

FUNCTIONAL AREAS

SUMMARY

Each of the elementary schools studied, although similar in size and student population, is the product of different programs, different times and architectural designers. The results are dissimilar concepts, areas, sizes and functions for each school. This section of the Functional Factors report examines areas and attempts to measure their performance in supporting intended activities.

Measures of performance were made by analyzing photo documentation and noting behavior and activities over a two and a half month period from April through June 1974. Each area was randomly sampled 18 times on different days and at different times. Additional informal reconnaissance and photo documentation took place for a year before the formal sample began. Questionnaires, interviews and unobtrusive measures (records, traces) also were used when appropriate.

THE FORUM

The forum is a 20'x40' area in the center of the upper grade wing of the Parkside School.

"It has no permanent furniture, so it is spacious; two or three classes can be assembled to share a lecture or demonstration here. Yet, owing to the several level floor (3 steps surround a central area) a bare handful of students do not rattle around in the space; they can be consolidated on the lowest floor level for easy direction."
Arch. Forum Nov. 1962.

Cushions were originally provided for the steps but the entire area has been carpeted within the last few years.

The area was examined to determine if it was used as intended and what attributes did cause the type of use it received.

Performance Required: Provide an area which can be used by classes, singly or together for group activities, presentations and events.

Method: See "Functional Areas-Methods". The weekly forum sign-up sheet used to reserve the space was another indicator of use.

Analysis: The forum is a well used and important space in the school. The teachers at the Parkside School evidently agree. In a questionnaire given them they unanously agreed that 'every school should have one'.

The forum is used formally (teachers sign up for it) by 3-4 classes each day and informally by small groups of students. It is occupied about 50% of the time based on our sampled observations. A variety of activities take place here: book fairs, play rehearsals, physical play, studying, discussions, guest speakers, films and library story readings. The book fair may draw 50 people to this area and often only 2-3 students studying together may be found in the space. Proximity to the upper grade classrooms does affect its use - 7 of 8 upper grade teachers use it 'often', according to our questionnaire, while only 50% of lower grade teachers (3 of 6) mentioned using it 'often'.

Findings: Notwithstanding that this is a traditional elementary school there is indication that if given innovative teaching opportunities and amenities outside of the classroom that they will be well used. The 'Forum' seems to be successful, as in-

tended, for a variety of activities and numbers of people. Its best attributes seem to be its proximate and easy accessibility, freedom from distractions and attractive design. The steps, especially, were used for sitting for a range of activities and numbers of users.

COURTYARDS

Each of the two wings of the school has an enclosed (20'x40') courtyard. Full height windows surround these areas and they are proximate to all classrooms. Access is via glass doors and amenities are provided - a reading circle for the lower grades and a work bench in the upper grade courtyard. Each is primarily paved with flagstones and has planting areas.

Performance required: Provide an outdoor space for group and class activities such as reading, planting, etc.

Method: See "Functional Areas-Methods". Interviews and a questionnaire also provided valuable information.

Analysis: The activity sampling was done at the most propitious time of year for outdoor activity - from April through June. Notwithstanding this, only one courtyard was used and only on one occasion. The lower grades' courtyard was not used once - the upper grade courtyard was used only once - by four boys standing around the workbench conferring about their textbook. In the year-long, informal 'reconnaissance' prior to the measured sample, we only found the courtyards used once.

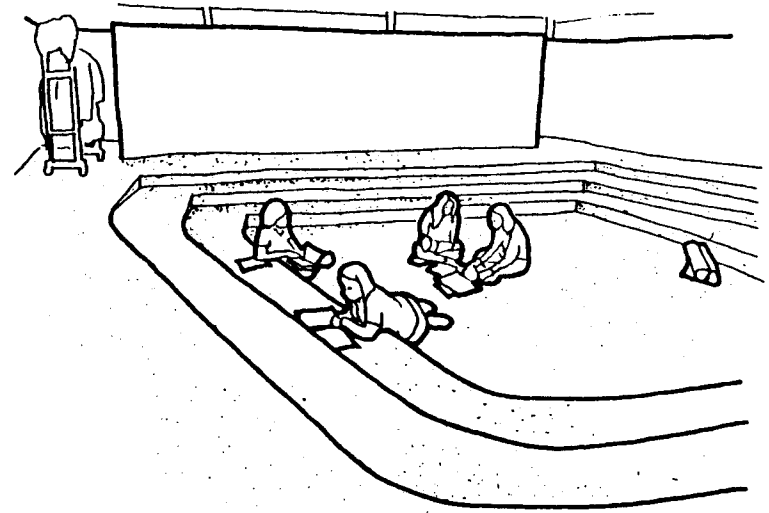
Interview and questionnaire data strongly indicates that weather is largely responsible according to the teachers. "It's too hot, sunny or breezy.", "Uncomfortable", "Glare is bad." are typical comments.

