"Hurry! says the morning,
Don't be late for school!

Hurry! says the teacher,
Hand in papers now!

Hurry! says the mother,
Supper's getting cold!

Hurry! says the father,
Time to go to bed!

Slowly, says the darkness,
You can talk to me . . ."*

*The above piece was spontaneously selected in a poem reading assignment by one of the author's sixth-grade students. Is this really the way the world appears to the young? Are these the predominant messages that reach them? In this chapter, an experienced teacher explores space and time in the classroom for the betterment of school life for all.*

# Time and Space
# in Schools

## BEVERLY HARDCASTLE LEWIS**

Time and space are the settings for life, which is indeed our ulti-
mate concern. How can we, as teachers, apply what we have learned
thus far to improve the quality of life in our classrooms and schools
for our students and ourselves? What are the temporal and spatial

conditions of today's classrooms and schools, and how are they shaping and toning school life? If changes are needed, how can we begin?

We may regard the life, space, and time in classrooms from two major viewpoints—the child's and the teacher's. We may turn our heads toward the past, present, or future. Let us begin by looking from a child's viewpoint at the present to see the conditions that exist in today's schools.

## THE CHILD'S VIEW

### What Children See

The viewpoint conjectured here will be that of a child eight to twelve years old, attending a structurally traditional school in a middle-class community. For other children in other settings there would be differences, but these generally would be differences in degree rather than in kind.

### Owned spaces

From the child's viewpoint, which school spaces belong to children? We can note such ownership by observing where children keep their possessions and by noting their use of possessive labels—"my desk," "Shawn's locker," "our classroom." A quick survey of these spaces is offered in Table 1.

### Owned time

Time may be more simply discussed, for so little of it can be regarded as belonging to the children. Recess and lunch time may be counted on by children as being theirs. In some classes break time or free time is given for the purpose of visiting and relaxing, and children regard such time with a sense of ownership. Free study periods and project work periods may also be regarded as owned time by children, since they have more control of the use of the time.

### Individual space

There are variations in the amount of space a child regards as being personally his or hers. We notice some children in classrooms who use only one section of their desktops to work on, while others spread themselves and their work out onto any neighboring work

## Table 1: Child-owned Spaces

| | |
|---|---|
| Desk: | Probably the most valued and protected space. In very traditional classrooms it may be the child's only source of personal space. In more open classes it may be shared with others or no longer be a part of the school furniture. |
| Locker: | Often shared with others. Considered a convenience space. |
| Special Class Seat: | In music, art, or library, if seats are assigned, a certain degree of ownership will be attached to the seat. |
| Chair: | Often individuals and the group will recognize individual ownership of chairs. Robert Sommer (1969) notes: "People who remain in public areas for long periods—whether at a habitual chair at a weekly conference or on a commuter train—can establish a form of tenure. Their rights to this space will be supported by their neighbors even when they are not physically present." (p. 52) |
| Boys' or Girls' Bathroom: | Definitely a child's space and not a teacher's. A private retreat for tears, anger, fights, secrets, mischief and day dreams. In some schools it becomes the communal news center for the underground student communication network. In some secondary schools it may become the property of a group of students or it may be locked by the administration. |
| Playground: | Child-owned and shared with other children. Powerfully real and memorable considering the relatively limited time spent in recess. |
| Hall: | A no-man's-land in most schools. A public avenue. Perhaps the sense of ownership would be similar to that felt for one's lane or street at home. In secondary school, the hub of socializing. |
| Classroom: | A wide range of possible feeling here. In some rooms children feel a sense of ownership for the whole room or sections of it. In other rooms the desk may be the only owned space. |
| School Building: | Feelings of ownership increase with the years spent in the building. Variations in intensity also depend upon school philosophies, building dimensions, and the degree to which children participate in school activities. |

surface—another child's desk, a bookcase, the window ledge. When given choices, some children prefer to move their desks away from the desks of others. "I work better this way," they say or, "I don't like being all bunched up." Some choose to be close to others, with desks touching side-by-side or opposite each other. Needs vary from person to person, and an individual's needs vary from day to day.

Sommer (1969) refers to this individual space ownership as "personal space," and Hall relates such spaces to "spatial envelopes" (1969). This personal life space is further described as:

> the emotionally charged zone around each person, sometimes described as a soap bubble or aura, which helps to regulate the spacing of individuals. (Sommer, 1969, p. viii)

The limits of personal space become evident through interaction with either the environment or other people. The desk location preferences discussed above indicate some of the limits. Other cues come from the selection of the length of distance separating individuals who are interacting. If the distance is short, the interaction is likely to be intimate and informal; if the distance is great, the interaction will probably be more reserved and formal.

So when we regard a classroom in spatial terms, we may learn much by noticing the physical distances separating people. Variations in these physical distances are due to a number of influences: "the cultural background, the relationship of the interactants, the topic being discussed, and the personal and attitudinal characteristics of the two parties" (Knapp, 1971, p. 244). The sex of the people relating is another significant influence. We may be further helped in our efforts to find meaning in personal spaces by Hall's (1969) designation of four areas of spatial actions. He defines these in terms of the nature of the situation and transaction: *intimate* distance is from contact to about 18 inches; *personal* distance is from 18 inches to perhaps 4 feet; *social* distance is from 4 to maybe 12 feet; and *public* distance is from 12 to 25 feet or more (pp. 116-125).

The selection of spatial distance communicates in classrooms, as elsewhere. The teacher who stands before his or her class most of the time is discouraging interaction with those who sit at the back of the class (and vice versa) for, "It is difficult to have an intimate conver-

sation with someone who is 30 feet away" (Adams and Biddle, 1970, p. 89). The teacher who sits beside a child communicates support or interest even without a verbal message. The unspoken power of such spatial language is illustrated by an incident related by Koch (1971):

> We asked one teacher to deliberately try moving closer to students when they were working in small groups at tables. She reported that it was very hard to do. She felt conspicuous and ill at ease, and so uncomfortable that she would have given up on further attempts had she not gotten immediate, positive feedback from her students. They sent her messages thay they liked the warmth and interest that her closer proximity engendered. In a short time, drawing near to students became a natural act for her. (p. 232)

A second teacher tried a similar experiment, and Koch notes that it was unsuccessful because the movement was so counter to the teacher's natural inclination. The children responded to other nonverbal cues and read the movement as insincere.

In sensing their own individual space and in interpreting that of others, children in classrooms participate in a subtle but powerful language that psychologists and sociologists are still trying to decipher. Of significance to teachers in terms of nonverbal communications and spatial language is the finding that when verbal and nonverbal communication signals conflict, "We turn to nonverbal, whether we realize it or not, for verification" (Koch, 1971, p. 232).

### Individual time

The influence of developmental psychologists, including Piaget's sequential stages of cognitive growth, is being felt in the classrooms. Teachers are accepting and adapting to the varying rates in which individuals grow. For the beginning teacher, individual time variations must be among the first classroom challenges. Each child has his or her own time table and growth rate, and the sooner the teacher realizes this and acts upon it, the better life will be for both the students and the teacher.

### Collective time

It is helpful to note the distinctions between individual and collective times in schools. Individuals have natural time senses tuned to their personal moods, energies, and inclinations. Often in conflict

with these is collective time. The classroom group will have its own collective moods, desires, and needs, which overcome individual needs whenever they are in conflict. In group planning sessions, selection of recess games, and seating arrangement choices, individuals may have to give up their desires for the group's decision.

## Clock time

To instruct a large number of students with a smaller number of teachers, time needs to be apportioned. Students, teachers, and administrators must give up personal preferences to meet the requirements of physical or clock time. The student who wishes to finish an art project must give in to the clock time that designates the end of the art period, for another class will begin, and the art place will be taken by another student. The teacher who wishes to spend a few more minutes discussing a section of a film must move along quickly for lunch period is coming up. The administrator who wishes to speak to whole faculty privately must schedule the meeting before or after school hours. Clock time is a reality in every part of life and at every age, so school clock time should not appear to be so oppressive. It is, however, helpful for teachers to be aware of the collective and clock time limits placed on individuals, for they may then be more considerate in placing further time limits on students. Students who wish to daydream during a free reading period should perhaps be allowed to respond to their individual time senses and do so.

