

The National Swedish Child Council (Barnmiljörådet).

The Swedish society has during the last decade gone through great changes. Hundred years ago, it was a typical agricultural country. The industrialism has come quite recently and the typical changes associated with it have been especially rapid in our society. The technological development, rationalisations, cars, material welfare, increased leisure-time, increased consumption, commercial culture, segregation in living and so on gives the character to the Swedish society today.

This society has many defects when it is attempting to satisfy the needs for children and their possibilities for development. Experience as well as research results shows that it is important that children get rich and varied experiences during the first important years of childhood.

This knowledge together with the insight that PLAY has a fundamental value in the child's life and that possibilities for good play have increasingly been reduced was the reason that 1971 the Swedish Council for Children's Play was established. It became linked to the National Board for Health and Welfare, and its aim was to work for improve better conditions for children's possibilities for interaction with other children and adults. It was said particularly that the Council should spread out information about how important it was that housing areas should be planned from the point of children's needs. The Council was also asked to work with questions about the development of experimental and researching activities in preschools, leisure centres and other institutions and it was also asked to see that the toy market should produce good, secure and developmental play-material for indoors as well as for outdoors play.

During the 70's the conditions for children have hardly been improved. Instead society has become increasingly more dangerous and increasingly more threatening for children. Therefore, the Parliament decided in 1980 to give

the Swedish Council for Children's Play a more independent status and by some reorganisation give it some new tasks as, for instance, to deal with questions about children's security and also a new name: the National Swedish Child Council, Barnmiljörådet.

The Council's main task should be to work with the planning of a society which includes children in that planning. Still however one of the most important tasks should be to give information about the need for children's development through play.

The Parliament has decided that the Council shall work towards and develop information about

- o that a good child-environment is a prerequisite for the human beings development,
- o that good conditions should be created for develop mental play-possibilities in living environment as well as in public environment,
- o a coordination of the societies prophylactic achievements in the child security field,
- o research and development in the field of children's environment and their security,
- o the collection and coordination and working up of already known knowledge in this field,
- o the awareness of national and community authorities as well as housing companies to questions about children's environment and security.

The Councils activities are meant to be focussed to society organisations at central, regional and local level, to parents, producers and distributors of material for children and to organisations for children and youth.

The Council has a Board with 11 members chosen by the Government, coming from different state organisations as for instance

- the National Board for Health and Welfare
- the National Board for Housing
- the National Board for Planning
- the Road Safety Committee
- the National Board for Education
- the National Swedish Board for Consumers Policies

and representatives for Caring Organisations, Preschool Pedagogics and also, and this is very important, representatives for some political parties, eg MP's.

In the Council's staff are people with education in law, psychology, landscape architecture, preschool teaching, social work and other academic training. The council has 11 people employed.

The questions we deal with are Housing areas (particularly from the child's point of view):

Play and play material

Children in preschools, leisure centres and schools,

Children in hospitals,

Handicapped children

Immigrant children

Children's culture

Children's accidents and security.

We have a "mediatek" which is an information centre for people from outside as well as for inside information. The library therefore collects experiences of the child in the society in the form of books, slide series, films and videos. There are about 4.000 books in the library and it grows very quickly.

All the ideas, local projects, experiences, suggestions, solutions etc we come across, we try to spread information about. We collect material and information, we concretize ideas by exhibitions, posters, brochures and pamphlets, and we document projects, produce films, slide series etc

We also produce books and booklets and arrange conferences and campaigns on different themes, and exhibitions of different kinds in our own exhibition hall, and we also produce travelling exhibitions going out over the country.

We give lectures to universities, gymnasiums schools, organisations, tenants and parents groups, child minders and staff in preschools, daycare centres, leisure centres, schools for playleaders, in-service training courses for staff of community organisations etc. We are members of working and research groups in national and community organisations. We work therefore with questions expanding from the little trivial problems for parents of new born babies over to the society planning instruments which influence the daily life of the child.

We welcome also international exchange of information and we have also developed very good relationships to organisations abroad, all over the world.

The Schoolyard



BIG



THE SWEDISH CHILD COUNCIL

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LEARN BY PARTICIPATION

The school yard is not only an area which one crosses in order to get to the school building. The school yard is a place for young human beings who are very formative and are going through periods of intense development. Without exaggeration, the claim can be made that the possibilities for development on school yards are those most neglected by our communities today.

Educators are inclined to believe that learning can only take place indoors in a schoolroom. Children learn more easily if they are allowed to experiment. Abstract ideas become concrete knowledge when pupils learn through practical efforts, when every side of the human being is engaged in the process of learning: seeing, hearing, the sense of smell, taste, touch, balance... A pond of live tadpoles will teach children more about development and the processes of change than the text and pictures of a book. The transformation from cocoon to butterfly will be remembered for a lifetime. To dig and poke about in the ground in order to discover where the earthworms disappear when it is dry weather, to see the life of the bees in the hive in summer and their preparations for survival in winter, to see the swarming life in an anthill, all these things increase the understanding of the processes of life. They also give an insight into the dependency even of human beings on nature.

In most of the living areas where children grow up today contact with adults is meagre, places to play are scanty, cheerful colours, the perfume of flowers, the sounds of living things, curious shapes of plants, stones, tree trunks and such are lacking. It should be compulsory to compensate for this bareness on school yards by making them as varied and stimulating as possible. Here one has access to the expertise of pedagogues, the experience of teachers and what one can learn from the children themselves. Here it should be possible to start various projects, to learn directly from nature, to experiment, to examine, to discover.