Findings: This area does not fulfill its intended use. It is not used and even with improved amenities its future usage is questionable. Weather, including the glare and heat from the surrounding windows and the flagstone pavement is the strongest hindrance. Other possible hindrances are, distractions in the surrounding corridor, the size and materials of the area limiting play activities and even acoustical problems because of the prevalence of 'hard' materials.

The teaching courtyards at the Richards School, directly accessible from all classrooms, were even less used than those at Parkside. Here, again, a strong concept seems to be based on a faulty premise.

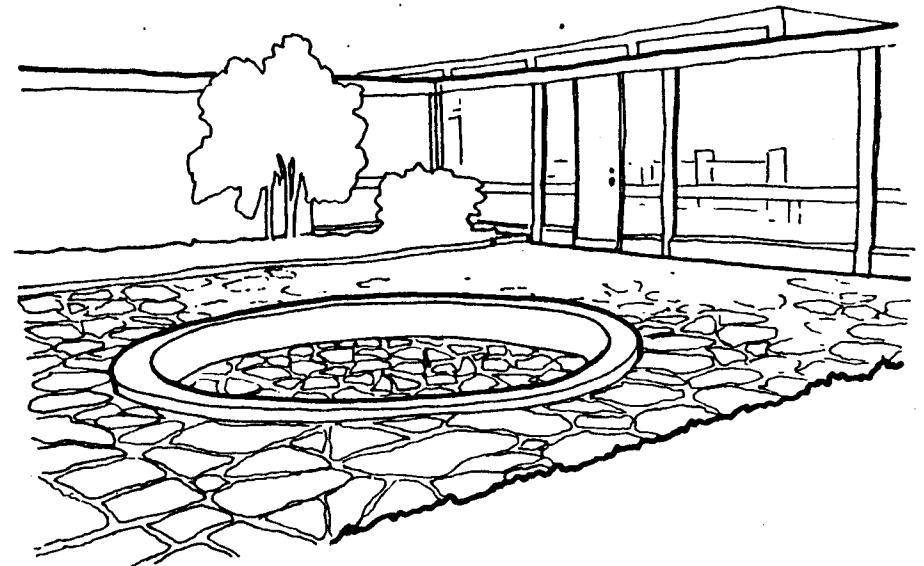
PARKSIDE : FORUM

THE FORUM IS OFTEN USED
INFORMALLY BY STUDENTS
FROM SURROUNDING CLASSROOMS



PARKSIDE : COURTYARD

LOWER GRADES COURTYARD.
THIS AREA WAS NEVER USED



MULTIPURPOSE ROOMS/GYMS

The two earlier schools (1962, 1966) have multipurpose rooms - a combination gym, cafeteria, assembly space, etc. The Smith and Mount Healthy Schools have separated the gym and cafeteria functions.

At the Parkside, Smith and Mount Healthy Schools the multipurpose room or gym is removed from the center of gravity of school activities; however, at Richards it is literally and figuratively (in size, location, accessibility and form) the center for activities. We attempted to test if this powerful concept was viable. We also examined the multipurpose room concept vs. the separate gym and cafeteria.

Performance Required: Provide an area to be used for

Physical education
a cafeteria (multipurpose room)
events and assemblies

Method: See "Functional Areas-Methods". Only the Richards (central multipurpose room) and Smith Schools (remote gym) were observed on a regularly sampled basis. Questionnaires and interviews were also used.

Analysis: Since the observational data was collected during April and May, months of mild weather in Columbus, Indiana, this would have an effect on the amount of physical education activities. However, the diminished activity should be equal in both facilities.

