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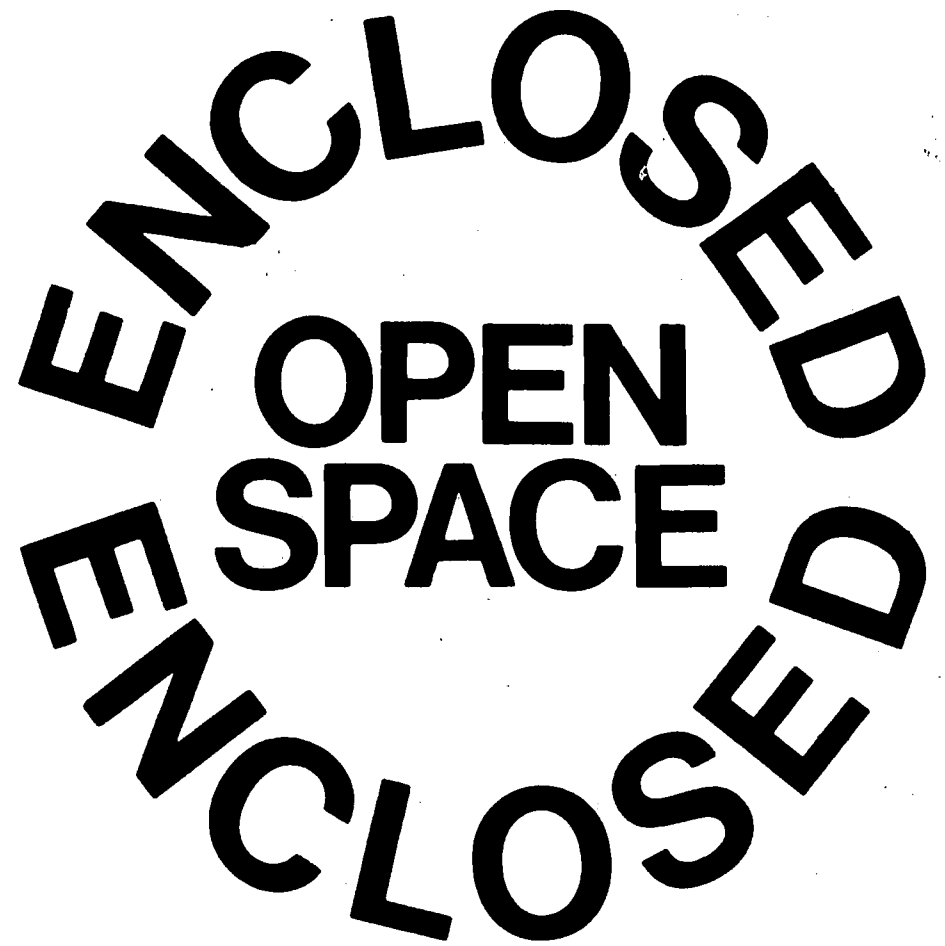
ABSTRACT

The physical environment has been the focal point of many recent innovative changes in educational facilities. Public acceptance of open space schools as a response to changing educational philosophies has generally been favorable. A problem, however, is not the planning and construction of new schools, but the modernization of existing ones. A major concern is treating the classrooms in such a way that they enhance and encourage an environment similar to that prevalent in open space schools. Suggestions are given in text and illustrations. (Author/MLF)



APPLYING OPEN SPACE TECHNIQUES TO SELF-CONTAINED CLASSROOMS

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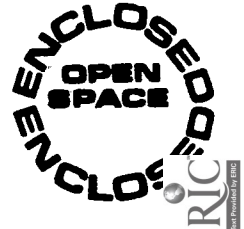


Children seemingly have a natural thirst for knowledge and understanding of some aspect of the world in which they live, and very early they begin to "educate" themselves by listening to, observing, and imitating others. In their play they busy themselves with illustrating their daily experiences, and if they should happen upon something beyond their understanding they question their family and peers. During this natural process, they are not aware that they are learning, but rather pursuing their interests and communicating with others.

When it is time to begin school, many children are confronted with a new experience. They become aware that there are more things in the world to know and understand than they had ever imagined. But along with this new exposure come restrictions on those freedoms which facilitated their early learning experiences. An emphasis is now placed on learning that has been predetermined, and to insure achievement within a given period of time, they are taught; drilled and tested until they have proven to be at a prescribed level of achievement. Often times, very little is left to the natural thirst which inspires their imaginations.

A child will learn in any given circumstance, but what he learns is heavily dependent on the environment of that situation. Children who are free to seek, explore, discover, dream, perceive, fail, relax, and play, are more likely to derive a greater amount of knowledge from a given situation than those who are restricted by inflexible conditions, for they are continuing a natural process of "self-education." They are communicating with their peers about the portions of the world to which they are exposed. They encourage each other and share their accomplishments,

defeats, and discoveries. Such an environment is not dependent on any physical space, in terms of configurement or furnishing. What is required is a spirit on the part of both teachers and students which will encourage self-motivation to fulfill the natural desire to acquire and make use of knowledge and understanding. The teacher can encourage this spirit with emphasis on respect, trust, and honesty in dealing with the students as individuals. The students on acquiring this spirit are likely to gain that self-confidence which will enable them to continue their natural "self-education" process.

This is not to say that a child left alone to learn in even a stimulative environment will acquire those skills educators deem essential for the future pursuit of knowledge. Certainly, teachers who are understanding and sensitive to the child's needs, are essential for guidance and provision of resources for the child. But in a learning situation in which instruction is individualized, it is almost impossible, student/teacher ratios being what they are, for a child to have the constant attention of his teacher(s). Hopefully, proceeding at his own pace, he can be so stimulated by his environment as to continue in those general directions seen beneficial to him by his teachers, and within that given framework, feel free to explore other possibilities on his initiative.

Thus accepting the necessities of a teacher's guidance and the spirit of self-motivation as integral parts of a child's learning process, the physical characteristics of the space in which they must function should also contribute to this "total environment." Physical environment has indeed been the focal point of many recent innovative changes in educational facilities. In attempts to optimize resources, the physical school plant in

addition to housing educational programs, must also contribute and play a large part in the natural growth and operation of its various activities. Open space schools are examples of a valid means of providing such facilities. Most of them are capable of housing changing educational programs and at the same time respond to the needs of both teachers and students on an individual basis. Restrictive walls have been removed and flexibility has been built-in to allow for changes in educational specifications and the specific immediate needs of those occupying the space.

The public acceptance of open space schools as a response to changing educational philosophies has in general been very favorable, such that most schools planned for construction in the future will be some adaptation of open space. A problem, however, is not the planning and construction of new schools, but the modernization of existing ones. As a result of the post-war school population boom, many cities have an abundance of "eggcrate type" buildings consisting of rows of classrooms on either side of a corridor. These structures built during the 40's, 50's, and 60's are generally in good physical condition and make justification for replacement economically unfeasible. Modernization is the probable solution but economics also dictates an extremely slow process. The presence of new schools housing innovative programs in a city-wide public school system has caused a tremendous inequality in the progressive level of education received by all students. While public understanding of variations in programs during a transitional period is a necessity, it is desirable that reasonable and immediate measures be taken that will help

minimize these variations to a level of acceptability whereas no child will be penalized by his attendance of certain schools.

The challenge thus becomes one of accepting the classroom building, walls and all, as a facility which must house a more innovative educational program. There are already in existence programs for classrooms which utilize open space techniques and many of these involving team teaching efforts and the sharing of students and facilities, make quite an improvement on "single classroom" situations. But it is hoped that with the widespread realization and acceptance of the use of existing buildings, educators, administrators, teachers, and architects will work together in developing a total comprehensive concept for these buildings. Such development would entail searching educational philosophies, administrative procedures, and instructional methodology, but from a physical standpoint the major concern would be treating the classrooms in such a way that they enhance and encourage an environment similar to those prevalent in open space schools.

THE CLASSROOM

The classroom may be considered the basic unit of traditional educational facilities, and within its confines, a large portion of the educational process takes place. Its atmosphere is as varied as those students and teachers which occupy it, but in general, the nature of its activities and physical layout are very dependent on the curriculum/program and the grade level of the school. In secondary schools, classrooms may be considered as large interest centers housing one or two particular subjects, with students traveling to these different centers as their schedules dictate. On the primary level, students are normally confined to a particular classroom for the greater portion of the day. This does not overlook their travel to special reading, speech, art, and skill development centers, but these travels are only complementary to their normal learning programs. Presently, because of this restricted travel, an environment that is both aesthetically pleasing and contributes to the student's ability to retain his freedom to learn, is of special significance in the classroom on the elementary level. However, any educational program, new or existing, in a classroom building, even if it allows extensive travel and sharing of facilities, will still have to contend with the classroom as its basic unit of space. These rooms, with the exception of multi-purpose and all-purpose rooms,

libraries, and cafeterias, will be the largest available space for group assembly. It is possible that a particular program may dictate the complete absence of any divisions in several classrooms for this purpose, but in other classrooms, it is desirable that a variety of size and type spaces be available to the students for different activities. These assorted spaces will begin, of course, at a much smaller scale than those found in open learning centers, but with the use of furnishings and low partitions, many of the same effects may be achieved. Thus the classroom may be treated as a mini learning center with certain areas given to specific activities. Small interest centers may be set up with their size dependent upon what space will allow and the number of students that will be using them. The possibilities of how the space may be treated in the classroom are infinite but every classroom, whether it is divided or accepted as a large space should be alive with light, color, and resource materials which will inspire the children as they pursue their learning activities.

PHYSICALLY, . . .

Physically, a classroom is quite suitable for an open atmosphere. An average room is approximately 700 sq. ft. with high ceilings and one or two window walls for natural lighting. The other walls are usually fitted with chalk and tack boards, some of which may be removed. The elements that make a classroom, its walls, floors, and furnishings can all help to make a classroom a "natural" learning environment, if they are treated and used imaginatively. Such treatment, however, should bear in mind limited expense and the hope that most of whatever improvements are made can be incorporated into a general scheme if and when modernization does occur.

WALLS

The color and treatment of the walls can do much to set a basis for a bright learning environment. If looked upon as an additional learning surface rather than mere enclosures of space, walls can be treated acoustically, with texture, and with color to appeal to several different senses. Carpeting may be extended up the wall to provide extra comfort for those working on the floor. Cork may be applied for visual and sensual texture as well as serving a functional purpose. Paper applied to an entire surface may be painted by students for educational and decorative murals. These are only a few possible surface treatments for walls, but the basic categories are as follows:

COLOR

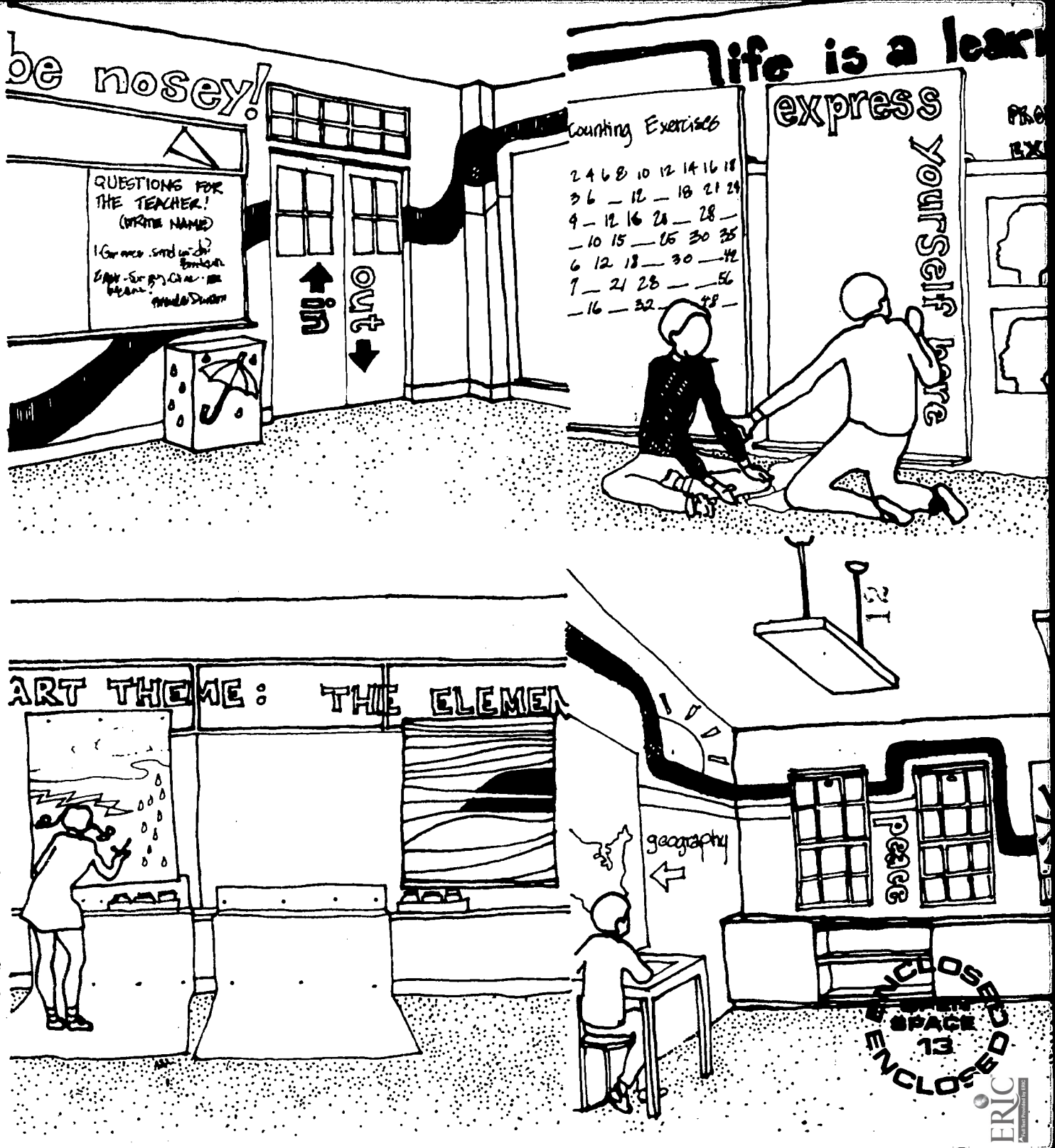
Walls painted a light bright color will help provide a lively atmosphere.

GRAPHICS

Graphics, (stripes, patterns, words) may be painted or pasted on as instructional tools or as decoration.

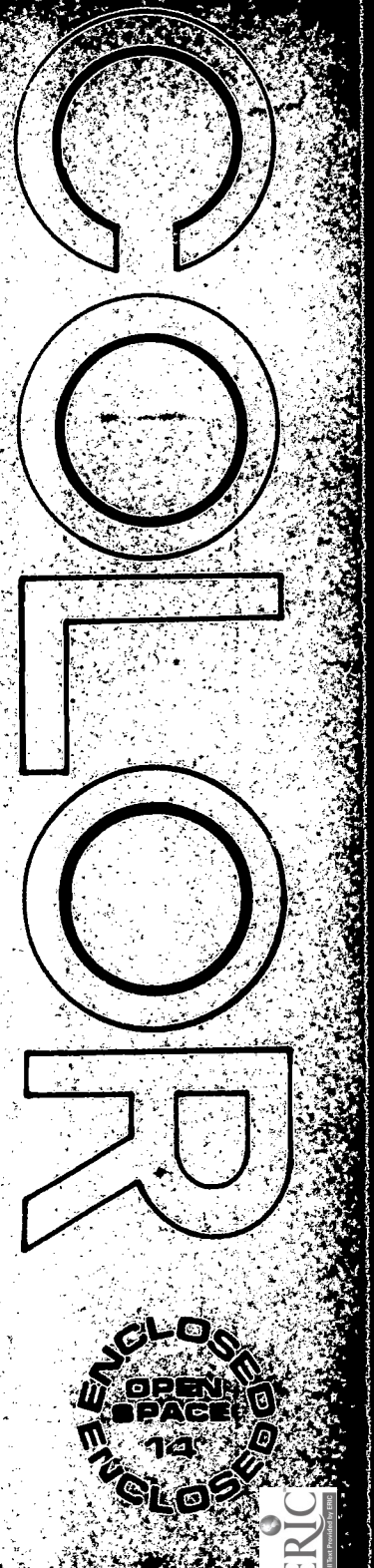
FUNCTION

Chalk and tack boards that are movable and extend to the floor transform the wall into another learning surface.



