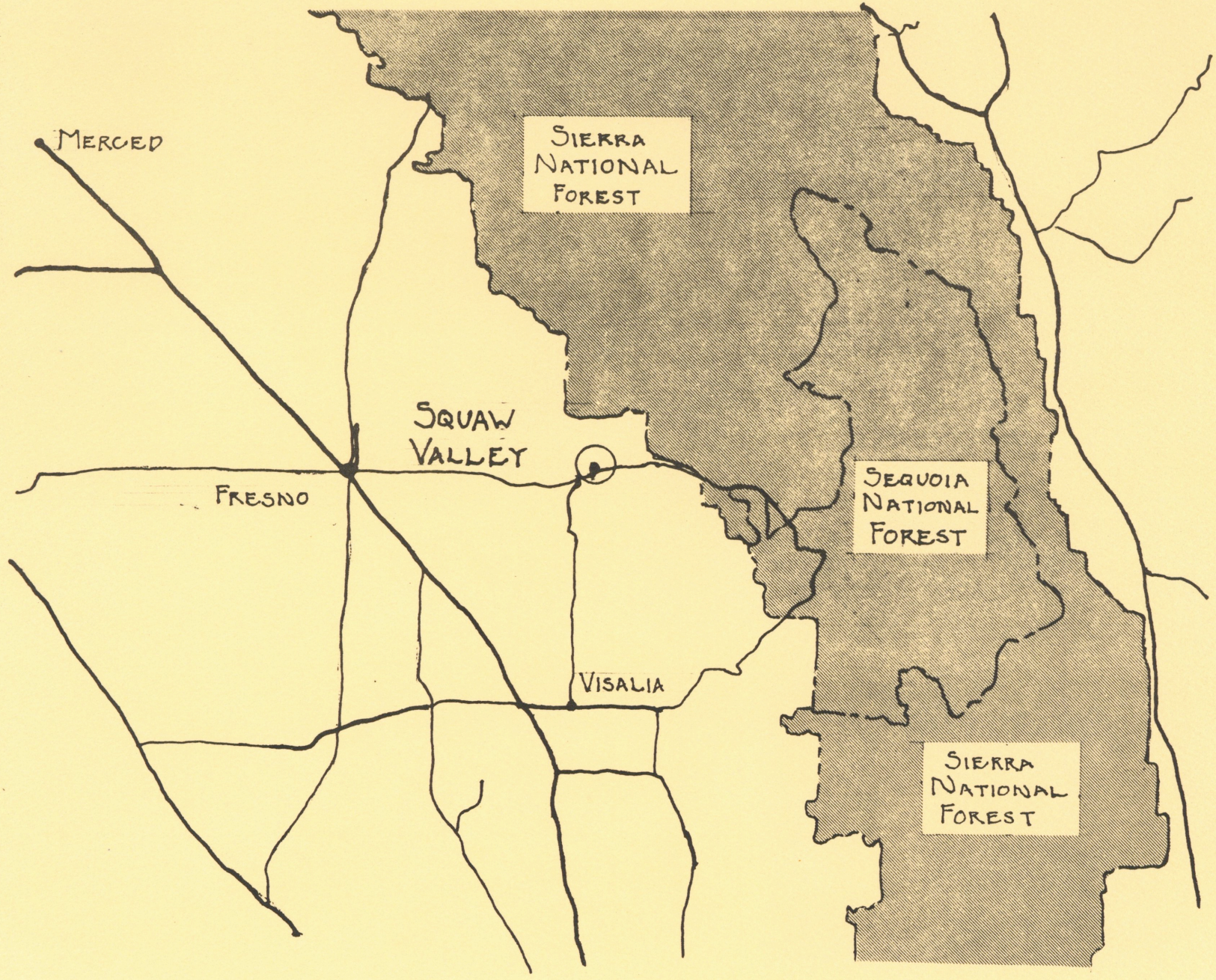
The overall site first came to my attention in 1983,

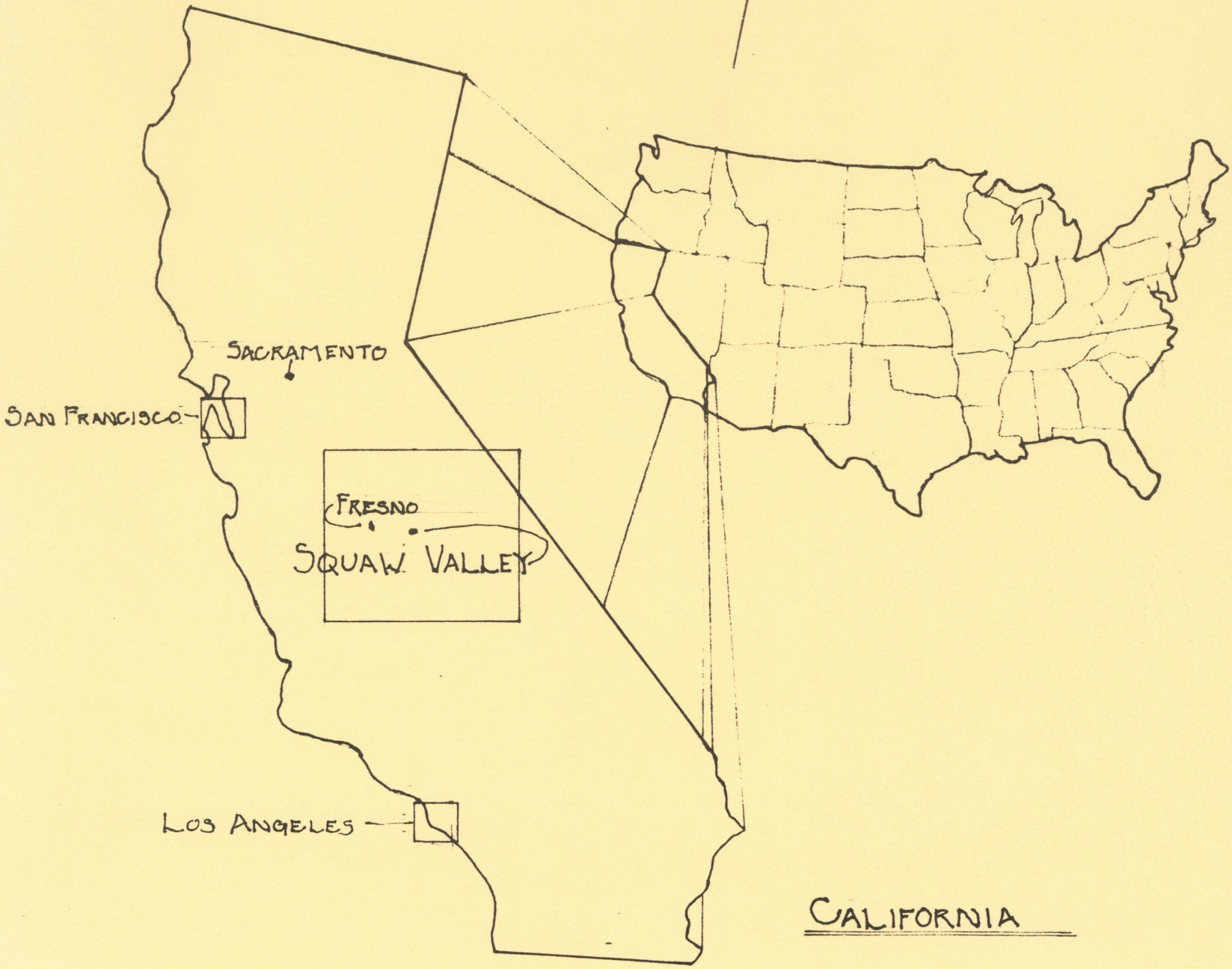


when it was about to be offered for sale as a large series of subdivided lots. I toured the site with my sister and her husband as they looked over lotes before the lots went on the market. They eventually bought their favorite lot. In my scenerio of events, the Hood Academy bought a large portion of the lots and identified the four lots that are represented on my maps as the designated building site.



THE HOOD ACADEMY

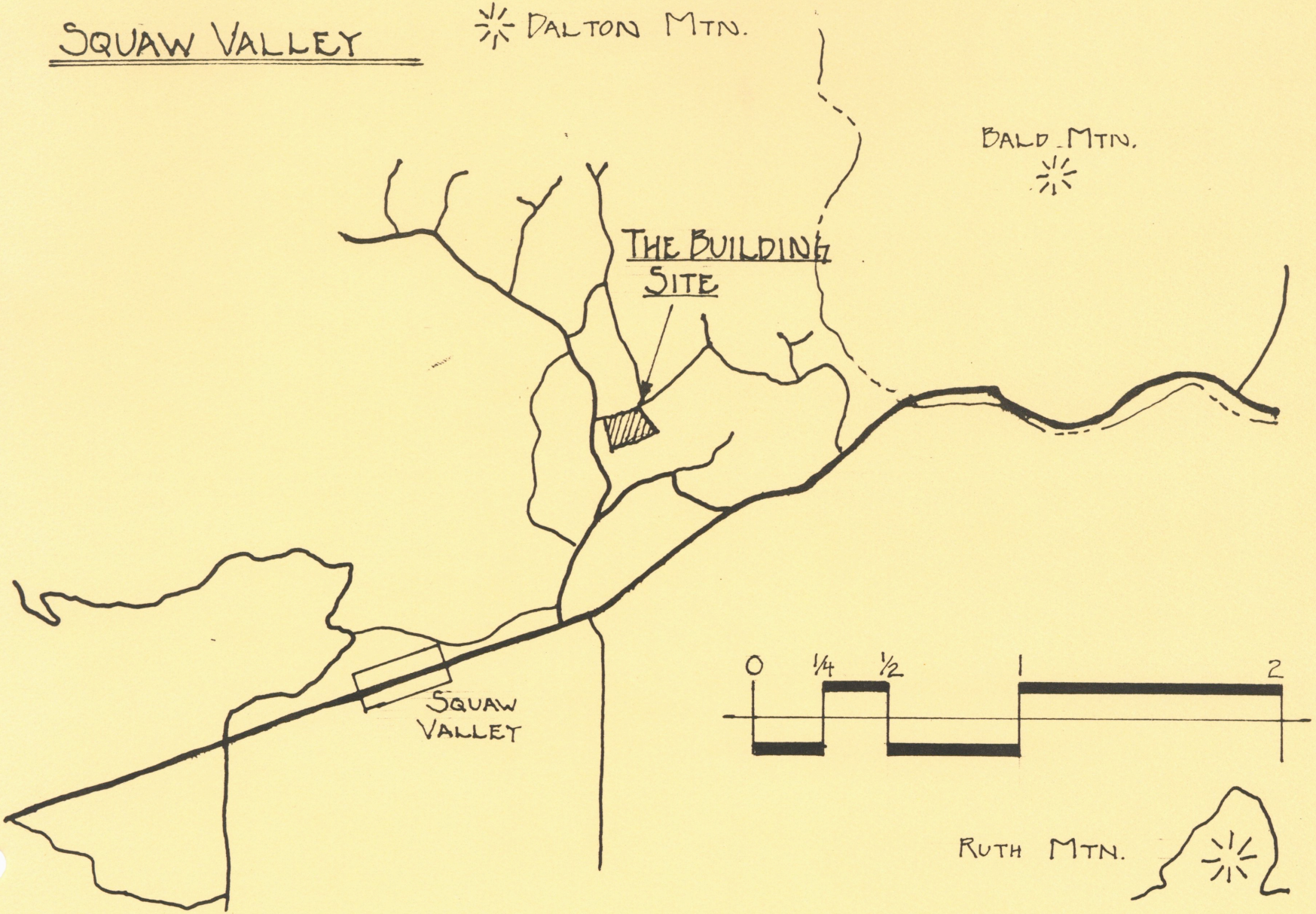




CALIFORNIA

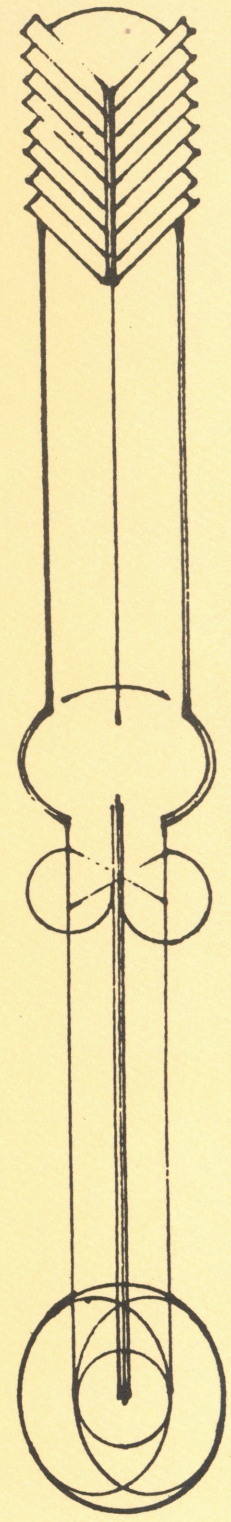
THE HOOD ACADEMY

SQUAW VALLEY



CLIMATIC CHART

The following chart shows the raw data on the climate of Squaw Valley, California. Upon synthesizing the data it is quite clear that the climate is gentle. The daily temperature differences are very close to the comfort range for humans. Therefore, the maintaining of a comfortable internal building environment can be accomplished with a minimal abount of control systems. The biggest concern of the environment has to be the extremely dry summers in this area. Upon looking at the micro-environment of the site, we find that the small creek, fed by melting snow of the Sierra National Forest, provides the site with suitable watershed the site needs to keep the vegitation healthy and moisture during the dry summers. As a whole, this site in both macro and micro climate is ideally suited for very comfortable and relatively trouble-free living.



THE HOOD ACADEMY

CLIMATIC INFORMATION

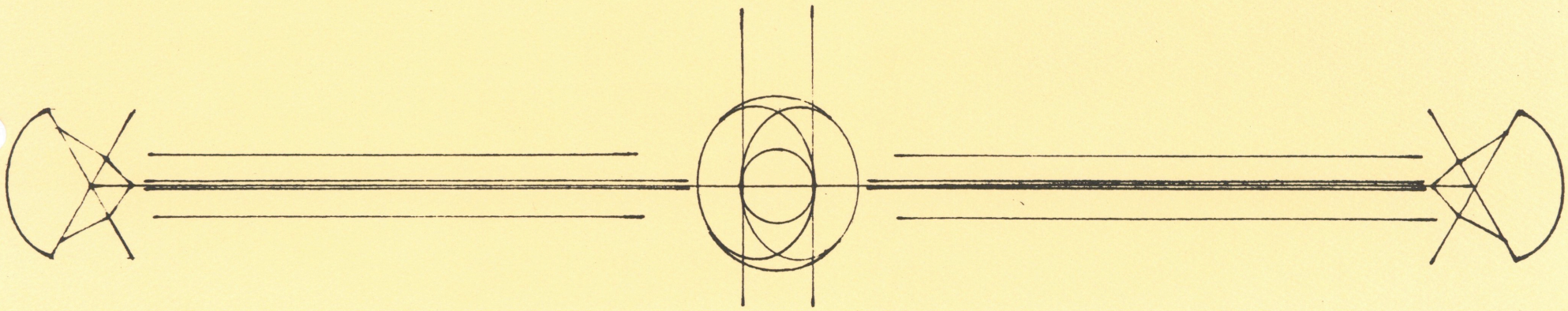
MONTH

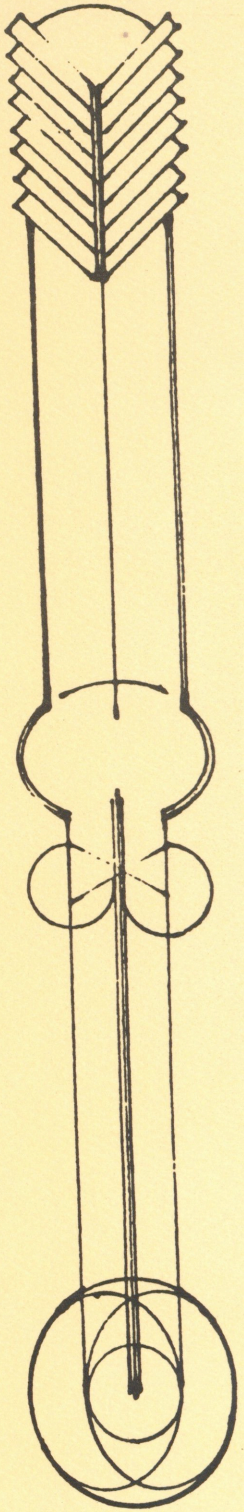
	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
AVE TEMP.	41°	41°	45°	50°	65°	65°	76°	72°	65°	60°	45°	40°
MIN. TEMP.	30°	25°	30°	40°	40°	45°	55°	52°	44°	40°	31°	32°
AVE. MAX. TEMP	51°	55°	62°	70°	60°	75°	85°	86°	80°	72°	60°	53°
AVE. TEMP. RANGE	21°	30°	32°	30°	20°	30°	30°	34°	36°	32°	29°	21°
DEGREE DAYS	800	675	725	625	300	150	75	75	150	300	700	800
PRECIPITATION (IN.)	7.0	7.0	6.0	3.4	1.5	.75	.75	.5	.25	1.5	2.75	4.0
DISTRICT DRAINAGE	3.72	3.5	3.22	1.82	.71	.21	.03	.02	.13	.97	1.99	4.25
SNOW FALL	6. IN.	0	0	0	0	0	0	0	0	0	0	0
AVE. HUMIDITY	75%	65%	60%	52%	50%	47%	38%	43%	50%	62%	65%	73%
AVE. DAILY SUNSHINE	9:54 HR	10:51	11:56	13:11	14:12	14:45	14:35	13:27	12:26	11:15	10:10	9:36
% DAILY SUNSHINE	50%	60%	70%	70%	70%	80%	90%	90%	85%	70%	65%	45%
WIND DIRECTION AND AVE. SPEED	6	6	7	7	8	8	7	6	6	5	5	5

NOTES:

- AVERAGE 90-80 DAYS WHERE TEMP DIPS BELOW 32° F YEARLY
- EARLIEST DAY OF BELOW 32° F: SEPT. 30
- LATEST DAY OF BELOW 32° F: APR. 30