While growing up the child needs contact with people. It also needs a great deal of material and many different situations presented to it, in order to discover and understand the world about it and to try

new paths and ways of behaviour. This need is a compelling psychic force which fosters human development and results in creativity. All human beings have this need. It is easy to inhibit creativity by creating a setting similar to that which we find on SCHOOL YARDS today.

Knowledge acquired through active participation in the process of learning deeply effects the impressionable child and does not disappear as the child becomes an adult. An understanding of nature acquired during childhood becomes an asset in life which enriches the personality of the grown person. The rustling of leaves, the shining track left by a snail, the smell of humus warmed by the sun, all these can awaken happy sensations for the adult. Half forgotten childhood memories will arise and give a feeling of joy and security, when we know what life and nature can give us all if we remain receptive.

Even if a school yard is limited by boundaries there are great possibilities to make something out of it. Here on the school yard one can make use of parts of the curriculum from the subjects of biology, physics, chemistry, history, etc. Here one can test ecological claims and situations. One can learn to use tools which are unsuitable to use indoors such as cutting stone and drilling in asphalt. By having small gardens one learns what makes up suitable soil to nourish plants, one learns to fertilize the ground by both natural and chemical methods. One gets to know how the elements effect the growth of plants positively or negatively. Some need direct sun, others shadow, some can grow exposed to wind, others must have protection from it, some thrive well in a southern exposure, others in a northern location. One can learn which plants can be used in the home such as spices, which are suitable for medicinal purposes, which plants are best in kitchen gardens and which can be raised for large scale production. One can prepare school meals outdoors when the weather allows and at the same time learn about the preparation of food in cultures different from ones own.

On the school yard one can become familiar with good art. Few people prepare themselves for an adult life in which the so-called finer arts are cultivated and become an everyday experience that can help to avoid boredom and dullness. Art has many forms of expression and an insight into the multiplicity of things can be an important, widening, and forever exciting experience throughout life.

With other activities one can apply parts of the chemistry course. One has use of chemistry if one builds an outdoor oven for making pottery,

a so-called RAKU-kiln. With this project the children can learn about the chemical processes necessary when glazing pottery. History can be brought in here by studying the making of domestic pottery at different periods of time. The school yard can partly be used for accumulating theoretical and practical knowledge, partly for training in cooperation and the promotion of games, partly for recreation and physical training.

In the final analysis the school yard has enormous possibilities and there are many who have discovered that it is time to do something about it.

This booklet will in part try to describe what a school yard can be used for and give some information and ideas to consider when attempting to improve the physical, pedagogical, and the social atmosphere surrounding it.

Big-Britt Almström

The Swedish Child Council in July 1980

THE SCHOOL YARD AS A PEDAGOGIC RESOURCE

The Swedish Board of Education has recently published a book, "The Handbook on School Buildings", in which one can read, in the chapter on outdoor environment, the following:

Studies and teaching can sometimes be moved outside and the outdoor environment can even be used as a pedagogical means of enriching the usual indoor study environment. One can make use of and enlarge upon what is found in the outdoor setting in connection with nature-study, biology and physics, as well as in connection with handicrafts, theatricals, music, physical training, traffic rules etc. What is happening in nature, the cultivating of a schoolgarden, making excursions and taking study-trips, SSA activities (SSA stands for collaboration of school with work-a-day life), all this can provide many opportunities for making use of the outdoors for studies.

This aim is admirable, and developing it, one can hope, should lead to the set-up on the school yard being changed and should lead to teachers discovering that reality is best comprehended by a confrontation with reality itself.

As school yards are today, there are very few possibilities to apply subjects from the curriculum. However, if a school yard was planned as one would like it to be, how could one make use of it in teaching?

If one takes a look at the curriculum for the comprehensive school and the supplementary instructions regarding orientational subjects, one sees that nearly all the material can be used out-of-doors.

At the primary level, it says that "one should carry through a plan based on the pupils' own observations of reality". In the subject called "local geography and history" which is intended to give the children their first information about the community they live in and the nature surrounding them it is intended "that discussions of the importance of good health and clean habits will arouse an interest in the human-body, how it is constructed, its needs, and how it functions."

How and where on the school yard can one find the occasion to test this material? One can suggest that the children observe one another's

way of moving when they run, turn, jump, climb, and so forth. This leads on to talking about, how the muscles and skeleton are constructed. One can learn about the use of the sense of sight, hearing, and touch by going out and looking at and examining what is around one, by listening to the rustling of the leaves and the song of the birds, by smelling the grass and earth, by looking at the passing of the clouds. To notice the smell of the fresh air brings up a discussion of such inner organs as the lungs, how they function, and what they are good for. The children can compare their observations and perhaps discover that they experience colours and the smell of things in quite different ways.

One can talk about what are good habits - for example to take plenty of exercise in the fresh air, to sleep enough (perhaps with the window open). One can discuss diet and why it is good for one's health to eat vegetables. While working in the school garden one can talk about why some plants and vegetables must be sprayed.

"As a preparation for sexual education a natural starting point can often be a discussion of the observations made on how life is regenerated by plants and animals."

This subject can be suitably dealt with through such projects as having a fish pond, a bee hive, a bird house which the children have themselves made and put up in late winter, etc.

In this connection, it should be pointed out that birds and fur-bearing animals should not be allowed on the school yards, generally. Allergies are on the increase today and the school should not contribute to speeding up the process.

In the curriculum it also says that "a child's spontaneous interest in plants and animals should be sustained: joy of discovery should be encouraged, knowledge is broadened, a feeling of responsibility is awakened (conservation of nature, animal protection) and a sensitivity to the beauty in nature is fostered."