The presence of color in promoting a natural learning environment cannot be overstressed. Everyday we are exposed to a world full of natural colors whose intensities and hues constantly change with season. It is hoped that the artificial environment in which children spend so much of their time should be equally stimulating. A great deal of research has been done on the psychological characteristics of colors and how they effect the morale and productivity of people. Certain colors promote solemnity and depression while others promote gay, bright, and refreshed feelings. Others contribute to relaxation and feelings of peace while some are capable of producing tension and feelings of anxiety. Thus the mixture of colors used in a given space can contribute much to the establishment of a diversified environment. The walls in a classroom can be treated in such a way that their function as a container virtually disappears. If they are incorporated into active learning activities, or act as an additional surface on which to work, their permanent definition of space can easily be forgotten. In general, a light background color for walls is preferable, but if a classroom will be given mainly to the showing of films, and theatrical presentations, a dark color will make that space more functional. A classroom may also be more effectively divided into areas if instead of using one background color, several colors are used in defining these areas. The application of color to walls in forms of informational and decorative graphics also tends to de-emphasize the wall.

Color should be extended throughout the entire learning environment. Floors, furnishings, and equipment, should all be reflective of varied effects of color. Color can also be applied in a graphical sense such that it aids in defining function. All light switches surrounded by circles of yellow will easily identify that function for younger students. Similarly, water fountains, storage spaces, and other specific areas can all be identified with various colors. Thus color in addition to establishing a more natural environment can also become a functional and educational tool.



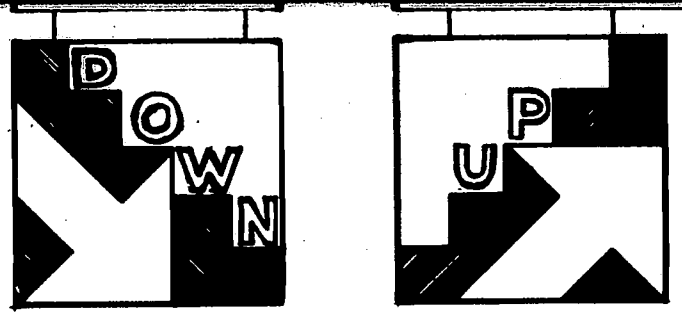
Almost every space in which children are expected to learn contains an assortment of directions and signs, the contents of which extend from daily procedure to permanent denotations of physical functions. Among the most common of these are exit signs, numbered classrooms, labled spaces according to subject, and the location of administrative offices. In addition to these directional functions, vivid, picturesque signs, or graphics, can provide conceptual as well as educational experiences, while establishing an environment that is visually exciting.

In late summer, most educational facilities undergo a visual transformation in anticipation of the coming school year. Designs appear on windows, bulletin boards, and chalk and tack boards, as teachers prepare for the arrival of the students. But how much more prepared would the environment be if the students instead of confronting fairly blase and dismal hallways were confronted with bold stripes and patterns, gay colors, and numerous assortments of directional signs. How much more relaxed would younger students be when exposed to a "lighthearted" environment rather than one seemingly austere and solemn. Thus the introduction of graphics into all areas of educational environment is encouraged. This includes walls in hallways, classrooms, and bathrooms, as well as floors, ceilings, and furnishings within these spaces. This use of graphics along with color in these areas can help define and organize the entire environment in such a way that it can be easily understood and used by students of all ages.

Everyone involved with an educational facility, from the architect to the students, can contribute to its graphical treatment. Those designations required by law such as exit signs and the location of fire extinguishers must be done by the architect in that city codes may dictate certain specifications. The architect may also be responsible for major area designations if they are to be a part of an overall comprehensive scheme. Students and teachers can add those graphics which help individualize and identify the spaces with which they associate themselves. Examples of these graphical applications are as infinite as the imaginations of those involved, but the following sketches will illustrate a few possibilities. These designs may be painted or applied with various materials depending on the desired permanence of the signs.