The Boarding School

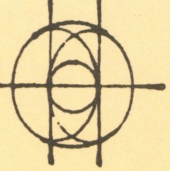




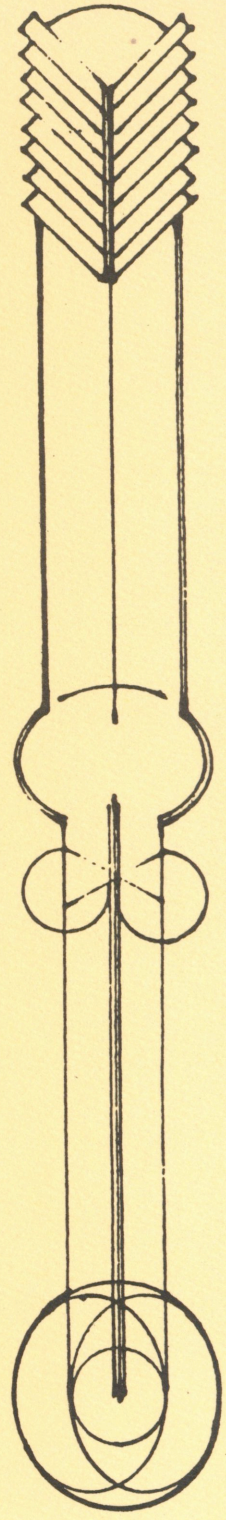
THE BOARDING SCHOOL

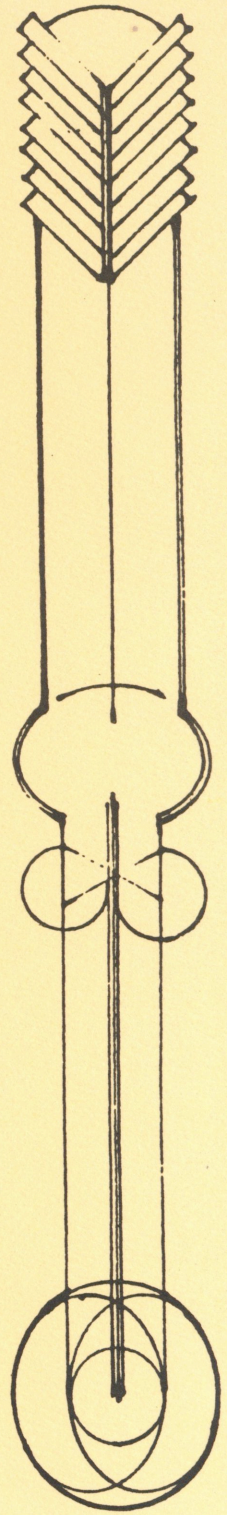
In defining a program, for the Hood Academy, the typical approach would be to investigate case stuies of various private boarding schools but since there are no schools that do what the Hood Academy would do, I needed more. As such the need to talk to experts who could help guide me in the needs of the Hood Academy became quite clear. I talked with Robert Thibealt, an instuctor in school facilities planning at Montana State University, an artist and instructor, Micheal Peed, and sociologist, Dr. Anne Williams also from Montana State University. All three individuals provided me with different points of view and insights on the needs of such a school. They also provided me with or directed me toward books and other resources that would assist me. The final result was a quite atypical program, tailor-made for the goals of the Hood Academy.

As a whole, though, there are a great deal of social issues involved in a project of this nature. There are



functional concerns related to social and moral issues that are not easily defined as a right way or wrong way. In dealing with these types of issues, I have taken a general concensus of my sources to reach a policy position for the Hood Academy. (A special note of thanks must go to Dr. Anne Williams for assisting me sort these issues out.) One of the most important issues is the interaction of co-ed teenagers and maintaining a healthy but controlled atmosphere for them. Another important issue is the adjustment of the student to a new environment. A method to assist this adaptation is the use of double rooms for lower classmen, to assist them in building relationships and sharing experiences. As a whole, the Hood Academy is a progressive shcool in philosophy. Despite what a designer does the faculty and staff will determine the success or failure of the school. A designer can only provide a workable frame to assist them.





EDUCATION CHARTS

The following charts show visually the student daily activities core schedule, graduation requirements and school employees. This educational system allows a great deal of flexibility for adjustment when and if needed. Many classes and graduation requirements are very similar in number of classes and units required as in many high schools. These classes, though, are of a slightly accelerated nature, helped in part by a student to teacher ratio of 7 to 1 and fulltime teachers teacher available in the afternoon for individual help if needed. The core curriculum is just that, the basic core from which other more diverse classes will be added. In general, this school is more interested in the quality of the education of the individual and by following this philosophy the education of the collective student body will be accelerated.

THE HOOD ACADEMY

CORE SCHEDULE

	ENGLISH	MATH	SCIENCE	SOCIAL STUDIES	ART
8:00 - 9:00 A.M.	FRESHMAN	CALC.		HISTORY	ART
9:00 - 10:00	SOPHMORE	GEOM	PHYSICS	GOVERNMENT	
10:00 - 11:00	JUNIOR	ALGEBRA	BIOLOGY		ART
11:00 - 12:00	SENIOR		GEOLOGY		ART

REQUIRED UNITS FOR ACCREDITED GRADUATION

	FOUR YEAR PROGRAM	EARLY GRADUATION PROGRAM	THE HOOD ACADEMY
LAUNGUAGE ARTS	4 UNITS	4 UNITS	4 UNITS
AMERICAN HIST.	1 UNIT	1 UNIT	1 UNIT
AMERICAN GOV.	½ UNIT	1 UNIT	1 UNIT
MATHEMATICS	2 UNITS	2 UNITS	3 UNITS
LAB SCIENCE	1 UNIT	2 UNITS	2 UNITS
PHYSICAL ED.	2 UNIT	2 UNITS	3 UNITS
ART / MUSIC	—	1 UNITS	2 UNITS
PRACTICAL ARTS	—	2 UNITS	—
ELECTIVES	REMAINING UNITS	2 UNITS	5 UNITS

NOTES:

- PHYSICAL EDUCATION WILL BE TAUGHT IN THE AFTERNOON
- ADDITIONAL CLASSES WILL BE OFFERED IN THE AFTERNOON, OR IN OPEN SPOTS AS STUDENTS NEED, WANT, AND SCHEDULE PERMIT.
- TUTORING FOR STUDENTS WHO NEED, OR WANT EXTRA HELP, OFFERED BY SPECIAL ARRANGEMENT

THE HOOD ACADEMY

DAYS ACTIVITIES

	CLASS	ORGANIZED ACTIVITIES	TUTORING	PHYSICAL EDUCATION	PERSON
6:00 - 7:00 A.M		BREAKFAST		STUDENT SUPERVISION	●●●
7:00 - 8:00					●●●
8:00 - 9:00	CORE				●
9:00 - 10:00	CORE				●
10:00 - 11:00	CORE				●
11:00 - 12:00	CORE				●
12:00 - 1:00 P.M		LUNCH			●
1:00 - 2:00	SPECIAL ARRANGE-		OPTIMUMAL	PHYS. ED. CLASSES, AND INSTRUCTOR AVAILABLE	●●
2:00 - 3:00	MENT				●●
3:00 - 4:00					●●
4:00 - 5:00		DINNER			●●●●
5:00 - 6:00					●●●●
6:00 - 7:00		SPECIAL VARIOUS ACTIVITIES	IF NEEDED		●●●
7:00 - 8:00				STUDENT SUPERVISION	●●●
8:00 - 9:00			POSSIBLE		●●●
9:00 - 10:00					●●●
10:00 - 11:00					●●●
11:00 - 6:00 AM		SLEEP			●●●

KEY

● - REQUIRED TO BE IN PARTICULAR PLACE

●● - DIFFER ACCORDING TO STUDENT SCHEDULE

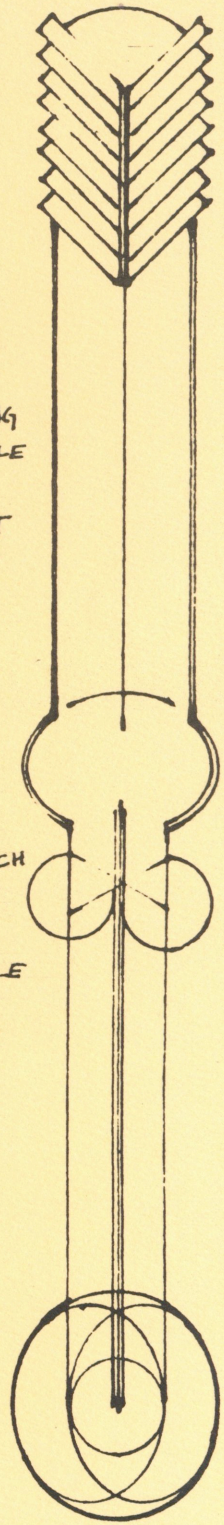
●●● - FREE TIME

●●●● - A DINNER MUST BE SCHEDULED IN

⊠ - NOT IN USE

NOTES

- PHYSICAL EDUCATION TEACHER WILL BE EMPLOYED, 1 P.M. TO ABOUT 7 P.M. TO TEACH CLASSES, AND TO HELP STUDENTS INDIVIDUAL NEEDS. EXACT SCHEDULE WILL BE WORKED OUT EACH TERM.

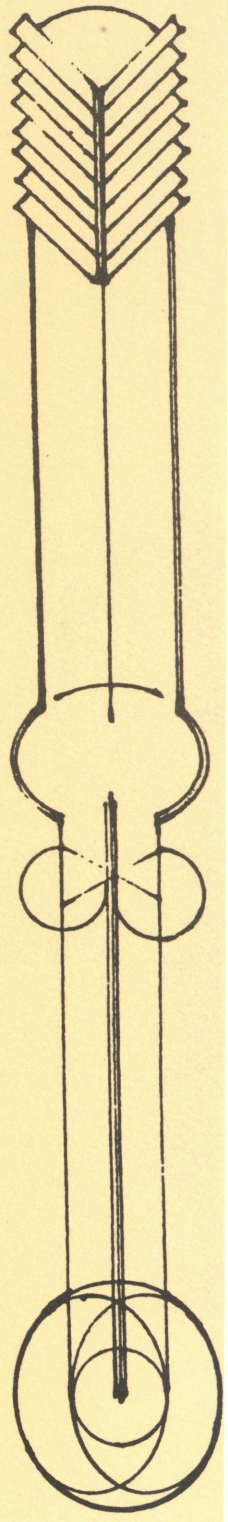


THE HOOD ACADEMY

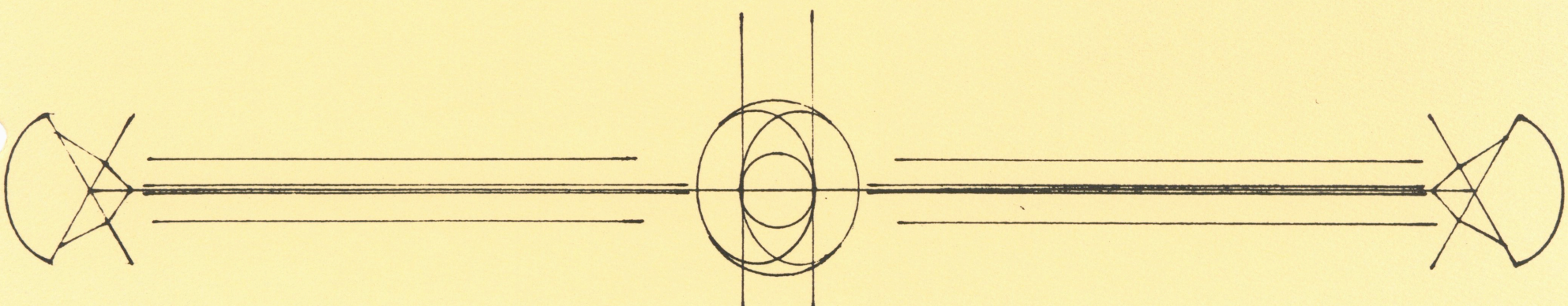
INSTRUCTORS / EMPLOYEES

ENGLISH	FULL TIME
MATH	FULL TIME
PHYS. ED.	FULL TIME
ART	FULL TIME
SOCIAL STUDIES	HALF TIME
SCIENCE	FULL TIME
COOK	FULL TIME HOUSE MOTHER
SECRATARY	FULL TIME
DIRECTOR	FULL TIME

TOTAL FULL TIME 8½



Imagery



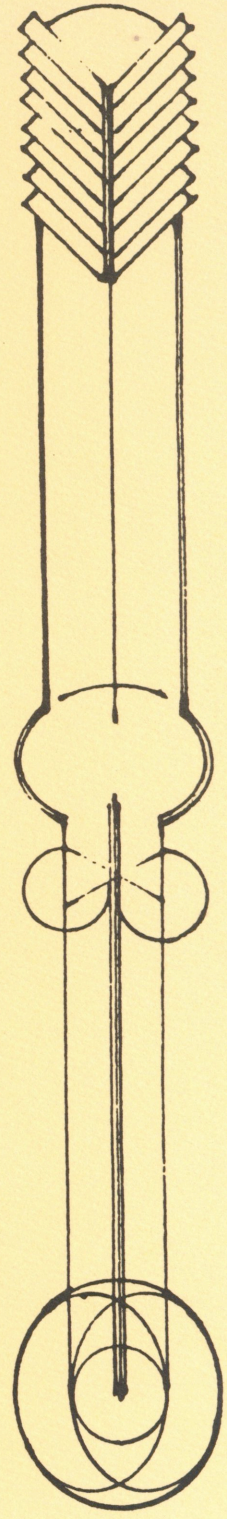
IMAGERY

A major part of my project deals with imagery. The following is a list of ideas or goals about what the Hood Academy's program and architecture should be.

1) Architecture that relates to a human scale.
2) Strong forms that create visural interest without a lot of added ornament.
3) Materials that reflect the character of the site.
4) Usage of materials that reflect each materials unique properties and characteristics.

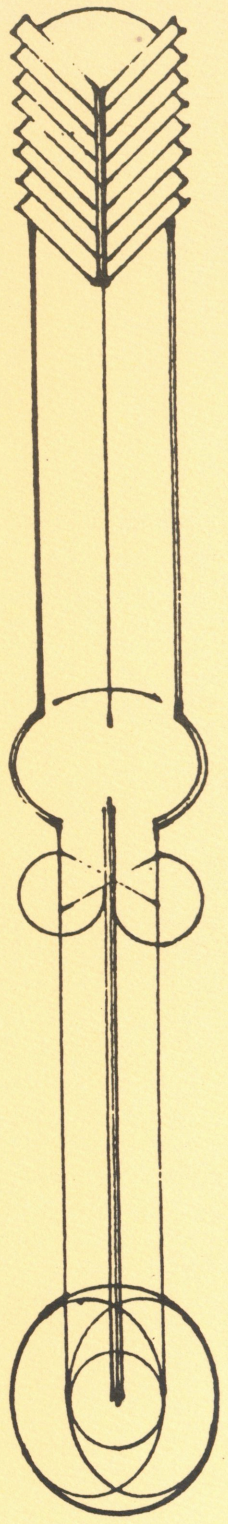
It is also important to explain the imagery that I am trying to avoid.

1) A school as a machine, cranking out "taught" students one after another. Each student's educational program should be tailor-suited to meet his/her needs.
2) Endless repetition of motifs without regard to different interior function taking place within. Allow functional differences in spaces to happen naturally and be reflected in the architecture.



3) A place where a person is just another face in the school - each person (teacher or student) should feel as if he/she is an important part of the school.

The following are visual images of what I conceive as both positive and negative images in regard to the Hood Academy.