Both areas were being used during just over half of the observations. The uses, however, were very different. At the Smith School physical education activities were being held each time, with one exception.

At Richards only 2 of the activities observed (20%) were physical education - others were groups working with teacher aides (40%; 4 times), and rehearsals and dramatic activities (30%; 3 times). The dedicated nature and removed location of the gyms at the Smith and Mount Healthy Schools both contribute to their single use as physical education facilities.

The Parkside and Richards Schools multipurpose rooms are neither dedicated nor as removed as the more recent schools. Each is used as a cafeteria and furthermore, Parkside uses the stage area, opening onto the major space, as a music classroom. The cafeteria function does inhibit physical education activities due to the set up of cafeteria tables during the morning and their removal and clean up during the afternoon. The acoustical quality of these multipurpose spaces (see Technical Factors - Acoustics) is another obstacle to the use of this room for gym activities.

Findings: The data does reflect these attributes. The Richards multipurpose room, while not supportive of gym activity is supportive of ad hoc small group activities. Its proximity to classrooms, the availability of the cafeteria tables during non-cafeteria hours and the relatively satisfactory acoustics for smaller, quieter activities does occasionally attract small groups of students. This, we believe, indicates the need for group activity spaces and not the particular success of the multipurpose room for this purpose.

The separate gym seems more successful. To provide a minimum P.E. program for the eighteen classes in each school, a fulltime area is necessary. Our data seems to indicate that a separate gym is used for that purpose.

LIBRARIES

Each elementary school examined in this study has a school library - though the earliest, the Parkside school, originally didn't have one (see 'Growth and Change'). In each school the relationship between the classrooms and the library is different and this may have some effect on the way this area functions.

- At Parkside, the Library is located in the center of the upper grade wing and is easily accessible from all classrooms in that area.
- At the Richards school the Library is located in the administrative wing and is not easily accessible from any classroom.
- At Smith the Library is separated from the classrooms by two levels.
- At the Mt. Healthy school the Library is central to all classroom areas and accessibility is easy if not mandatory - the major corridor 'spine' in the school goes through the 'open' library.

In this school system four schools share a librarian - the librarian is in each school only 3 days every two weeks. At other times, library aides and parents staff this function.

Performance Required: provide access to books, sufficient book storage, seating and desk room and a librarian's area.

Method: see "Functional Areas - Methods".

'BUILDINGS IN USE' STUDY

FUNCTIONAL AREAS

D-9

Analysis: The first indicator explored was the amount of use the library received.

LIBRARY USAGE		P	R	S	M
TIMES OCCUPIED/TIMES OBSERVED		16/18	15/18	13/18	9/14
PERCENTAGE OCCUPANCY		89%	88%	72%	64%

The pattern above is not revealing in relating library usage to classroom proximity.

The following data indicates the type of group using the library. Independent groups were informal, small groups who were not part of a larger formal library use group. Large groups were part of teacher organized activity.

TYPE OF GROUP		P	R	S	M
INDEPENDENT GROUPS OBSERVED		22	9	7	5
ORGANIZED GROUPS OBSERVED		4	9	7	9

The libraries differ substantially in the type of group using this area.

Findings: The proximate location of the library at the Parkside school combined with the need to conduct small group activities outside of the classroom proper has made the library (and the Forum too!) actively used for this purpose. Its role, in terms of small groups meeting, is that of the multipurpose room at the Richards school though, of course, it physically supports these small group activities much better. In the lower grade wing at Parkside the corridor often contains these activities lacking alternatives (see "Functional Areas - Corridors").

At Richards and Smith schools the libraries are used in more traditional ways - the more remote location makes independent ventures by students more rare. At Mt. Healthy school the library is most used by class sized organized groups and least by independent groups. This may well be because of the open nature of the classroom areas where there are many areas where small groups can meet. However, the large amount of organized large groups seems at variance with the school's philosophy.

SCHOOL SECRETARY AREA

At the elementary school studied there is a school secretary. This individual's responsibilities include answering phone calls, school attendance, correspondence and reception.

At the Mt. Healthy and Parkside schools the secretary's area is at the entrance, easily visible and accessible. At Richards it is near the entrance but not visible from it; at the Smith school it is far removed (3 levels) from the entrance.