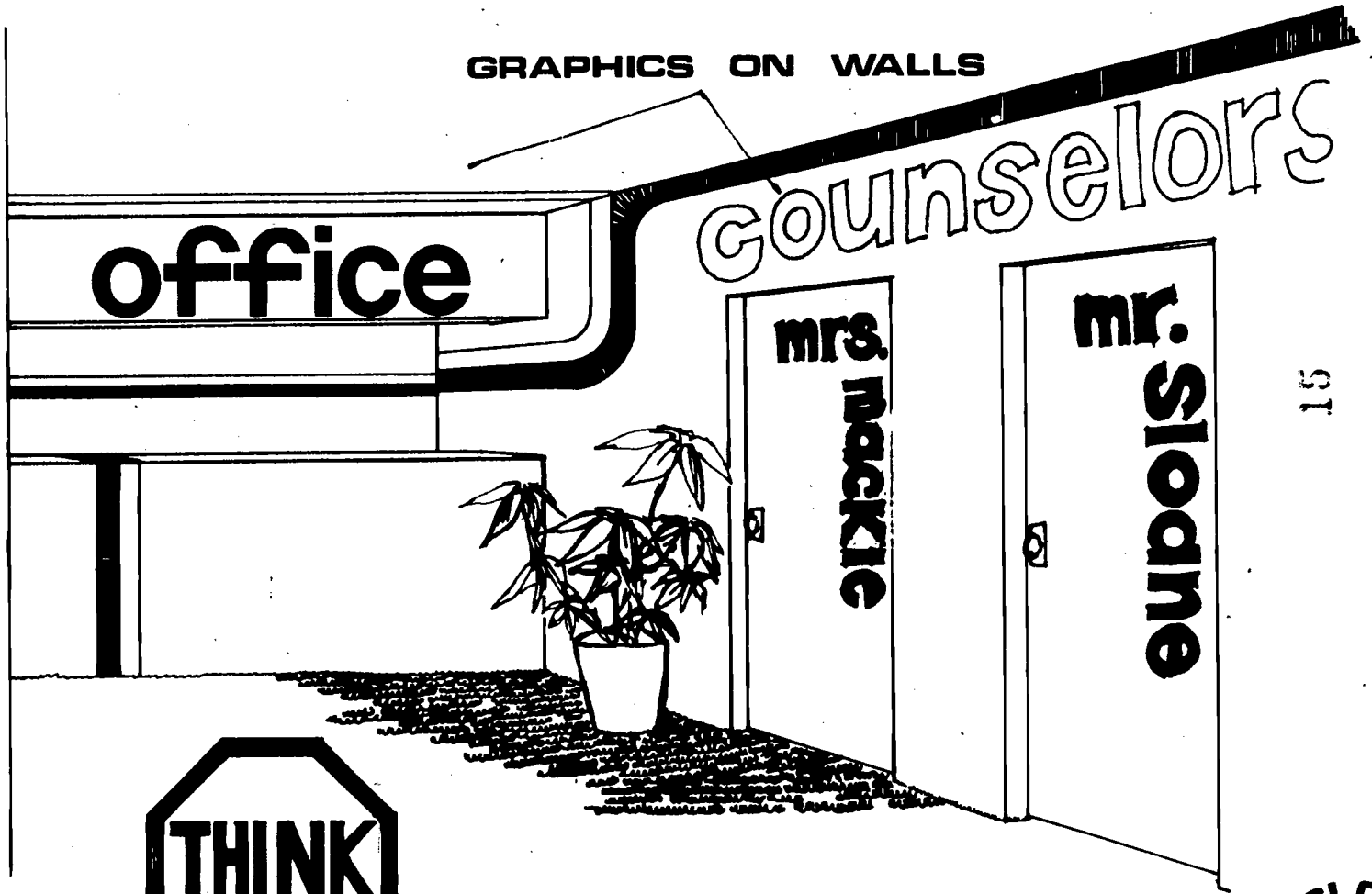
GRAPHICS

CEILING HUNG



DIRECTIONAL SIGNS AT STAIRS

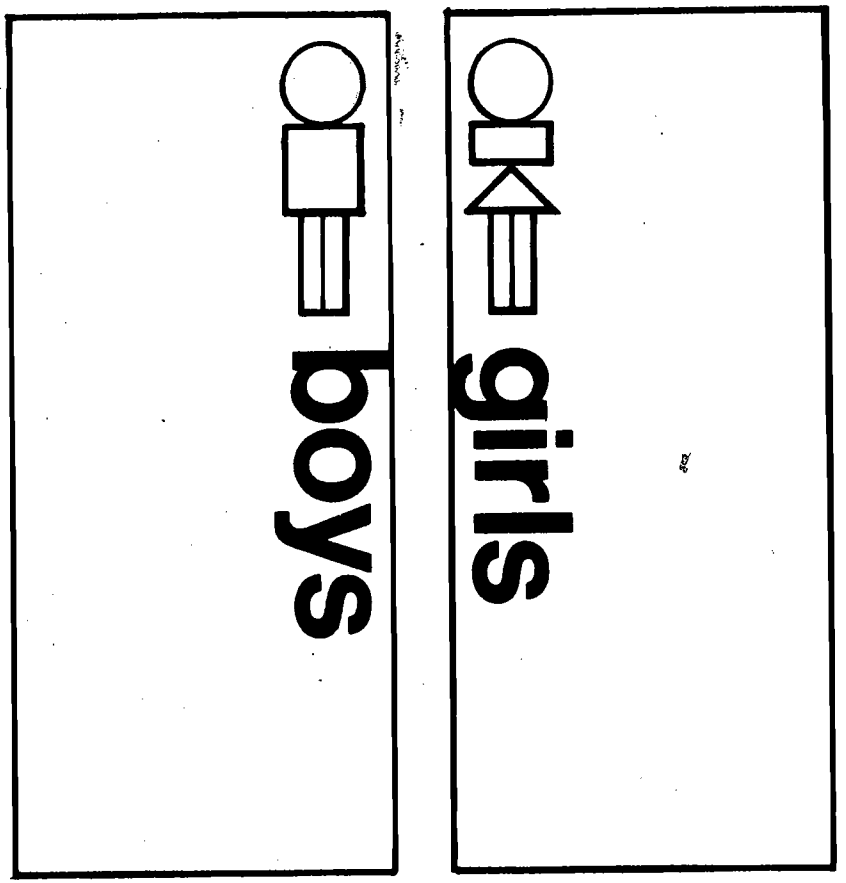
GRAPHICS ON WALLS



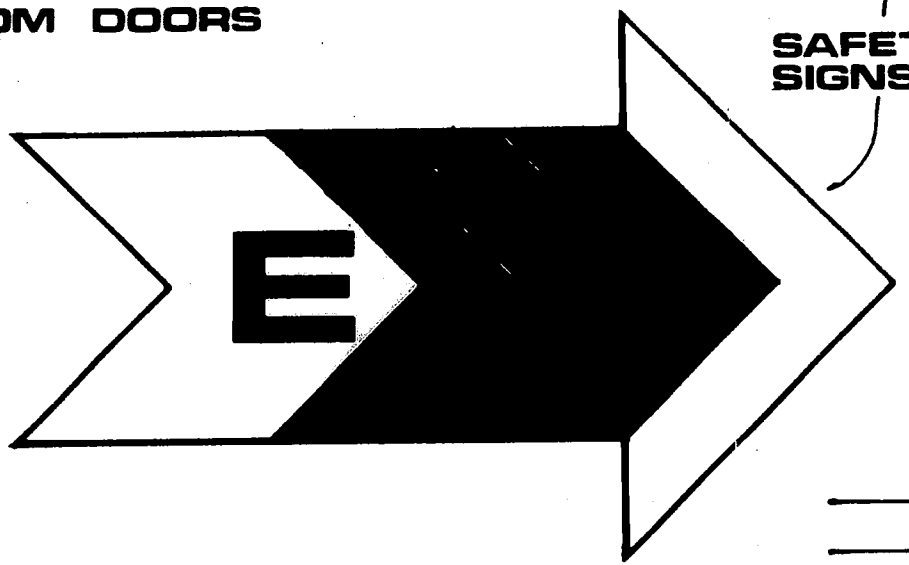
DECORATIVE SLOGANS

ENCLOSED OPEN SPACE 16 ENCLOSED

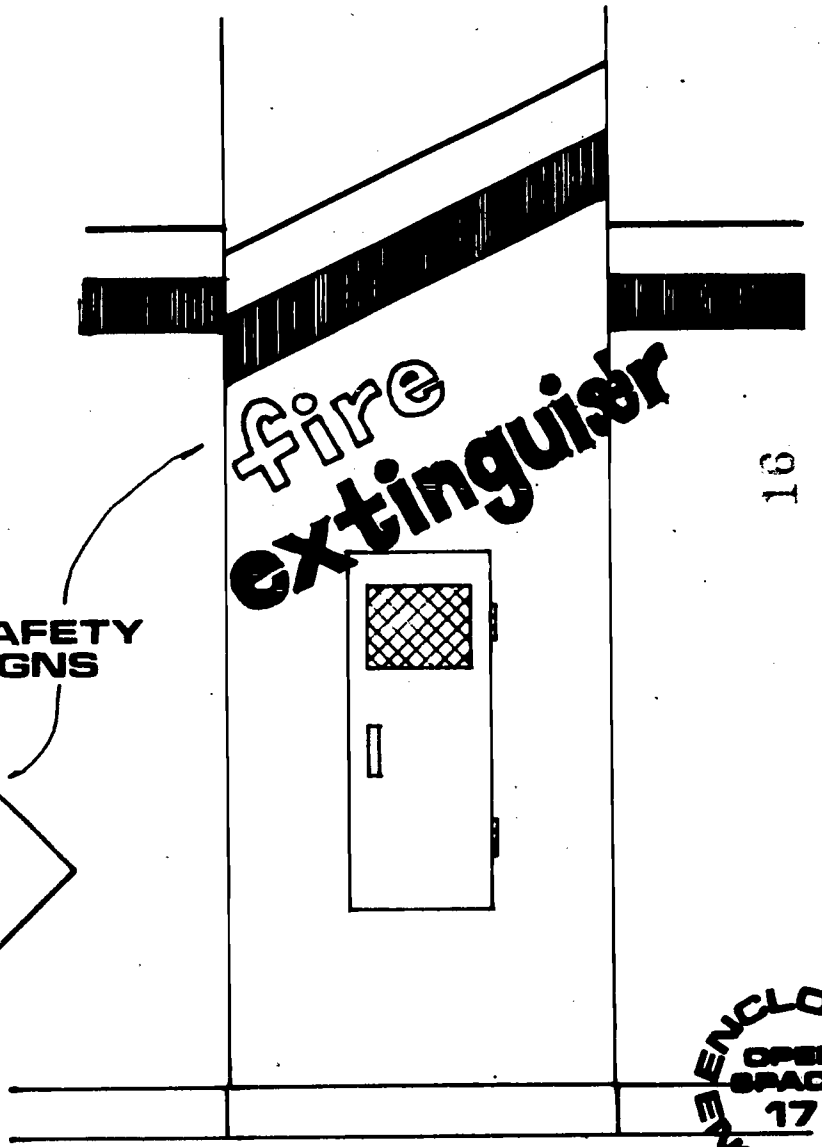
GRAPHICS



BATHROOM DOORS



SAFETY SIGNS



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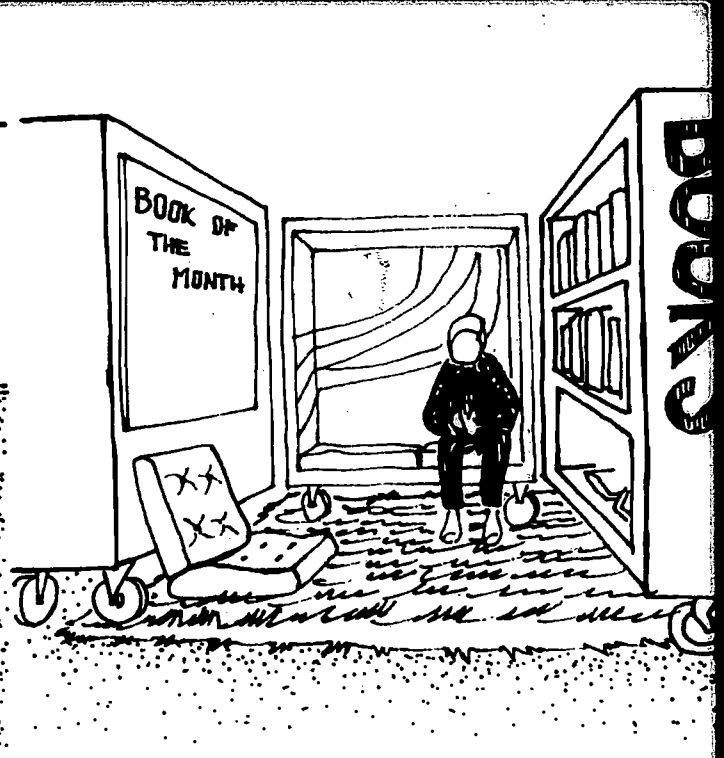
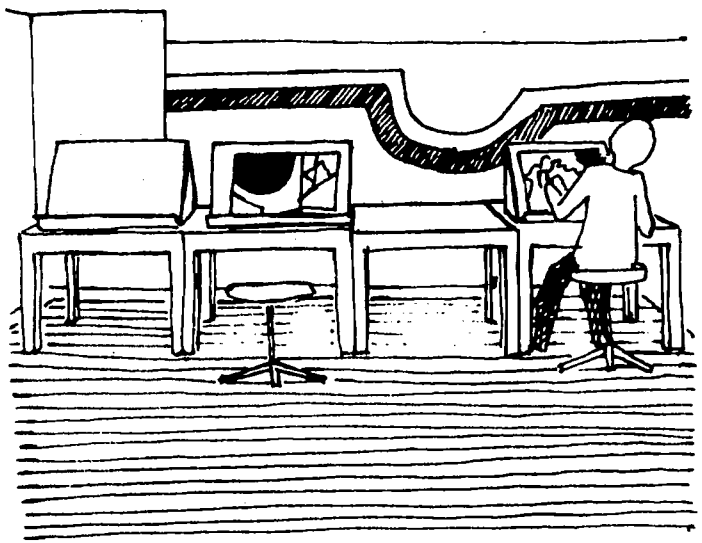
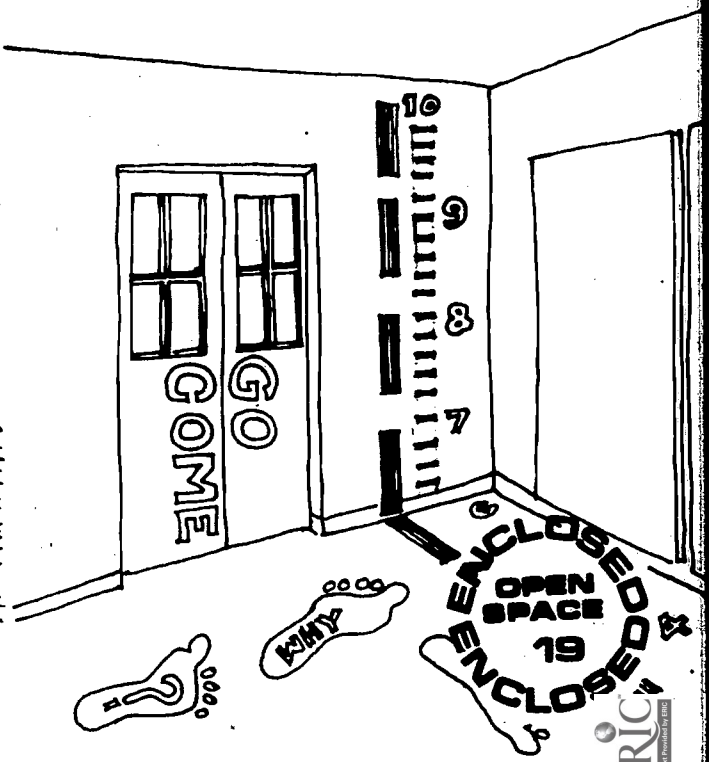
FLOORS

Floors in a classroom can encourage various learning activities. If they are hard and appear to be dusty, they are not very inviting and not likely to be sat on, or stretched out on in relaxation or in educational activities. Carpeting is very conducive to floor activities, and those which can be easily maintained help form a more comfortable learning environment. Throw rugs can be used with and without carpets to help define different types of areas, and floor tiles that can be mopped are desirable in areas where activities which require water and are considered "messy" take place. In some carpeted rooms, large pieces of plastic are used on top of the carpeting for these purposes. Different materials can also be pasted on bare floors for instruction and fun.







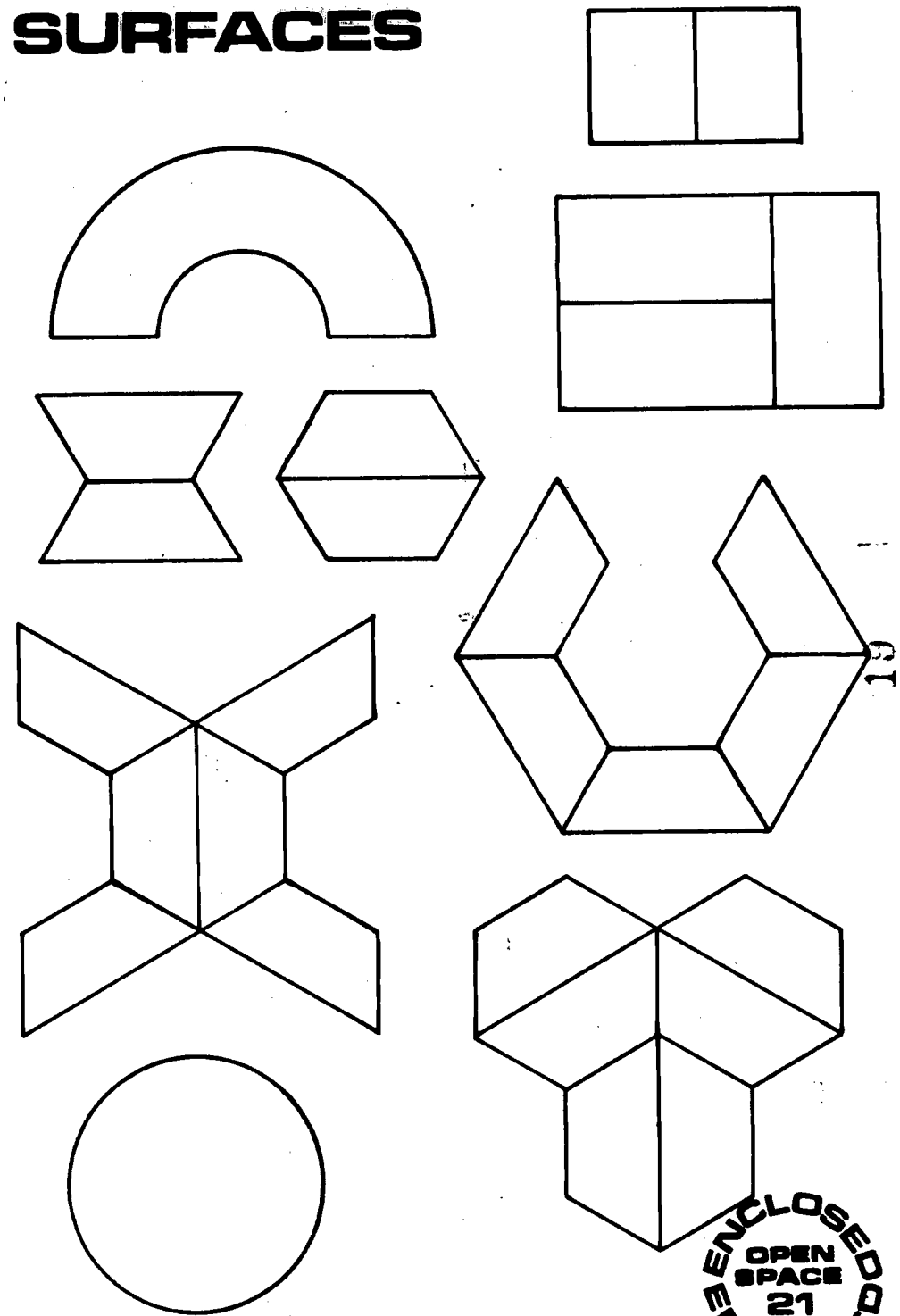
FURNISHINGS

An open classroom can make use of just about any available "classroom furniture." Teachers who have been operating "open" classrooms for years have made use of furniture supplied them by the school and other odds and ends which they or their students have brought in. But in general, the furniture is used differently. Every child is not necessarily assigned a desk and chair but rather, share the desks which are then considered general work areas. Other desks are grouped to form different interest centers which are often stacked with resource materials for numerous subjects. The increased amount of resources dictates a need for more storage space accessible to students, and indeed storage is one of the basic problems. There is a need for cloak storage for both students and teachers, personal storage for children's individual possessions, and storage for equipment and materials. All of this storage should be accomodated as efficiently as possible in terms of flexibility and consumption of space.

The purchasing of new furniture for the classroom should involve the consideration of the basic criteria for the selection of furniture to be used in open space schools. Although confined to smaller areas, the mobility and manipulative characteristics of furnishings are of equal importance. The very need to optimize on all available space makes those components which serve more than one function, have compatible dimensions with other objects, and can accomodate more than one age group, of greater value. In addition, those components which lend themselves to the establishment of different type and size areas, and can contribute to the visual atmosphere of the space, are preferable.

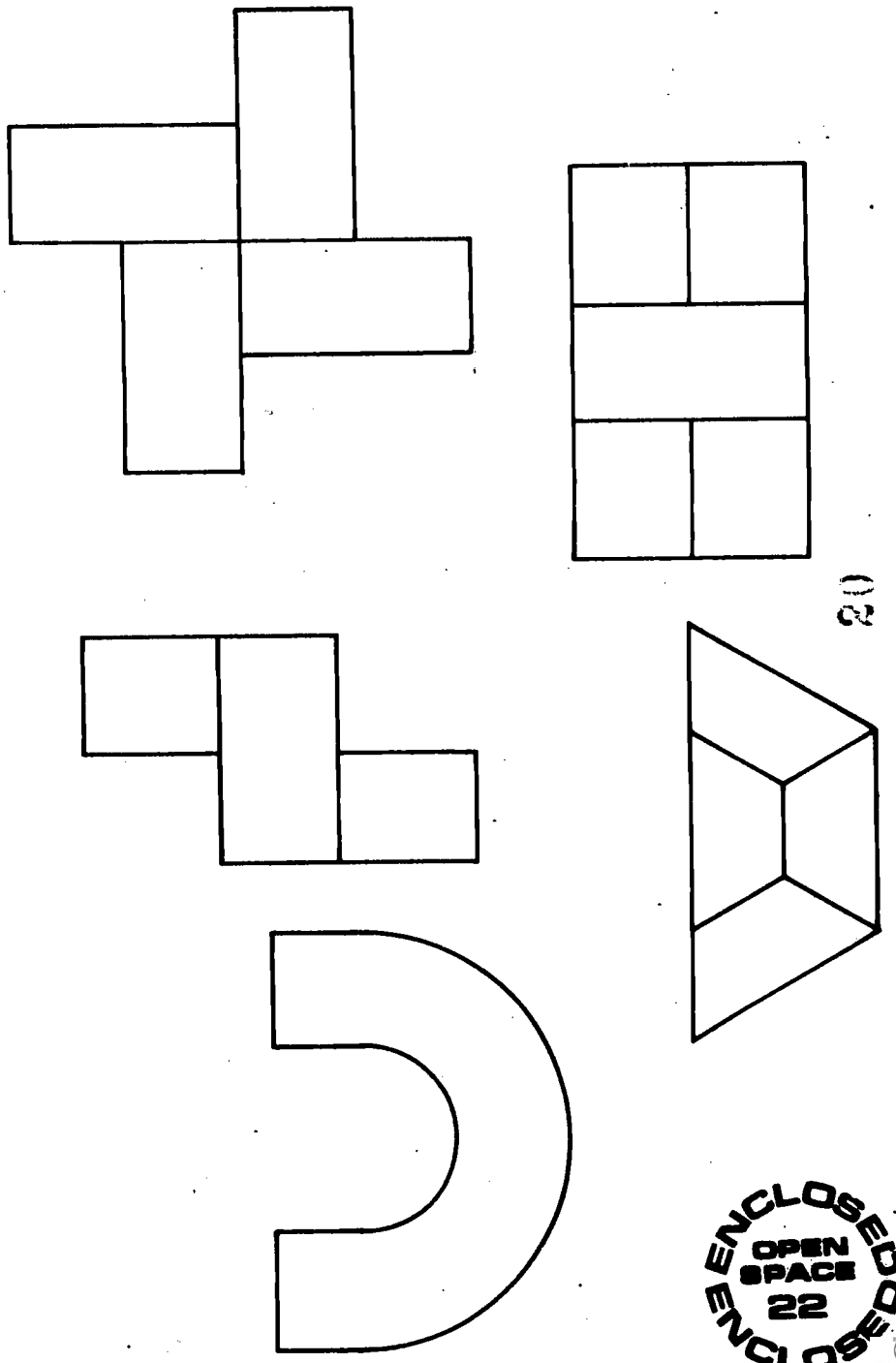
WORK SURFACES

Students should be provided with adequate work surfaces. Again, this does not imply that each child needs a desk, in that at any given moment the different activities in which the children are involved will have different furnishing requirements. Desks, of course, are the most common individual work surfaces and if they can be combined easily to form larger work surfaces for groups of children, they are even more useful. A desk, however, usually provides storage for a child's individual possessions. It is probable that such storage in an open classroom would be accomplished in tote trays of some kind since the desks would not necessarily belong to individual students. Also, the movement and varied uses of the desks would probably render storage inside the desk or a shelf underneath useless. It is therefore recommended that in a new situation, tables, rather than desks, would be more suitable. The shape of the tables is not especially important in that there are advantages to both rectilinear and other shapes such as the round, half-round, "U-shaped," and trapezoidal tables. The advantages of the round table are obvious. While it can seat one or two students comfortably, it is perfect for group activities. Trapezoidal tables lend themselves to numerous configurations which appeal to several

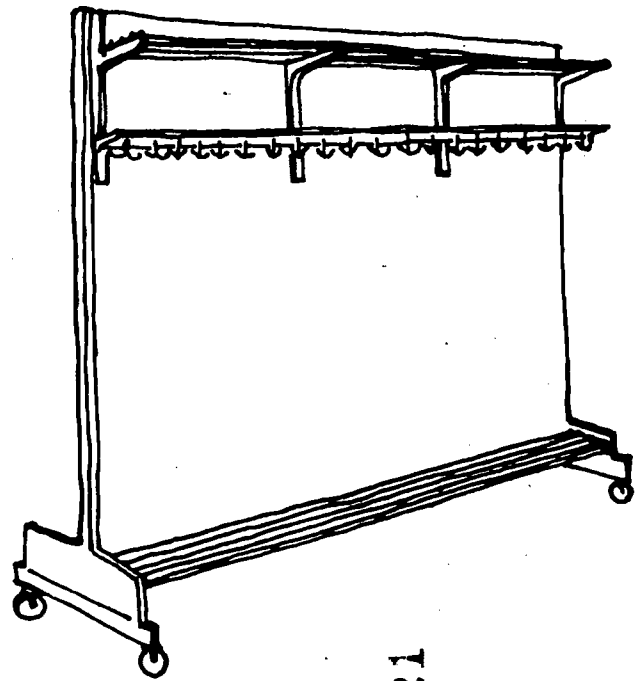


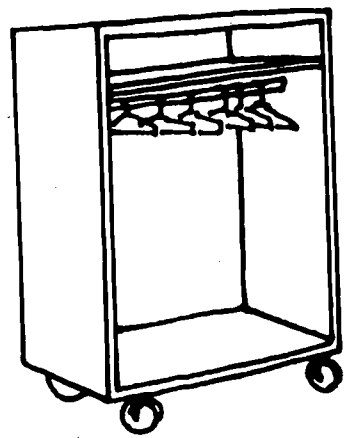
different type and size activities. They generally, however, cannot form right angles and thus do not work especially well in corners, or with curvilinear furnishings. The rectangular tables have the advantages that the irregular shapes do not and in general, work well in most classrooms. A variety of shape and size tables is advisable for the advantages that can be derived from them individually and in combination.

The floor must be emphasized as a work surface. At home or in casual activities, children naturally sit or recline on the floor. There is no reason why this informality cannot periodically exist in a learning situation, and when given this opportunity, most children do take advantage of it. For this reason, a large number of desks is not necessary. Therefore, especially in situations where the floor is carpeted or has rugs, children need a hard surface on which to write or draw. Small boards of hard plastic or masonite are very useful for work surfaces.