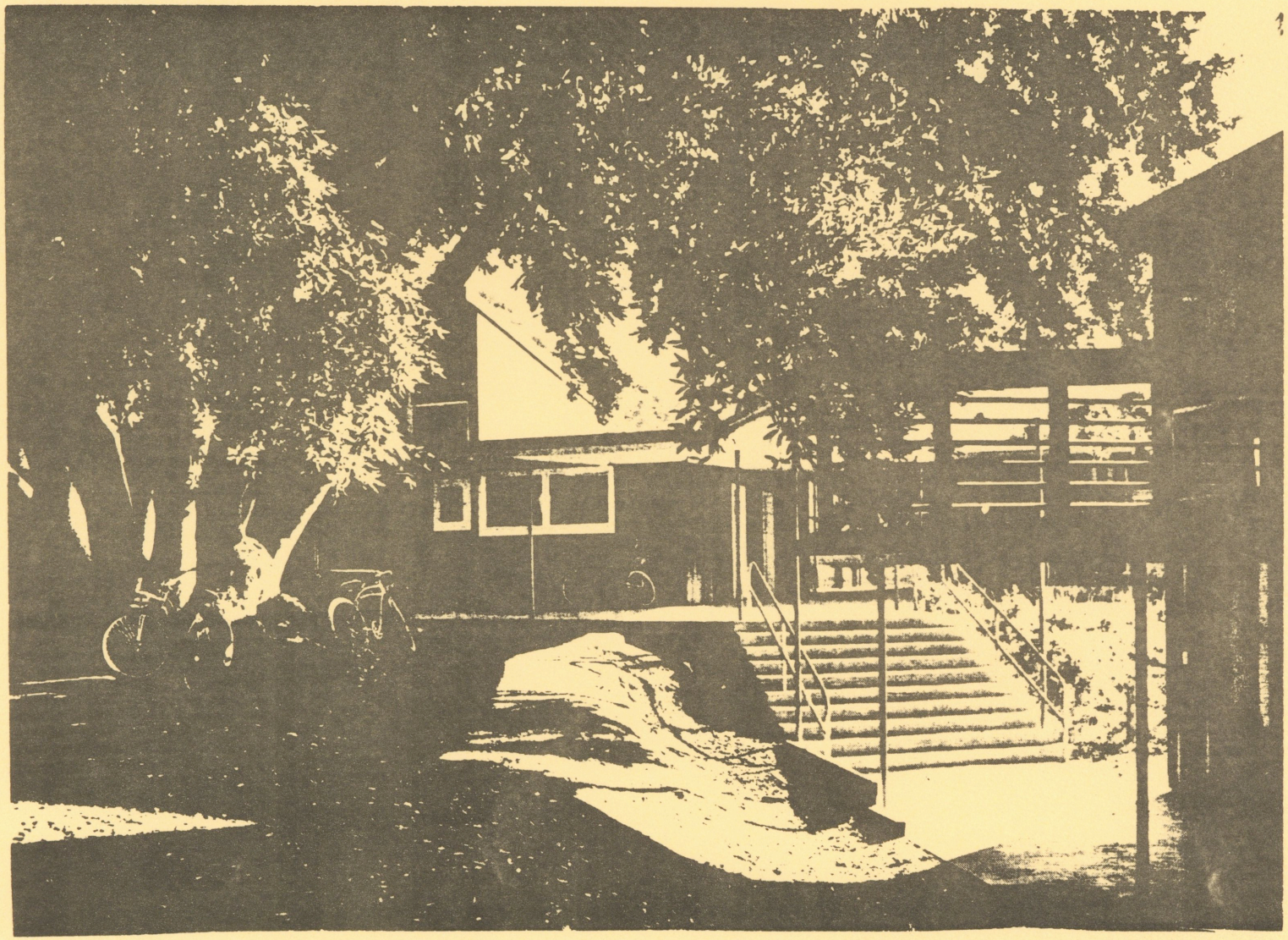


THE HOOD ACADEMY

Positive Images





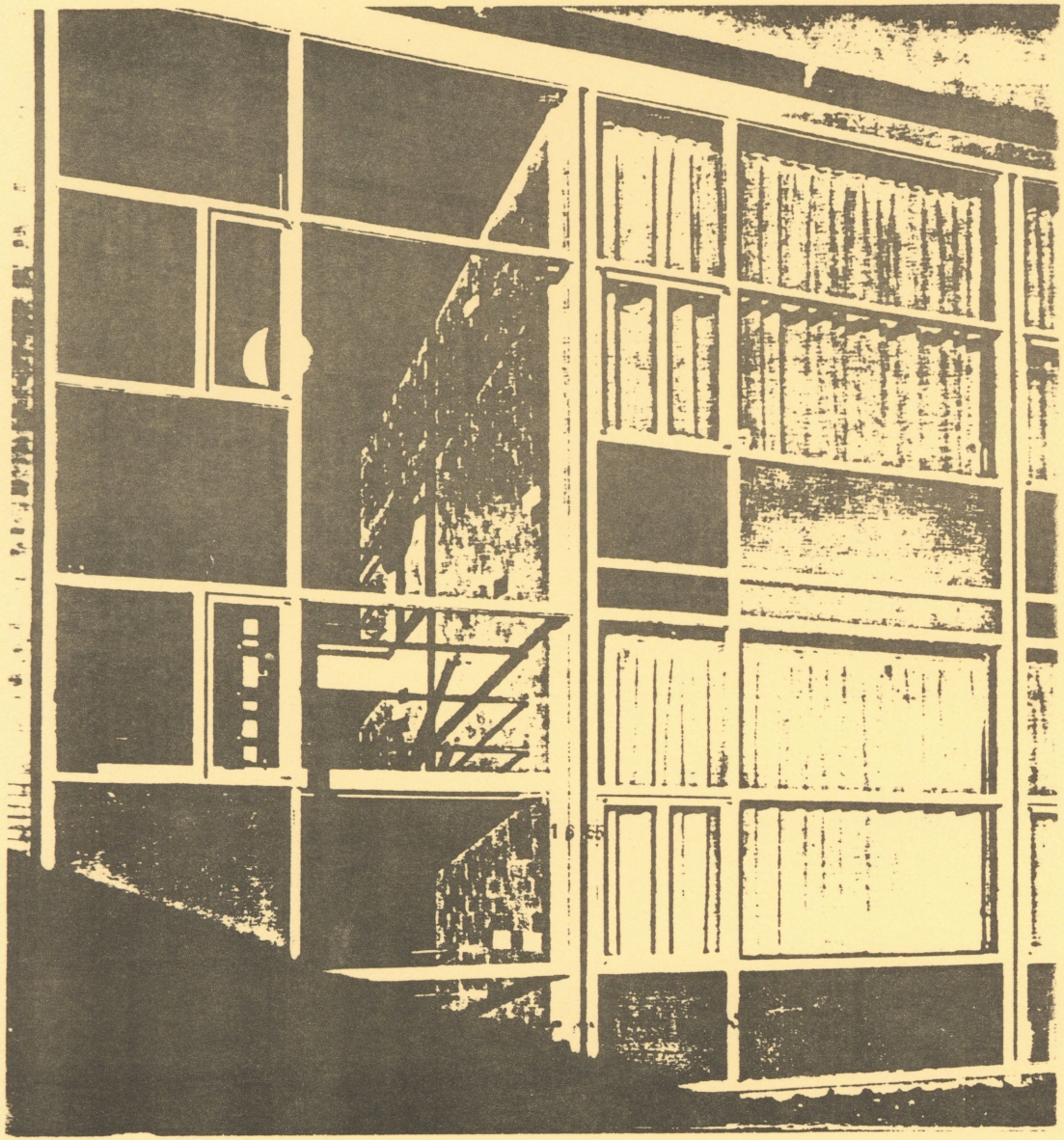


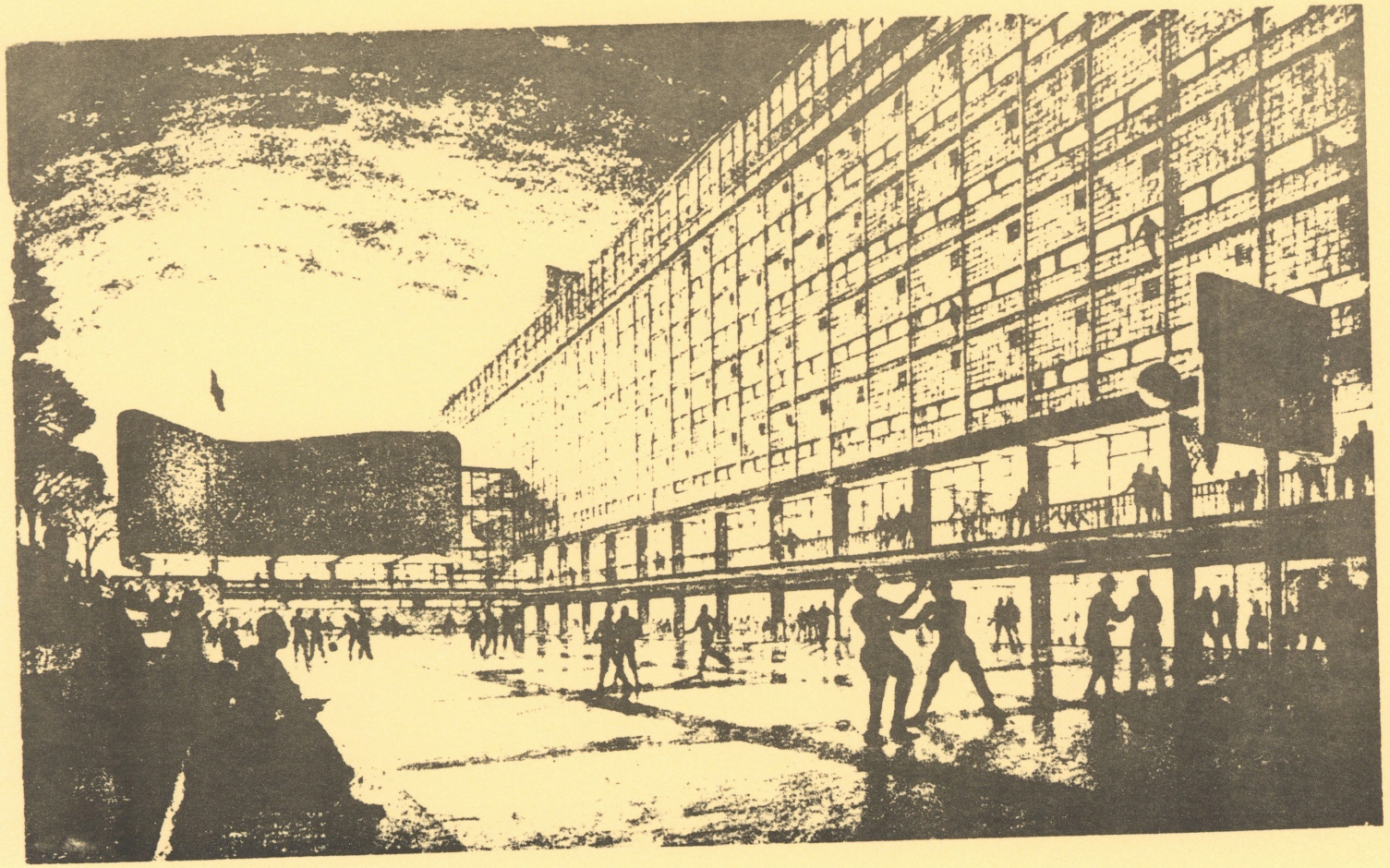
THE HOOD ACADEMY



THE HOOD ACADEMY

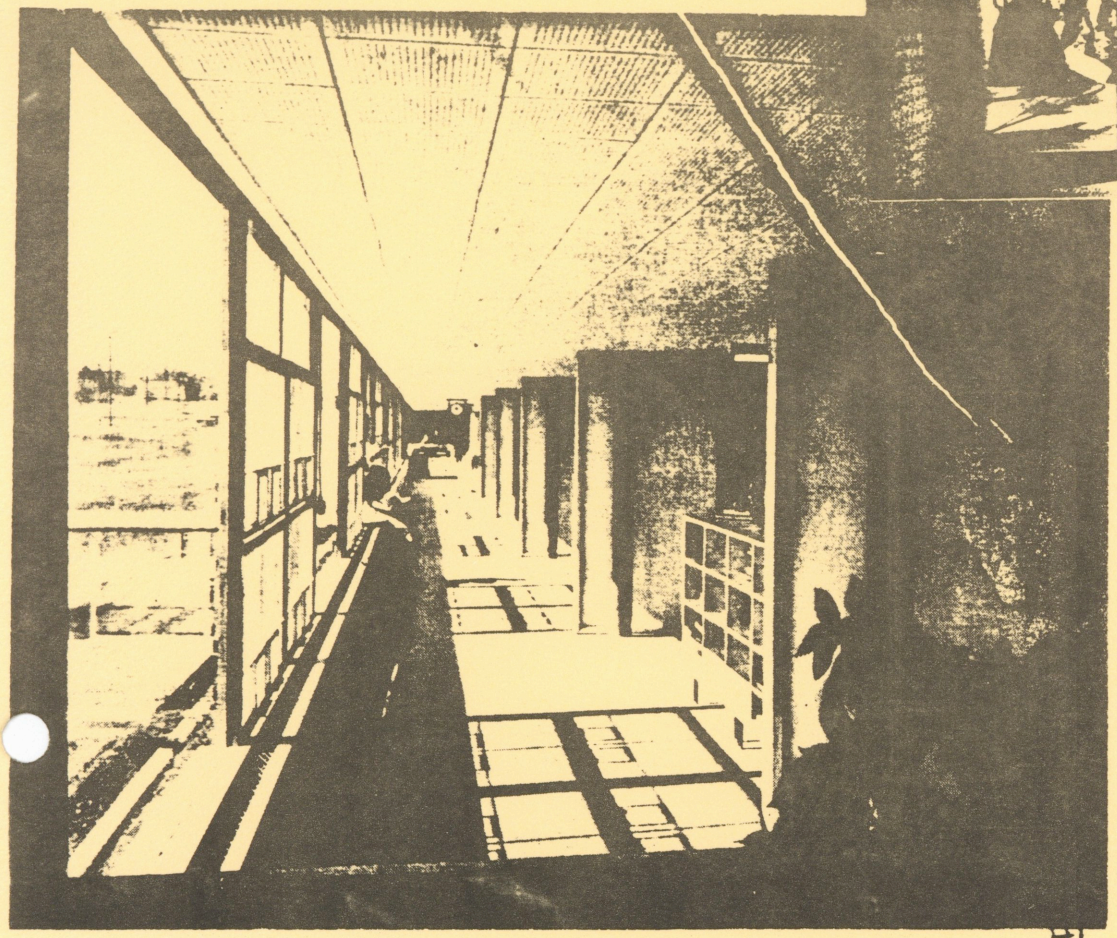
NEGATIVE IMAGES





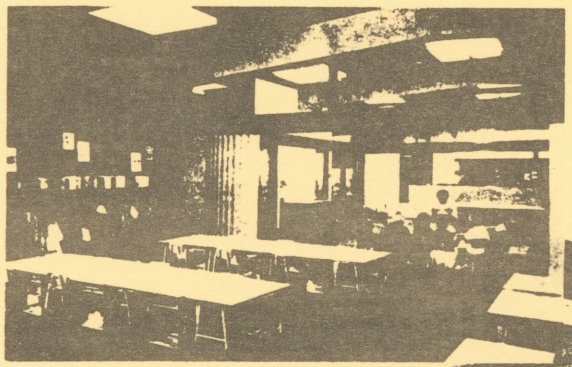
THE HOOD ACADEMY

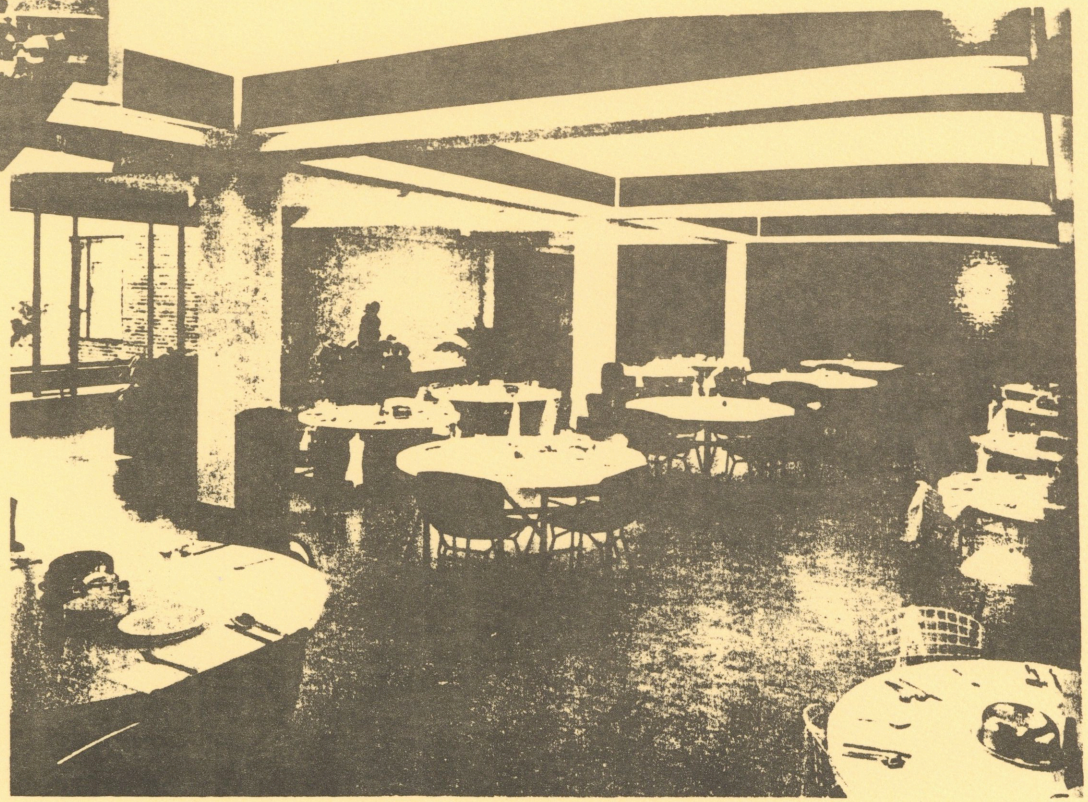




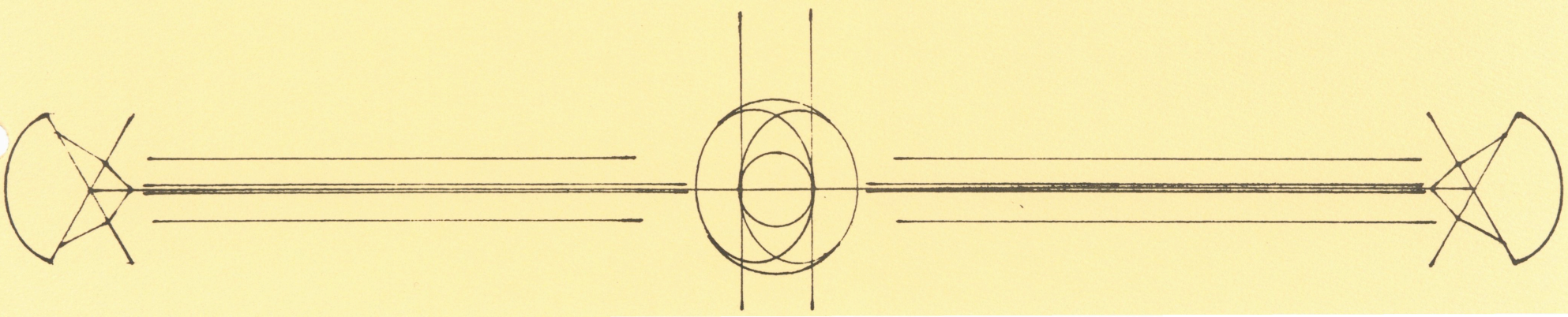
THE HOOD ACADEMY

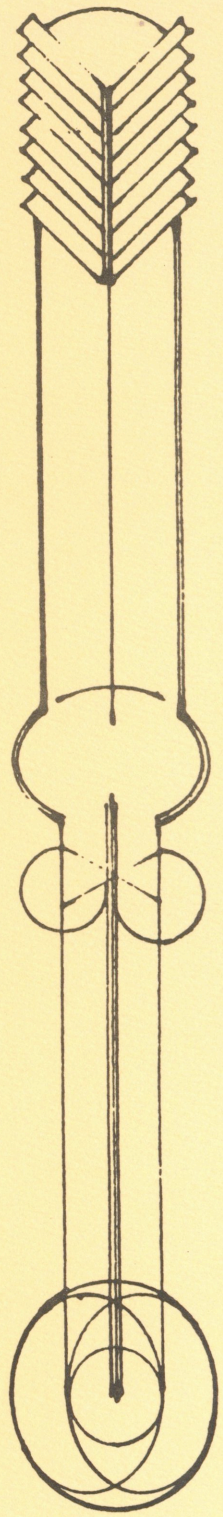






Program





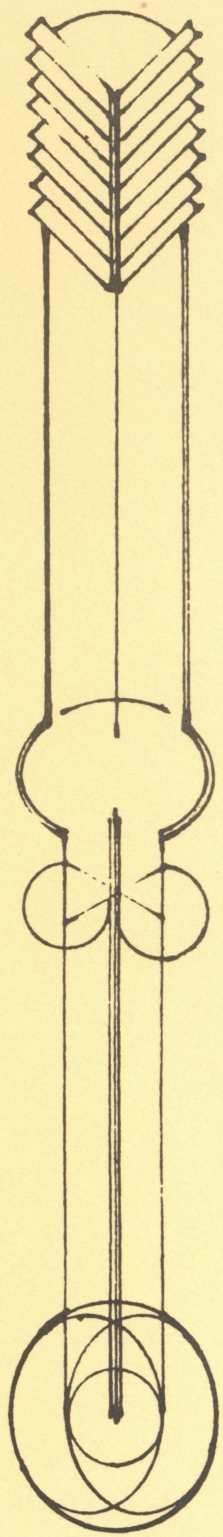
PROGRAM

The program for the Hood Academy was developed using the information gathered and talked about earlier. Goals of low student to teacher ratios, shared spaces, innovation and personal relationships were all taken into account in developing spacial needs and relationships. There are new types of spaces, such as the experimental, creative use facility and rethought spaces such as the Science and Art spaces.