To be able to do this one should have access to a garden. Naturally, one can go for outings to some nearby woods, which, of course, one should do, yet it is through the daily contact with happenings of this sort that a foundation for knowledge and inquisitiveness is laid.

One says also that a child's interest in "how it used to be" should be the starting point for information on how people lived and what they did in their native districts in times past.

You can phantasize to any extent, here, on how to exemplify this but one way can be to have the children make a stone-age grave on the school yards. Have them make stone axes which they should try to use, and, also, see if they can get fire by rubbing sticks together or by striking flints together. All this gives children a more direct insight into the living conditions of people in prehistoric times.

The comment is also made that: "when dealing with the subject of Time & weather one should aim at general information only and the weather charts used should be of the simplest type.

Why like this? Why have even simple weather charts when one can study out-of-doors the variations of the different seasons, the changes in weather. When many small children are afraid of thunderstorms here is an excellent opportunity to talk about it. One can observe the shapes and movements of clouds, perhaps even try flying kites in order to understand how strong the winds can be. You can go outside on a cold winter day with a thermometer in your hand and see how quickly the temperature drops. You can catch a snowflake and, right away before it melts, look at it with a magnifying glass and marvel at the beauty of it's precise symmetrical structure. And so on and so forth.

To continue in the curriculum: "The subject "local geography and history" includes painting, drawing, modelling and other forms of handicraft."

They point out that this part of the course should be presented in an all-round programme. The intention is to arouse a child's interest in what is around him through practical experience and to make him realize there is a dissimilarity among things. This programme has, as well, the important function of satisfying a child's need to work with his hands and, at the same time, engender an all-round development of his muscular dexterity. The teacher should provide a variety of materials, each suited to the age of the child."

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Something inconceivable comes to mind: if the children are to draw and paint autumn leaves (often a recurring exercise in schools) the teacher doesn't just bring out dusty leaves from the natural science store-room. No, it stands to reason that, on a beautiful day, he takes the children out to a wood where they can study leaves more closely and take fresh ones back with them.

But if the schoolyard could have offered as great a wealth of colour sensations, forms and patterns as varied as in nature, then the children would have reacted more spontaneously. In that case they

could make their observations even on rainy days and make comparisons between dry and wet leaves. They would see how the various shades of the brown soil contrast with the golden yellow-red-green of the leaves differently in different weather. They would become more consious of the decorative value of plants. The play of light between leaves and branches, the subdued tones of the shadows. They would train themselves to distinguish one colour from another, asking spontaneously what the colours are called, and in all probability would learn to SEE.

When it comes to drawing, painting and modelling, the environment of the school yards, if the setting is good, offers limitless possibilities.

Picture

NATURE STUDY ON THE SCHOOL YARD

If we keep dreaming about how a school yard really ought to look then that dream-yard would have one corner where nature is untouched and grows wild. How this can be achieved is described in the section: What one can do to improve the natural environment of a school yard.

If the school yards already have a piece of unspoiled nature, meadows or woodland, then that bit could be fenced in and used for live studies of insects and plants. If you are care of the ground and don't tramp it down too much, then perhaps there will be formed a layer of humus, the top-soil made up of dead leaves, withered plants and grass, dead insects and such like.

In the book "Come out of doors" Florence Ericson, Gun Jovell and Lennart Rådström have given this description of humus:

"In a layer of humus there exists a myriad of organisms and many of life's important processes take place here. The humus is the scene for evolutionary procedures unknown to so many adults because these processes, for the most part, take place at a microscopic level, what goes on down there is at ground level which is approximately 5 ft.5 below the eye from which we adults usually see things. Step by step the organisms in the humus break down the organic matter into such components as can be re-utilized through the plant roots. The nutriment chain can begin here with dead matter from plants or animals, matter which has decayed through the agency of bacteria, fungus, and plant-eating insects or larvae. The next stage is that of predatory insects and spiders who lure their prey on the ground, in a decaying tree stump or under the peeling bark of a dead tree."

From these woods one can bring in small samples to study under a microscope though one can, of course, study them in their natural habitat. The organisms themselves and the prerequisites for their existence in the humus are just one example of what one can study out-of-doors and then apply to the teaching of biology. Leaves of trees and bushes provide material for studying the whole fantastic phenomenon of photosynthesis in plant life. One learns in what way water is assimilated by a plant, how the different-parts of a plant are joined. One learns what chlorophyll - the fact that certain animals

have the ability to convert chlorophyll into vitamine A - and what happens in the autumn when leaves change colour, how decaying happens and how plants and animals pass the winter. In other words, the unspoiled bit of nature on the school yards can become an untimted source for the acquisition of knowledge. It might be that the children become so inspired by what they learn through these studies that they make trips to the nature corner all on their own.

In the booklet "Life around Flora's Hillock", published by The Swedish society for the conservation of nature" Lars G. Olsson and Angela Reimers have described how one can stimulate a child's interest in nature with very simple means and change his way of thinking in regard to what germinates, grows and lives in the world around him. This is how it began. It had been decided that the property around the day nursery would be sprayed so that the caretaker would have less work with weeding. The staff of the nursery resolved to prevent this and got in touch with the caretaker. The spraying was called off and, instead, they agreed to spare a grass-grown hillock from being cut. This was done because they felt that a greater profusion of plant and animal life would develop here than on the rest of the grass. One has named this over-grown area "Flora's Hillock". The staff and children buy some books to begin nature studies with "What I find in the fields and meadows", "What I find in the woods", etc.