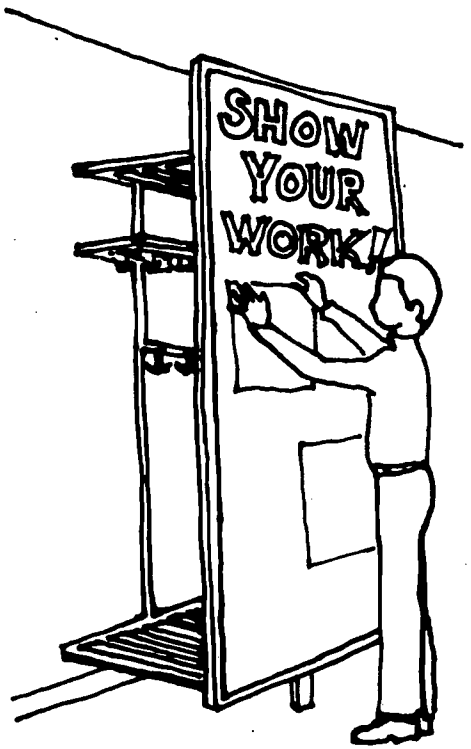
Storage of children's coats, hats, and boots has been accomplished by various methods. Many school buildings have cloakrooms adjacent to classrooms with shelves and hooks on the walls. This is efficient storage, and the collection of coats whose appearance is often considered "unsightly" is out of view of the classroom. Other schools have resorted to lining the hallways or an entire wall inside the classroom with lockers. Students, teachers, and educators have often decided that the space in the cloakroom is much too valuable to use for coats when it can be used for reading areas, teacher preparation, or skills development space. Walls that are covered with "unsightly" lockers could be better used for display and educational purposes. The coats which contribute very little to the educational process are then forced into the classroom into a less prestigous space. If the construction of the building will allow, it is sometimes possible to build cloak storage into the walls and have it covered with sliding chalk and tack boards. This is advantageous in that the wall surface is still usable and it places less of a demand for furniture occupying space in the classroom. But because space consumption is of utmost significance, if it cannot be built





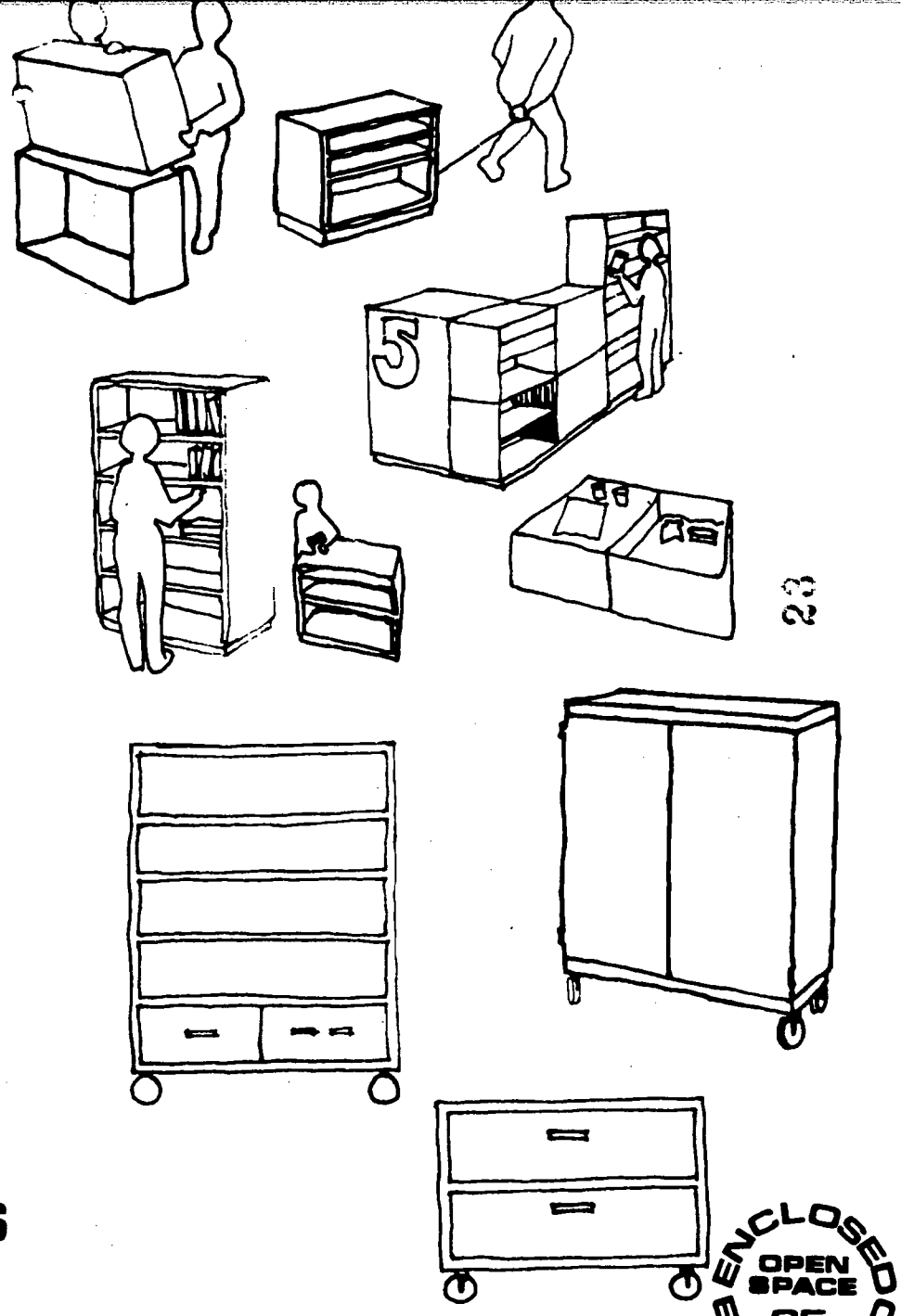
CLOAK STORAGE

into the walls, it is often combined with a furnishing that serves as a space divider or partition. Several manufacturers make portable tack and chalk boards with hooks and shelves on the reverse side. There are also cabinets with unremovable hangers which have chalk and tack surfaces on the back. These come with and without doors depending on whether the purchaser wishes the coats to be visually obscure. While cloak storage is necessary, roles that cabinets and partitions play in shaping the available space into assorted areas and providing additional learning surfaces are of equal importance and the dual functionalism is the type of efficiency fundamental in open classroom operation.



STORAGE

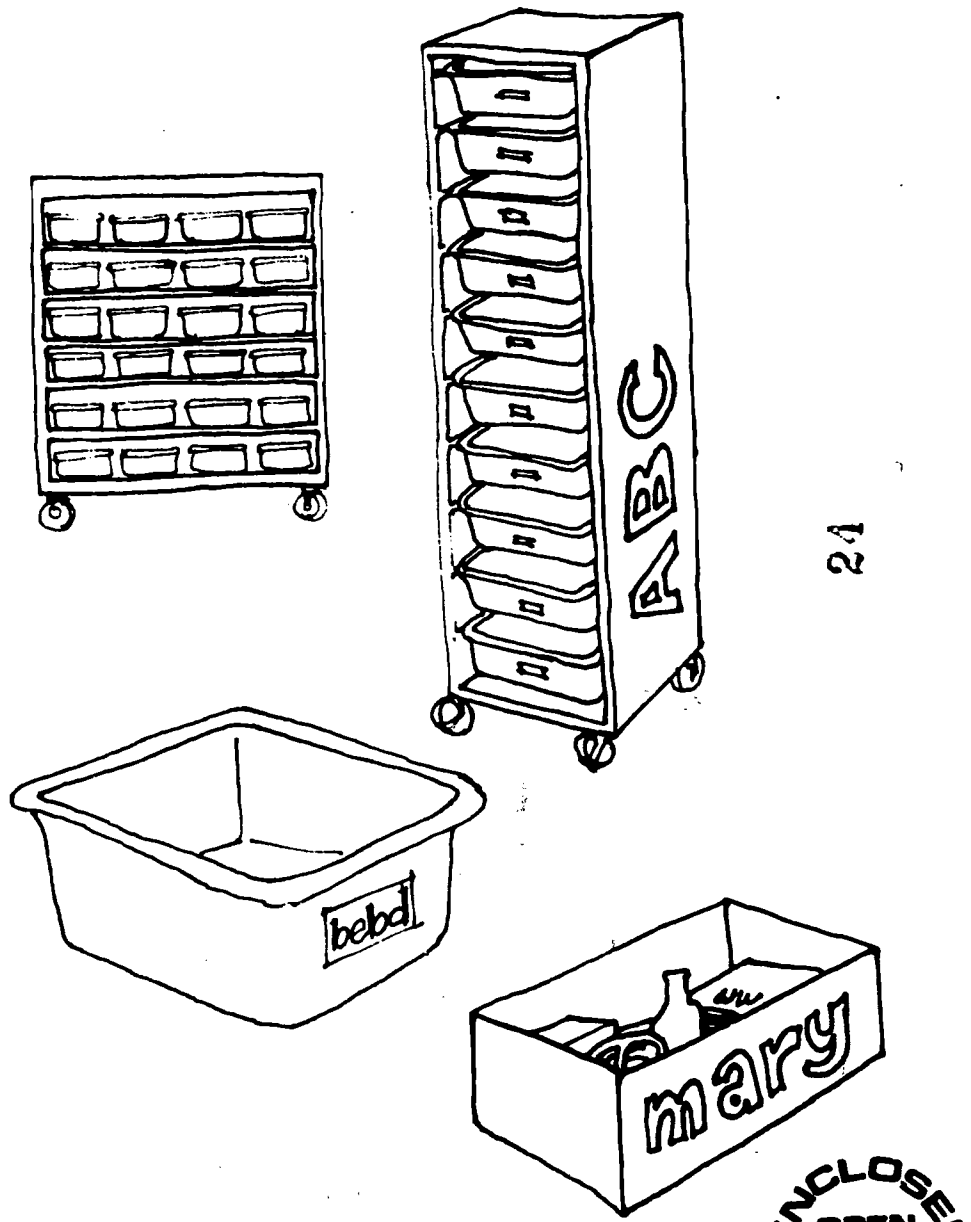
It is hoped that in the open classroom there will be a great deal of resource material readily available to the students. Such "abundance" dictates a need for shelving and drawers for small machines, and boxes of magazines, paper, pencils, crayons, games, etc. Shelving should also be provided for reading and reference books. Shelving and casework that is portable, and light enough in itself to be moved by one or two students is preferable. If the equipment is modular such that the drawers can fit into shelving, it can be stacked, or all the different components can work with each other, its possibilities in relation to the needs of the students and the space are even more flexible. The two systems illustrated to the right are both quite flexible. They are portable and many of the components work together in forming different arrangements.



EQUIPMENT AND MATERIALS

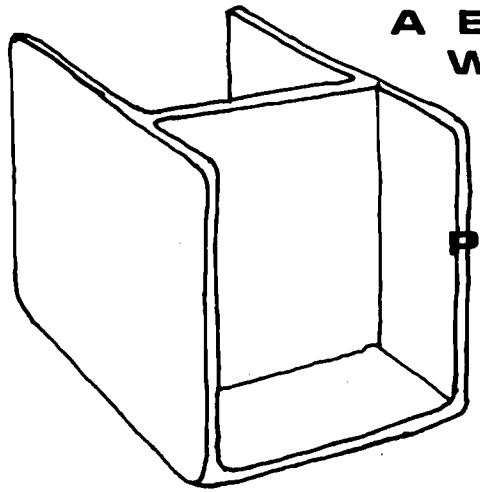
STUDENTS' INDIVIDUAL STORAGE

The individual possessions of children are normally stored in the desks. Because the children would not necessarily be assigned a desk individually, the storage of their equipment can be accomplished with some type of tote tray. These vary in size and design but most are plastic and can easily be carted around by the students. The trays are normally stored in cabinets which can then be used as a space modulator. There are several manufacturers of these items, but with a little imagination, items such as decorated shoe boxes, milk crates, and drawers can all accomplish the same thing.

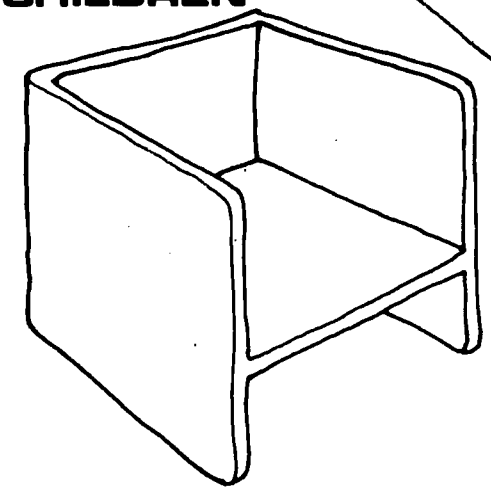


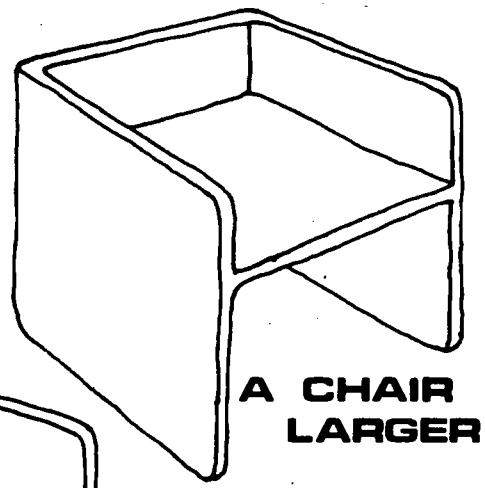
EDUCUBE

A BACK REST WITH CUSHIONS OR A LOW PROJECTION SCREEN



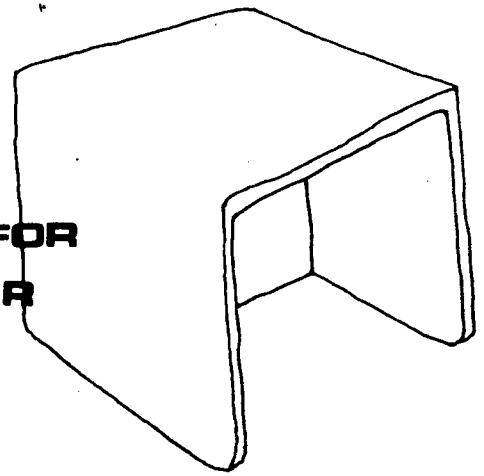
A CHAIR FOR SMALL CHILDREN





A CHAIR FOR LARGER CHILDREN

A DESK FOR EITHER CHAIR



A POLYETHYLENE CUBE AS AN ALTERNATIVE TO TRADITIONAL DESKS AND CHAIRS

CARDBOARD FURNITURE

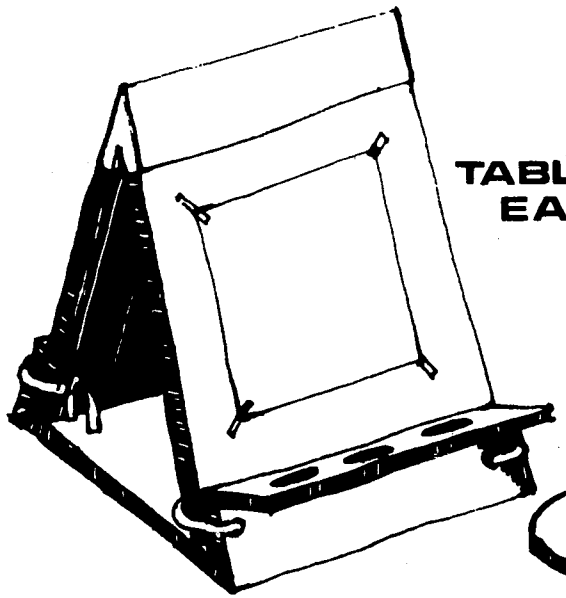
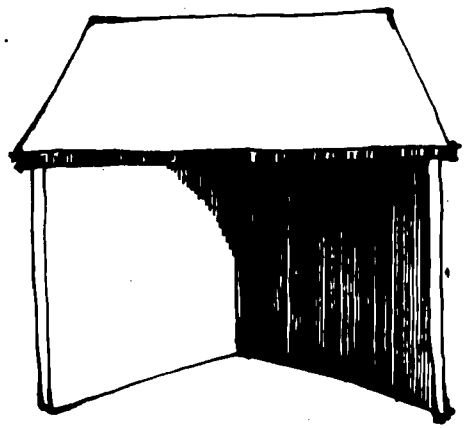
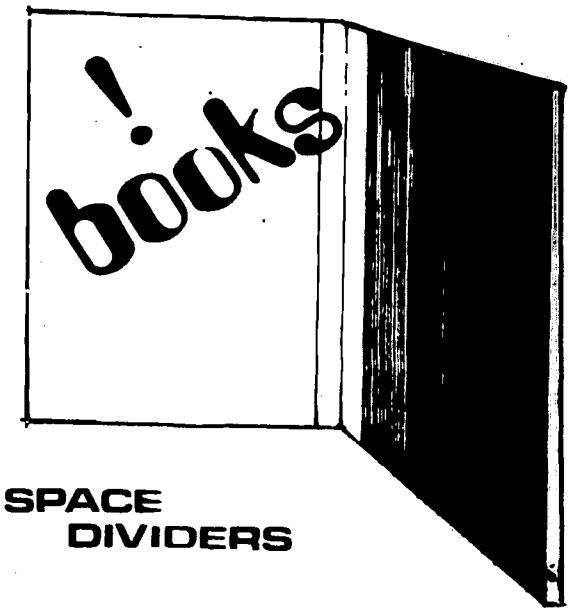