Two major patterns were examined - the role of this individual (and area) in the school and which environmental attributes affected behavior in this area.

Performance Required: The school secretary provides the following services:

- receptionist
- school correspondence
- school attendance
- phone answering

Method: See 'Functional Areas - Method'. Insufficient data was collected in this area at the Mt. Healthy school. In addition, at one of the schools, the secretary tabulated her tasks on two typical days.

Analysis: The school secretary's area is always occupied by the school secretary who, in addition to the above tasks, is involved in other activities:

- sells lunch tickets
- cares for sick students (nurse is shared with another school)
- sells school notebooks, pencils, etc.
- distributes mail
- handles public announcements
- duplicating

The location of this room and the amenities provided may even determine additional uses of this area:

Parkside: Immediate proximity to classrooms and the need for activity space outside the classroom allows students to work in the school secretary/entrance area. In over half our observations groups of students - usually with a teaching aide - were working in this area on a folding table.

Richards: The school's duplicating machine, supplies and comfortable seating are located in the school secretary's area. A great deal of teacher activity takes place here! In 13 of 15 observations of behavior this area contained teachers either preparing material or having discussions. Note that Parkside had no teacher activity in this area.

Smith: Virtually no student or teacher activities in this area. It is separated vertically and horizontally from classroom areas and contains no seating or work areas for teachers.

Findings: The location of the room and the amenities provided determine the 'personality' of the school secretary area. Even minimally it is the 'hub' of the school containing mailroom, supplies and much of the student commerce in the school. This can be further reinforced however, as seen at the Parkside school where student work can occur at Richards where teachers prepare material and exchange ideas.

The entrance areas at the Richards and Smith schools - where the secretary is not located in the entrance - do not have amenities or the location to reinforce behaviors. Occasionally displays are present but we did not see but one activity in either of these spaces in any of our observations.

CIRCULATION AREAS

During our reconnaissance of the four schools we noted that their major circulation areas were liberally used for non-circulation activities. These areas, then, originally intended for only circulation, attracted our attention and were added to the previously designated 'functional areas'.

The layout of these circulation areas varies considerably between schools: (see diagrams, p. D-17).

At Parkside, circulation is split in two separate wings (upper and lower grades) and each wing is again split - into north and south corridors

At Richards, circulation is split in two, serving upper and lower grades. Because of the classroom layout 6 'stub' corridors are created each serving only one classroom.

At the Smith school the enclosed ramps form the major circulation path which is a rising spiral. At each level the ramp opens onto a larger glass encased 'node' off of which branches a corridor serving 6 classrooms (2 grade levels).

At Mt. Healthy school a single corridor 'spine' serves the entire school. Most school activities are partially open to the spine or visible from it. The spine includes two large niches one of which is used as a portion of the library.

These circulation areas were examined to determine to what extent uses other than those originally intended occurred in them.

Performance required: Circulation area for the school

Method: See 'Functional areas - Methods'.

Analysis: Usage for non-circulation activities was quite high in all of the schools. Yet these are optional activities and these circulation areas do not contain supports - lighting, furnishings, finishes - for these activities.

CORRIDOR USAGE

	PERCENT OF OBSERVATIONS OCCUPIED (non-circulation activity)
PARKSIDE	
LOWER GRADES CORRIDOR	61%
UPPER GRADES CORRIDOR	45
RICHARDS	
LOWER GRADES CORRIDOR	27
UPPER GRADES CORRIDOR	0
STUB CORRIDOR	52
SMITH	
LOWER GRADES CORRIDOR	33
UPPER GRADES CORRIDOR	44
NODE - LOWER GRADES (1-2)	27
NODE - MIDDLE GRADES (3-4)	16
NODE - UPPER GRADES (5-6)	39
RAMPS	0
MT. HEALTHY	
SPINE	44

The number of groups using each corridor was small. In 83% of the observations a single group of children was present. The number of children per group was also quite small - of 83 groups observed 29 (31%) were of a single student; 30 (33%) consisted of 2 students in a group; and 11 (12%) consisted of a three student group.