One final point that should be mentioned is that many private schoolds tend to start out small (the Colorado Springs School, for example started with a total of 35 students) and then grow. With this in mind the program will allow for a doubling of the student body with the exception of the living quarters.

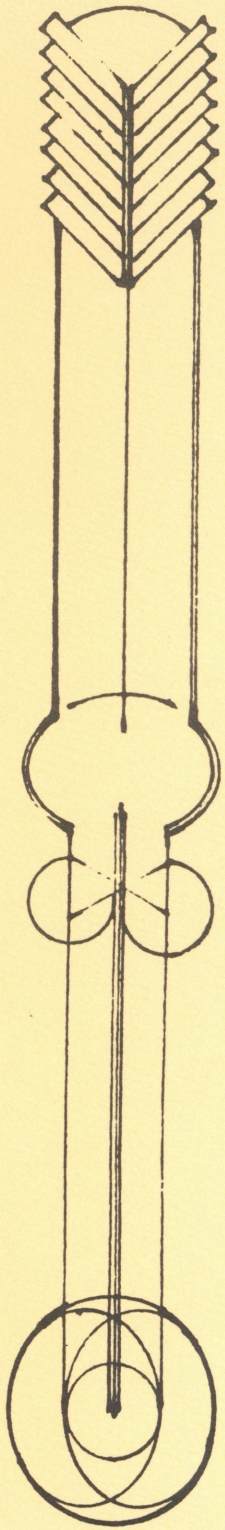
THE HOOD ACADEMY

Director Bungaloe		
Bedroom	200	⊄
Study/Bedroom	180	
Bathroom	80	
Dining	130	
Kitchen	70	
Living	210	
Garage/Service	1250	
Total (+ Circulation	2250	
Faculty Bungaloe (Same Plan as Director's Bungaloe without garage)		
Total	1000	
Recreation Building		
Bath 2 @ 120	240	
Laundry	125	
School Store	65	
Kitchen	380	
Recreation (Active)	340	
Recreation (Passive)	580	
Dining	600	
Pantry	108	
Mech	150	



THE HOOD ACADEMY

Infirmary		100
Total (+15% Circulation)		3275
Education Space		
Art Lab		800
Bathrooms		200
Computer		255
English		255
Experimental Use		1600
Lecture		550
Library		3000
Math		255
Mechanical		300
Music Booths	2@70	140
Offices	4@100	400
Reception		300
Records		100
Science Lab		1100
Shop		150
Social Studies		255
Storage (total)		400
Photo Lab		160
Study Hall		300
Total (+10% circulation)		7513



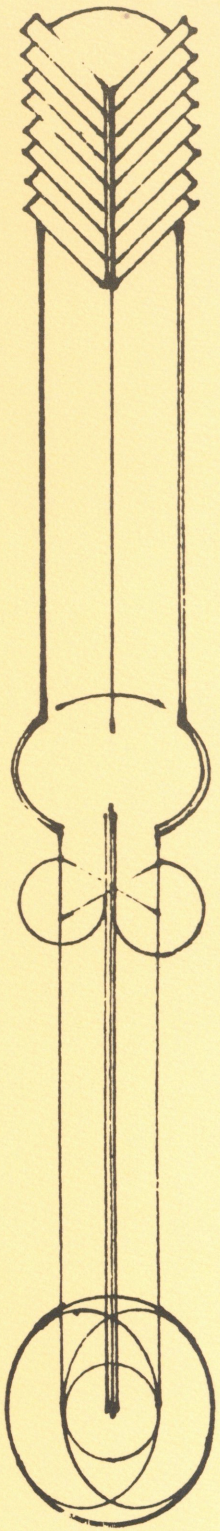
THE HOOD ACADEMY

Student Bungaloes (4)

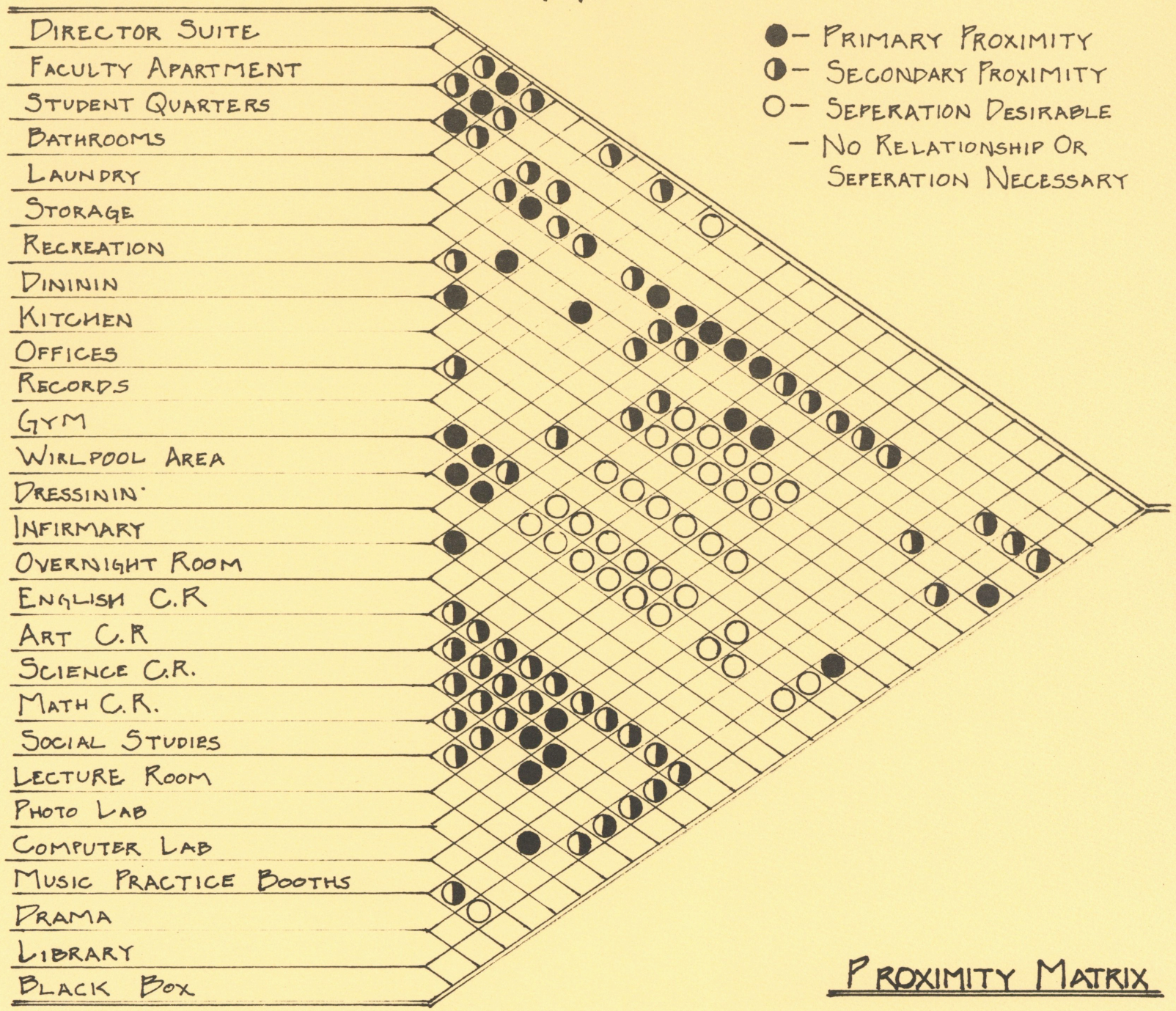
Single Room	3 @ 180	540
Double Room	2 @ 300	600
Bath		150
Storage		200
Total (+10% Circulation)		1640

Athletic Wing

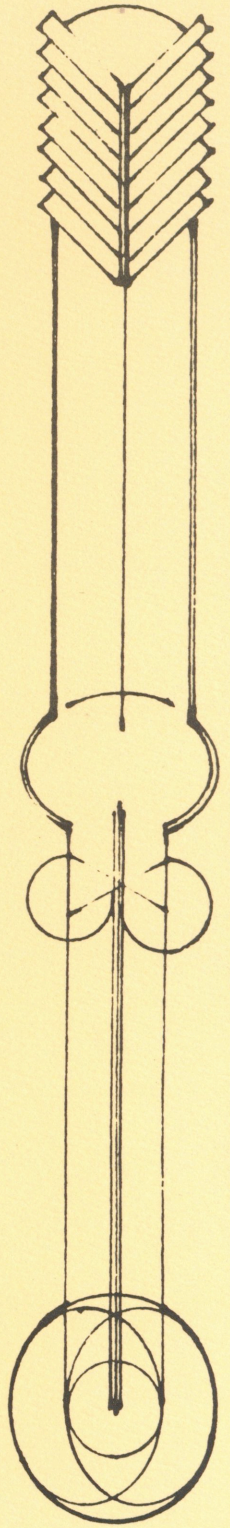
Exercise		250
Court		5800
Locker Room	2@220	440
Storage	(total)	300
Mech		150
Total (+10% Circulation)		7634



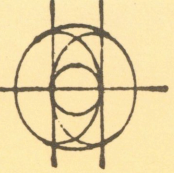
THE HOOD ACADEMY



● – PRIMARY PROXIMITY
◑ – SECONDARY PROXIMITY
○ – SEPERATION DESIRABLE
– NO RELATIONSHIP OR SEPERATION NECESSARY

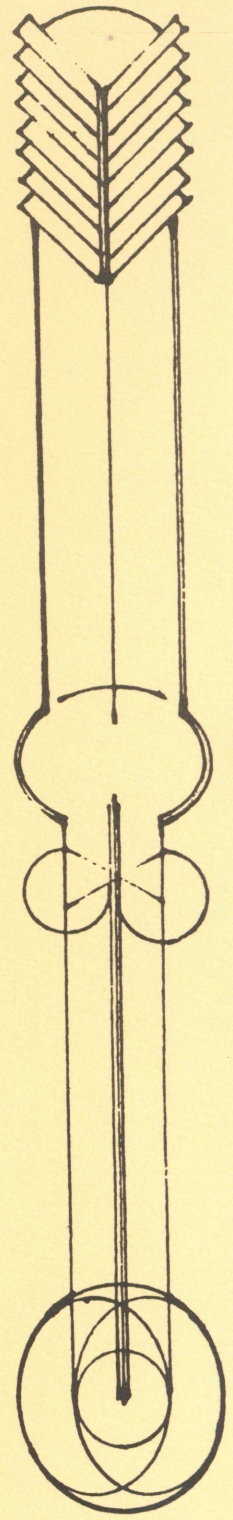


PROXIMITY MATRIX



PROGRAM CHARTS

The following charts show visually the programming concerns of pronmity and facility usage as I developed them in my program. These charts help to show how my thought process worked in relationship to these concerns.



THE HOOD ACADEMY

INSTRUCTIONAL

	Natural Light Required	Natural Light Undesirable	Noise	Requires Quiet	Requires Veiws	Security Measures Necessary	Views Undesirable	Odor Control Necessary	Resident View Undesirable	Resident View Desirable
English			●	●	◑	○				
Art	◑	○	●	●	◑	◑		◑		●
Science	●	○	●	●	◑	●		●		
Math	◑		●	●		○				
Social Studies	◑		○	●		○				
Lecture		●	●	●		○	◑			
Darkroom		●		◑		○	○	●		
Photo Lab		●	○	◑		○	○	●		○
Computer Lab		◑	◑	◑		◑				
Music Practice		○	●	●						
Drama		●	●	●		○	◑			
Black Box		○	●	○		◑	◑	●	◑	●
Library		○		●	◑	○				●

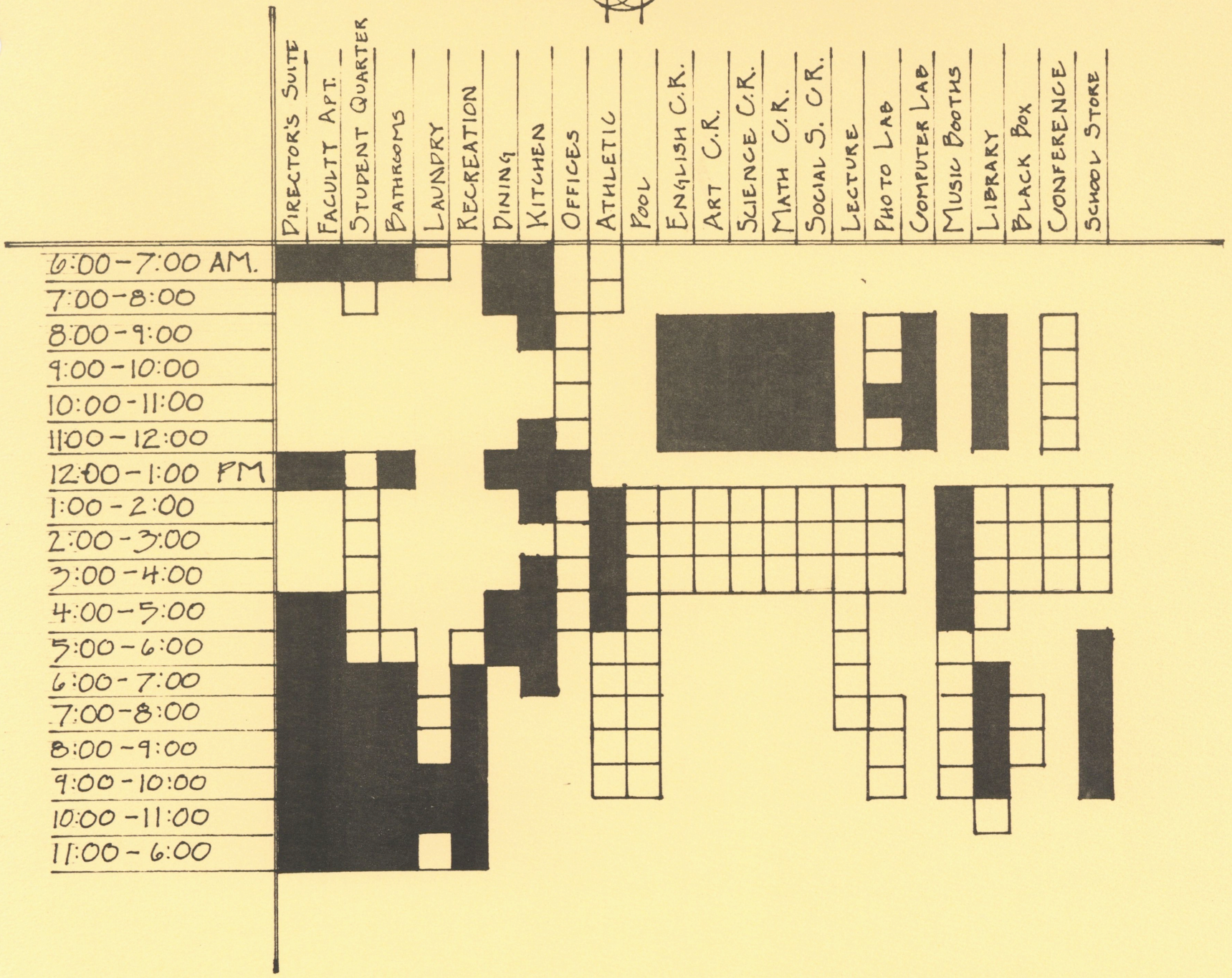
THE HOOD ACADEMY

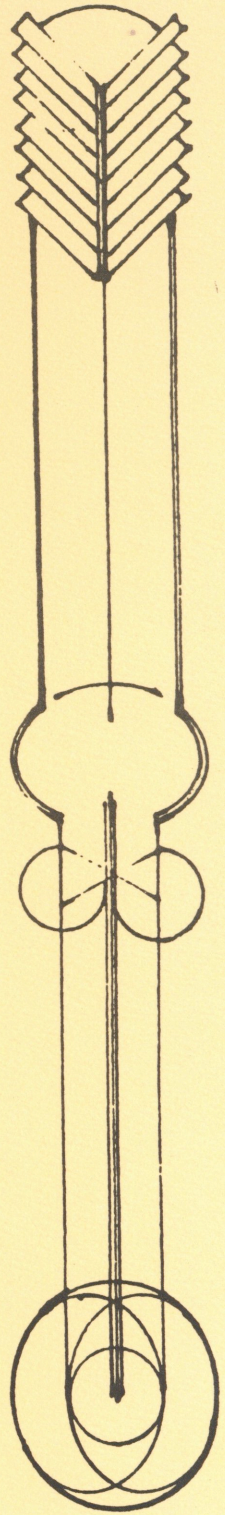
	Natural Light Required	Natural Light Undesirable	Noise	Requires Quiet	Requires Veiws	Security Measures Necessary	Views Undesirable	Odor Control Necessary	Resident View Undesirable	Resident View Desirable
ATHLETIC										
Gym		◑	●			◑		●		●
Running Track	○		◑					●		●
Exercize		◑	●			◑		●		●
Wirlpool Area	○		◑	◑	○	○		●	○	○
Dressing Room			●			○	●	●	●	
SPECIAL										
Infirmary	◑		◑	●	○	◑		◑	◑	
Overnight	●		◑	●	●	◑		◑	●	
Baths			◑			○		○	●	
School Store		●				●	●	●	●	
Shop	◑		●		○	◑		●		○
Garage			●			◑		●		

THE HOOD ACADEMY

	Natural Light Required	Natural Light Undesirable	Noise	Requires Quiet	Requires Veiws	Security Measures Necessary	Views Undesirable	Odor Control Necessary	Resident View Undesirable	Resident View Desirable
Living										
Director Suite	●		○	●	●	◑				
Faculty Apt.	●		○	●	●	◑				
Students	●		●	●	●	◑				
Baths	○		○			○		○	●	
Laundry			●					○		
Storage		●				◑		◑	●	
Recreaction	●		●		●					●
Dining	●		●		●			●		
Living	●		●	◑	●					●
Kitchen	◑		●		○			●		
Pantry		●				○	●	●	●	
Faculty										
Conference	◑		○	●	◑	○			◑	
Offices	◑		○	◑	◑	◑			◑	
Records		●				●	●	◑	●	
Directors	◑		○	◑	◑	◑			◑	
Secretary	○		◑	○	○	○				●

THE HOOD ACADEMY





SPACE PROGRAMS

The pages that follow are individual space programs with spacial relationship diagrams interspersed. Included in the programs are spacial requirements, special equipment, orientation and special prgramming notes as required. Also included is a section called pattern language, taken from Christopher Alexander, Sara Ishikowa and Murray Silverstein's book, A Pattern Language. In this section are listed pattern languages that were appropriate with a particular space and the goals of the Hood Academy. These pattern languages have either brought up ideas that had not been previously considered or support the goals of the Hood Academy. Pattern languages, as used in this context, are used as idea generating forces, not as regulating factors.