## Calendar time

It is most helpful for teachers to be aware of the subtle but often blatant influence of calendar time in schools. Changes in attitudes among students—and teachers—are predictably related to calendar time. Changes occur at the end of the year, on days before vacations, and to a lesser extent on Fridays. No one has coined a word for this phenomenon, though "school fatigue," "seeing-the-stable-door," or "psychic-switch" might apply. Stebbins (1974) refers to it in this way:

> Mental fatigue is probably a less significant factor in the burgeoning unquiet and disorderliness that heralds the approach of these occasions than anticipation by the students of activities they will engage in while away from the classroom. (p. 55)

Test manufacturers recognize the phenomenon when they advise that their tests not be given on Fridays, Mondays, and days immediately preceding or following vacations.

The calendar time of our schools is marked off in such a way that we can predict periods of student restlessness and low motivation with relative ease. If we wish to initiate activities or experiences that will demand student commitment, academic energy, and time duration, it is best to avoid these predictable points. Further, in our plans for Friday afternoons, pre-vacation days, and end of the year weeks, we might either try to compete with the out-of-school lure by designing especially enjoyable lessons or attempt to integrate the class's sense of restlessness and anticipation into lessons in some meaningful way.

## CHILD'S VIEWPOINT: DREAM SCHOOLS

How would children prefer to see time and space used in schools? To learn how some children felt, I gave my sixth-grade class an optional creative writing assignment with the directive: "Describe a school that would use time and space in better ways than we see in today's schools." Earlier in the year the children had described their ideal schools in another writing assignment. In these papers the writers' thoughts seemed to center on curricula, lunch, snacks, recess, gym classes, and classroom gadgets. In this second assignment the children were asked to focus on time and space only and to keep in mind the purposes of school. The purposes were left undefined, and no interpretations of "better ways" were suggested.

The assignment was given during the last two weeks of school, and in accordance with the calendar time phenomenon discussed above, it was playfully offered as bait to the imaginative. Those who did not want to write on the subject could write on other suggested topics or read a book of their own choosing. No deadline was given and as the assignments were completed and handed in, they were read to the class, commented on by the teacher, revised or corrected, and then finally returned to the teacher.

Four of the papers are included here as a sample. Of interest to me are the ideas the children suggest and the assumptions they presume. Further, by considering the negatives or polarities of their

statements and by noting what they choose to omit, we may grasp their concepts of life, space, and time in existing classrooms. Through their dreams, we glimpse reality.

**(Untitled) by Debbie M.**

> The schools are one story above ground and two below ground. Stairs going up and down or go down on slides.
>
> Go to school from 8:00 A.M. to 12:00 noon. Study all the subjects you can in that time period. One day a week have all free sports. You can do any sport you want that there is an instructor for. You have one hour per sport. Go Monday through Friday.
>
> The top level has one room off the rest of building with all glass, and ground floor with dirt and grass. Trees and foliage growing and a few animals, too. The room is huge. That is a wildlife class. You go once a week. Only 12 kids per class go there. Feed the animals and learn how to take care of them and help them if they are hurt. Learn which plants are poisonous and non-poisonous.
>
> At end of school year the class goes on a weekend camping trip.

**The School "My Way" by Lisa M.**

> Space: I opened the door. The baby-blue board was on my left. My bed on my right. In front of me was the kitchen, and cupboards and stove and refrigerator. (See Figure 1)
>
> Time: As I walked into the apartments, I took the elevator up to the eighth floor where my room was. You see all us kids had rooms with maid service. My room was pink with purple polka dots. We had telephones to call for pizza or whatever we wanted. We had a special screen (like a tv) that at every odd hour we would turn on (every odd hour between 8:00 and 2:00) and have our class lessons. Then after our 30 minute lesson we had 30 minutes free time or to do any homework. For homework we wrote on a blackboard. Everyone had a different color blackboard. Mine was baby-blue with pink chalk! We would do our homework on it, then push a button and it was corrected.
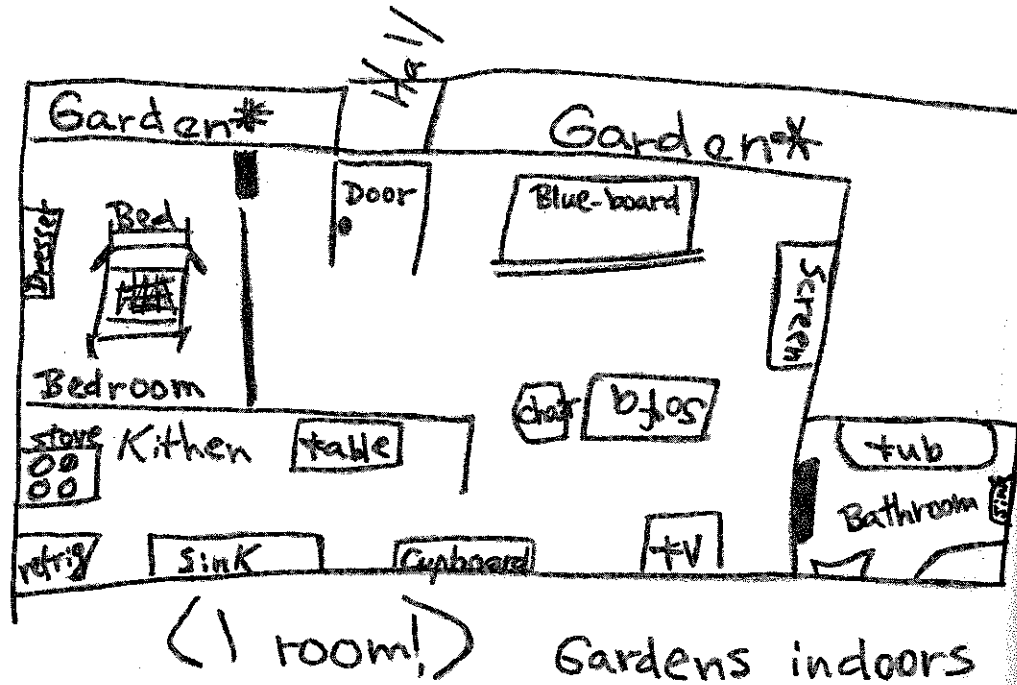
**Figure 1: Lisa's Space**

**Schools!!!** by Mary Beth M.

If I had a choice of how to form a school, I would only go to school Monday, Wednesday and Friday. And have it like you go to math class, then you can come home and do whatever you want, then go to a different class like college. Then I would have an elevator to get to your classes instead of walking up ten flights of stairs, and everybody would get to use it.

Then go to school 8:00 in the morning until 2:30 in the afternoon.

Then if you get suspended from school have it two days instead of three so your mom and dad don't kill you as much. When you get into 7th grade you can have 45 minutes to go horse back riding if you want, like on trails and in the woods

and wherever you want as long as you're on school grounds and
have a teacher along with you. Then when you get back from
horse back riding you clean the saddles and brush the horse.
. . . . (Here she knowledgeably describes the procedure and ma-
terials for horse grooming.) Then when you get done doing that,
go back to work. If some of the boys would rather play football
then let them just have a gym teacher out there to watch them.
    And only have one math period.

(Untitled) by Tim A.

One day I was walking down along the wood and came upon a
beautiful white mare, with her newborn fillie. I stood and
looked at the two. I looked at the sun. It was twelve o'clock. I
had to run to make it home in time for dinner. I ran and tripped
in a wood chuck hole and sprained my ankle.
    I fell into a deep sleep and dreamed all the schools closed and
our parents taught us what we knew. Ouch. The white mare bit
me on the nose. Now I was not late for dinner. I was late for
school!

*Interpreting the Dreams*

I would like to use an analysis of these children's papers as a
paradigm for the analysis of school space and time in a larger con-
text. What we are concerned with are children and teachers, and
time and space, all within a school context. We thus have a field or a
network to study, and when we examine any one part of it, we gain
insight into all others.

**Temporal and spatial boundaries**

In the four students' papers the school boundaries are less rigid
than those found in today's schools. Home and school, outdoors and
indoors, mix more freely. Tim would have home and nature replace
school. Debbie suggests an all-glass room, which would give the
illusion of being outdoors. Her school also contains the outdoors in a
below-ground-level wildlife classroom complete with trees and
foliage. Lisa's school resembles a high-rise apartment building with
home-like conveniences, kitchens, bathrooms, bedrooms, and gar-
dens. In Mary Beth's school the physical boundary is broken by

breaks in the time boundary as students move back and forth between home and school frequently. Her class meetings would be scheduled more like college ones, and school days would alternate with home days. She would also have horseback riding times "on trails and in the woods and wherever you want as long as you're on school grounds."