The caretaker becomes interested and one day he caught a hawk-moth on an evergreen and brought it in in his cap. With the help of pictures and a magnifying glass the children learn what is special about this insect and it's around-the-clock activities. In time the children become interested enough to begin collecting insects to exhibit. They learn how to pin butterflies and beetles. In the winter they learn to recognize the tracks they see in the snow and make clay casts of paw and hoof prints of stuffed animals borrowed from a museum. They inspect a clod of soil and examined the contents of the crow pellets a crow regurgitates. They collect eggs and caterpillars and cocoons, following carefully their development. They gain an insight into nature's cycle of life and death. A spider in the house is no longer repellant and nasty but comes to be regarded as a useful insect which catches unwanted small creatures found around the house.

Some excerpts from the booklet:

"Arrange to meet someone who keeps doves and would promise to cooperate on a project with us.

A parent donates a book to the nursery as a help in demonstrating snails and mussels.

Parents and children bring leaves of lettuce infested with the larvae of cabbage butterflies. When the startsignal is given feeding of the larvae should begin. Their development is closely followed throughout the whole week. The larvae are photographed continually and we hope to document the whole biological development of the insect.

The larvae of the cabbage butterfly creep out of their skins and begin the cocoon stage. The children's interest in what is happening is enormous.

A fellow worker draws attention to a blackbird which flew against her window and died. The children and staff of the day nursery make a study of the bird which they have kept. It's fate starts a discussion about death. Some wanted to bury the bird but most of them wanted to have it stuffed, which was done in this case.

Interesting formations found in some pieces of flint may be used to illustrate the history of the earth and be placed together with fossils of animals in the section "Ocean and Shore"... A large wooden figure-head riddled by shipsworm. Together with egg capsules of a skatefish completes the collection.

The food chain, made up of SUN - RAINCLOUDS - SOIL - GROWTH - DORMANCE - PELLETS FROM A BIRD'S CRAW - PARASITIC FLY is illustrated by text and pictures. One of the pellets is cut in two and at least two different species of larvae are found in it.

As an experiment, two twigs with green tomatoes are put, one in the dark and the other in the light. We are going to watch how they develop.

We study the tomatoes. Those in the light redden. Those in the dark became dehydrated and have begun to rot.

These days even eartworms dug up by children are kept as pets.



THE SCHOOL GARDEN

For many years there have been different sorts of activities carried out in school gardens in the Stockholm region. The first plots were layed-out in 1907. At the present time - 1980 - there are 24 school gardens and 64 gardens where representative and typical plants for raised in or for the Stockholm schools. Besides these there are 2 "Central School Gardens", one in Ängby and one in Kristineberg intended for the children who have no garden of their own at school.

Olof Hermansson who superintends the Central Gardens describes this activity in the following way, "A school garden in Stockholm, as it is organized today, usually work as a unit. The children from 9-13 years of age are invited to take part in a unit at the beginning of April. If a child has been a participant previously he naturally is allowed to continue gardening even when he has gotten up into the higher classes in his school. The work is begun as early as possibly in May and continues through October. Every child is given a plot of 15-20 square meters to look after and harvest. A teacher assists him with his project. For the hardest work during spring planting and harvesting in the autumn professional gardeners help out using machines for the heavier work. The children raise (annuals) flowers and vegetables in their gardens. The plots of perennials are in a special section which the whole group take care of together. Here is grown mainly such plants as rubbarb and berry bushes. When the group looks after these together there is a feeling of comradeship and this experience can be useful for activities in their future life as adults."

The garden projects are separated into three divisions. First there is the school garden where the children are allowed to sow and harvest the plants they themselves choose. But as this alone does not fulfill the requirements demanded by the curriculum it is supplemented by a section for "the Cultivation of Typical (representative) Plants." This section includes five types of plants:

1. medicinal plants
2. old-time medicinal and kitchen garden plants

3. ornamental plants - annuals
4. ornamental plants - perennials
5. ordinary potted-plants, nutritious plants
and plants used for handicrafts

This specialized horticulture is referred to in the subject "local geography and history" and in biology. The children often draw these plants in art classes. The cut flowers from them are used in domestic science to decorate the dinner tables.

The third division is the Central Garden Section which the children visit as a group. The pupils themselves do not grow the plants in these gardens. Professional gardeners take care of these plots. Olof Hermansson tells us that the urban children have difficulty in recognizing the most ordinary kinds of grain. In the "Central Gardens" the children are allowed to handle the different plants, dissect the flowers and study their reproductive organs. They study the fruits, pick them up, notice the difference in weight and aroma. The plants they wish to give further study are taken along to the classroom and looked at under a microscope.

The following citation is from a booklet called "The School Garden in Ängby" by Olov Hermansson and published by Stockholm's School Administration:

"According to the curriculum for the Comprehensive School a new type of teaching gardening is described: "Lessons in gardening should be arranged for whenever it is possible. A total of twenty lessons during a school year should be devoted to this subject according to an agreement between the superintendent headmaster and the teacher in gardening." These lessons have been carried out in the 5th and 6th years of the Swedish school (age 11-12) but only in some.

The gardening lessons must be fitted into the ordinary curriculum as far as possible. The curriculum in the Comprehensive School says:

"The cultivation of potted plants and flowers in window boxes round out the continual observation of plant life, together with the specialized horticulture and the well taken care of school garden." - - - Further along on page 277 it says: "Observing the school gardens allows one to follow the changes plants go through during the different seasons." - - - Finally, on page 283: "As the curriculum is planned at present it appears, that

a well planned school garden is of the utmost importance importance during the junior level and middle level of the Comprehensive School, but is even rewarding for pupils in the higher forms. A wide variety of usual plants should be cultivated. It is important that the senior teacher in the higher forms has a chance, together with teachers from the other levels and the superintendent of the gardens, to carefully plan the choice of plants to be cultivated."