THE HOOD ACADEMY

Space: RECEPTION

Space Requirements	Sq.Ft.
Total Square Footage	200

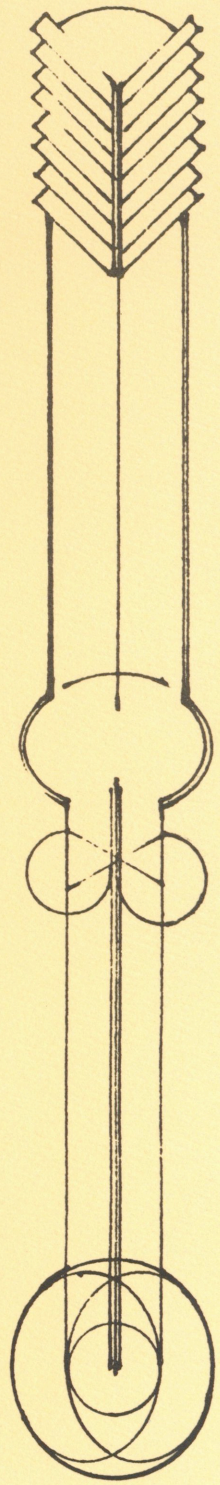
Pattern Language 149 - RECEPTION WELCOMES YOU; 112 ENTRANCE TRANSITION

Equipment DESK, CHAIRS SEATING FOR GUESTS.

Orientation ADJACENT TO LIBRARY

Notes:

RECEPTIONIST CONTROLS LIBRARY



THE HOOD ACADEMY

Space: Records Room

Space Requirements	Sq.Ft.
Total Square Footage	72

Pattern Language 204 Secret Places

Equipment Fire Proof Vault

Orientation Near Reception Area

Notes:

- All Records need to be secure

THE HOOD ACADEMY

Space:

LIBRARY

Space Requirements	Sq.Ft.
STACKS	2000
PERODICALS	170
READING	300
MULTI MEDIA	150
CONTROL	120
STUDY CARRELS	50
Total Square Footage	3000

Pattern Language

124 - ACTIVITY POCKETS; 129 COMMON AREAS AT THE HEART; 205 STRUCTURE FOLLOWS SOCIAL SPACES.

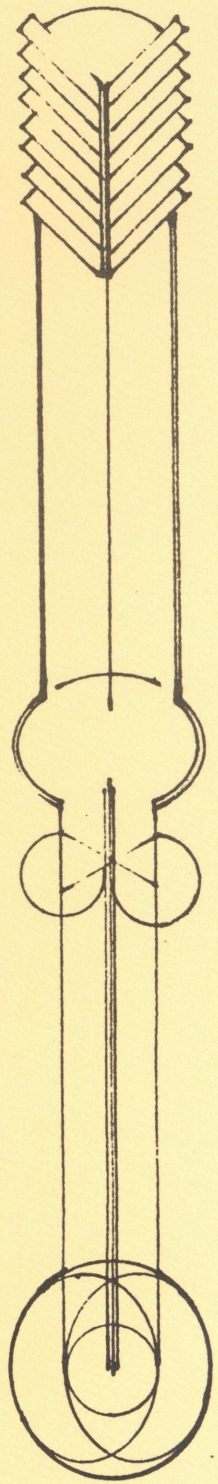
Equipment

SHELVES, MICROFILM INDEX FILES, TABLES AND CHAIRS.

Orientation

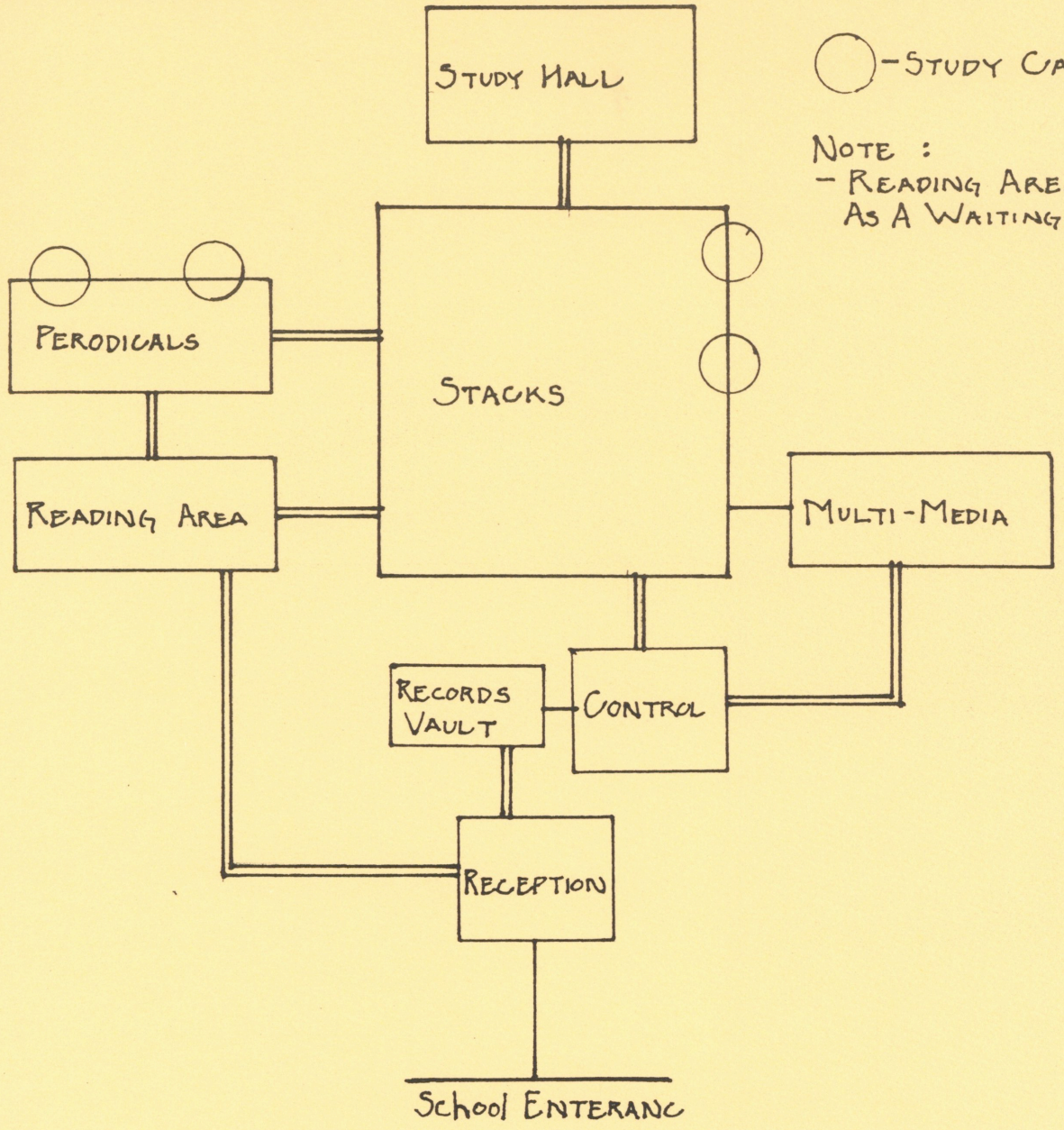
Notes:

THE LIBRARY IS THE HUB OF THE EDUCATION SYSTEM. IT IS THE STORAGE OF KNOWLEDGE. AS SUCH IT IS THE HEART OF THE SCHOOL.



THE HOOD ACADEMY

DIA. LIBRARY/RECEPTION



○ - STUDY CARRELS

NOTE :
- READING AREA CAN BE USED AS A WAITING AREA FOR GUESTS

THE HOOD ACADEMY

Space:
Social Studies

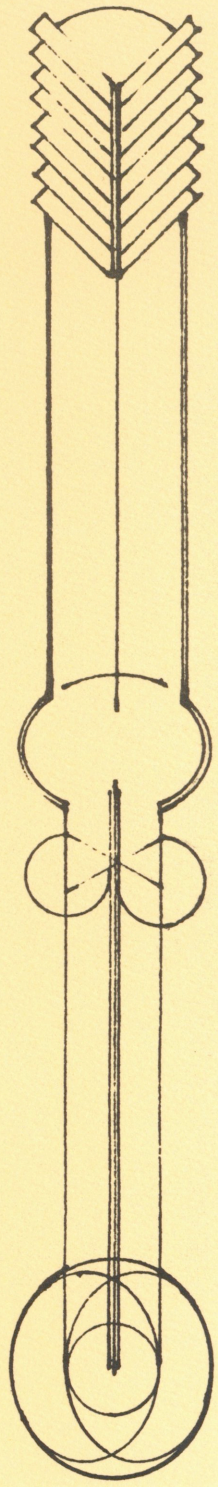
Space Requirements	Sq.Ft.
Seating for 10 Students	
Small Library	
Teacher Station	
Total Square Footage	255

Pattern Language 83 Master and Apprentic, 84 Teen Age Society

Equipment 10 Desks (Design Max) Teachers Desk, Hanging Maps Supply Storage, Video Equipment.

Orientation Near Library, Near other Class Rooms

Notes:
- Normal Student Occupancy.



THE HOOD ACADEMY

Space: ENGLISH

Space Requirements	Sq.Ft.
SEATING FOR 10 STUDENTS	
SMALL LIBRARY	
TEACHER STATION	
Total Square Footage	255

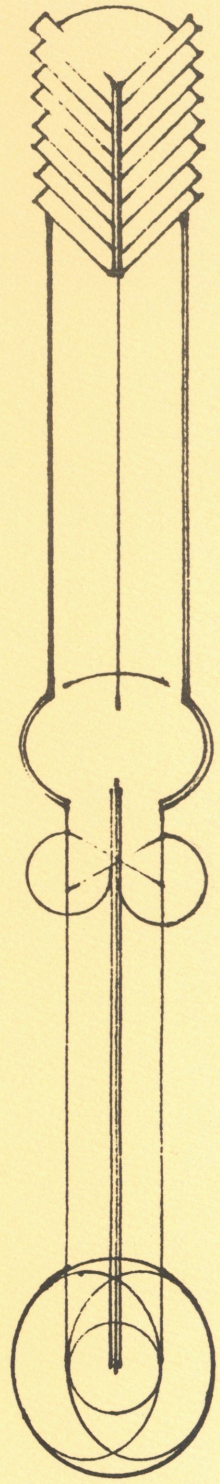
Pattern Language 83 MASTER AND APPRENTICE; TEENAGE SOCIETY 84.

Equipment 10 DESKS. TEACHER DESK; VIDEO EQUIPMENT. SUPPLY STORAGE.

Orientation NEAR LIBRARY NEAR OTHER CLASS ROOMS

Notes:

- NORMAL STUDENT OCCUPANCY 7



THE HOOD ACADEMY

Space: MATH

Space Requirements	Sq.Ft.
SEATING FOR 10 STUDENTS	
SMALL LIBRARY	
TEACHER STATION	
Total Square Footage	255

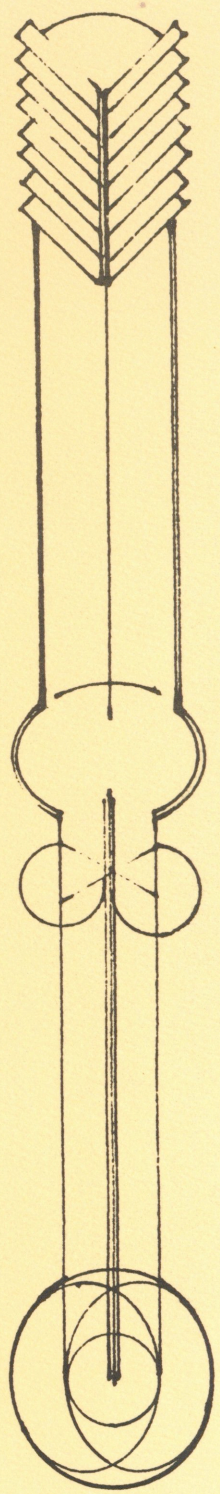
Pattern Language 83 MASTER AND APPRENTICE; 84 TEENAGE SOCIETY

Equipment 10 DESKS (DESIGN MAX) TEACHER DESK. COMPUTER TERMINAL SUPPLY STORAGE

Orientation NEAR LIBRARY ADJACENT TO LIBRARY.

Notes:

- NORMAL STUDENT OCCUPANCY 7
- ADDITIONAL COMPUTER HOOK-UPS.



THE HOOD ACADEMY

Space:

COMPUTER SPACE

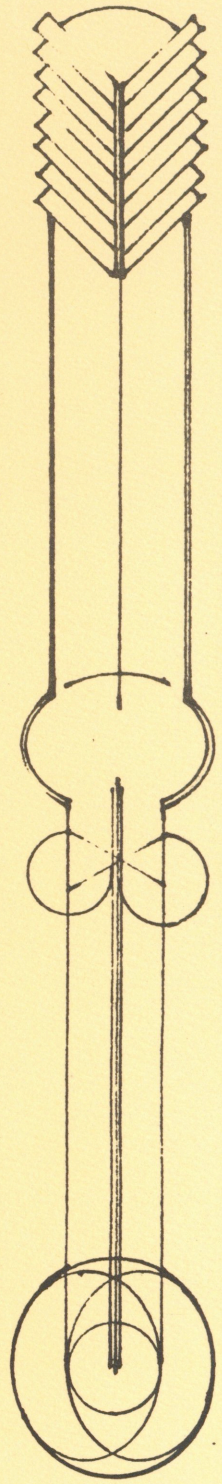
Space Requirements	Sq.Ft.
SEATING FOR 7 OPPERATORS	
TEACHER STATION	
Total Square Footage	255

Pattern Language MASTER AND APPRENTIC; 84 TEENAGE SOCIETY.

Equipment 7 TERMINALS, 1 PRINTER COMPUTER STORAGE AND RETRIEVAL SYSTEM. 7 MODEMS.

Orientation ADJACENT TO MATH SPACE

Notes:



THE HOOD ACADEMY

Space:

ART

Space Requirements	Sq.Ft.
STUDIO	400
INSTRUCTION	250
CLEAN-UP	50
DISPLAY	50
SUPPLIES	50
Total Square Footage	800

Pattern Language

84 MASTER AND APPRENTICE; 83 TEENAGE SOCIETY

Equipment

3 SINKS, WORK TABLES LECTURE DESKS, MODEL PLATFORM TEACHER DESK, SUPPLY CUPBOARDS VENTILATOR.

Orientation

Notes:

- FLEXIBILTY IS OF UTMOST IMPORTANCE, TO BE ABLE TO USE SPACE FOR THE DIFFERENT ARTS.