Other educators have observed similar desires for the removal of boundaries. In Coles's article, "Those Places They Call Schools" (1969), children speak in angrier tones:

> And once you're inside, you never see the outside until the big bell rings and you can leave, if the teacher says yes, it's o.k. . . .If they put on the radio, like we have at home, it would be better than not hearing anything but yourself and the clock. (p. 52)

Two other children whom Coles quotes in the article describe a school that they would like with "a window in the roof so you could just look up and see the sky and the clouds and the sun and when the rain falls you could see it falling and you'd like it better, being in school" (p. 51).

Teachers, too, express their frustrations at being bound by the school environment. Sarason (1971) met with young high school teachers weekly for a year to discuss any problems they were having. Near the end of the year he noted, "They complained that their days were not varied, school was a well-insulated fortress, and that they felt locked into a system that has some characteristics of a factory" (p. 166).

More extreme reactions to boundaries can be found in ghetto schools, for there the boundaries are not merely isolating and unnatural, they are openly hostile and pervasive. A welfare mother commented:

> The schools are like jails. The classrooms are locked. When the kids are inside, they are locked for "safety." When the kids are outside, they are locked so nobody can steal anything. There are iron gates in the hallway. (Sommer, 1974, p. 83)

The locked boundaries extend to the ghetto or stem from it so that simply rebuilding a school or opening locked classrooms will not solve the problems. As one ghetto youth said:

The rat that bit my kid sister, he's not going to stop and say, "Well, well, what a nice school, I think I'll stay clear of it." (Coles, 1969, p. 56)

## Crowding

In the dream schools of the four young writers we can interpret a reaction to the crowdedness of classrooms today. Tim places himself outside the school in an unconfined setting. Debbie describes her wildlife room as "huge" and "only 12 kids per class go there." For Debbie school expands even more at the end of the year when "the class goes on a weekend camping trip." In Mary Beth's school children are allowed to ride on trails through the woods. Lisa's apartment size facilities for each student contrast markedly with allotted individual space in present classrooms.

Classroom crowding is incisively examined by Jackson in his book *Life in Classrooms* (1968). Though he was writing about the crowded conditions of the 1960s, much of what he wrote then still applies now. The number of open-space schools has increased dramatically in this country, and walls have been knocked down to open up space in many older schools, but the majority of the schools today are physically the same as they were when Jackson wrote. The self-contained classroom with four walls, housing 25 to 30 students, remains the rule rather than the exception. Jackson's comments are thus still relevant and worth considering.

He discusses the actual physical crowding and the publicness of classrooms, as well as the consequences or by-products of crowding, namely, delays, denial of desires, interruptions, and social distractions. When examined the actual physical crowding is rather startling:

Even factory workers are not clustered as close together as students in a standard classroom . . . . Only in schools do thirty or more people spend several hours each day literally side by side. (p. 8)

When desks are arranged in rows, as they often are, the sense of crowding is at its greatest.

Time and space become public because of crowding. Grades and teacher's comments on student papers are hard to hide. A student's progress through the test booklet is easily detected by others. Errors

in pronunciations in reading groups can be heard by all. Erasures in math or language exercises are noted by neighbors. Indeed:

> Most of the things that are done in school are done with others, or at least in the presence of others, and this fact has profound implications for determining the quality of a student's life. (p. 8)

In the open-space schools life may be even more public because of the increased visual space and thus increased audience size.

One by-product of crowding is delay. When there are many, some personal needs must take second place to group needs. Children must wait in line to go to special classes; they must wait in line to go to lunch; sometimes there are lines for the bathroom, drinks, recess, dismissal, assemblies, and fire drills. In the mornings there are waiting periods while attendance is taken, money collected, or permission slips gathered. When there are not enough school books, supplies, or sports equipment, more waiting ensues.

With the waiting, frustration mounts. Children sit by the classroom door so that they'll be first in line. They rush across the classroom to get the encyclopedia they need. They place a premium on low batting orders on the playground. For often if they are not first, or among the first, they lose out completely. Recess is over before the sixth batter's turn. All of the *E* volumes of encyclopedias are being used. The cafeteria just ran out of pizza. Small matters, certainly, but they help explain why children who normally walk at home run at school.

Some of the delays may be eliminated through better planning and organization. Children, if they are responsible enough, may "sign out" of the classroom for their trips to the bathroom, drinking fountain, or library by noting on the blackboard their name and destination. Teachers may schedule lengthy multi-disciplinary work periods so that books and supplies will not be in demand by all at the same time. Recess periods may be extended by the teacher until everyone has a turn or the game is finished.

However, not all delays can be eliminated. These may be regarded instrumentally as opportunities for children to learn how to use free moments. If children are made aware of ways that they can use these "time vacuums"—reading, sketching, conversing, observing, imagining, thinking—they may find school time less frustrating,

and the frequent delays in the out-of-school world will become easier to manage.

Another by-product of crowding is the denial of desires. The small denials of pizza and turns at batting were noted above. Deeper denials occur when a child wishes to relate a personal feeling or experience to a friend, the teacher, or the class and there is not enough time. It may be noon before a teacher or the class learn about the death of a favorite pet or the vacation to Florida, because the opportunities for talk were limited or too many people had something to say.

A third by-product of crowding is interruption. Jackson writes of this:

> During group sessions irrelevant comments, misbehavior, and outside visitors bearing messages often disrupt the continuity of the lesson. When the teacher is working individually with a student ... petty interruptions, usually in the form of other students coming to the teacher for advice, are the rule rather than the exception. (pp. 15-17)

Time thus can become fragmented by the crowding of space. Teachers and their students may work together to seek solutions for this problem.

The final by-product of crowding that Jackson notes is social distractions. The close proximity of others in the same room makes it difficult to concentrate on independent work. Looks, whispers, note-passing, signals—all vie for the student's attention, while the teacher discourages or outlaws communication. "These young people, if they are to become successful students, must learn how to be alone in a crowd" (Jackson, 1968, p. 16). There are ways to work on this problem, however, again through joint efforts. One student in my class suggested that our mornings be spent for silent independent work and afternoons be spent on non-silent group work. She further suggested that we arrange the desks into "test-taking formation"—spread out so that all desks are apart—in the morning and form large desk groups in the afternoon. We tried this, and it was quite successful in combating three of Jackson's by-products: delays, interruptions, and social distractions.

Architects and builders do consider the amount of space provided in terms of the number of people to be housed. However, there are

discrepancies between what is recommended and what is practiced. Lehmann (1960) writes:

> Square-foot-per-pupil ratios have a deceptive way of solidifying into prescriptive standards. Particularly does this seem to be true of "recommended minimums" which often become performance norms and maximums. (p. 254)

Lehmann further notes the need to be concerned with the sonic environment of classrooms:

> Undue noise is fatiguing, in the classroom or anywhere. Although the children in the class may adjust to it, they do so at some cost in expenditure of energy. (p. 254)

Twenty-five or 30 people speaking in normal voices in an average-sized classroom can make a considerable amount of noise. Indoor recess periods with children playing board games, jacks, blackboard games, or just talking may be physically draining on teachers and children purely because of noise strain. This may be a reason that mum ball is such a popular recess game. Noise is forbidden in this game of catch. If someone groans or speaks out, he or she is immediately out of the game. Another popular recess game, 7-Up, is also silent. In this game seven children walk around the room while others in the class sit at their desks with their heads down. The seven touch seven seated people, and the children touched guess the identity of those who touched them. The silent nature of each game, while not a primary cause of enjoyment, may well be a secondary one.

## Creating new spaces

One obvious but expensive solution to the problem of crowding would be the construction of open-space schools. In these, additional space is created by eliminating halls and walls. In traditionally built schools walls may be knocked down or wings added. However, if these structural changes are too costly, much still can be done by using the existing space in better ways. Drummond's article, "Using Time, Space, and Things Creatively" (1975), is an excellent source of practical ideas toward this end. He suggests that stages, closets, dressing rooms, and cafeterias be used for tutoring and individual work; that a tent or cardboard box be used in a classroom as a place for individual retreat or small group work; and that halls become

science centers, listening posts, miniature city halls, or places for individual study equipped with fold-out tables and storage units. Drummond offers close to 50 suggestions for creating new spaces from the existing space. In addition, he jars us into seeing our surroundings in new ways.

Teacher use of classroom space is examined by Maxson in her article, "Toward Understanding the Use and Impact of Teaching Space" (1975). She notes:

> Classroom life centers around activities involving books, desks, chairs, and possibly tables, and other classroom artifacts. Because environment places constraints upon people, the arrangement of these environmental "props," to a large extent, extablishes not only the amount of flow and movement possible within the classroom, but also the type of activities that are likely to take place. (p. 179)

Maxson stresses the need for awareness and further study of this dimension of classroom life and space. By being aware of their present use of classroom space and by being creative in their search for solutions, teachers may indeed create new spaces within the old.