As we have seen a schedule for lessons in gardening is included in the curriculum. But many schools in Sweden lack garden plots entirely. "KF:s Lektåd" and "Konstnårscentrum" published a small booklet in 1971 called "The School Yard" from which the following citation is taken:

"Many urban children grow up lacking the opportunity to work with plants, soil, bulbs, or vegetable growing. The schools can give them a chance for finding out about enjoying and understanding plants while gardening. In school the children can develop a sense of caution and learn about taking better care of the environment around them. A small garden can be a source of pleasure in many ways. If there is a sensible choice of plants it can be interesting in spring, autumn and winter. Bulbs can be planted in autumn and their blossoming enjoyed from early spring on to the last days of school. Vegetables can be planted and added to the school menu. Radishes ripen quickly, parsley and dill planted in the spring has grown tall and green by autumn. Herbs such as thyme, dragon, and chervil grow by themselves, are nice to have in a garden, and make for nice ingredients in cookery. Watercress, castor beans, and daisies are cheap to sow and one can see from day to day how fast they grow, one can have plants with interesting seed-pods and flowers that can be used dried such as everlasting-flowers. One can grow decorative grass and watch how it develops. All these can also be used during drawing lessons. The seeds can be saved and set in jiffy pots early in the spring. They can be kept on the window sills in the school room until it is time to plant them outdoors.

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A garden can be arranged in several different ways. The plots can be enclosed by wooden frames. These wooden frames and even window glass frames for hotbeds can be made by the children in handicraft. A barrier (or wall built of field stones and usually without cement) can be built and filled with soil in which are planted different sorts of herbs. If there is a nursery for plants in the vicinity, it is a good idea to ask the manager to come and advise the children as to how they can get the best results from their efforts. The choice of plants must be varied as to their location for cultivation in the northern or southern part of a country. Above all the garden should include some dependable plants which grow easily and quickly. The children do not want to wait too long to see results and frequent failures must be avoided for them. But some unusual plants should be given to the more interested and enthusiastic children to try their luck with those willing to give their garden some extra work and extra trouble. A hedge gives good protection for especially sensitive plants. Wild strawberries

can be grown behind such a hedge. These are inexpensive to buy they have pretty leaves and blossoms, and they are good to eat. Pumpkins are easy to grow and very decorative to look at. Runner beans will quickly climb up small poles. Hops grow quickly and luxuriantly. Currant and gooseberry bushes bear well year after year. Mix perennials with annual plants. Remember that there are many kinds of bulbs besides crocus and tulips - grape hyacinths, scilla, winter aconites, lillies, iris, snowdrops, etc. The children themselves can write to a nursery and ask for flower catalogues.

A small shed for garden tools is good to have - easily handled shovels, clippers and handspade in a good quality of stainless, baskets for weeds and leaves, a couple of watering - cans, some good strong string and some raffia. There should be an outdoor tap and some garden benches to sit and rest on after working hard - also to sit upon while enjoying the beautiful flowers and plants one has helped to grow.

A bird bath is nice in a garden. It should be only a couple of centimeters deep. Placed in the vicinity of berry bushes, the birds will be sure to frequent it. On the wintertime the birds are glad to have a perch to fetch crumbs and birdseed from. This again can be made in handicraft. A perch should not be made of metal as it is too cold for the birds to rest upon.

During the summer holidays (10th of June to middle of August) the school garden cannot receive proper care - therefore the plants left in the garden should be chosen with this in mind. Perhaps a pensioners club can take over it's care. This problem can be discussed at one of the meetings of the "Home and School" (a parent-teacher association) group. Many types of summer flowers and bushes get along quite well without too much care, and this problem should not hinder the planting of a school garden."

In one corner of the school yard alongside the garden can be placed a compost heap. It should be fenced off but easy to get at when working it over. Here the children can observe how nature itself creates good rich soil when it is helped along by humans. One can learn what should be placed in the compost, how the process of decay can be hastened, what different types of fertilizers there are in it, and how these effect the environment ecology (this comes up in biology), what bacteria, microbes, insects, fungus and worms can be found in the compost.

In the chemistry course one can discuss which sources of nourishment there should be in the compost: nitrogen, phosphate, calcium, etc. These practical observations lead to better ways of learning. One can notice which pH-value there should be in the compost - which leaves raise or lower this value, what effect calcium has, etc. In carpentry one can build different sorts of containers to find out which are the most practical and give the best results.



An interesting and useful addition in the garden is a greenhouse. This is important in Sweden as the season for growing plants is very short. Thus, it can be prolonged with a greenhouse. The greenhouse can be built in handicraft by the pupils in the intermediary or upper forms and need not cost so much as it can be made out of second hand material from torn down houses. The neighbours in the vicinity can help to look after the plants in the greenhouse in the summertime. This has been done to satisfaction in some places. Those living near the school have been given useful chores and have participated in the life of the school in this way. A good relationship has been established between the residents and the pupils creating new styles of cooperation and comradeship.

A HANDFULL OF IDEAS

When you go into a classroom and ask the children "How would you like to have your schoolyard?" too often you get the answer: "I want swings and more grass and no asphalt". And that's all. Their imagination doesn't stretch farther than that.

That goes without saying. How can one think up something when the schoolyard looks as it does and no example of a good one can be seen anywhere.