THE HOOD ACADEMY

Space:
PHOTO LAB

Space Requirements	Sq.Ft.
DARK ROOM	100
PHOTO WORK AREA	60
Total Square Footage	160

Pattern Language 83, MASTER AND APPRENTIC

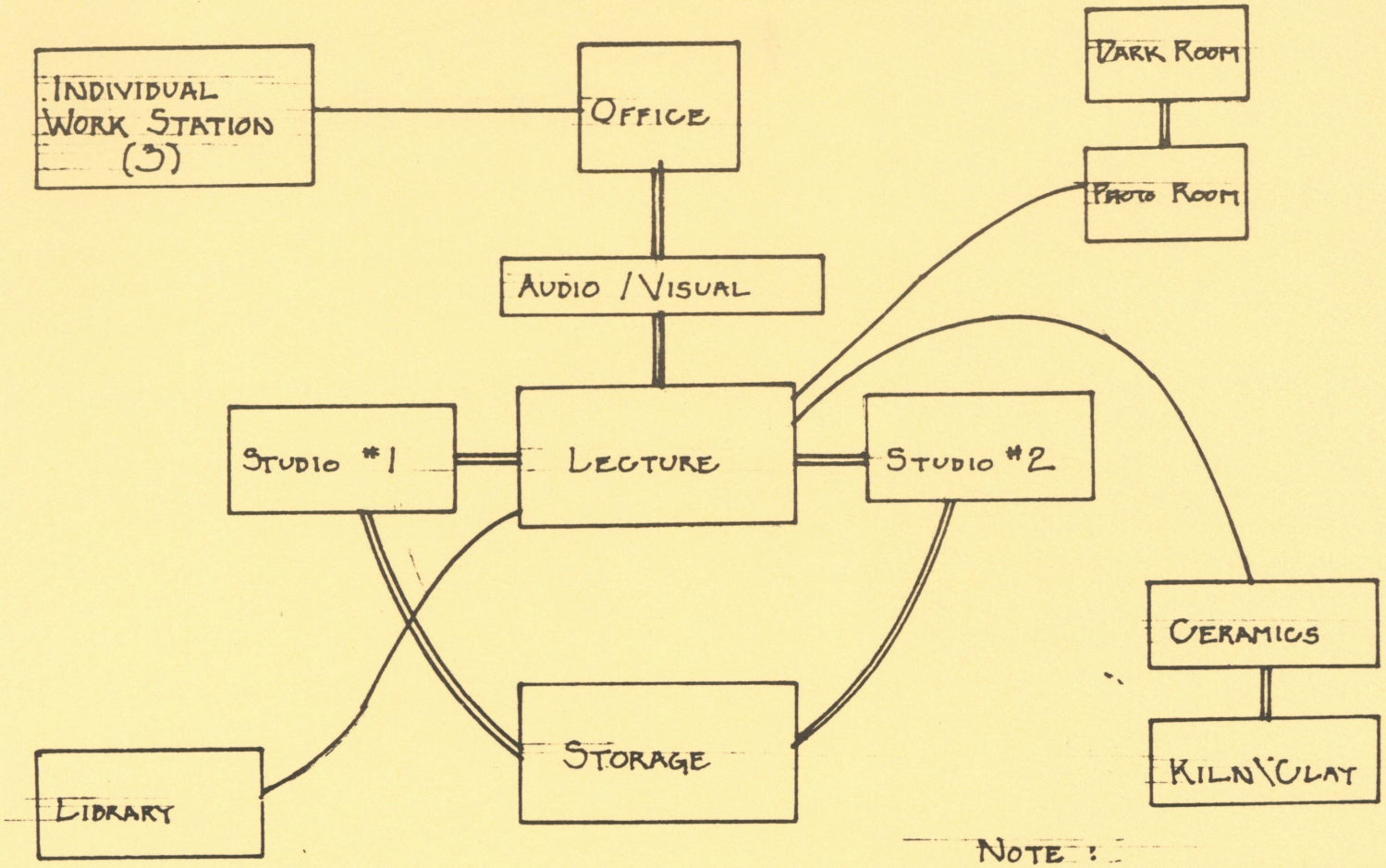
Equipment ENLARGER, COMMUNAL SINK LOCKERS, PRINT WASHER AND DRYER

Orientation ADJACENT TO ART LAB

Notes:

THE HOOD ACADEMY

DIA. ART ROOM



NOTE :
- SEPERATION BETWEEN CERAMICS AND OTHER STUDIOS IS DESIRABLE

THE HOOD ACADEMY

Space:

SCIENCE

Space Requirements	Sq.Ft.
INSTRUCTION	250
WORK STATIONS	280
FIRST AID	25
ANIMALS	60
GREEN HOUSE	225
DISPLAY / HANDS ON EQUIPMENT	60
AUDIO VISUAL	50
STORAGE	150
Total Square Footage	1100

Pattern Language

84 MASTER AND APPRENTIC; 83 TEENAGE SOCIETY

Equipment

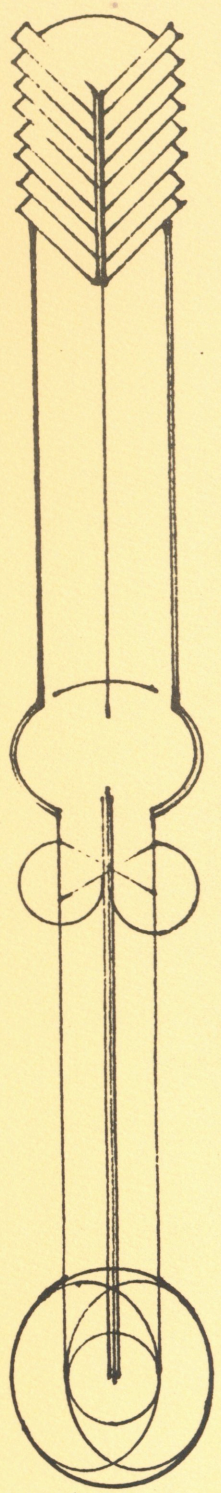
10 LECTURE DESKS, COMPUTER TERMINAL 4-4 PERSON WORK TABLES, INSTRUCTERS WORK STATION.

Orientation

SOUTH - SOUTH WEST FOR SOLAR ACCESS TO GREEN HOUSE.

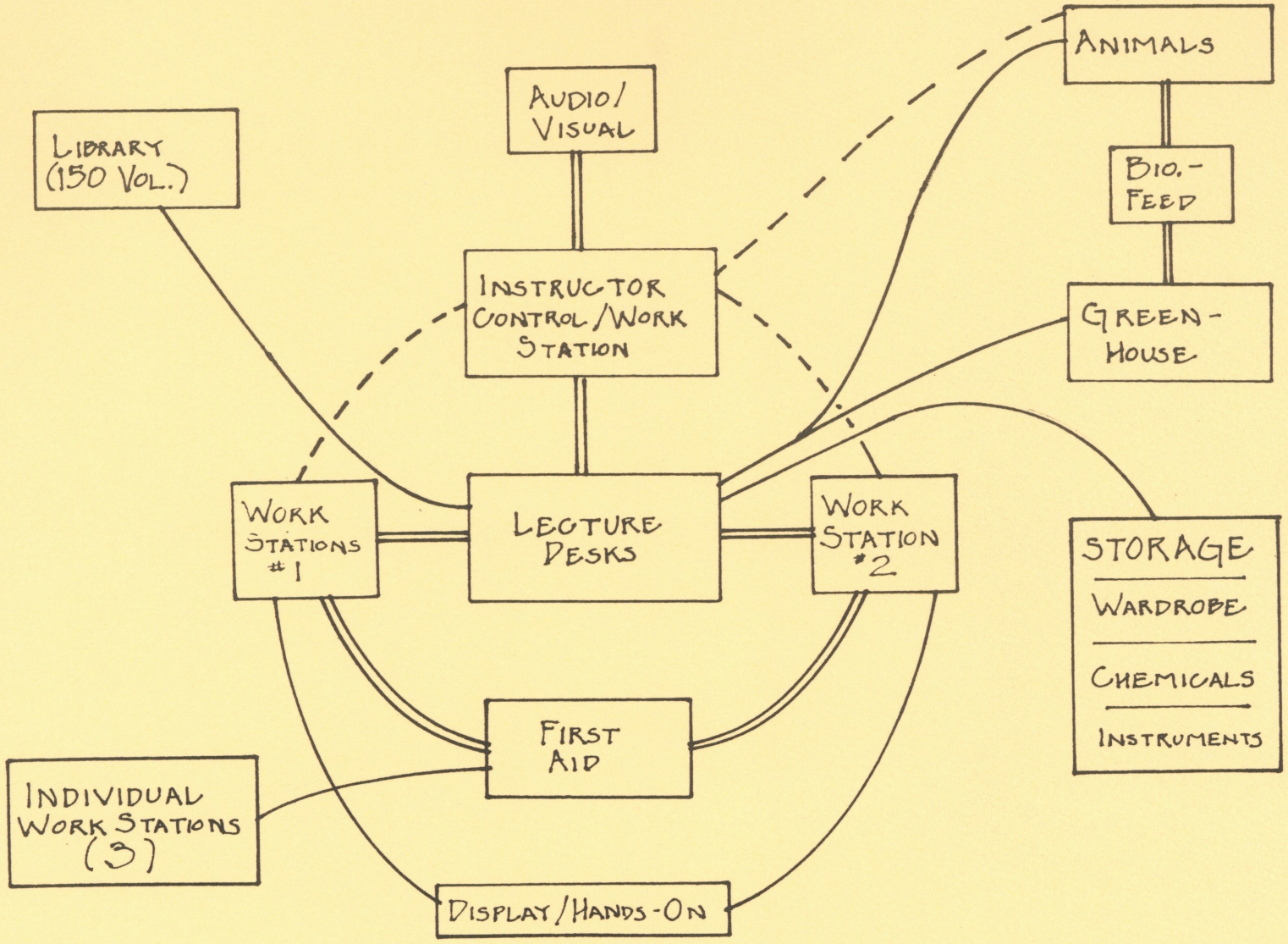
Notes:

- NUMBER OF WORKSTATIONS OVER SIZED TO ALLOW FOR INDIVIDUAL PROJECTS, AND TO ALLOW PROJECT TO BE LEFT TO DEVELOPED.



DIA.

SCIENCE SPACE



THE HOOD ACADEMY

Space:

LECTURE

Space Requirements	Sq.Ft.
SEATING FOR 40	450
LECTURE AREA	100
Total Square Footage	550

Pattern Language 84 TEENAGE SOCIETY

Equipment 40 CHAIR/DESKS, VIDEO PROJECTION SYSTEM

Orientation

Notes:

THE HOOD ACADEMY

Space: Music Booths

Space Requirements	Sq.Ft.
Total Square Footage	70

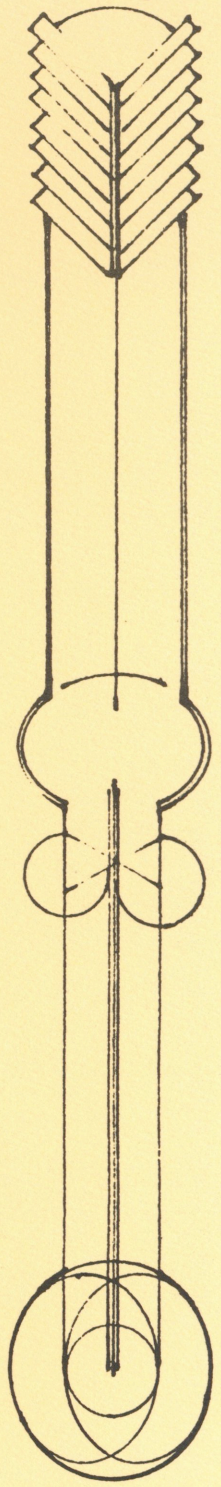
Pattern Language Master and Aprentic

Equipment Piano, Music Stand Stools

Orientation

Notes:

- Factory made unit
- Accoustic Isolated



THE HOOD ACADEMY

Space:

EXPERIMENTAL USE SPACE

Space Requirements	Sq.Ft.
AN OPEN UNOBSTRUCTED 20'x20'x20' CUBE	1600
Total Square Footage	1600

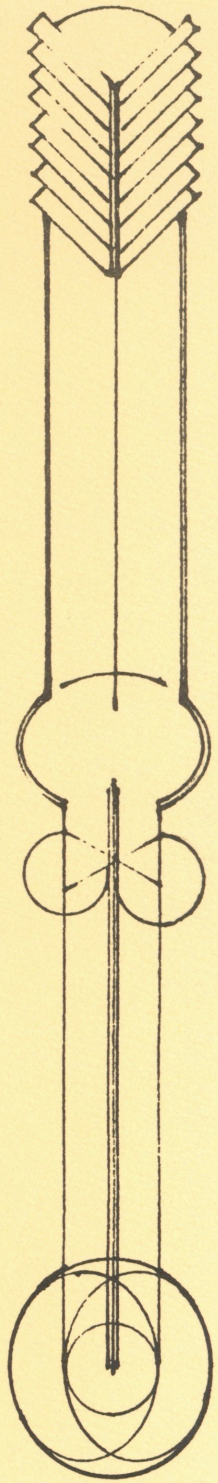
Pattern Language

Equipment FLAT WIRE MESH SYSTEM, TRACK LIGHTING SYSTEM.

Orientation NEAR SERVICE, SHOP,

Notes:

- INSPIRED BY EXPERIMENTAL TII THEATER STAGE KNOWN AS A BLACK BOX.
- A SPACE FOR LARGE GROUP PROJECTS.



THE HOOD ACADEMY

Space: OFFICES

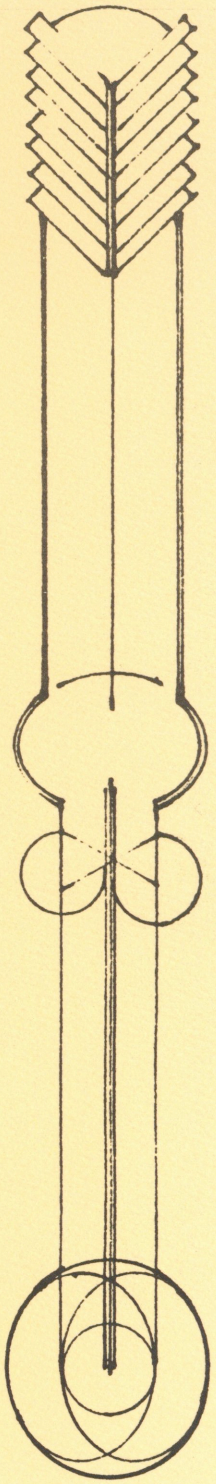
Space Requirements	Sq.Ft.
Total Square Footage	100

Pattern Language

Equipment DESK, 3 CHAIRS FILES AND BOOKCASES

Orientation ACCOUSTICAL SEPERATED FROM STUDENT ACTIVITY AREA.

Notes:



THE HOOD ACADEMY

Space: RECREATION PASSIVE

Space Requirements	Sq.Ft.
T.V AREA	
SOCIALIZATION AREA	
Total Square Footage	580

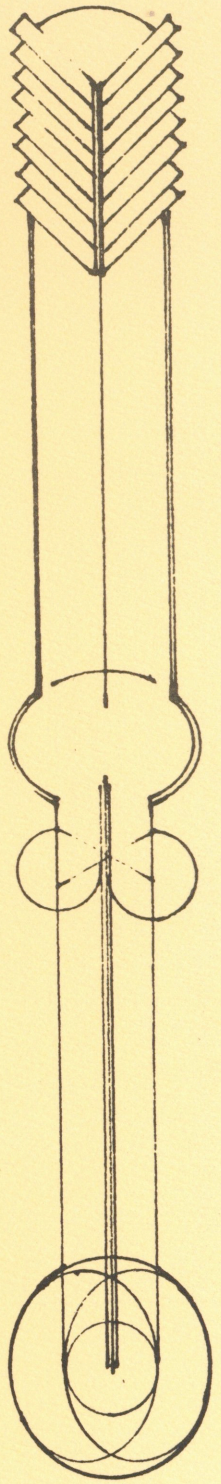
Pattern Language 72 - LOCAL SPORTS; 27 MEN AND WOMEN

Equipment T.V.; COUCHES CHAIRS TO HANDLE 35

Orientation

Notes:

- RELAXED ATMOSPHERE
- GATHERING PLACE



THE HOOD ACADEMY

Space: RECREATION (ACTIVE)

Space Requirements	Sq.Ft.
Total Square Footage	390

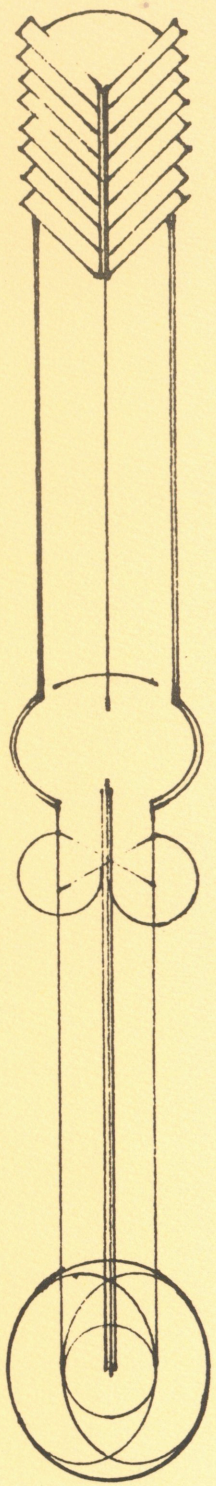
Pattern Language 27. MEN AND WOMEN 205 - STRUCTURE FOLLOWS SOCIAL SPACES.

Equipment VIDEO GAMES (2) PINBALL TABLES.

Orientation

Notes:

- ACTIVITIES WILL VARY AS TRENDS CHANGES



THE HOOD ACADEMY

Space:

DINING

Space Requirements	Sq.Ft.
DINING AREA	550
BEVERAGE DISPENSER	50
Total Square Footage	600

Pattern Language 182 - EATING ATMOSPHERE; 146 - COMMUNAL EATING 129 - COMMON AREA AT THE HEARTH 75 - THE FAMILY

Equipment VARIOUS TABLES AND CHAIR ARRANGEMENTS FOR 35. BEVERAGE DISPENSERS.

Orientation VIEWS IMPORTANT, NEAR RECREATION AREA.

Notes:

THE HOOD ACADEMY

Space:

MAIN KITCHEN / PANTRY

Space Requirements	Sq.Ft.
FOOD PREP	150
FOOD COOKING	150
SERVING COUNTER	80
PANTRY	110
Total Square Footage	490

Pattern Language COOKING LAYOUT, 184

Equipment GRILL, SINK, OVEN COMERCIAL SINK, DISH WASHER, STOVE REFRIGERATOR / FREEZER, COMERCIAL MILK DISPENCER.

Orientation NEAR DINING

Notes:

THE HOOD ACADEMY

KITCHEN

PANTRY

FOOD PREP

FOOD COOKING

DINING

ENTRANCE

MAIN DINING

OVERFLOW DINING

DIA.