### Authority's spatial and temporal limits

When we look back at the four student papers, we notice a somewhat startling absence. In none is a teacher or an authoritative role described. This may be accounted for by the fact that the papers were written for a teacher, and perhaps the children assumed a teacher would be included in the environment and need not be mentioned. I feel, however, that the absence is significant. Space and time in schools are defined and limited most often by authority figures. Children see spatial limits set by the principal, "Do not leave the school grounds," "Sit with your class for the assembly," and "Stay out of the gym after dismissal." They report to the principal's office when they are tardy and take their excuses there after they have been absent and thus associate the principal with temporal limits. Principals vary in the softness or harshness with which they set the limits, but to be responsible for the children's safety and education, they must set limits. Similarly teachers set limits for their classes spatially: "Stay in your seats," "Line up," "Do not leave the room without my permission," "Walk on the right side of the hall," "Do not leave the lunchroom until I come for you." And they set temporal limits: "Let us say the pledge," "You have 50 minutes

for this test," "Your homework is due Thursday," and "When we're all ready, we will go." Some teachers are stricter than others, but in the end even the most lenient must set limits for safety's sake, if nothing else.

Why then have these figures been excluded from the "Dream Schools?" Tim eliminates school authority completely in his paper. Lisa's teacher is a minimally interfering authority, appearing on a television screen at every odd hour for 30 minutes. Debbie mentions a gym teacher: "You can do any sport you want that there is an instructor for." Mary Beth does the same: "horse back riding ... wherever you want as long as ... and have a teacher along with you," and "Then if some of the boys would rather play football then let them, just have a gym teacher out there to watch them." It is relevant to note that during the year in a neighboring school, a child was paralyzed as a result of an injury that occurred during a gym class. Children could see the potential for tragedy in gym classes as a result of this sad experience, and this may be why my writers were careful to include a teacher in their sports settings. In all other settings teachers are absent.

Perhaps the children would rather not have a teacher present in the other school settings. Perhaps they resist the limits on their space and time.

Finally we may view the children's dream schools as unconscious expressions of sexual differences in perceptions of school time and school space. It is poignant that Tim's ideal school is no school. This attitude is held by more boys than girls. That boys find school more uncomfortable than girls do can be documented statistically and by noting that more boys drop out of school, repeat grades, have reading problems, have stuttering difficulties, require more disciplining, complain about school more, and have lower marks (Peltier, 1968, p. 182).

The freedom sensed in Tim's dream is checked in the girls' dreams. This may be a reflection of sex role traits that society consciously and unconsciously assigns to boys and girls. Boys are supposed to be freer and more adventurous, and girls are supposed to be more orderly and obedient. The girls' dreams include schedules, routines, goals, requirements, and limitations. In contrast with their "8:00 Monday, Wednesday, and Friday" types of time structuring,

Tim looks at the sun and says that it is 12 o'clock, dinner time. His view seems freer, more tuned to nature.

Spatially the schools described range from the specifically defined—and thus limited—buildings of Lisa and Debbie, to the slightly broader college type campus of Mary Beth, to Tim's undefined, unlimited open outdoors with woods and woodchuck holes. The differences here may reflect a finding of one recent study that boys are more confident with space and its use and are more comfortable in it than are girls (Saegert and Hart, in press).

Finally it is significant that three of the four dream school papers selected for this discussion were written by girls. More girls completed the assignment, which was optional, and the girls' assignments contained more information than those of the boys. Girls have been generally found to have a greater verbal ability than boys (Maccoby and Jacklin, 1974).

The dream schools have allowed us to see some of the child's view. Now let us turn to the teacher's perspective.

## TEACHERS' DILEMMA: THE CHINESE PUZZLE BOX

When examining the authoritative limits placed on children by their teachers, we see that these lie within the limits placed on teachers by principals, and these lie within the limits placed on principals by school boards, and these lie within the limits placed on school boards by society. Hence the Chinese puzzle box, from the inside out.

### Defining Limits

Jackson startles us when he refers to teachers as children's first bosses and as prison guards (1968, p. 31). However, have we not heard children say the same? Ask a boy to role-play a teacher, and he will immediately begin giving others orders and directions. Ask a young girl why she wants to be a teacher, and she's likely to reply, "Because I'd get to boss people around."

The limits on children's use of space and time may be set forth directly by the teacher during the first days of school, or they may emerge somewhat mysteriously over the first weeks of school. When

they are complete, they can be regarded as a sort of classroom constitution, the working rules of the classroom. Sarason studied the development of such constitutions as they were formed during the first month of school in six suburban middle-grade classrooms. His findings are summarized in Table 2.

Sarason continues by listing the assumptions he feels lie behind the findings, and the reader may wish to examine these in Table 3. At first glance, the list seems to be a reasonable one. A second look, however, shows the assumptions that lie behind these assumptions—namely, that teachers view themselves as being superior and children as being inferior, undemanding, and incompetent. Granted that some teachers may be power hungry, patronizing to children, and insensitive to their needs, most are not. Indeed most teachers have such an appreciation of children—their abilities, needs, and worlds—that they tend to inflate even children's physical size to adult proportions so that upon seeing a child in a non-school setting teachers are startled by the actual smallness of their students.

That teachers are dominant in the formation of classroom constitutions may be the case, but their reasons for this may be viewed less harshly. One assumption that could be added to Sarason's list in

### Table 2: Characteristics of Classroom Constitutions

1. The constitution was invariably determined by the teacher. No teacher ever discussed why a constitution was necessary.

2. The teacher never solicited the opinions and feelings of any pupil about a constitutional question.

3. In three of the classrooms the rules of the game were verbalized by the end of the first week of school. In two others the rules were clear by the end of the month. In one it was never clear what the constitution was.

4. Except for the one chaotic classroom, neither children nor teachers evidenced any discomfort with the content of constitutions—it was as if everyone agreed that this is the way things are and should be.

5. In all instances constitutional issues involved what children could or could not, should or should not do. The issue of what a *teacher* could or could not, should or should not do, never arose.

(From Sarason, 1971, p. 176.)

Table 3 is that it is more efficient and orderly for the teacher to define the constitutional terms. Teachers engage in approximately "200 or 300 interpersonal interchanges every hour" (Jackson, 1968, p. 149), and it is understandable that they would seek quick, efficient methods to arrive at a system of order. At the beginning of the year when children are adjusting to the demands placed on them by group life—as well as the academic demands—they lean especially heavily on the teacher as a guide: "Can I get a drink?" "May I go to the bathroom now?" "Betty's kicking my chair;" or "May I sit by Mike?" With each answer the teacher consciously or unconsciously defines the terms of the classroom constitution and limits the use of space and time. It is a matter of meeting small needs quickly and unobtrusively.

A second assumption to add to Sarason's list would be that no one pushed for a change. A certain amount of inertia must be overcome to bring about any change in habit, and unless students, teacher, or both energetically seek the change, the status quo will remain. Apparently no one was unhappy or evidenced discomfort with the situ-

**Table 3: Assumptions Offered by Sarason for His Constitutional Issues Study Findings (Table 2)**

1. Teacher knows best.

2. Children cannot participate constructively in the development of a classroom constitution.

3. Children want and expect the teacher to determine the rules of the game.

4. Children are not interested in constitutional issues.

5. Children should be governed by what a teacher thinks is right or wrong.

6. The ethics of adults are obviously different from and superior to the ethics of children.

7. Children should not be given responsibility for something they cannot handle or for which they are not accountable.

8. If constitutional issues were handled differently, chaos might result.

(From Sarason, 1971, p. 176)

ation (see no. 4 in Table 2). With many other demands pressing and no one driving for a change, why would time be spent discussing a set of governing rules?

A final assumption to add would be that certain conditions of group life call for the setting of terms by an authority. As two of my student writers noted in their papers, instructors are needed in physical education settings. Gump's study (1964) of counselor interventions in three different camp settings reveals that there are de-mands inherent in the activity structure itself. Indeed he notes, "Logically, we could ask what the class does to the teacher as readily as we might ask what the teacher does to the class" (p. 181).

With these assumptions in mind, we may better understand why teachers dominate the formation of classroom constitutions; however, we may still find the outcome offensive. Should teachers au-thoritatively limit children's space and time? What are the alterna-tives? How can teachers and their students join together to form classroom constitutions? How can they find valid solutions to the problems created by living in a crowd? Once the questions are posed, answers will be found. Children may offer the most creative answers.