But, actually, the imagination needs only a few prods to get the train of ideas started. One idea leads to another which in turn begets a third and so on.

In this section, which is roughly and hastily put together since I intend to expand on the subject in the next edition, I hope to do just that little prodding.

First, some examples of activities on various schoolyards.

In LYE SCHOOL on the island of Gotland the children devoted a whole week to studies on the energy problem. They suspended their everyday lessons during that week and, instead, made a solarheater and a windmill.

Parents donated the wood for this. The rotator for the windmill and the piston engine were made of scrap-iron which the teacher, Jan Ryegård, with the help of some of the parents had welded together.

The children and the teacher made construction drawings. Then they helped clean away the rust from all of the iron with metal-brushes, rust proofed it and then painted it with blue lacquer.

After that, the 7 metre high tower was built for the rotator which was equipped with 8 sails fastened onto poles. The children thought the sails looked like the wings of a Grecian windmill. The generator was connected to the rotator and, in addition, a bicycle lamp was coupled to the whole thing. An electric door-bell was connected to the generator and the children were enthralled as the lamp lighted up and the door-bell rang when the wind began turning the sails.

pictures

Then the children built three solar-screens with arrangements for heating water. To start with, the children put together a box in which they placed an ordinary radiator on a layer of insulation material. Before that, though, they had painted the radiator, black on the side which would face the sun and silver on the other side. Black absorbs heat from the sun while heat rebounds from a shiny white surface.

A large metal milk-can is placed on a rack above the radiator. It functions as a water-container. A couple of hose link the radiator with the water-container and then the whole system is filled with water, milk-can, hose and radiator. Through the hose warm water rose to the top of the container. Warm water expands, therefore it circulates upwards. Cold water at the bottom of the container was forced downward into the radiator where it was warmed up by the sun and rose to the top, and so on and so on. Circulation had come about through solar heat. In a few hours the temperature had gone up from 10° to 23° Celsius. The boxes with the radiators were encased with thermoplastics and the containers packed around with insulating material.

One day when it was quite cold out of doors and there was snow on the apparatus it happened that a couple of boys in the class decided to take a warm shower. Lucky for those who had a camera with them to prove that this could be done.

Picture

In ÅSBACKA SCHOOL, in the town of Gnesta, the children, with some help, built a 12 metre high windmill. The pupils in this school have impaired hearing and are often retarded as well. This project in which they were involved offered better opportunities for communication which resulted in the addition of new words to their vocabulary.

In TIBRO the children and teachers laid out an enormous topographic map of Sweden on the schoolyard. They brought materials for this from nature in the vicinity. One tried, however, to get plants and stones which were characteristic of the different sections of the country. They tried to make the map topographically correct so that the province of Skåne, in the south, was flat with more grassland and willow-bordered roads than in the northern wooded provinces. The north was given the tallest stones, the mountain of Kebnekaise getting the biggest and highest. The map became so large that there was room for many pleasant nooks to laze about in. There was even a tennis court.

In FURÅS SCHOOL in the town of Hällefors, the pupils and teachers made stockades, indian tepees and wooden horses.

In the HAGALUND SCHOOL, in the Stockholm suburb of Solna, the children decided to turn down the offer of monkey-bars to climb about in and, instead, to break up the asphalt and lay out a schoolgarden. An important detail in this connection is to have access to a compost pile.

The HAGALUND SCHOOL is for the higher forms. This is further proof of the fact that children of this agegroup are interested in gardening.

This picture is taken from a school in Berkly, California, U.S.A.

In a few years, if the children are encouraged and given a free hand, maybe the schoolyard of the Hagalund school will look like this.

What more can one do on the schoolyard? For one thing, one can, of course, build a RAKU-kiln.

For about a year now the Department of Recreation in Stockholm has been experimenting with Raku-kilns. Raku comes from Japan and is a ceramic technique which goes back to the 14th-15th centuries. Ted Birch of the recreation department says "The technique is so simple that the whole ceramic process can be watched even while it is going on in the kiln." First of all a simple kiln, or oven, must be built. Old bricks and other material from a torn-down house can be used. The clay is kneaded and mixed with crushed fire-clay. If any clay can be found in the neighbourhood one can try to use that first. One can also mix the simple glazes oneself. The kilns are heated with wood and wood must constantly be available during the firing. Since there is no thermostat on the kiln the temperature has to be judged by the colour of the fire in the oven. The first firing takes about two hours. There is a peephole in the door of the kiln through which, at regular intervals, one can check whether or not the pieces are finished. When the objects have an orange glow to them the oven door is lifted off and the finished things are taken out with a tong. Afterwards the objects are glazed and go through glazefiring.

When the oven is hot enough (approx. 800°C) the door is taken off with a tong and the objects to be fired are placed inside. When the door is in place again one can peep in after a few minutes and see how the glaze melts. In 10 to 15 minutes the glaze becomes shiny and soft and the object is ready to be taken out. At this stage one can variegate the nuances of colour in the glazes and pieces by putting the things in a pail with saw-dust, grass, leaves and such like. (reduction-modulation).

In other words, there is no stage in this process that cannot be watched. The method embodies a logical linking between toying with building, mathematics, chemistry, fire, colour and form and practical work. Adults and children find it natural to work together. And even other people are drawn to these activities out of pure curiosity.