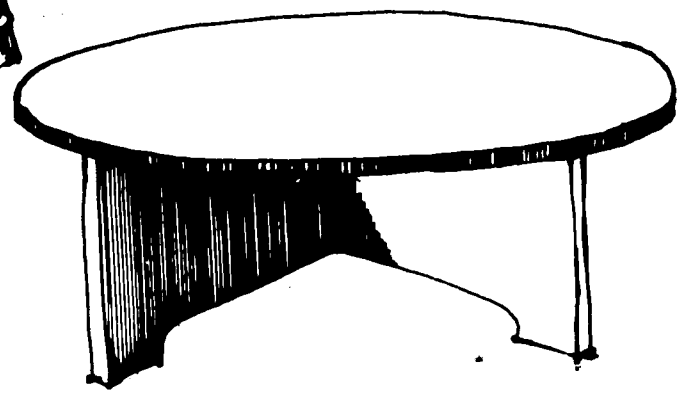
TABLE - TOP
EASEL

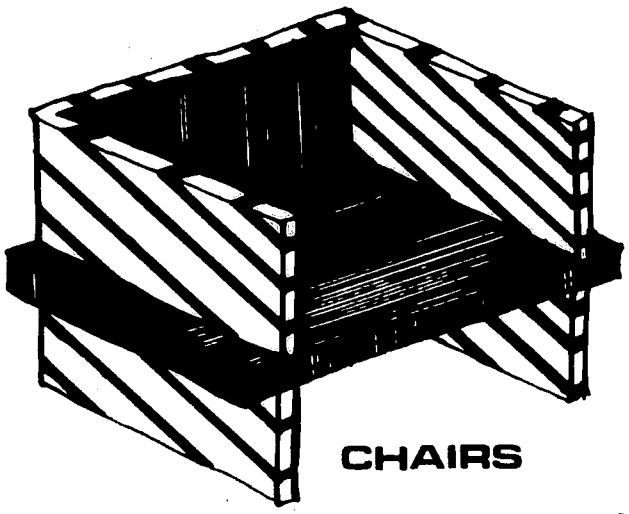


TABLES



SPACE
DIVIDERS

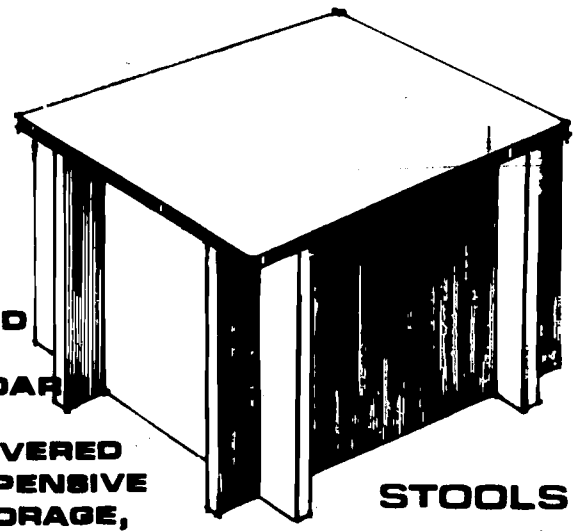




CHAIRS

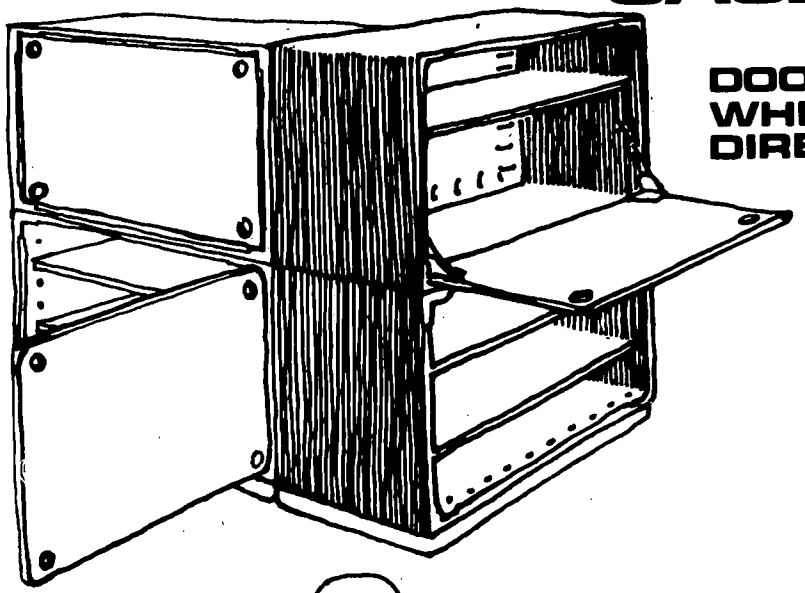
TAPE, GLUE, A UTILITY KNIFE, AND A FINE TOOTHED SAW CAN EASILY TURN TRIPLE CORRUGATED CARDBOARD INTO LIGHT, USEFUL FURNISHINGS.

THESE ARTICLES, PAINTED OR COVERED WITH FABRIC, ARE A FAIRLY INEXPENSIVE MEANS OF PROVIDING SEATING, STORAGE, WORK SURFACES, ETC.



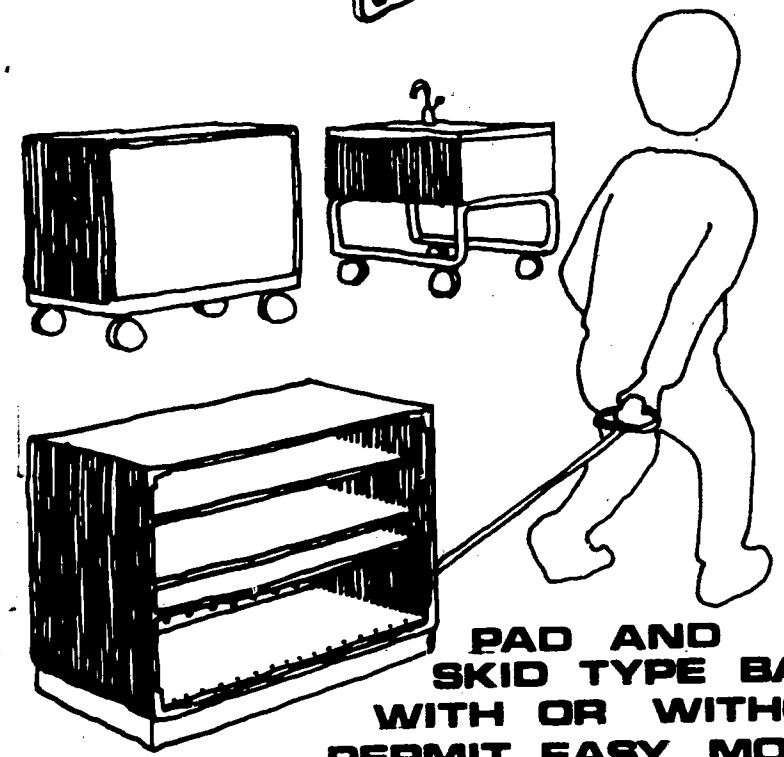
STOOLS

FREE FORM FIVE
CASEWORK SYSTEM

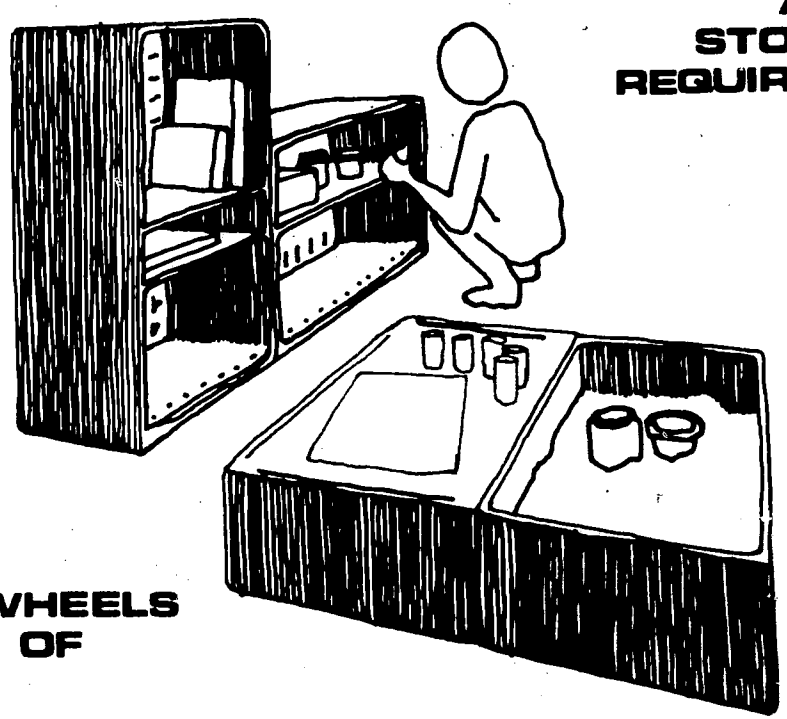


DOORS CAN BE ADDED WHICH HINGE IN ANY DIRECTION, PROVIDE CLOSURE AND ADDITIONAL WORK SURFACES.

A CONTAINER MAY BE USED IN ANY POSITION TO SUIT VARIOUS ACTIVITIES AND STORAGE REQUIREMENTS.

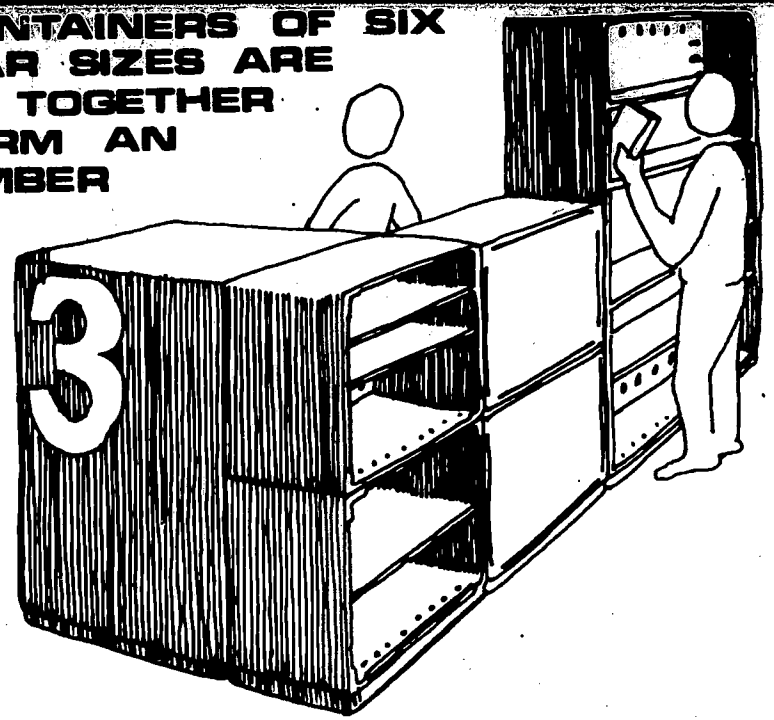


PAD AND SKID TYPE BASES WITH OR WITHOUT WHEELS PERMIT EASY MOBILITY OF COMPONENTS.

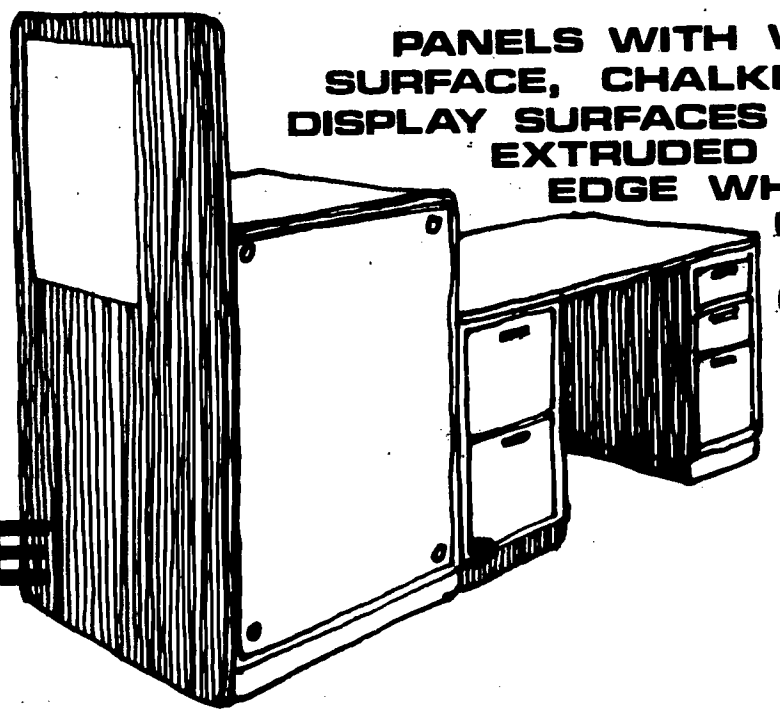


ENCLOSED OPEN SPACE 29 ENCLOSED

CONTAINERS OF SIX MODULAR SIZES ARE CLIPPED TOGETHER TO FORM AN INFINITE NUMBER OF STABLE ASSEMBLIES.



PANELS ALSO FASTEN TO BASES PROVIDING HORIZONTAL OR SLOPED WORK SURFACES. ADJUSTABLE HEIGHT BASES POSITION PANELS AT VARIOUS WORKING LEVELS.



PANELS WITH WORK SURFACE, CHALKBOARD AND DISPLAY SURFACES HAVE EXTRUDED VINYL EDGE WHICH ALLOWS CONNECTION TO CONTAINERS

FREE FORM FIVE
CASEWORK SYSTEM

INDIVIDUALIZED INSTRUCTION

Open classroom instruction concentrates mainly on individualized education. While children are encouraged and allowed to learn at their own paces, the teacher is there to see that they are, and remain, within a given framework of educational standards. No child is expected to learn exclusively on his own. Whether he is an aggressive or timid learner, he should receive at least a minimum amount of attention from the teacher, but because he does benefit from individual attention, he is expected and encouraged to continue learning when the teacher must direct her attention to someone else. Being able to learn at his own rate, he is neither held back by "slower" learners or carried along by the faster students, and if as a result of this more individualized attention, the child is found to have special learning problems, the time between discovery and implementation of a solution should be considerably lessened. At the same time, it should be remembered that individualized instruction does not prohibit group instruction. Teachers are free to group children as they see fit, and those students who benefit from questioning and instruction given to others in a group may still have this privilege.

ORDER IN THE CLASS PLEASE !

The spirit of an "open" classroom has been described as one that encourages independence and self-motivation, and the successful operation of the classroom is very dependent on it. Of equal significance is an understanding on the part of all concerned of how the classroom and its open environment can benefit them individually, and the discipline and the respect they must have for themselves and each other if it is to operate successfully. The teacher can no longer be in complete visual control of the room. If the students are working on the floor, behind a partition, or in a special "nook," they may be continuously out of sight of the teacher. If the discipline of the classroom is entirely dependent on the visual presence of the teacher, it is not likely that this situation will work, but if the children are shown the advantages and possibilities and are taught how to use the space, then they along with their teachers can establish the rules and respect that will enable them to learn together. If such instruction is considered discipline, it is something that must begin on the very first day.

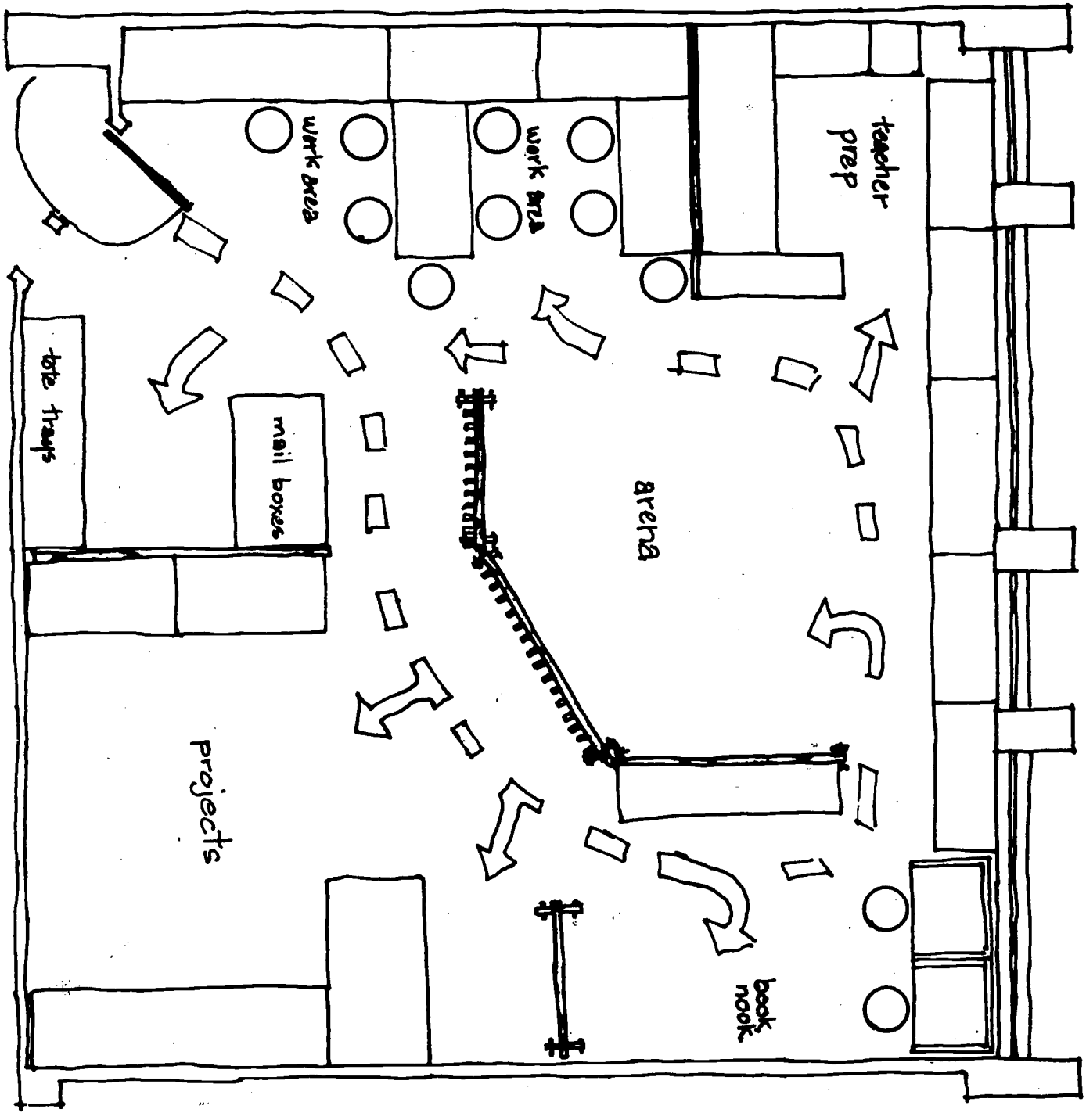
The openess of the environment should not interfere with "normal" classroom behavior but a hidden advantage of this particular situation is that all students need not be attentively subjected to the individual problems and disabilities of other students. Those students who will purposely disrupt "order" in a classroom, may be denied the constant privilege of an audience. Other students may be elsewhere doing something that interest them independently of those who wish to draw attention to themselves.