## Principal's Influence

The authority of principals shapes and tones the spaces in which they and their teachers live. The tone of this authority is echoed often in the classroom by a corresponding teacher-to-pupil authority relationship. If the principal is strict with the faculty, the faculty is likely to be strict with their classes. If the principal is supportive of the faculty and encourages individualistic teaching, a similar at-titude may well carry through to the teachers' regard for their pupils.

Principals have it within their power to demoralize faculties and students by rigidly structuring school time and space. Teachers may be required to punch time clocks. Students may be required to have hall passes. Relationships are depersonalized, and the overall quality of life in the school is lowered.

Principals who appreciate the temporal and spatial needs of their teachers are much more likely to promote positive, valuable work-ing relationships between themselves and their teachers. The im-portance of this is greater than most people think. Teachers are

more generous with their time, more supportive of their principals and pupils, and more committed to their schools when such relationships exist. Their positive attitudes extend to the life-space and time in their classrooms.

### Society's Influence

Continuing out in the Chinese puzzle box, two more boxes, the school board and society at large, are encountered. The school board box has transparent sides because it acts as a vehicle for the exchange of views between schools—teachers and principals—and society—parents and taxpayers. The box for society is the largest one for our immediate purposes and the most firmly constructed.

In a very real way this last box shapes the limits on teachers and their classes. Society's views on the purpose and value of education will be reflected in its support or lack of support for schools financially and spiritually. Teachers may find options limited by overcrowded classrooms, lack of supplies, rigid curricular guides, and strict accountability requirements. On the other hand, teachers may find their roles to be expansive ones with small classes, abundant supplies, curricular autonomy, and enthusiastic support for innovative methods and programs. These extremes in both directions are rare, but what a teacher will find cannot be predicted.

Society's own time sense affects its regard for schools and educational programs. With Sputnik in the 1950s, the public looked to the future and supported education as an investment. In the 1960s the time focus shifted more to the present, with the immediate problem of Vietnam and the tense energy of the New Frontiers, civil rights movements, and the Great Society. Talented teachers and observers of children were writing about what *is* in classrooms (Ashton-Warner, 1963; Holt, 1964; Kohl, 1967; Marshall, 1963; Moustakas, 1966; and others). The public may have been moved by their writings to improve the "present" conditions of classrooms. It is too soon for assessments concerning the 1970s, but I hypothesize that they will be regarded as a time of distrust and disappointment in both the present and the future. The "ends-justifies-the-means" morality and the polluting, draining, economically confounding technology combine to make a return to the past appealing. Calvinistic austerity budgets cast schools to a past stature. These are all sweeping state-

ments, which are admittedly speculative and generalized. What is of importance, however, is that society's time sense and its regard for schools mark the outer limits of school time and space.

Now that we have come to the last box, which contains all the others, we can see how small and lost that original box is. And what does it contain? Children. Their natural freedom in time and space is indeed boxed in when they come to school—limited by teachers, principals, school boards, and society. We should not forget this. Our limits on their freedoms should not be made capriciously, unthinkingly; instead each limit should have validity in *their* terms, for children are our schools' centers.

## FILTERS ON ACTION

As teachers, the images we have of children, the concepts we have of the learning process, our educational philosophies, our personal styles, and the quality of our lives all act as filters on the way we behave in our schools and classrooms. As we limit, define, or enrich the time and space of children, we do so through these filters. By examining these, then, we can better understand how we presently behave and how we wish to change.

### Time Values

Do we value the present, future, or past? Are we tuned to children's time orientations? Which time tense predominates in our classrooms?

If we are oriented to the past, we carry on school practices because "things have always been done this way." We continue rituals because "they're traditional." We teach history because it is a "school subject." We begin our astronomy unit because "it's January already." We teach last year's lessons to this year's class.

If we have a future orientation, we regard today as a preparation for tomorrow. We frequently make references to the future. "You must learn to add this year so that you'll be able to multiply next year." "If you can't manage homework now, what are you going to do in high school?" "If you expect to go to college, you'll have to be able to do better than this." Today's pleasures are sacrificed to tomorrow's challenges.

Those who have a present orientation teach more responsively. "The children have been so involved that we may stay on this unit all spring;" "No, I don't have plans for tomorrow. We'll see what happens;" "I'm not giving spelling tests anymore because the children don't enjoy them;" or, "I felt like getting outside so we took a walk."

Jackson (1970) values both present and future orientations in school and suggests the somewhat confusing labels "preparatory" and "consummatory" for these perspectives on education. He considers the official purpose of school to be preparatory, but he notes that it also must be consummatory because "school accounts for so large a portion of human existence" (p. 14). Interestingly, when we recall our own school days, our recollections consist of life moments, not preparations. As a matter of fact, most of our memories take place in the child-owned times and spaces described earlier.

The selection of a single time tense is actually not necessary. All may be integrated into our school time with emphasis on shifting among the three according to the group's nature and needs. It is helpful, however, for teachers to be aware of the workings of these time orientations and to avoid stagnating themselves in only one frame.

When we look to children, our centers of school, we notice that they tend to stress the present. A two-year-old tends to punctuate his or her speech with "now": "I go to Suzanne's now;" "Eat lunch now." Elementary students are inclined to write in the present tense or slip into it when they become involved in their writing:

> The man got off the bus. He said, "What time is it?" I said, "I don't know." He pulled out a gun and ran. He is running toward me. I see his eyes.

In the absence of a secure future, many children gain value only in the present time tense. Even with children who have apparently secure lives, the swaying is to the present. Given choices such as, "Do you want the class party to be tomorrow, next week when we have more time, or would you rather squeeze in something this afternoon?," the typical response will be, "This afternoon!" Those are middle-class elementary children. Meanwhile, Poussaint (1974) writes of the need for immediacy in deprived children:

> Delayed rewards are weak motivators of behavior, as they are discriminatorily and inconsistently given. The more immediate and direct the reward is, the stronger a motivator is likely to be. The future is too far away and too unpredictable. (p. 96)

And, of course, tomorrow seems farther away the younger one is.

Children like immediate feedback. "Read my story," they say as they put down their pencils. "Have you checked my test yet?" they ask minutes after papers have been collected. It may be recalled that Lisa had a dream school equipped with magic blackboards that corrected schoolwork with the push of a button.

The workings of a future orientation have nevertheless brought rewards for children. Singer (1974) writes of a child's "future-focused role image" (p. 32) and notes that the farther children can see into their own futures, the more motivated they are to accept the discomforts of the present as a means to the rewards of the future.

While we become aware of our own time orientations, we do so in a dynamic relationship with the time orientations of children in our classrooms. The power of Singer's future-focused role image is great. If a child believes that some day he or she will be a veterinarian, the memory work of zoology becomes real rather than tedious. Mathematics becomes more tolerable to the future space scientist. The encouragement or discouragement of such future projections lies within the powers of teachers. The cancellation of such a dream is poignantly told by Malcolm X, when he recalled his days of being one of the top students in a predominantly white school. His English teacher asked him what he planned for as a career. Malcom X told the teacher that he was considering becoming a lawyer. His teacher's response was:

> Malcolm, one of life's first needs is for us to be realistic. Don't misunderstand me now. We all here like you, you know that. But you've got to be realistic about being a nigger. A lawyer—that's no realistic goal for a nigger. You need to think about something you *can* be. You're good with your hands—making things. Everybody admires your carpentry shop work. Why don't you plan on carpentry? (X and Haley, 1964, p. 36)

Malcolm added in his autobiography, "It was then that I began to change—inside" (p. 36).

Our view of time as teachers and our view of the time of our students can have a significant effect on the lives of children. It is for this reason that it is best to put aside cumulative folders at the beginning of the year—after gleaning from them only the essential medical and familial facts—for our expectations may be projected to the children nonverbally if not verbally, placing our limits on them. The comments and views of other teachers should be read after a relationship has been established freshly between teacher and student. The teacher should not define the limits of a child's growth.

### Images of Learning and Learners

Other conceptualizations, other filters, influence the way teachers act with children. Among these are our images of the learner and of the learning process. For some, students are regarded as unorganized raw materials that teachers transform into acceptable products—the good citizen, the neat worker, the sound thinker. Similar views of the learner have been pejoratively described as "the clean slate" (Yamamoto, 1975, p. 107) and "the empty learner" (Getzels, 1975, p. 3). The industrial and engineering terminology now popular in colleges of education promotes such a view: "observable behavioral objectives," "competency-based teacher education," "performance contracting," "input and output," and "sequential skill programs." These terms may denote useful approaches, but they connote product rather than people orientations.