○ – SMALL ACTIVITY POCKETS

NOTE :
– THIS IS THE MAIN

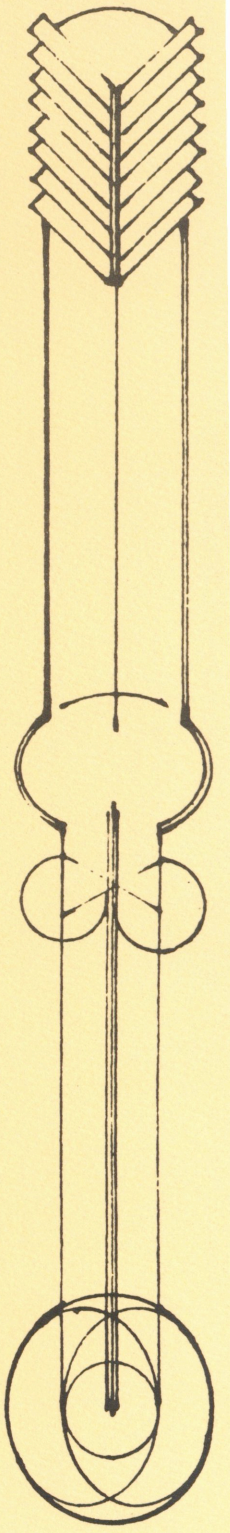
GAMES

OPEN SPACES

T.V. AREA

ENTRANCE

RECREATION



THE HOOD ACADEMY

Space: LAUNDRY ROOM

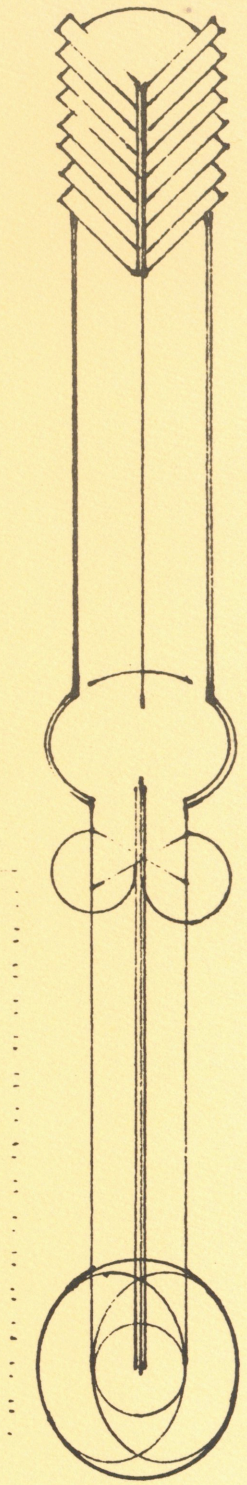
Space Requirements	Sq.Ft.
FOLDING	
WASHING	
Total Square Footage	125

Pattern Language

Equipment WASHER, DRYER, TABLE

Orientation

Notes:



THE HOOD ACADEMY

Space:

INFIRMARY

Space Requirements	Sq.Ft.
EXAMINATION	60
STORAGE	90
Total Square Footage	150

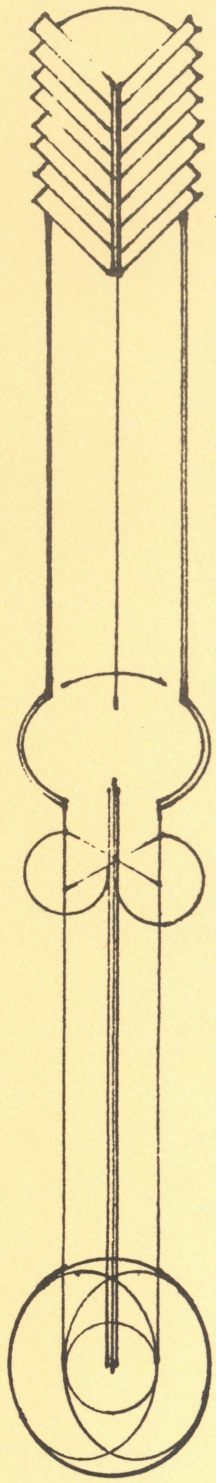
Pattern Language

Equipment BED, SECURE STORAGE, SINK

Orientation

Notes:

- FIRST AID
- QUARINTEEN



THE HOOD ACADEMY

Space:

STUDENT QUARTERS (SINGLE)

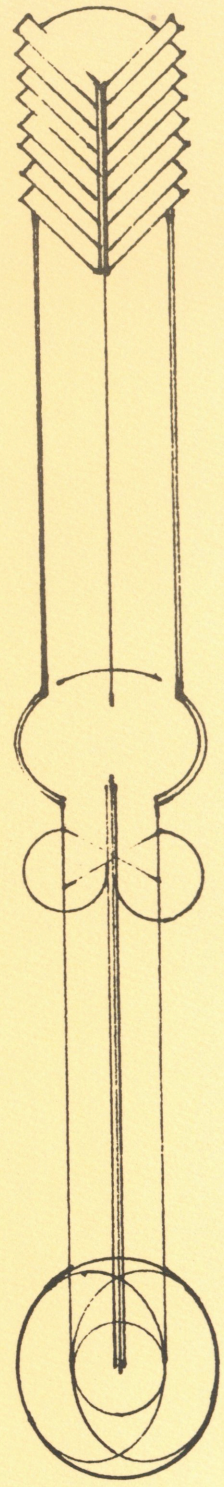
Space Requirements	Sq.Ft.
SLEEPING	
PERSONEL STORAGE	
LIVING	
Total Square Footage	180

Pattern Language 36,- DEGREES OF PUBLICNESS; 78-HOUSE FOR ONE PERSON; 141 ROOM OF ONES OWN

Equipment 1 - BED, DESK, STORAGE COMPUTER HOOK-UPS.

Orientation

Notes:



THE HOOD ACADEMY

Space: STUDENT QUARTERS DOUBLE

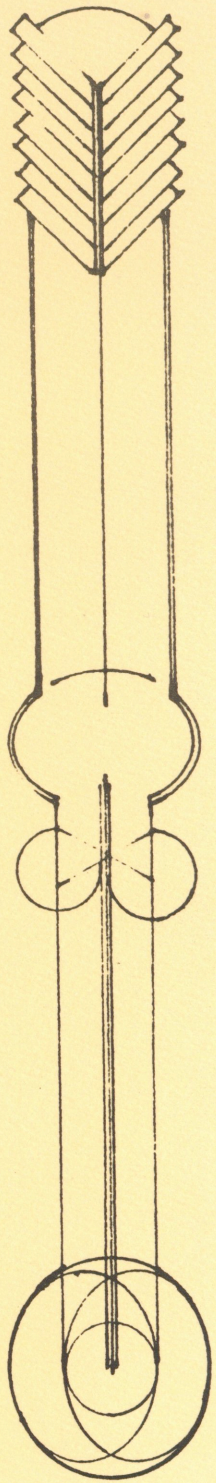
Space Requirements	Sq.Ft.
SLEEPING	
LIVING	
PERSONEL STORAGE	
Total Square Footage	300

Pattern Language 36 DEGREES OF PUBLICNESS; 77 HOUSE FOR A COUPLE; 141- ROOM OF ONES OWN

Equipment 2- BEDS, DESKS, STORAGE UNITS.

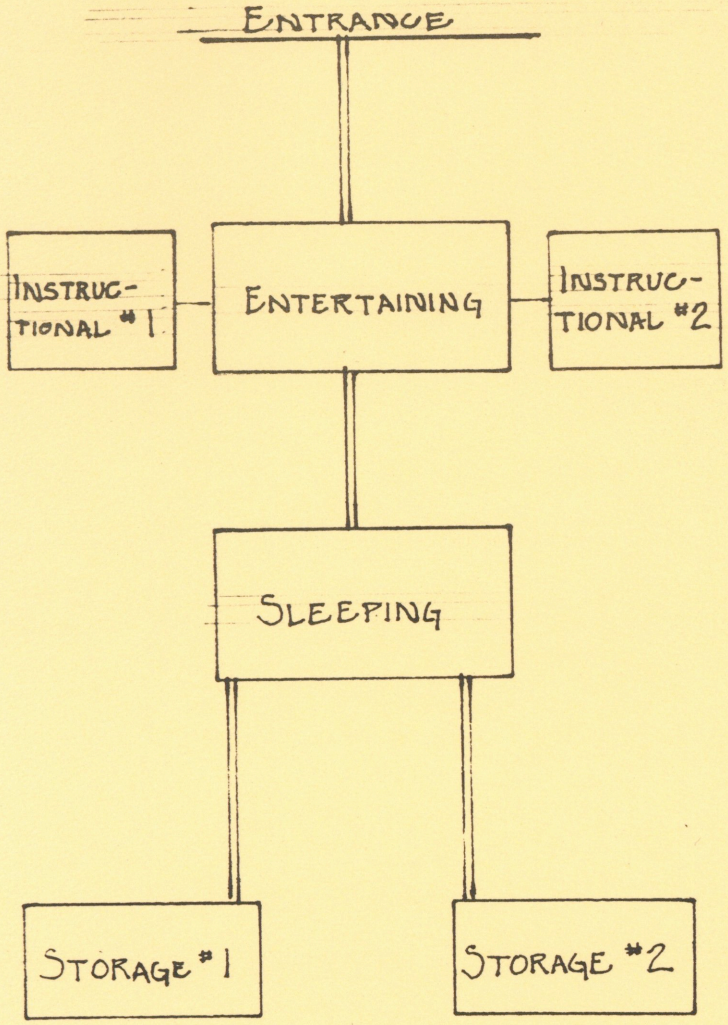
Orientation

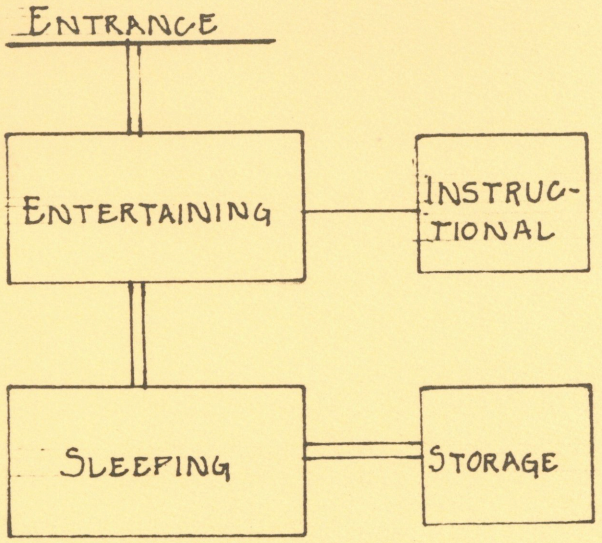
Notes:



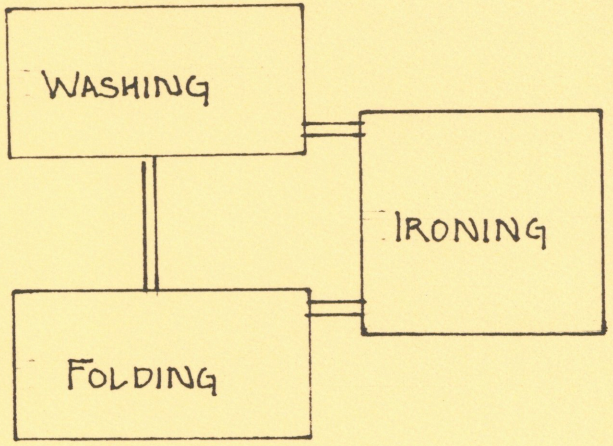
THE HOOD ACADEMY

DIA. : STUDENT QUARTERS DOUBLE





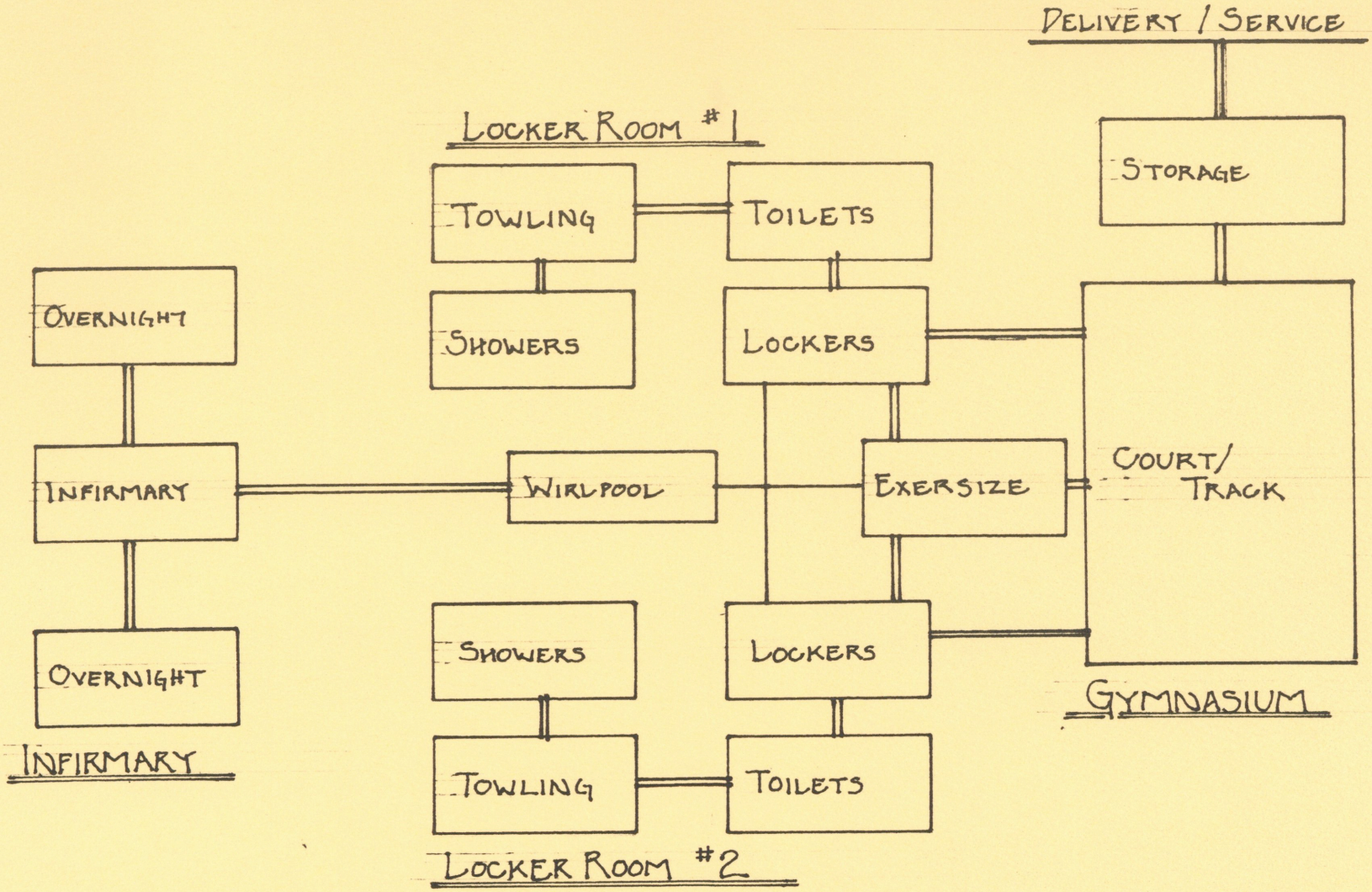
DIA : STUDENT QUARTERS SINGLE



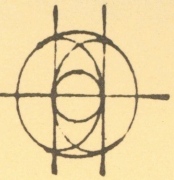
81 DIA : LAUNDRY

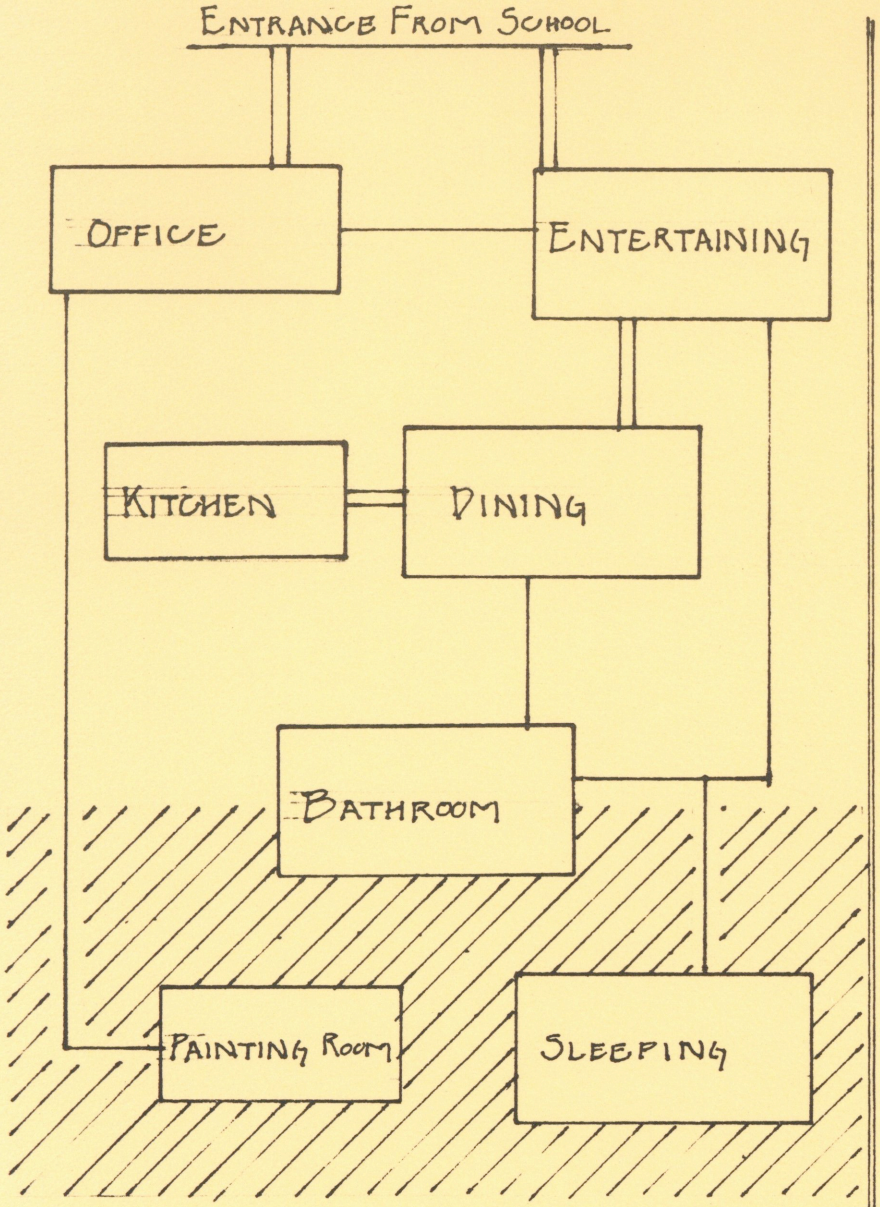
THE HOOD ACADEMY

DIA.