In most of these groups the students were doing 'pencil and paper' activities (42%) or working together (34%). A further 16% were working with 'materials' - cutting, pasting, drawing. In other words, more passive class associated activities predominated.

Within each school specific circumstances determined differing frequencies and types of use.

Parkside: The lower grade corridors are more frequently used than those in the upper grade wing. As previously noted, the upper grade wing has the library and forum (p. D-8 and D-2) which are often used for small groups. The lower grade wing, lacking these facilities, uses the corridors more extensively. In the lower grade wing, only 3 classrooms share each corridor providing more seclusion than the corridors for the upper grades where 6 classes open onto this area.

Richards: Richards corridors are the least used. Each of the two major corridors is shared by 9 classrooms and is easily visible from the school's entrance area creating a 'public' quality. It also lacks the variegation which the niches at Parkside provide.

One particular 'stub' corridor is quite active. It serves a number of classes as central storage for programmed learning material which is heavily used.

Smith: The ramps are not used for non-circulation activity, however, the nodes and the branch corridors to the classrooms frequently contain small groups.

While the ramps are busy with circulation, the nodes create eddies and backwaters in this main circulation path which are not disturbed and do get some measure of activity. The upper grades 'node', by far is the largest, (approximately 441 square feet of usable space), gets the most activity - in 39% of our observations it was occupied by small groups of students. The other nodes (295 square feet and 233 square feet of usable space) are not large enough to become as removed from the major circulation.

The classroom branch corridors are independent of the main spiral circulation. Shared by only 6 classes which are team taught, these areas are often used by small groups notwithstanding the inadequate lighting and small area (the corridor is only 8 feet wide).

Mt. Healthy: The spine at Mt. Healthy is used for non-circulation activities though not as much as in the other schools. As noted in 'Functional areas - Library' (p. D-8), this lesser use may be the result of the rather adequate areas, in quantity and type (places where small groups can exist independently while being proximate to teachers and class area) which exist in the teaching areas.

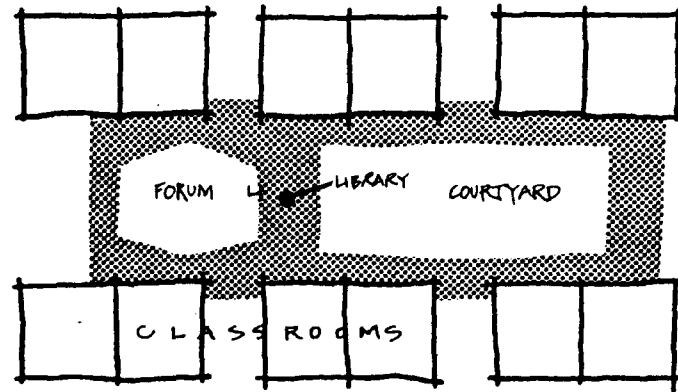
Findings: The extensive use, compared to the original intentions, of non-classroom areas, especially circulation areas with their attendant environmental difficulties, indicates a real need for attached ancillary areas near the classroom.

The use of circulation areas seems to be determined by the proximate location of such areas to classrooms and by their privacy - or the number of classes which share it and its removal from public scrutiny. Unexpectedly, it's environmental conditions - these areas are not furnished, some are not carpeted, inadequate lighting and acoustical conditions prevail - seem no barrier to their use though the detrimental conditions may inhibit a greater frequency of usage.