Further, as Calitri (1975) observes:

> Very little in which the teacher is expected to do calls for the awareness of the child as a constantly changing person. The steps are marked off in terms of what achievement levels are scored, not as if they reflected the child's development in a personal continuum but as a means of placing each child in a box in comparison with other children, both in the specific class and in the universal class set up for that age group. (p. 90)

Children are constantly changing persons. With the depersonalization due to crowding in the classroom and now these product-oriented images, it is easy to forget that in the center are constantly changing persons who:

> should not be deprived of the control of their unique life-space, and their experience should not be compartmentalized, regimented, or trivialized in the name of efficiency, economy, and predictability. (Yamamoto, 1975, p. 117)

Ashton-Warner (1963) responded to learners as beings by teaching organically, helping children read and write "organic vocabulary," words and phrases uniquely theirs. To view learners and learning this way is challenging and less efficient than in the product view. In the same vein, Marshall (1963) writes:

> To control a class in freedom, to learn with each child instead of instructing a passive class, to be a well of clear water into which the children can dip all the time, instead of a hosepipe dousing them with facts, is the most exhausting way of all of doing a teacher's job. (p. 42)

Push and pull, predict and program as we may, teaching is unpredictable in terms of both the process and the results. It is described by Jackson (1968) as an "opportunistic process" in which

> the path of educational progress more closely resembles the flight of a butterfly than the flight of a bullet. (pp. 166-7)

Postman and Weingartner (1969) are among those who find the present sequential and spiral models for the learning process inadequate and prefer to compare it instead to

> a Jackson Pollock canvas—a canvas whose colors increase in intensity as intellectual power grows (for learning *is* exponentially cumulative). (p. 31)

As we consider images of learners we must confront the issue of sexual stereotypes and sexual differences. While we do not want to promote the traditional sex role stereotypes, we cannot ignore actual sexual differences and treat children as if they were neuters. Sexual differences may be attributed to biological causes, parental or societal expectations, and modeling of observed sex roles. Studies continue to be made to determine real differences in a biological sense as opposed to a societal sense. Our purpose here is to determine as best we can how sexual differences affect a child's experience of school time and space.

Eleanor Maccoby and Carol Jacklin have thoroughly analyzed the general subject in their book *The Psychology of Sex Differences* (1974). McCune and Matthews (1976) summarize the actual sex differences Maccoby and Jacklin found in this way:

1. Males are more aggressive than females (boys are more aggressive physically and verbally).
2. Girls have greater verbal ability than boys.
3. Boys excell in visual-spatial ability.
4. Boys excel in mathematical ability.
   [Note: These ability differences usually do not first appear in early childhood but have their onset at adolescence and increase through the high school years.] (p. 180)

Developmental differences have been noted by other writers. Feeney (1966) notes that in the development of hand muscles boys are "a good 16 months behind girls" (p. 9). Bentzen (1966) observes that:

at the chronological age of 6, when most youngsters begin to attend school, girls are approximately 12 months ahead of boys in developmental age; by the time they are 9 years of age, this developmental differential increases to about 18 months. (p. 16)

In our efforts to be democratic and liberated, we try to treat all equally, but by doing so we may overlook some significant differences and indeed do harm rather than the intended good. How frustrating handwriting is to the child whose muscles are not ready to do it! Boys and girls are taught this subject at the same time, even though boys are a year to a year and a half behind the girls in their development.

As we make our images of learners, we will need to include sexual differences. This should occur naturally if we are responding to the individual child as a unique, growing, and changing being.

## Images and Room Arrangements

Especially pertinent to our present concern are Getzels's pairings of images of the learner and room arrangement shapes (1975, pp. 1-14). He ties the empty learner image to the rectangular room arrangement. In these classroom designs, which were the standard in

the early 1900s and continue to be the most prevalent today, the teacher's function is to fill the learners with knowledge. Hence all desks face front in evenly spaced rows toward the front of the class and the source of knowledge, the teacher and his or her desk.

Getzels next connects the image of the active learner to the square room arrangement. In these rooms furniture is movable, arrangements are changed, the teacher's desk joins those of the children, and the learner becomes the center. The learner in this setting is described as:

> a tumultuous bundle of needs, values, persuasions, projections, repressions, and conscious, preconscious, and unconscious psychic forces that determined his behavior. (p. 5)

Getzels's third model is the social learner and the circular classroom: "Learning was perceived as occurring through interpersonal actions and reactions. . . . " (p. 7). It is in such a shape that many of today's affective education programs occur. One commercial affective education curriculum guide even calls its program "The Magic Circle." Children learn about their own feelings, the feelings of others, and study levels and consequences of interactions.

Getzels's final model is the stimulus-seeking learner and the open classroom. This design is becoming more common as communities venture into open plan architecture where learning centers, communally owned furniture, private study places, and public areas replace classrooms, halls, and traditional school furniture. The learner is seen as "a problem finding and stimulus seeking organism" (p. 10).

## Schools as Feminine Space

As we consider matching learning styles with learning environments, we cannot ignore the mismatch between many boys and their schools. Schools continue to be staffed predominantly by female teachers and male principals. Sexton (1965) writes:

> The problem is not just that teachers are too often women. It is that the school is too much a woman's world, governed by women's rules and standards. The school code is that of propriety, obedience, decorum, cleanliness, physical and, too often, mental passivity. (p. 57)

The result of this problem is that many boys dislike school, do poorly in school, and leave it as soon as possible. Another result that may be surprising is that boys develop character, independence, and autonomy from their school discomfort. They gain more of teachers' attention, both positive and negative, and they have to test themselves more than girls do. The happy consequence is that they grow significantly in personal terms, if not in schooling terms.

Girls are also affected by the feminine space. They feel natural and comfortable in the environment and do very well academically and socially. But their comfort takes its toll, for they become less willing to take risks, more dependent upon authority, and less adventurous students. Maccoby (1963) describes six-year-olds who are likely to increase their IQs by the age of ten as "competitive, self-assertive, independent, and dominant in interaction with other children. The children who show declining IQs during the next four years are children who are passive, shy, dependent" (p. 33). Frazier and Sadker (1973, p. 96) make the alarming connection for us between the behavior teachers promote and the passive, shy, dependent child whose IQ is likely to decline. That teachers are more successful with girls in this respect is especially disturbing.

So it is to everyone's benefit that school spaces be defeminized. This may easily be done by hiring more male teachers. Encouraging teachers to be more aware of the ways that they are feminizing space may also help. Grambs and Woetjen (1966) write:

> Women *literally do not know* that they use words differently, structure space differently, and perceive persons and reality differently from men. (p. 64)

Lee (1976) suggests a delightfully challenging first-aid type of solution. He acknowledges that ideally male teachers are the best models for boys and female teachers the best for girls but recognizes that we are a long way from reaching such a balance in our school faculties. He suggests:

> Essentially, then, female teachers have to develop their capacity for androgynous behavior (as should the few male teachers available to young children). . . . All it means, quite concretely, is that the female teacher get into the kind of things stereotypically associated with

males, like playing with worms and toads, having a tolerance for messes, tinkering with mechanical devices, enjoying gross motor games and sports; and she should dress accordingly. (p. 191)

To facilitate this transition it would be helpful to observe men teachers in their own classrooms and to note the different teaching methods and activities. For instance, a two-man teaching team in a sixth-grade classroom observed in Rochester, New York, works in a way strikingly different from their women colleagues. For study breaks during the day children wrestle on a rug with their teachers or throw balls at mini baskets hung strategically around the room. The classroom bulletin boards are filled with newspaper clippings, and news gathering is a significant part of the curricula.

Lee cautions us in this effort by explaining that androgynous does not mean "unisex" or that women should become exactly like men. Rather he defines it as meaning "one's sex is not the primary determinant of one's behavior, values, or aspirations" (p. 191). If both women and men respond in this way, the schools could be regarded as having human or people space rather than feminine space, and children should benefit accordingly.

### School Philosophies and Styles

As a result of opposing images of the learner, differing time tense preferences, and varying educational philosophies, we have in schools today a wide array of styles and practices. Further, many schools are in a state of flux, moving toward an open structure and concept or shifting back to a more conservative position. The economic base for the differences of the past is being superseded by a philosophical one today.