He also says that the children become disappointed with the potter's wheel. It takes years of training to produce a beautiful bowl on a

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potters' wheel. On the other hand, children can do more imaginative pieces through

- rolling out with a rolling pin
- sculpturing
- putting together
- scratching or incising
- thumb printing
- making coils
- tearing
- casting
- making imprints (roll out the clay as if it were dough. Produce a pattern by pressing it with some sort of textile, wire netting, pieces of wood, the leaf of a flower, or even one's own hand.

If you don't want to build a kiln you can easily do the firing in a pit, using straw or grass.

"Ceramics as a hobby" Lis Husberg and Hans Lundqvist, ICA-förlaget

"Earth is wonderful - Ceramics for beginners" Birgitta and Ove Thorsén,
Wahlström and Widstrand

Information on how to build a Raku-kiln or how to do firing in a pit out of doors can be requisitioned through Ted Birch, Stockholms Parkförvaltning, Parkleksbyrån. Telefon 08/ 785 79 09

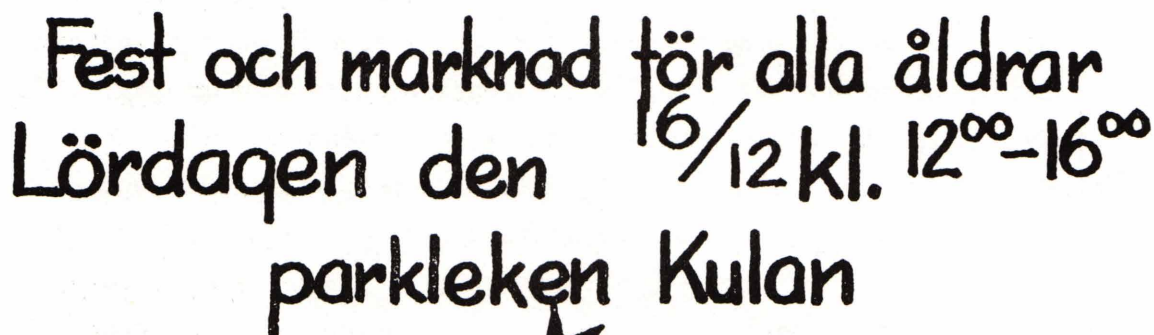
Ted Birch adds, also, that "children have a strong need to be able to carry into effect what they have in mind. With the potter's wheel this becomes practically impossible. The result is nearly always a dismal failure. Firing is, for the most part, an adult secret. The children may perhaps help when it comes to setting up the kiln but in all likelihood don't understand what has happened in "that funny box" during the night since everything looks so different. The glaze firing seems even more strange. No! In doing it this way, the children miss a greater part of the adventure."

Pertinence

"The Experience Workshop" in Stockholm located on a playground called "Kulan" (the Den) in Sättra has a projekt under way which is different, even unique.

At this playground several large workshops have been set up. In converted sheds are kitchens, weaving looms, a carpentry shop, a black smith's shop, etc. Here one cards and spins wool, dyes it with color-ific plant dyes. Welding and forging is done in connection with the reparation of cast-off things such as bicycles, etc. The children make simple garden furniture for retired people living nearby. Pupils and teachers from the Sättra School are involved in these activities. Young people and adults from the neighbourhood are offered evening courses for making pottery in the Sättra School. Not only pupils in the school some but also pre-school groups, recreation groups, pensioners, housewives - they come to repair old things and make new. An outdoor oven has been built, one end of which can be used for grilling and the other for dyeing textiles. Outdoor parties are organized so that the people in the neighbourhood can get to know one another. One has succeeded in fulfilling the school's desire for a house in the country side. A local bus has been acquired. It was in bad shape but 9 pupils from the Comprehensive School plus their teacher in mechanics made the necessary repairs on it as a voluntary project. A press for the printing of stencils and a photography laboratory is run by the pupils from the Comprehensive School and others who come to the playground. All these people are also working together with the Sättra Consultation Group which is made up of personnel from the day nursery, the recreational home (youth club), the Sättra School, the organization of local tenants, the personnel from the park playgrounds, the local police, the Experience Workshop, the Social Service Section, and the local members of the organization dealing with narcotic problems (RFHL) in Sättra. Here one makes contacts necessary to function in the community. Plans are made together for the future such as setting up a local coffee shop, arranging dances at the recreational home, the renting out of allotments, and getting a fishing boat to be used on a nearby lake. Through the initiative of these local groups the photography laboratory and the local bus have materialized. People of all ages from 2 to 100 years of age participate.

Atervinningsmarknad



Försäljning, café, musik, brasa,
grillning, pjäxdans, bokbord,
utställning och teater Narren.

28

Invitations are sent out to people living in the neighbourhood...

THE EXPERIENCE WORKSHOP

... is a trail project backed by money from the Fund for Unclaimed Inheritance and from the Department of Public Parks.

We cooperate with the pupils in the senior level of the playground group of the Sättra School.

Eight of us, 4 from the project itself and a group of 4, dealing with unemployed youth, from the Social Service Department are setting up different sorts of small workshops meant to be open for use by the local people. It is intended that these workshops will be an important addition to the community and that we who work in them can do useful jobs such as making and mending equipments and toys together with the children and their parents and the personnel from the park playgrounds, the day nurseries and the recreational home.

We have rebuilt a tool shed into a playhouse at the Kungssättra day nursery. We have built a skateboard ramp which we will place outdoors in the spring.

We are planning a workshop where it is possible to repair things for re-use which would otherwise be thrown away.

For transportation purposes we have bought a small dieseldriven van and a pick-up motorbike.

In order to raise money for material, tools, transportation, and study trips we plan to have bazars and jumble sales. We have collected items such as woodstoves, cupboards, and timber from torn down housing. We have collected trees that have been cut down in the neighbourhood and sawed them up to be used as firewood.