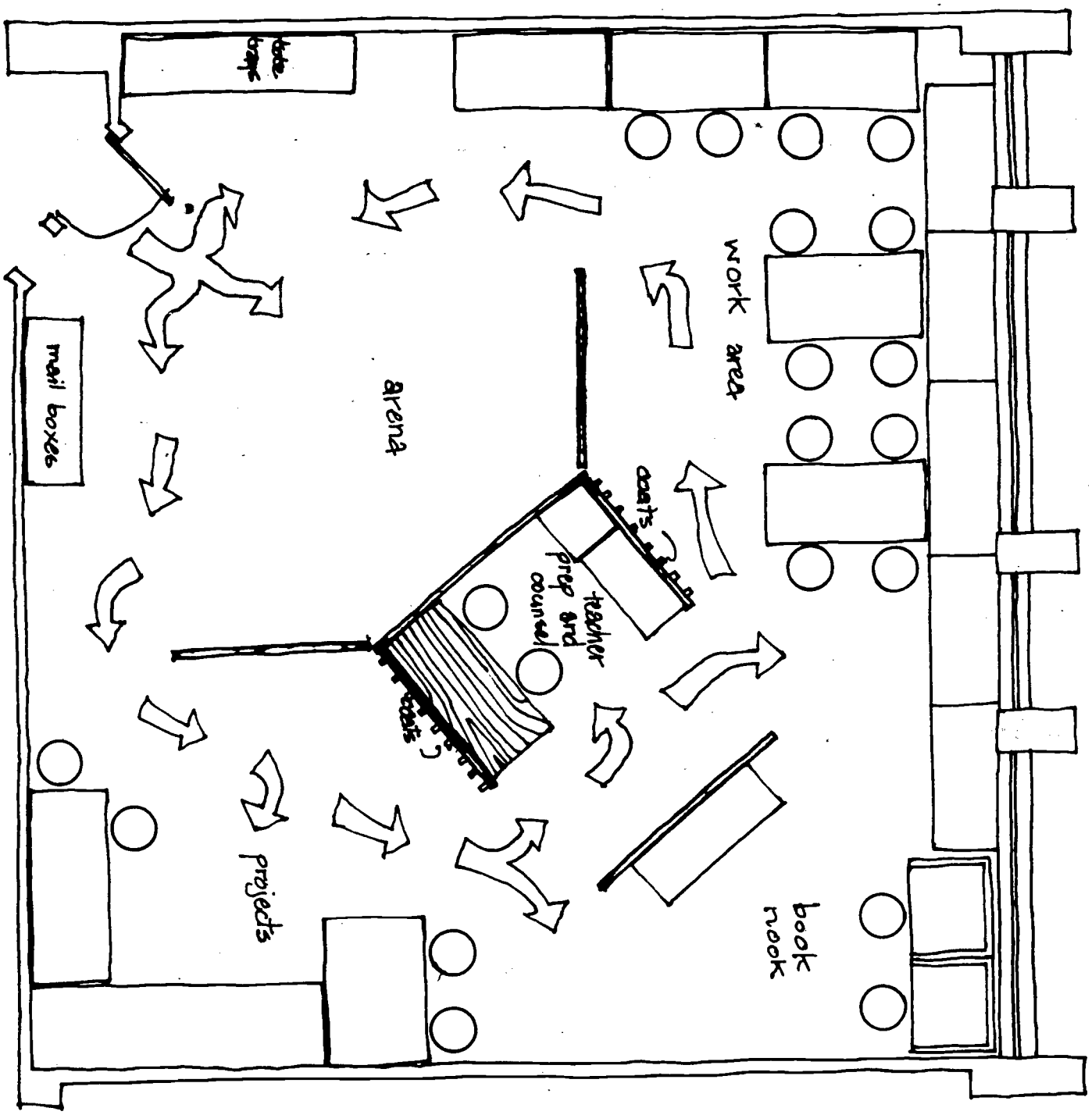
FLEXIBILITY

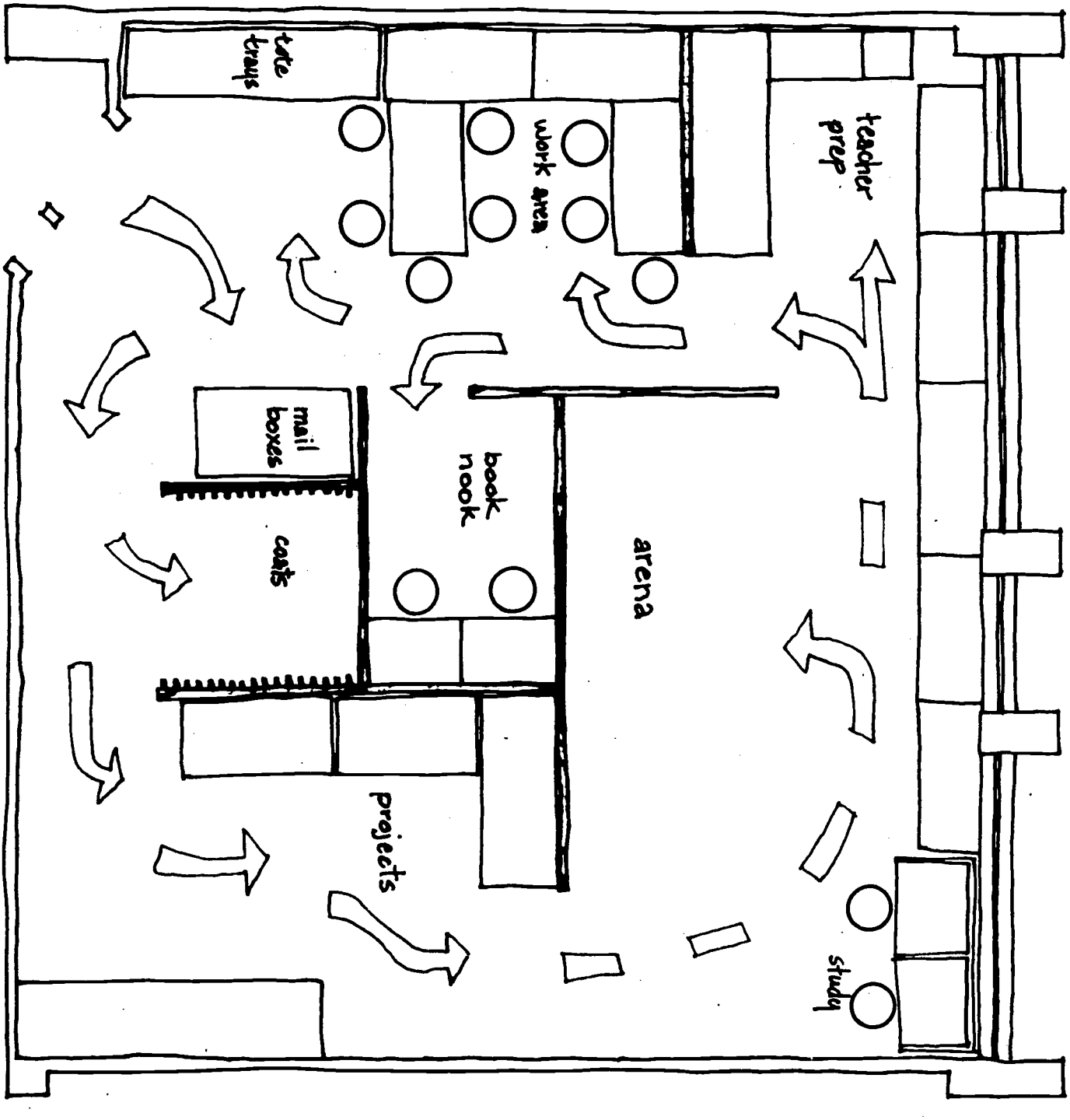
Flexibility has almost become synonymous with the word "open" in educational programs, and its importance cannot be overstressed in open environments. Programs, goals, and needs are constantly changing, and those facilities which can accomodate these fluctuations are likely to be the most economical and progressive. In open classrooms, physical flexibility is of equal importance. No two open classrooms are exactly alike in appearance or in the way in which they function, for each is dependent on the needs of those frequenting them. But whether the classrooms will conform and respond to their needs is very dependent on the built-in flexibility of the items with which they are furnished. Due to the limited area of a classroom, it is not likely that a class once having established its space requirements, will alter them every week, but the flexibility of the furnishings should allow for changes whenever a need for them arises. Thus in those instances where new furnishings are to be purchased, the mobile as well as manipulative features of the items should be considered in attempts of promoting maximum flexibility.

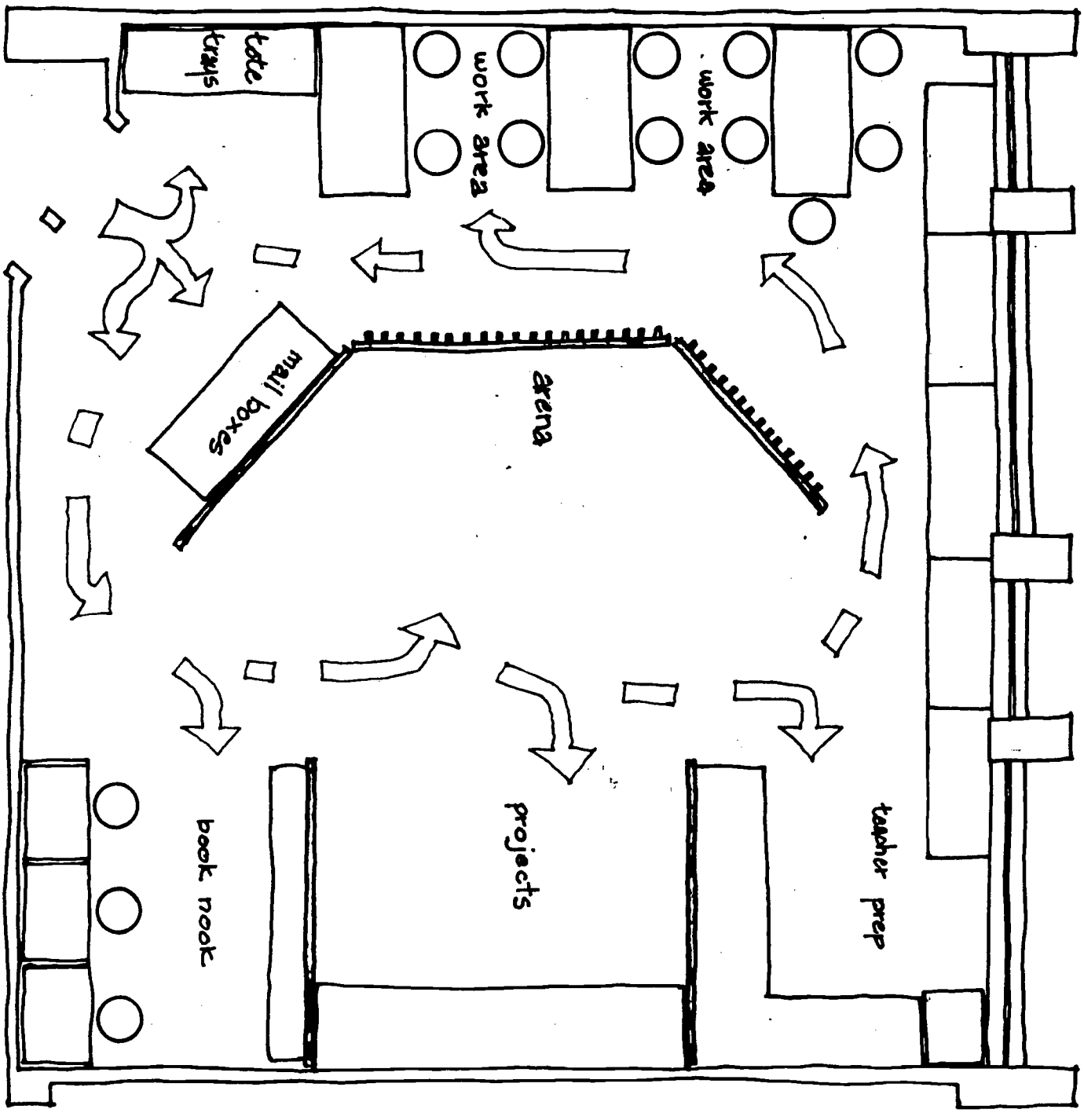
ARRANGEMENTS

The following group of sketches are possible arrangements of space within an existing classroom. The idea is to create a number of different areas where activities, according to their nature, may take place. The book nook is a place for reading and quiet study. Some of these "nooks" have tables but there is also space left to sit and work on the floor. The "projects" area is equipped with base cabinets and a sink. It is given to art and science, and those projects which require water. The work area, a group of tables where students may work on anything, is essential for those students who prefer to work at desks. The arena is a larger, open floor space where the entire class can assemble when seated on the floor. It is a good place for group study and instruction. The teachers preparation area is merely the place where the teacher's desk and locker are located. While it is a good place to consult the teacher, it is also a good place to study. These designated areas are not necessarily restricted. How they are used is entirely dependent on how the class chooses to do so. Every room is also equipped with tote trays and mailboxes in which children store their belongings and receive their individual assignments.