An excellent source of clear descriptions of existing schools ranging along the spectrum of traditional to modern is a study made by Biber and Minuchin (1970). The philosophies and practices of four schools—three public and one private—with similar school populations and located in the same city are compared and examined for the purpose of distinguishing their impacts on child development.*

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*The findings and implications of this interesting study are complex and significant, calling for a more thorough examination than can be given here. The reader is urged to refer to Biber and Minuchin's article (1970) or the book by Minuchin et al. (1969).

Each school's style differs in degree from the others from traditional to modern. I will consider here their descriptions of the two schools at either end of the order. First, the traditional

> Browning appeared, on the whole, untouched in its traditionalism, almost a pure form. There was minimal variety in the program—almost no activities that would be classified as creative and very little occasion to leave the classroom in which a sober, conscientious, quiet, orderly climate was consistently maintained for passively learning children. (p. 37)

And the modern

> The program was diversified; creative arts were a built-in feature of school life. . . .classrooms were busy, active places full of things in the process of being made, ideas in process of being formed, and skills being mastered, with a teacher-leader and participant children keeping as much calm as was necessary for learning and work to be unhampered—what has been described as a workshop atmosphere. (pp. 38-39)

The other two schools in the study fall between these two, and as we consider what exists today, we may decide that most schools we know would fall between them also.

## Teacher Styles

Closely related to school styles are the classroom styles of teachers. Teachers' conceptions of their roles as teachers will shape their actions in the classroom. It may be helpful to see the gamut of "good" teachers as presented in educational literature. Adams and Biddle (1970) discuss two alternative images:

> One is the image of the teacher as the charismatic leader who, by force of personality, demands and gets awesome and single-minded attention while she enthralls everyone with her own virtuosity. The other is the image of the "empathetic" [sic] teacher, who somehow always seems to appreciate your thoughts, your feelings, your problems so that inevitably your learning is *personally* relevant and meaningful. (p. 86)

The last of the filters on action are teaching drawbacks. A

teacher's attitude and behavior may be influenced slightly or greatly by these. Inherent within the present role of teachers are disadvantages that need to be viewed openly. To be blunt, teaching can be very frustrating, lonely, and intellectually stymieing.

The source of the frustration is a dilemma that Sarason (1971) describes well:

> a major problem of the teacher inheres in the interaction between number and diversity of children, on the one hand, and the felt need to adhere to a time schedule, on the other hand. (p. 154)

Number and diversity of students may be problems at all levels of teaching. How can college and secondary teachers affect and guide each of their 120 students in a few hours each week? For elementary teachers the number of students is less but the assignment is a total one, all the subjects, all the time. In all teaching situations the job can never be done completely; in all, some students will not receive the time and instruction they need. Hence the frustration caused by the difference between intention and accomplishment.

Loneliness varies from teacher to teacher, from school to school. It is an unexpected drawback for a profession that is concerned with the education and welfare of others. Rewarding and lasting relationships may develop between teachers and students; however, the teacher's present obligation to instruct and evaluate and the student's present requirement to learn and perform inhibit or limit the full development of such relationships. The transitory nature of the school situation is another limitation. Relationships that grew during the year may weaken during the summer and disappear the following year as contact is reduced at each point.

The teacher's most stable source for companionship is with colleagues. However, in most schools the arrangement of time and space discourages such relationships. Unless teachers are in a teaming situation or in an open school, they are isolated from other teachers and bound to their classrooms for the better part of the day. Special class instructions may free teachers from classroom duties once a day, but because these are given in a staggered shift, few teachers are freed during the same time period. Such breaks are often spent alone in the room straightening supplies, keeping rec-

ords, evaluating work, planning lessons, or preparing materials for upcoming lessons. The hours spent before and after school are used in a similar manner or spent tutoring children or supervising their activities. Teachers do manage to have social exchanges with each other at lunch, if they are not expected to eat with their classes, and in the teachers' room when they attempt to combine talk with their paper work during breaks. Discussions of much depth are difficult under such conditions and with such time limits.

In speaking with very young teachers about these matters, Sarason (1971) notes:

> They are quite unprepared both for the loneliness of the classroom and the lack of relationships in which questions and problems can be asked and discussed without the fear that the teacher is being evaluated. (p. 171)

Sarason relates the fear of evaluation back to the teacher's sense of inadequacy due to the frustration discussed above.

Closely related to this loneliness is the lack of intellectual stimulation for teachers in such settings and under such schedules. The lack of opportunity for thoughtful discussions with other faculty members represents one source. The press of clerical work and steady march of day-long school sessions to be planned occupy evening hours—this is another source. The intellectual stimulation that comes from reading literature, discussing politics, attending plays and films, or watching television must be sacrificed to evening school preparations. How insulated a teacher may become!

Finally, as Jackson (1968) has noted, when teachers are actually in their classrooms doing their jobs, the interruptions and different needs and demands of 25 individuals can mount so that teachers will engage in an astounding number of quick exchanges. It is unfortunate, though, that Jackson resigns teachers to their fate and finds a curious pleasure in seeing a fit between teachers "with all of their intellectual fuzziness and sticky sentimentality" (p. 152) and the pressing demands of classrooms. He writes:

> If teachers sought a more thorough understanding of their world, insisted on greater rationality in their actions, were completely

open-minded in their consideration of pedagogical choices, and pro-
found in their view of the human condition, they might well receive
greater applause from intellectuals, but it is doubtful that they would
perform with greater efficiency in the classroom. On the contrary . . .
(p. 149)

Such thinking deserves the same labels that Jackson applies to
teachers, "fuzziness" and "sentimentality." He overlooks the possi-
bility that classroom life, with its demands for shallow thinking, may
be contributing to the breakdown of teachers' intellectual acuteness.
Further, he seems unaware of teachers' possible desires to change
the situation. Instead, he regards teachers somewhat paternal-
istically as softening features in the classrooms and as models of
"human fallibility" (p. 153) for the children.

While I disagree with Jackson's interpretations, I do agree with
his observation that teachers do not always perform in intellectually
impressive ways in their classrooms. The observation calls for re-
sponses different from his; the situation as such does not always
intellectually challenge the teacher. The sameness of required cur-
ricula or grade level may also stymie intellectual liveliness.

The quality of teachers' lives, both in the classroom and out, di-
rectly affects the lives of the children in the classroom. So often
educational writers, in their conscientious efforts to view classrooms
as humanistically as possible, forget to consider the humanness of
the teacher. If a teacher is to be that "well of clear water into which
the children can dip all the time" (Marshall, 1963, p. 42), there
need to be opportunities for replenishment. By caring for ourselves,
we teachers will have more to offer our children.

## THE EYE OF CHANGE: A PROCESS VIEW

### Formulating the Problem

The better we question, the clearer our answers will be, say Post-
man and Weingartner (1969, p. 81). Our solutions are dependent
upon how we formulate the problem, adds Sarason (1971). So we
now must begin to question. What can we, as teachers, do with what
we have learned from this book? What do we want for ourselves and
our students? How can we improve the space and time in our
classrooms and schools? And as we find answers, we will need to

question again. Are they the only answers? Are they really good answers? Are they working?

What I find reassuring in this process is the fact that there is no sugar mountain in the sky that we are not seeing because of clouds of ignorance or misdirection! There are no all-time right answers. Life is real and earthbound. Students die, teachers die. What is and what is hoped for exist in a tension in a temporal world. It is within our own power to grapple with that tension, and indeed it is a sad forfeiture if we do not.

### Others' Views

The solutions offered by others through their own experiences, while interesting, will not satisfy us, for *we* must be a part of the process. We cannot passively observe the works of talented teachers like Marshall, Ashton-Warner, Kohl, Holt, Cullum, or anyone else and hope to change our own classrooms into imitations of theirs. They do not ask us to do this, and we are not able to. Each of us is as different as we know each of our students to be. We can tune in to other teachers and see what they are doing and why, but then we must shift from our passive stance to an active one, determining which of their ideas relate to ourselves and our situations. We need to consider our own image of the learner, our own time preference balance, our own view of classroom life. Then the formulating, grappling, experimenting, and evaluating can begin.

We need to ask: What do *I* want? What is right for *this* group, in *this* community, at *this* time? By asking, we become aware of *our* choices, and by knowing these, we may better choose.