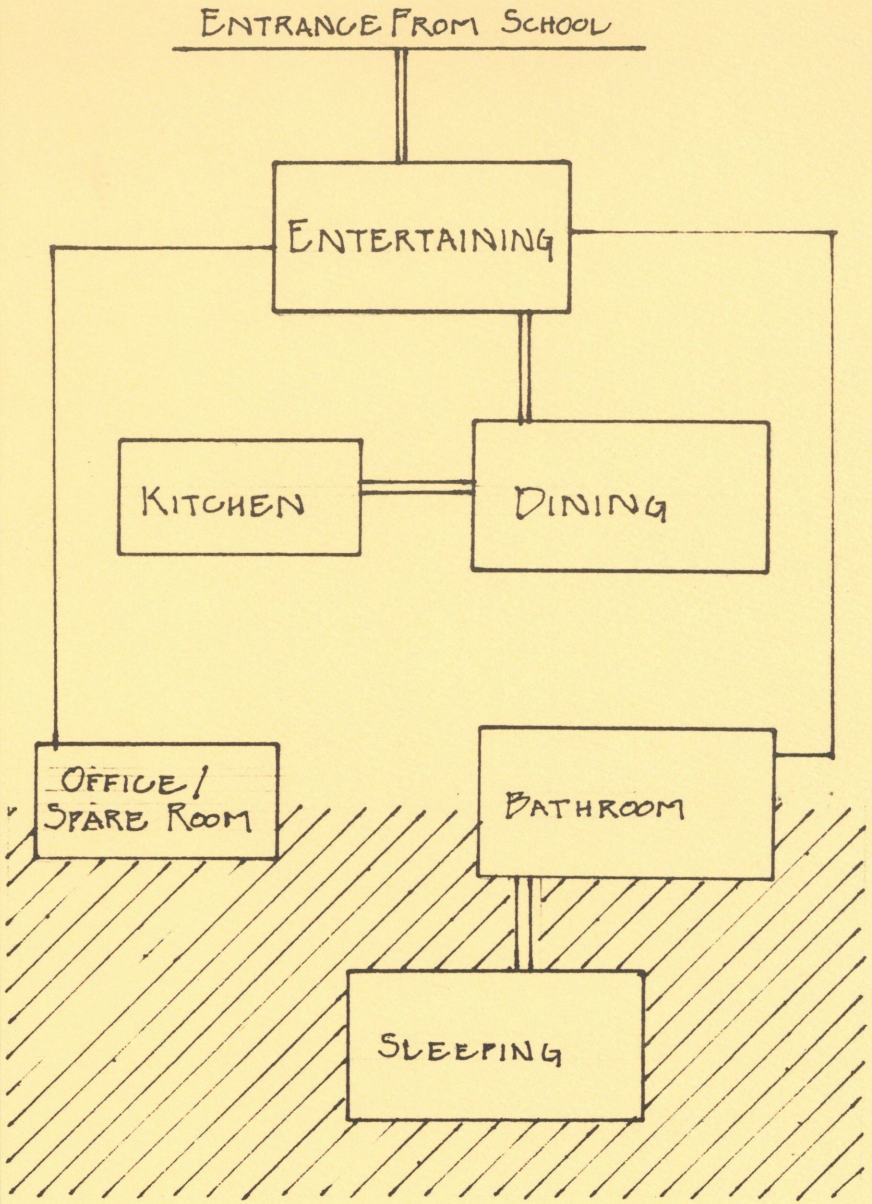


THE HOOD ACADEMY

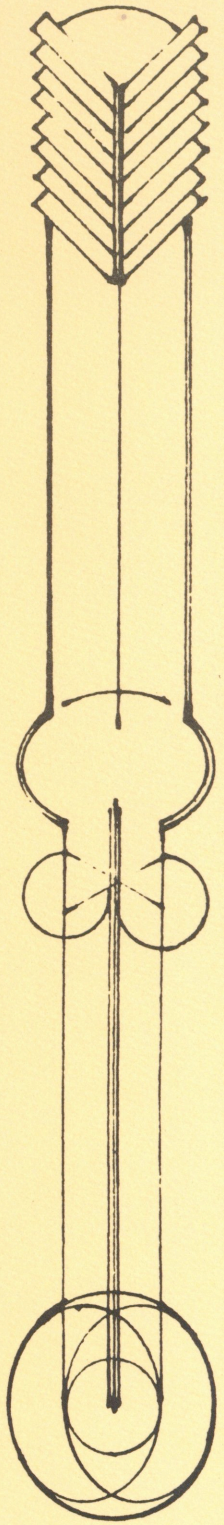




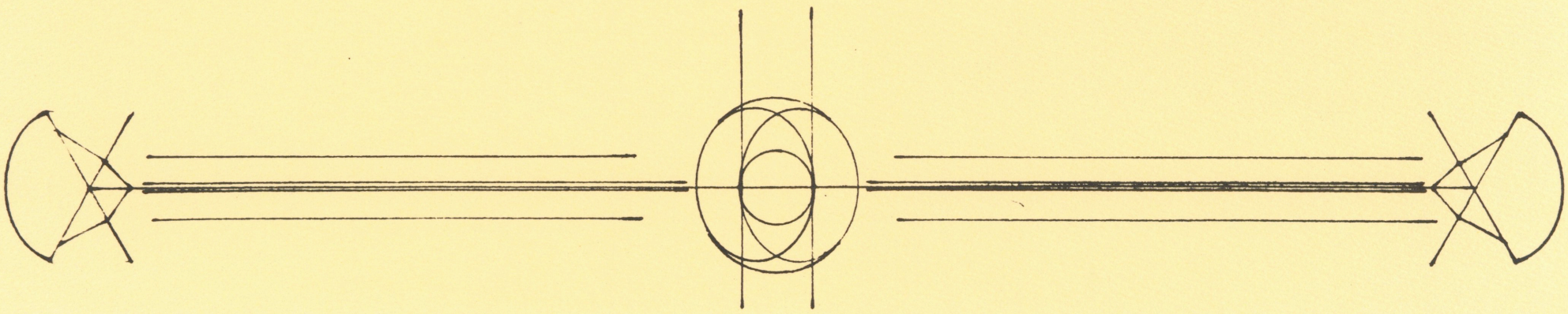
DIA. : DIRECTORS SUITE

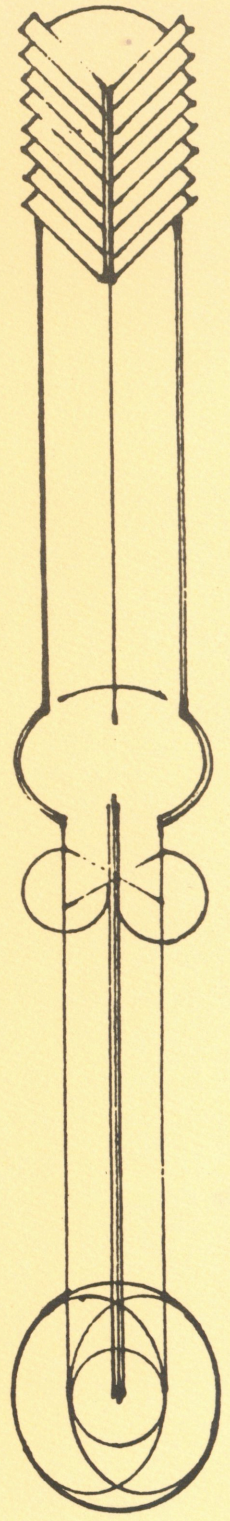


DIA : FACULTY APT.



The Design





DESIGN SUMMARY

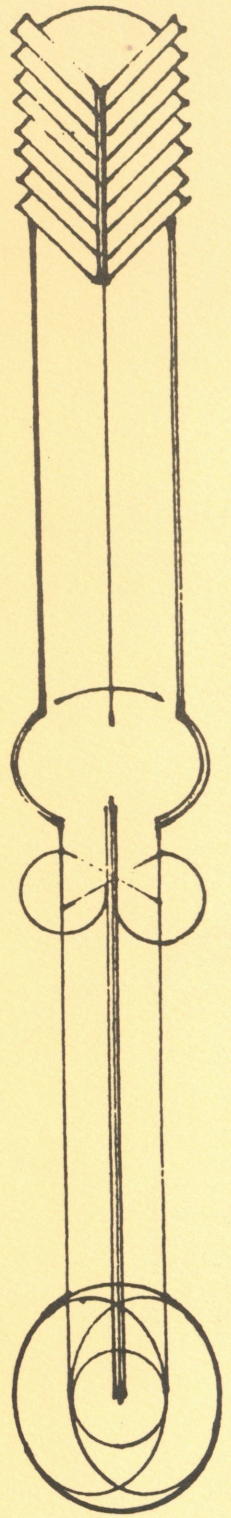
In the two quarters that have almost passes since beginning this project, many realizations and changes have taken place. The first realization came about in my lack of programming skills. This process became a matter of trial and error to find a method that I felt comfortable with. Another revelation was the level to which each programmatic need had to be developed. In a conversation with Professor Harold Nelson about my thesis project in the Spring of 1985, he expressed a concern that in order for a student to program a project of this nature correctly it could take two to three quarters unless some givens were worked into the program. I felt built form would be needed by the completion of this thesis project, thusly certain short cuts and givens were taken in some areas.

At the start of the project, the idea of combining an educational building with that of living spaces held a great deal of interest for me as a possible solution. After developing the idea through, though, it became clear

because of code, education, and proper utilization of the site, that such a plan would not be appropriate, at this location.

In addition, at the beginning of this project I felt the square footage of the Hood Academy was small enough to allow the investigation of most interior spaces and set the character of those spaces. In doing so, I feel that I underestimated the true complexity of this project, both educationaaly and architecturally. I have done a great deal of work with interiors but not to the detailed nature that I thought I would be able to.

These changes are of a nature that one should expect to encounter in developing a project through from the idea stage to final presentation stage. As a whole, this project was a good choice for me. It managed to hold my interest from beginning to end and I also learned a great deal about the programming process and about my strengths and weaknesses as an architectural designer.



CASE STUDIES

Phillips Exeter Library, Andover, New Hampshire - Louis Katty, Architect.

Milton Keyhes Health Center, Trevor Dent Watland Tunler, Architects.

Ravenwood Elementary School, Kansas City, Missouri, Kivetts and Myers, Architects.

Deer Park Elementary School, Fairfax, California.

Salisbury Central School, Eliot Noyes and Associates, Salisbury, Conneticut.

Forest Academy Faculty Apartments, Lake Forest, Illinois, Skidmore, Owings and Merrill.

The Tabberson House, Hutchinson, Minnesota, William Tabberson.

The Hartford Seminars, Hartford, Conneticut, Richard Meier and Partners.

The Pilchver School, Stanwood, Washington, Thomas L. Bosworth.

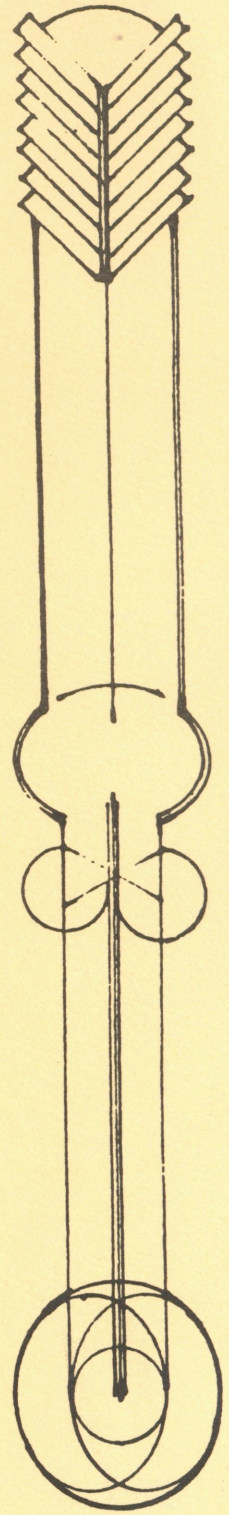
Green Mountain Valley School, Fayston, Vermont, Turner Brooks.

Watson Hall, Hotchkiss School, Lakeville, Conneticut, Woollen Associates.

Conneticut Junior Republic School, Herbert S. Newman and Associates.

Portsmouth Abbey School, Portsmouth, Rhode Island, Pietro Belluschi, Inc.

American Academy of Arts and Science, Cambridge, Massachusetts, Kallman McKinnell and Wood.



BIBLIOGRAPHY

Alexander, Christopher, A Pattern Language, Oxford University Press, New York, 1977.

Blaser, Verner, Structure and Form in Japan:Architectural Reflections, Zurich, Switzerland, 1963.

Brooks, H. Allen, The Prairie School: Frank Llyod Wright and His Midwest Contemporaries, W.W. Norton and Company, New York, 1972.

Burns, Jim, Anthropods, Praeger Academy, Edition London, 1972.

Callender,John, Time Savers Standards for Building Types, 2nd Edition, New York, McGraw Hill Co., 1980.

De Chiara, Joseph and Koppelman, Lee, Manual of Housing/ Planning and Design Criteria. Prentice-Hall Inc., Englewood Cliffs, N.J.

Ching, Francis D.K., Architecture:Form-Space and Order, New York: Van Nostrand Reinhold Company, 1979.

The Colorado Spring School; 20 Years Alumni Journal, Fall 1982, Veral D. Cathey, Editor.

Drexler, Arthur, The Architecture of Japan, The Museum of Modern Art, New York, 1955.

Hare, Kenneth, F., World Survey of Climates, Vol. 11, ed. by Reid A. Bryson, Amsterdam, London, New York, Elsevier Scientific Publishing Co., 1974.

Hauf, Harold D., New Spaces for Learning, New York: Center for Architectural Research, 1961.

Itoh, Teiji, The Classic Tradition in Japanese Architecture: Modern Versions of the Sukiya Style, New York, 1972.

Laseau, Paul, Graphic Thinking for Architects and Designers, Van Nostrand Reinhold Company, New York, 1980.

Manson, Grant Carpenter, Frank Lloyd Wright to 1910: The First Golden Age, Van Nostrand Reinhold Company, New York, 1958.

Norwich, John Julius, Great Architecture of the World, Bonanza Books, New York, 1978.

Panelo, Julius and Zelnik, Martin, Human Dimension and Interior Space, The Architectural Press, Ltd., London, 1979.

Peed, Professor Michael, Interview, October 1, 1985.

Randice, Barbara, Memphis, Rizzolo International Publications, New York, 1984.

Robinett, Gary O., How to Make Cities Livable: Design Guidelines for Urban Homesteading, Van Nostrand Reinhold Company, New York, 1984.

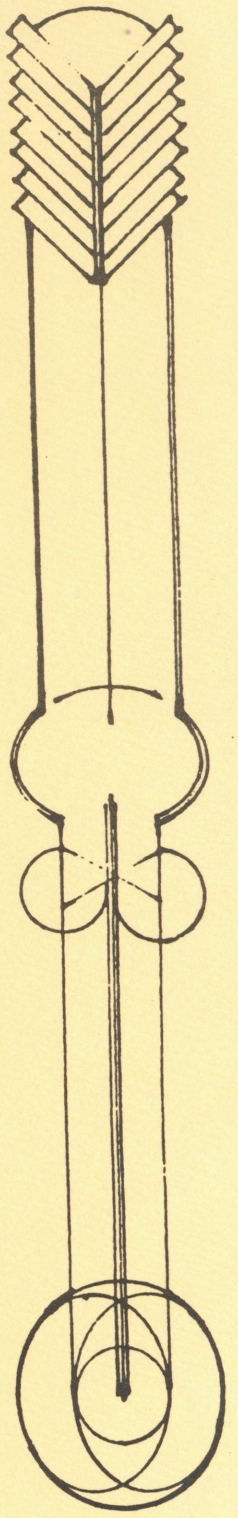
Standards For Accreditation of California Schools, 4th ed.

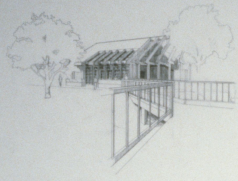
Thibeault, Professor Robert, Interviewed October 3, 1985.

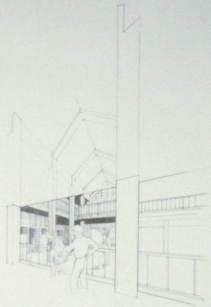
United Building Code, International Conference of Building Officials, California 1979.

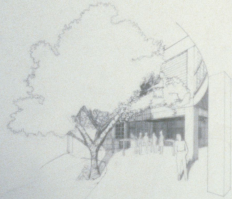
Williams, Anne, Interviewed October 4, 1985.

Williams, Anne, Interviewed October 28, 1985.









THE HOOD ACADEMY



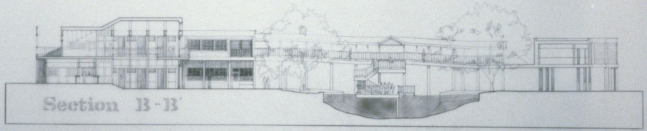
East Elevation - Building A



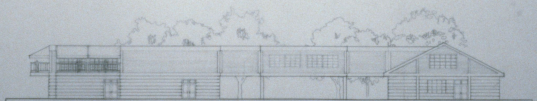
Section A - A



West Elevation - Building A

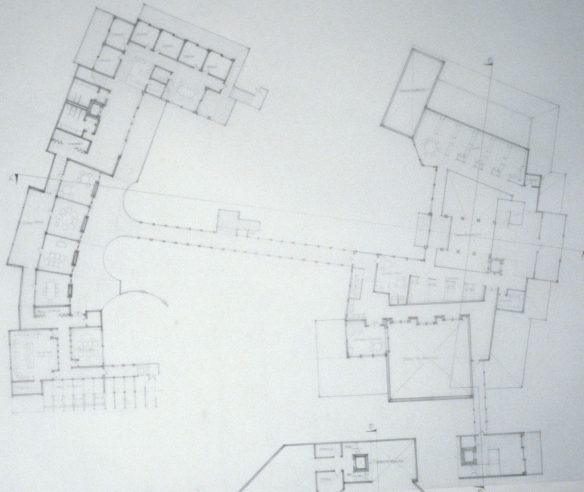


Section B-B'



West Elevation - Building B


THE HOOD ACADEMY



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Second Floor Plan

SCALE 1/4" = 1'-0"



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