A SYSTEM

The greatest portion of this report has concentrated on the treatment of the individual classroom. But because it is often desirable that these rooms be but a basic element of a comprehensive system, a word about how they may be used in conjunction with others is in order. There are several types of programs incorporating the classroom whose boundaries include as little as one classroom, and as much as an entire floor or wing of a building. Most all of the programs are a variation in degree and scale of the following:

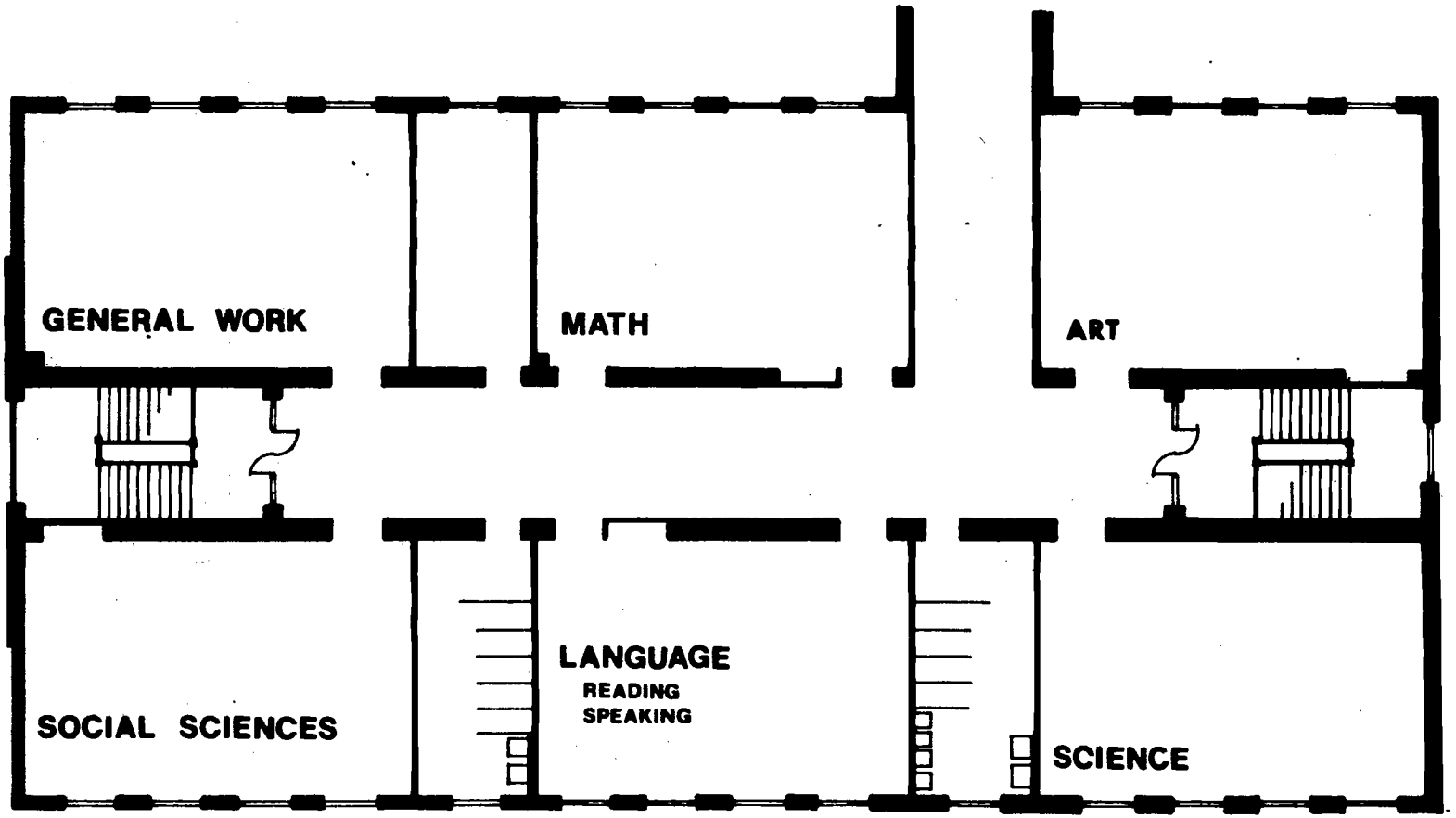
1. The sharing of common similar facilities and likewise teachers and students.
2. The sharing of those facilities not given to any particular group.
3. The sharing of all facilities by all groups such that all spaces are different and no group has sole access to any facility.

All of these systems, as stated, involve some degree of sharing of resources, facilities, students, and teachers. The advantage from such sharing is seen in the broadening of the exposure of children to varying abilities, personalities, and specialties of teachers. In addition, the children in sharing facilities are also likely to develop varied relationships with their peers and with students of other ages.

This system is based on the sharing of all facilities such that the learning space becomes a series of classrooms. Rather than being assigned to one room, the child moves to subject centers (classrooms) as his schedule dictates. These subject centers are designated locations of specific resources, and it is hoped that flexibility within a child's schedule will allow him to take advantage of these resources according to his individual interests and needs. In all probability, each of the classrooms would act as a home base for a group of children. This would provide a place for morning and afternoon assemblies, as well as assigning a teacher/counselor to each child. It is possible that during the course of the school year, it may be deemed beneficial to a particular student to reassign him to another home group. Such changes could be easily accomodated by this program because of the close association and communication of the teachers involved.

Advantages:

1. Because one classroom is given to a particular subject, there is more room for more varied resource materials. Instead of limited materials for math and counting, there can be an almost infinite supply of these resources.
2. There will be mobility of the students within the educational structure. They will be exposed to more students and teachers which gives a chance for more varied relationships. Such mobility can also have the effects of increasing the exposures and possible learning experiences.
3. This system can also take advantage of teachers who are specialists in certain fields and wish to pursue particular subjects in great detail.



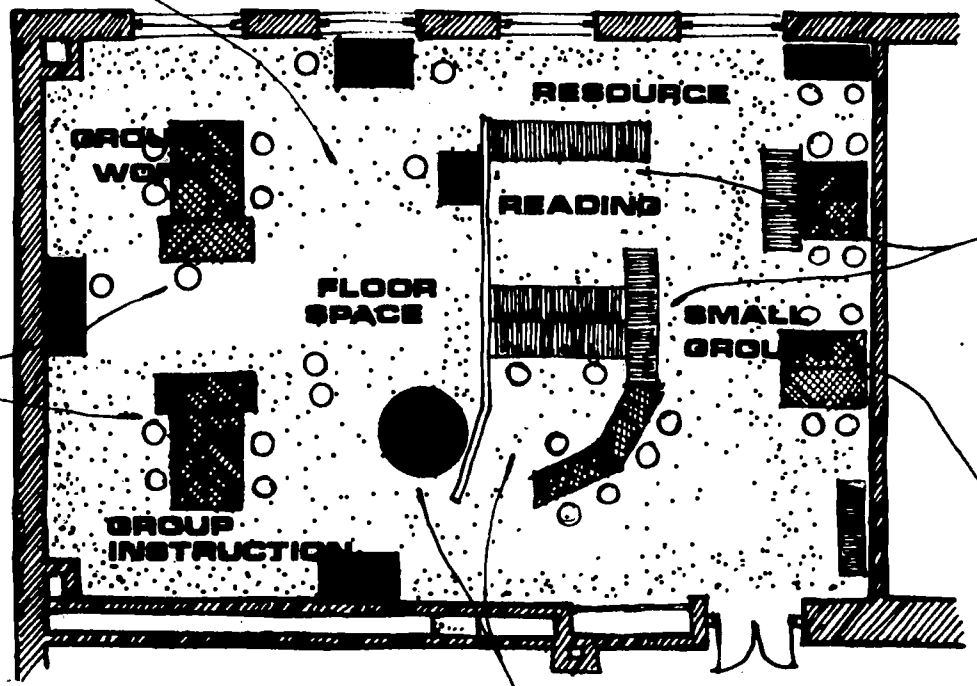
OPEN CLASSROOMS
TEAM TEACHING

ENCLOSED OPEN SPACE 44 ENCLOSED

GENERAL WORK

FLOOR SPACE
Open space for those who prefer the floor as a work surface.

A PLACE FOR STUDY AND INFORMAL DISCUSSION NOT GIVEN TO ANY PARTICULAR SUBJECT

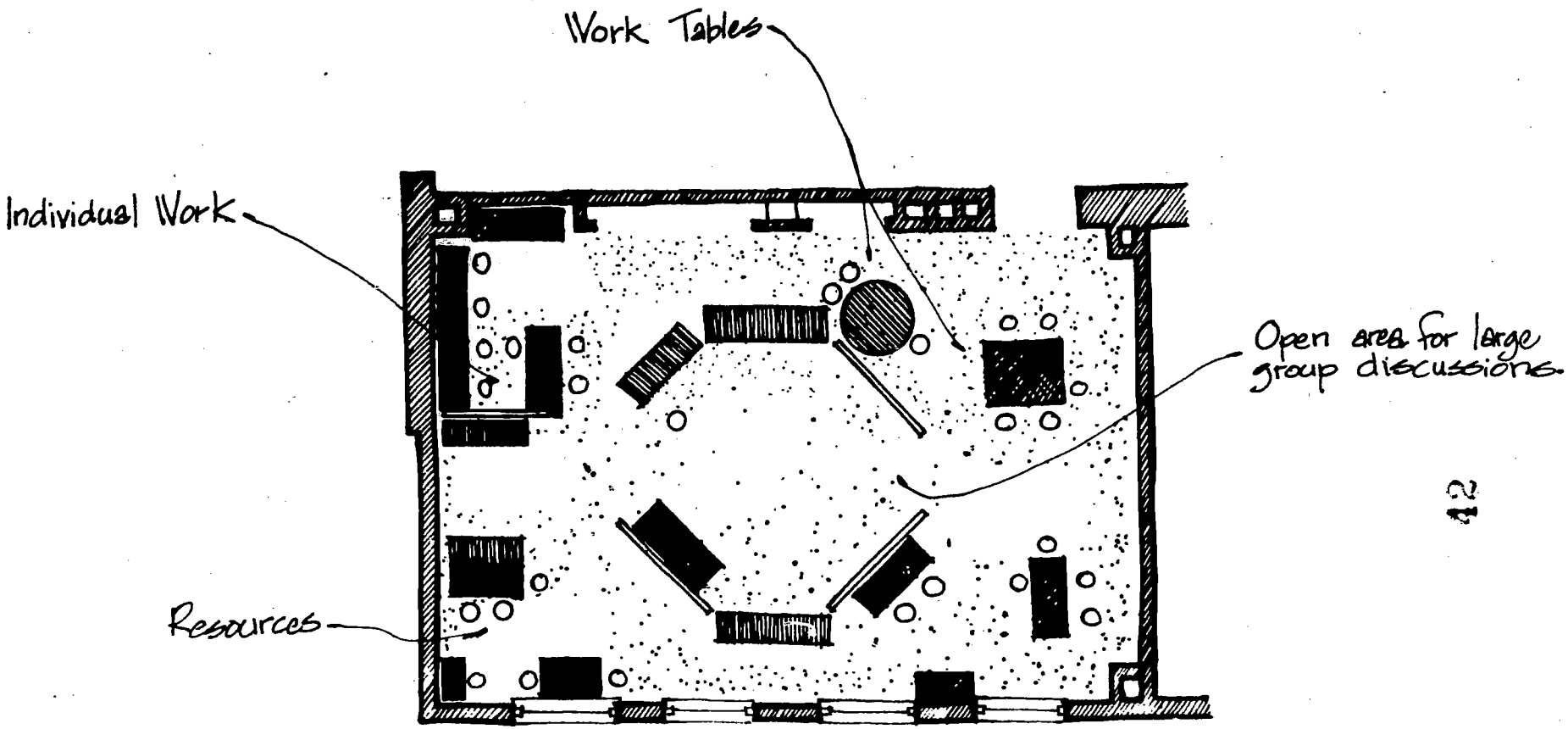


BOOK SHELVING
Ample shelving for books on all subjects; fiction and reference.

Group activities

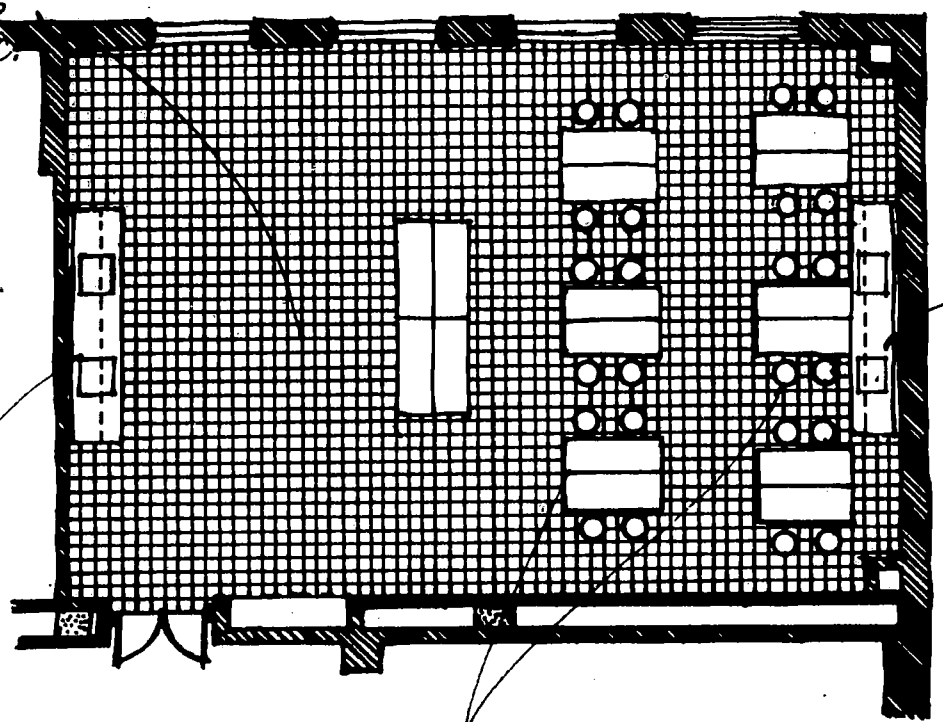
Small groups and individuals.

Places for discussions and meetings.



ART

Open floor space to allow for assorted activities and the set-up of various equipment, such as easels, more work benches, etc.



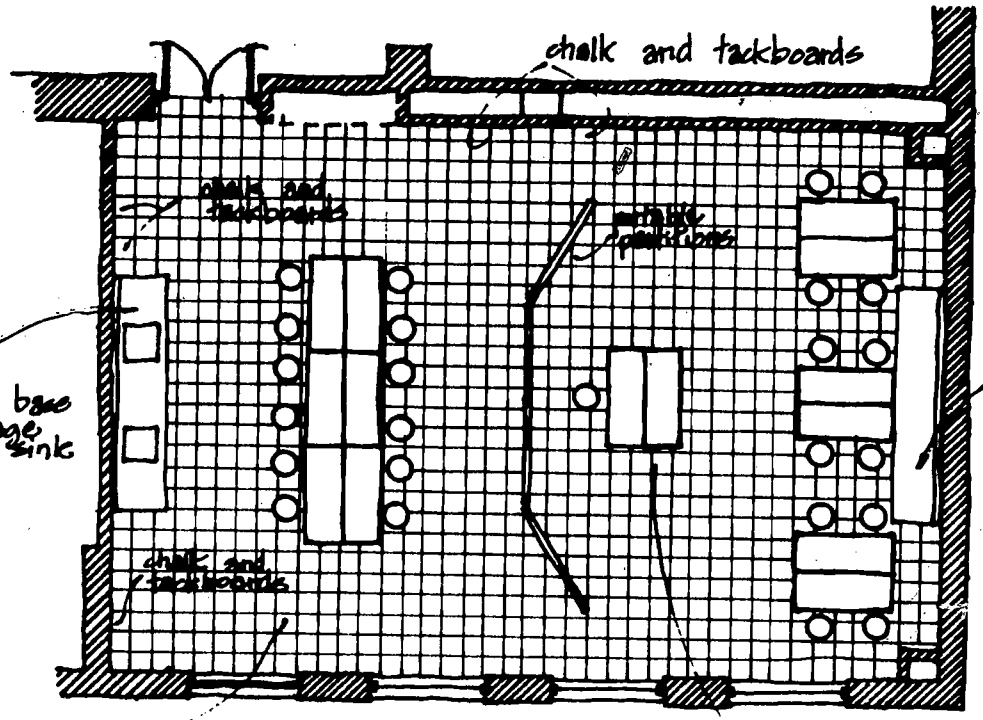
Two base cabinets are only built-in furniture.

Base cabinets with two sinks and storage cabinets below and above for basic art work equipment.

Large tables with stools for all types of art work. They are portable.

SCIENCE CLASSROOM

Accessible to all students in complex. May be used as one area or divided to accomodate several small groups. Here it is divided by portable partitions to form two areas.