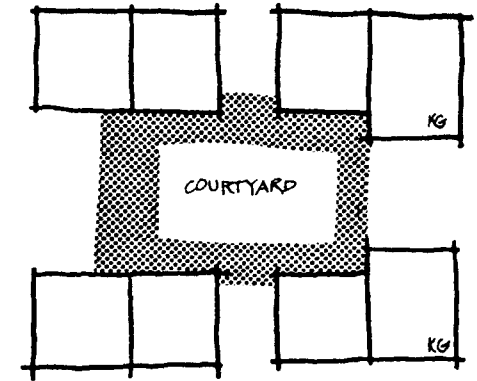
'BUILDINGS IN USE' STUDY

FUNCTIONAL AREAS
D-17

CIRCULATION DIAGRAM :
PARKSIDE SCHOOL

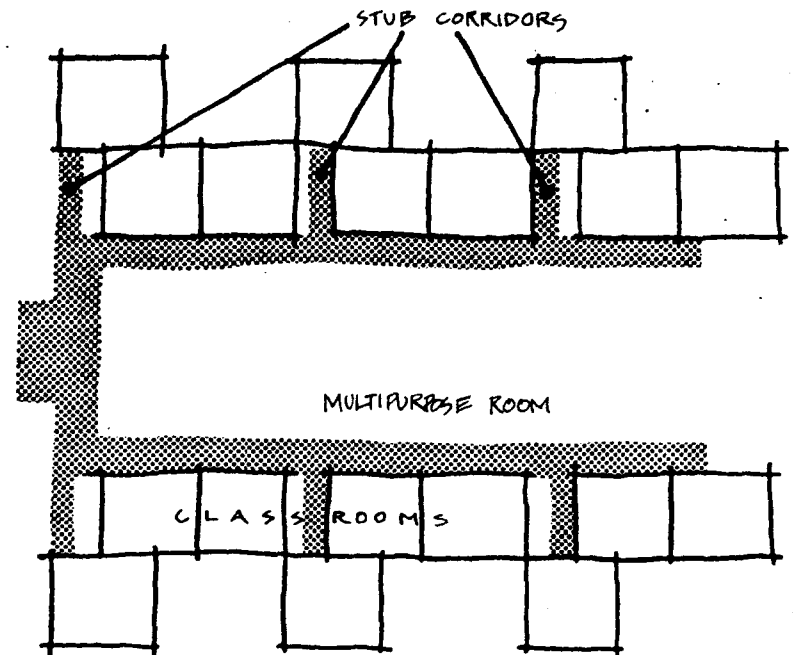


UPPER GRADES WING

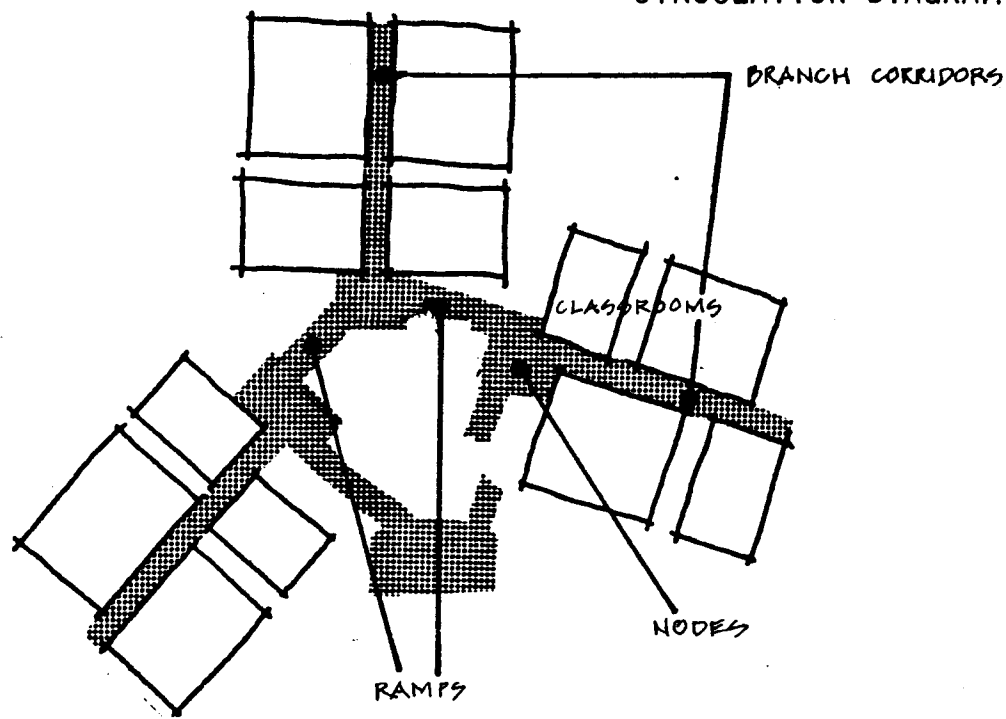


LOWER GRADES WING

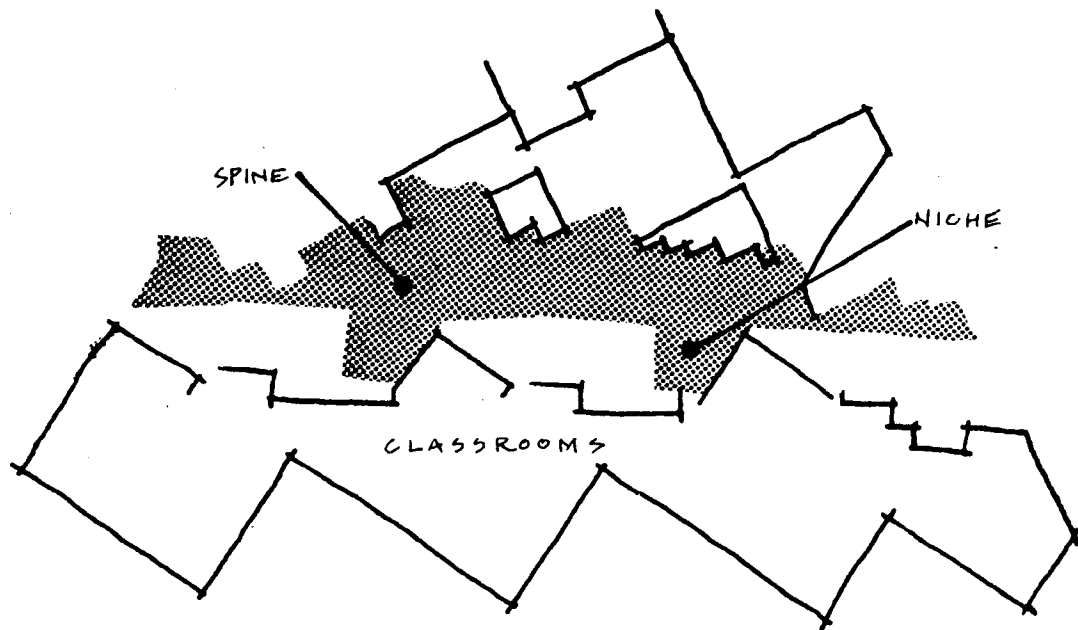
CIRCULATION DIAGRAM : RICHARDS SCHOOL



CIRCULATION DIAGRAM : SMITH SCHOOL

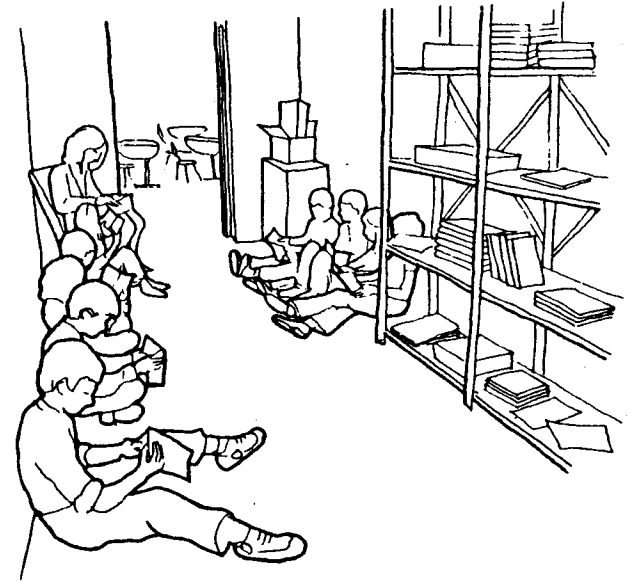


CIRCULATION DIAGRAM : MT HEALTHY SCHOOL



RICHARDS SCHOOL : STUB CORRIDOR

PRIMARILY USED FOR 'ACTIVE STORAGE' OF PROGRAMMED LEARNING MATERIALS. HERE A TEACHER'S AIDE USES IT TO DO READING WITH A GROUP OF 9 STUDENTS.



SMITH SCHOOL : NODE

A TEACHER'S AIDE IS USUALLY AT THE DESK AT THE UPPER GRADES NODE. STUDENTS IN THE REAR ARE INDEPENDENTLY DOING CLASSWORK. NOTE STORAGE.