### Practical Possibilities

How can school space and time be made better for children? We could ask them. They could create their own designs for present or future schools as a means of giving us their views. They could be included in the construction of the classroom constitution that Sarason described. They could be given sections of the classroom to decorate as "theirs." They could design the whole room as one California sixth-grade class did (see the 1975 *Learning* article described in the readings section). Their suggestions for the daily schedule could be tried. Their school boundaries could be broken down by field trips,

community projects, educational walks in town as well as in nature, and frequent visits from people outside the school community. Career education providing experiences could be arranged so that children may really see what their career choices entail. Older children could leave their classes to tutor younger children. The flow of movement within the classroom and around the building could become more natural through joint efforts of students and teachers to make it so.

How can children become more sensitive to space and time? By being included in the process of making spatial and temporal decisions. There are also an increasing number of curricular games and activities that are designed to further spatial and temporal concepts (see the curricula section of Suggested Readings). Video-taping and filmmaking projects directly involve the manipulation of time and space for effect in order to communicate or entertain. The cost of equipment for such activities is no longer prohibitive.

How can school space and time be made better for teachers? How can the drawbacks of loneliness, frustration, and intellectual stymie be relieved? In many schools cooperative efforts among special teachers and classroom teachers have brought about common free times for groups of teachers who wish to work or plan together. Some schools have given their teachers release time to participate in professional development programs. In others, teachers are encouraged to use several professional days a year to observe other schools or attend workshops or conferences. Schools may also conduct switch days during which teachers switch to a grade level they do not normally teach. Such days call for a great deal of planning between teachers, and time needs to be allotted for this; however, they can result in teachers' greater appreciation of other teachers, of the process of growth in children, and of their own classes on their return. Teaming efforts among teachers for a common unit, sharing of children for different subjects, and day-long and year-long teaming arrangements can be stimulating and enjoyable. In-service programs can be upgraded in quality so that they can become invigorating and illuminating rather than being rehashes of known materials and procedures.

Other practical possibilities for classroom arrangements, teaching methods, curricula, and school architecture are offered at the end of this chapter. Look at these, read some of the highly recommended

references, but then select, consider, and formulate for yourself in your own terms.

### An Impractical Dream

Now to consider the school that would answer some of my own questions. . . . It would be a school in which tired teachers could take "mental health" days and not feel guilty. When a teacher felt totally drained mentally, emotionally, or physically, he or she could take a legal mental health day. I don't think that this is a bad idea for business workers and laborers, either. Certainly many professionals already do this—doctors, lawyers, politicians, actors. They recognize the need to take a break so that they may return refreshed. In any case, in this dream school, such days would be allowed, but they would not be abused. Children would benefit for, in the teacher's absence, they would be placed in the care of a refreshed, stimulating substitute—only such a variety would be hired!—and then their teacher would return renewed.

In this dream school, the day would end at noon. Teachers would use afternoons to do the work that they now do in the evenings, and their evenings would become freed for other pursuits. The afternoons could also be used to work with other teachers or to study as students themselves.

What would the children do? Let us ask, "What would they like to do?" They would probably get bored doing nothing; they are indeed Getzels's stimulus-seeking, problem-finding organisms. A few could make those hours valuable; Tim certainly could, the student writer who dreamed that all schools are closed. Most would want to do something with other children. The few whom I have asked have said that they would spend that time playing sports. Others would prefer to do something in the arts—painting, building, acting. Working with cars, bikes, and motors, caring for animals, riding horseback, and hiking would be still other choices.

Such an afternoon program could be conducted in the school, in a community center, or perhaps in the community as a whole. The teachers could be older students, retired people, the unemployed, or professional people released from their work for short periods of time. Parents could participate as teachers for their own and others' children. Children could become teachers. Teachers might wish to participate as students of their students. Artists, cooks, pilots,

carpenters, writers, road builders, dress designers, test drivers, mechanics, lumbermen, conservationists, singers, dancers, and scientists could show children what they do at work. The old and the young would mix as they do in the world. An array of career choices and life styles would be displayed to the children. And the children would be able to participate in these activities and many others— mechanical, athletic, artistic, social service, academic, or what have you.

The dream may be impractical for the moment, but by considering it, we may find some ways, some other choices.

### The Eye of Change

The teacher is at the center of any school change that organically affects his or her classroom. The teacher can better see the needs of children and has a better sense of classroom life. There are questions to be asked and changes to seek. The tension between what is and what could be needs to be grappled with. And teachers need to be active centers in the process.

# Suggested Practices and Readings

### Room Arrangements

Flexible grouping

For example, a circle for group discussions, two facing rows for debates, small desk groupings for team projects, individual islands for independent study, close huddles for brainstorming, as well as free selection for films and group presentations. Several of these may be used in the course of one day by letting the activity determine the seating arrangement.

A totally student-designed classroom

An example is the sixth-grade classroom, taught by Mel Prowse and described by Westerberg (1975). It is complete with student-made lofts, stage coach and western jail study spots, and poster collaged walls. Time and space are organized in unconventional, intriguing ways. The article is worth reading.

Indoor innovations by designers

A good example is Curtis and Smith (1975). They found inspirations for

their works in a Mexican marketplace and in their observations of the movements of children. When children requested places to crawl away into, they obliged only to discover that children still wanted to see what was going on outside their own nooks. The resulting towers and tubes, complete with plastic windows and domes, make a peaceful, open, yet private environment.

### The classroom as stage for dramas

Cullum (1967) presents many possible transformations of the classroom, including one for a Joint Session of the Congress for his "parade of Presidents" social studies lessons, another as the Renoir Room in a museum, and still another as the workshop for the construction of the Trojan Horse.

### Innovations in a conservative climate

West (1967), a British how-to book, is a good counterpoint to the American, feet-first attitudes toward innovation. It may indeed be a necessity for those squirming in a strictly structured school environment.

### Free and zaney innovations

Farallones Designs (1971) provides a wild collection of practical tips for building imaginative classroom furnishings and also offers ideas and methods for teaching the concepts of space to children.

## *Curricula*

### Creative writing

One may ask children to project themselves into the future and describe schools, cities, or future life in general. Good sources of inspiration for such activities are Ellison (1969) and "Five Noted Thinkers Explore the Future" (1976).

### Mathematics

History and the workings of the time-measuring devices may be explored. In pairs, children may try to infer the duration to the second of one minute, three minutes, and so on.

### Critical thinking

Have children project today's problems into the future, and consider methods of solving them. Note the ways in which our society structures time and space, and weigh alternatives. Some of these alternatives may be found in other cultures.

### Room and schedule planning

Ask children's ideas for room arrangements and activity scheduling. Integrate these into planning whenever possible and desirable. See, for instance, Renfro (1976).

Classroom extension

Videotaping and filmmaking projects help break down the boundaries between school and home or school and the world. One good source is Whitcomb (1974).

Career education

Opportunities for the creation of future-focussed role images (Singer, 1974). The practice of "shadowing"—following someone through a work day—is a useful form of career education.

Literature

The time orientations of different writers may be examined in terms of their effectiveness and pertinence to the explicit or implicit themes.

Environmental education

For an excellent collection of programs, see "Environmental Education from Kindergarten On Up" (1969).

## School Environments

Green, Alan C. "Planning for Declining Enrollments." In Thomas G. David and Benjamin D. Wright (Eds.), *Learning environments*. Chicago: University of Chicago Press, 1975. Pp. 69–74.

Not far from my Fellini dream. The author states: "There is a growing tendency when planning school facilities to make common cause with other social services—the arts, recreation, day care, libraries, job training, health, and on and on. The emerging cooperative art form is the community/school or the community center . . ." (p. 71)

The *Harvard Educational Review,* 1969, *39,* 1–147.

This whole Fall 1969 issue (number 4) is devoted to the topic, "Architecture and Education." Of the articles, the following are of special interest.

Carew, Topper. "Interview," pp. 98–147.

These interviews were conducted by Arthur Blackman, Ken Freidus, David Robinson, and Florence Shelton Ladd. One of the first store-front schools, "The New Thing," is described and the underlying philosophy discussed.

Goodman, Robert. "Liberated Zone: An Evolving Learning Space," pp. 86–97.

An architect, his students, and high school youngsters plan together a learning space for the high school students.

Hertzberger, Herman. "Montessori Primary School in Delft, Holland," pp. 58–67.

This well illustrated article shows a school that "has been made to answer the specific demands of a non-traditional teaching system." (p. 58)

Holt, John. *What do I do Monday?* New York: Dell, 1970.

A mobile learning environment is described in "New Spaces for Learning," pp. 282–292.

Toffler, Alvin (Ed.) *Learning for tomorrow: The role of the future in education.* New York: Vintage, 1974.

A mixture of articles tied together by a common valuing of futurism.