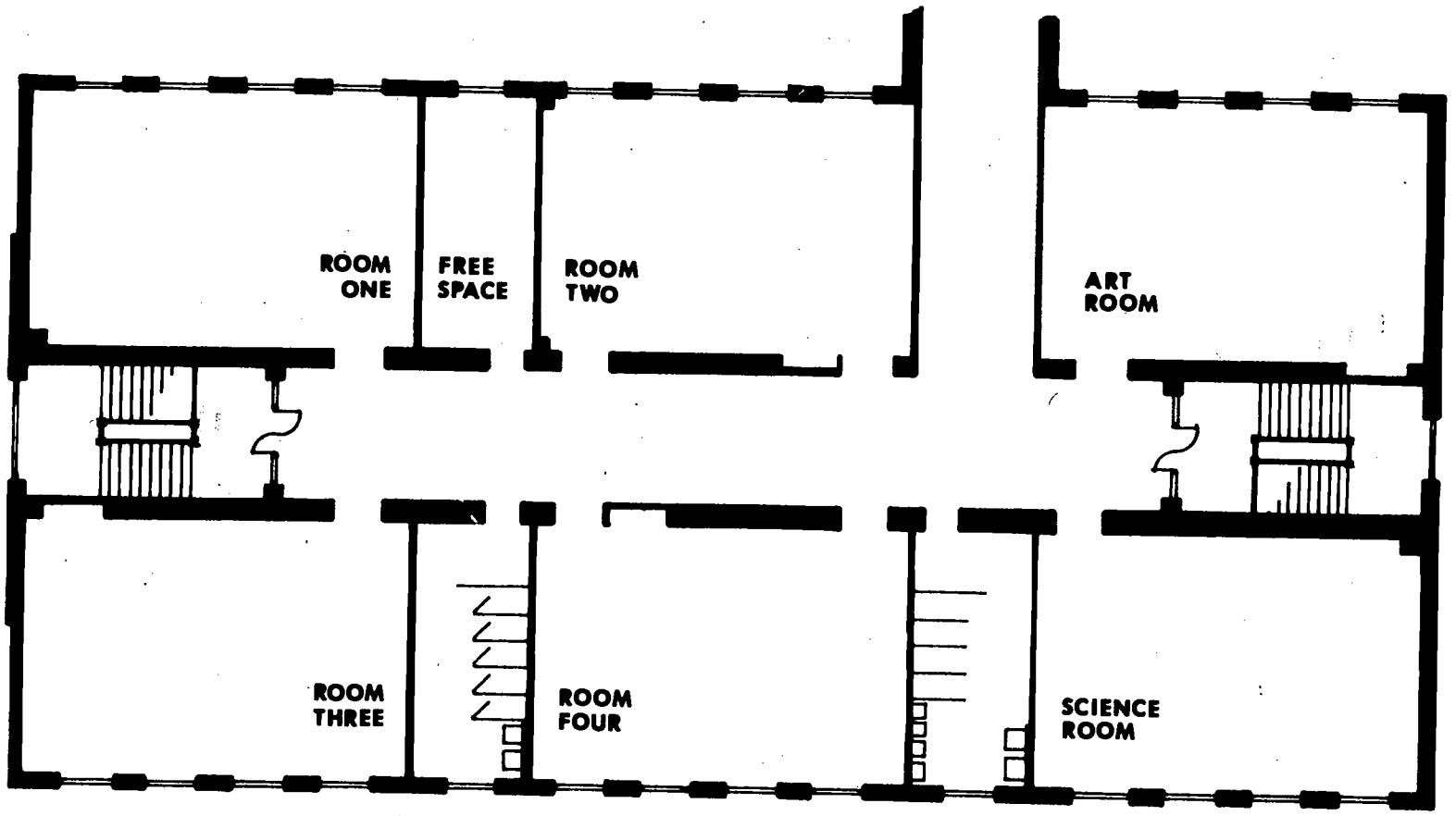


ENCLOSED OPEN SPACE 48 ENCLOSED

The classroom approaches an entity in that most activities will take place in this room. This includes minor art, science, and some musical experiences, but the major activities in these particular subjects would take place in the rooms designated for those activities. Space for skills development, teacher preparation, or specialized instruction, depending on the rest of the program, will be provided. Some of the advantages of this particular program are stated below. All of them may be enhanced by the active sharing by two individual classes of each other's rooms such that the "family" identity is retained while the over-all exposure is broadened. Another possibility is to appropriate a certain portion of the day during which children can go to another classroom and learn with their friends or a special teacher. It is hoped that any given arrangement of such a system will promote an environment which will allow individualistic approaches to the needs of all students, and that the flexibilities involved will encourage them to acquire the self-discipline and respect necessary to sustain their educational pursuits.

Advantages:

1. This self-contained type atmosphere may approach a "family" atmosphere which can be very healthy in a learning environment.
2. There is a certain sense of identity with a space which hopefully the teachers and children have arranged to suit themselves. This would almost be impossible with too large a number of students and teachers.
3. Because most activities take place in the room, there are always several different activities taking place simultaneously. This can provide constant motivation for a student. If his interest has waned in that activity in which he is presently



INDIVIDUAL OPEN CLASSROOMS

OPEN CLASSROOM

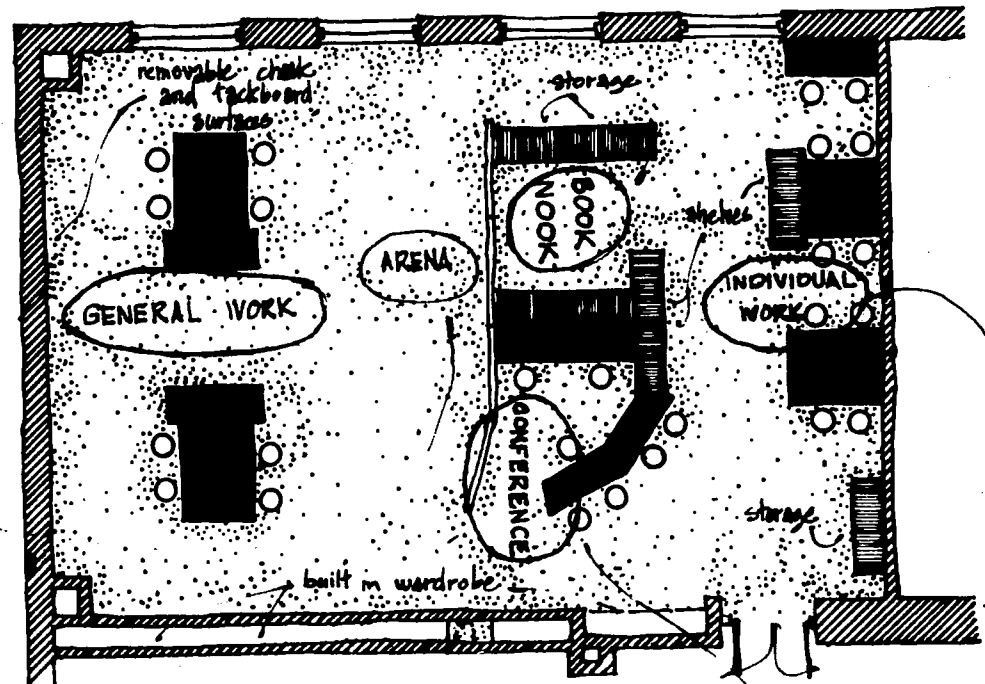
Accomodating 24 pupils with exclusion of art and science project areas.

GENERAL WORK

Area for most any project especially those involving a lot of movement.

BOOK NOOK

Reading resource of various subjects. A good place to read or study.



INDIVIDUAL WORK

A quiet place of work for individuals or small groups of two or three.

ARENA

Open space for large group gatherings, or any activities that take place on the floor.

CONFERENCE

Semi-enclosed for any type of conference or discussion. A good place for small group work.

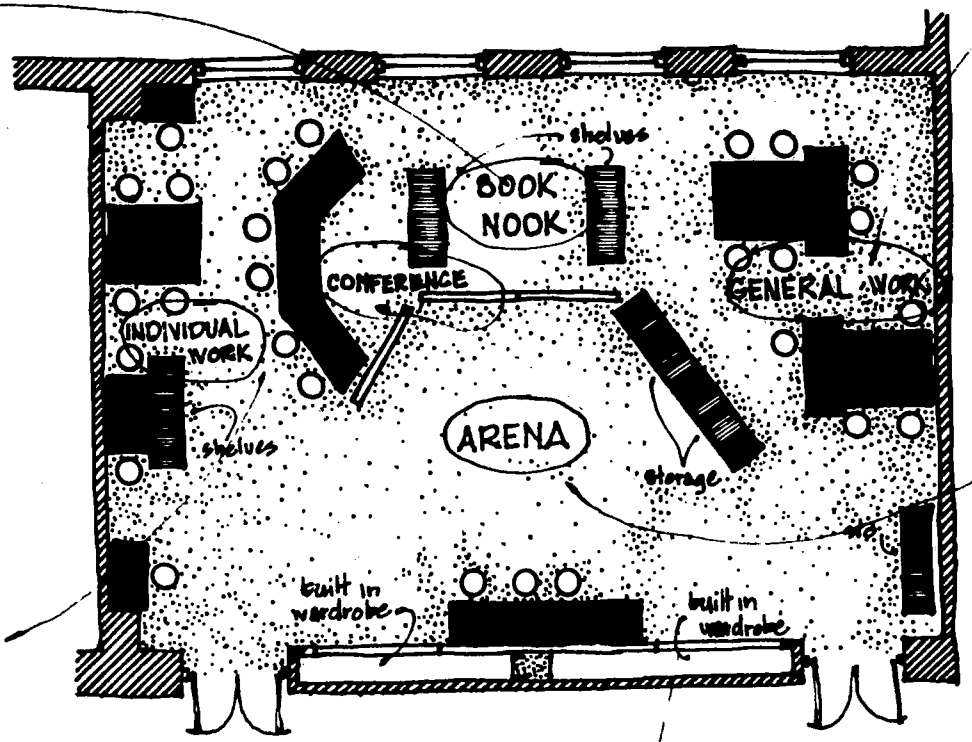
OPEN CLASSROOM

BOOK NOOK

Books of all kinds. A good place for reference reading, and research.

GENERAL WORK

Any type of demonstration of activity may take place here.



INDIVIDUAL WORK

Independent work area.

ARENA

Open floor area for any type of group activities especially when large floor space is desirable.

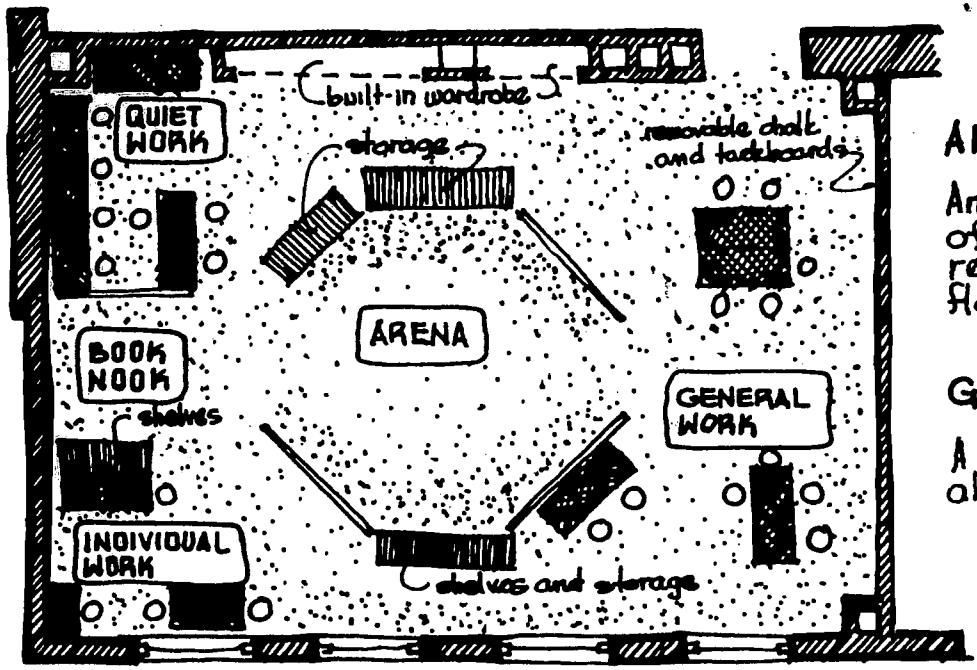
CONFERENCE

A good place for group discussions, small group instruction, and any type of counseling.

OPEN CLASSROOM

QUIET WORK

A general work area more restricted to quiet activities, by individuals or small groups



ARENA

An open space for gatherings of large groups or activities requiring a great deal of floor space

GENERAL WORK

A general work area for all projects and activities.

BOOK NOOK

Reference materials on all subjects and a quiet place to read or study

INDIVIDUAL WORK

A space given to independent study

OPEN CLASSROOM

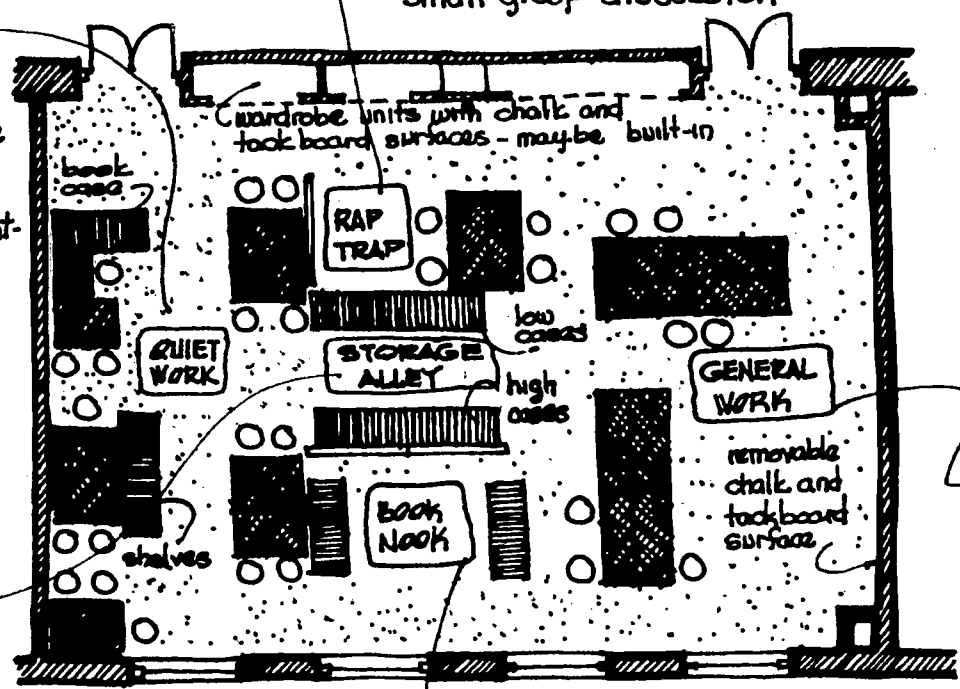
This classroom can accomodate 24 pupils with the exclusion of science and art projects which take place in another room equipped with "wet" facilities

RAP TRAP

A semi-enclosed space for small group discussion

QUIET WORK

This is a general work area where students who desire to be "away" from movement and continuous sound may work independently or quietly with someone



GENERAL WORK

This area is for any project although it is preferred that those involving a great deal of movement, discussion, and materials take place here

STORAGE ALLEY

A couple of cases and shelves that contain most materials available to students such as paper, crayons, and small mechanical equipment. It may also be a good place to locate tote tray receptacles.

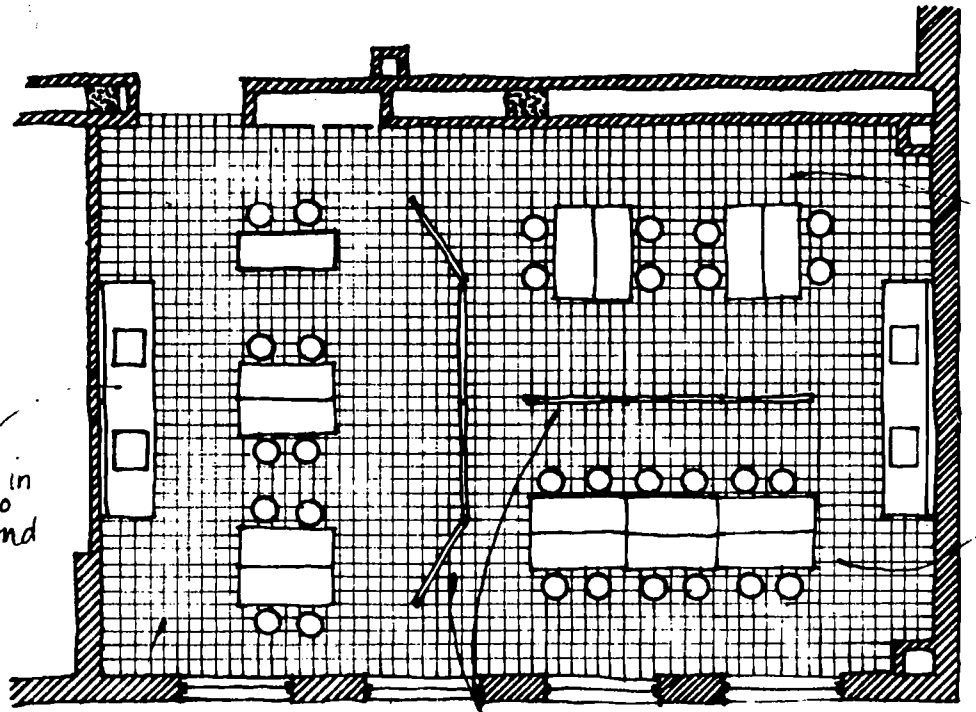
BOOK NOOK

A gathering of resource books on all subjects. A semi-enclosed space, it may be a good place to read or study

ENCLOSED OPEN SPACE 55 ENCLOSED

SCIENCE CLASSROOM

Classroom is divided with 5' partitions to accomodate three different activity groups. With this particular set-up it can very easily accomodate 30 students at one time.



Projects would have to be restricted in this particular arrangement to those which do not require much demonstration floor area, but each area has the use of a sink.

The only "built-in" furniture in this room are the two counters with sinks and storage counters above and below.

Tile floor for ease in maintenance.

Partitions are backed with either chalk or tackboard surfaces, to provide more learning surfaces. They may also be used for projector screens.

ENCLOSED OPEN SPACE 56 ENCLOSED

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J. Weldon Greene
Educational Director, Fort Lincoln Project
Special Projects Division
D. C. Public Schools

Mary Alexander
Advisory and Learning Exchange
Washington, D.C.

Alyce K. Barnett
Language Arts Teacher
D. C. Public Schools

Bobbie Fields
Teacher
Open Classroom
Eaton Elementary School
D. C. Public Schools