During November a textile workshop will be ready for all who wish to repair and exchange children's clothes. Nearby it there will be a small coffee shop.

Our next step is to build a workshop for carpentry and metal-work.

Our biggest problem just now is to arrange for proper plumbing and a drainage system which is inexpensive and safe for the environment.

Everyone who is interested is more than welcome to join in with the building of the workshops. Your ideas and skills are needed.

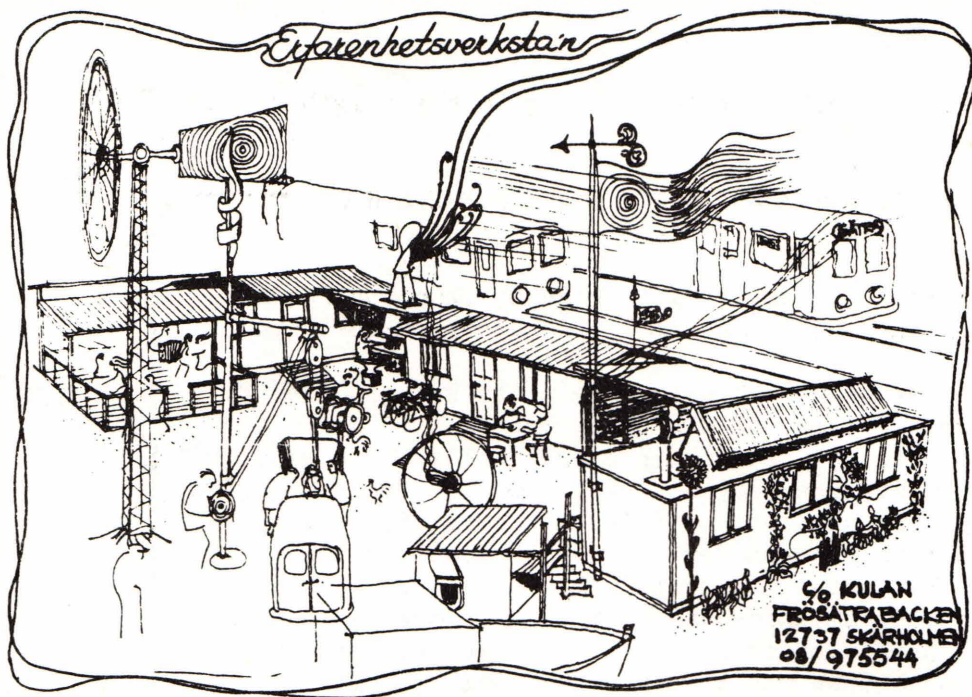
We are open from 8.30 a.m. to 5 p.m. We hope that as soon as the workshops are ready, they can be available in the evenings for those living in the neighbourhood.

All ages welcome!

FRÖSÄTRABACKEN

November -78

All the activities offered at "The Den" could also be carried out on a schoolyard



Erfarenhetsverkstan
 % Parkleken Kulan
 Box 3055
 12703 Skärholmen
 08/462315

FOTO: BENGT CARLING

INTERNATIONAL PLAYGROUND ASSOCIATION'S SCHOOL YARD CAMPAIGN

The International Playground Association's campaign for school yards is looking for new ideas. It was started during the International Children's year and will continue throughout 1980. The intention has been to try to change the opinion that a school yard is only a place hang around on during the breaks. A course of study composed of publications, slides with a sound-track, a list of available literature, a list of lectures and a "Bank for Ideas" has been presented. This course of study can be borrowed or bought from the national organization called "Home and School". If one wants to buy the "Idea Bank" only, it is sold separately.

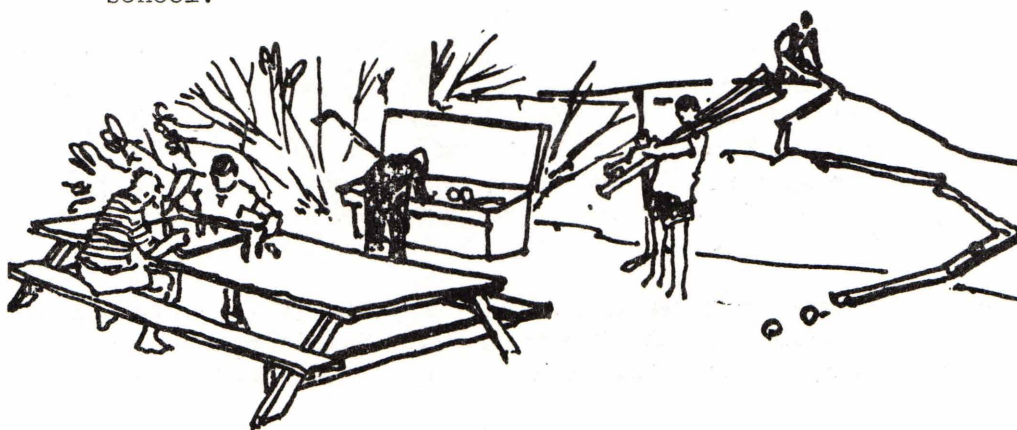
The "Idea Bank" consists of suggestions about different sorts of games such as using tin cans filled with cement for curling, rag-hockey and flipper-hockey. There are suggestions as to what one can build on a school yard - for example: wooden frame-work for exhibiting various things, a wooden chest to store equipment in. Included among these ideas is a set of directions for taking care of the school garden throughout the different seasons of the year.

BUILD A ROOMY STORAGE CHEST

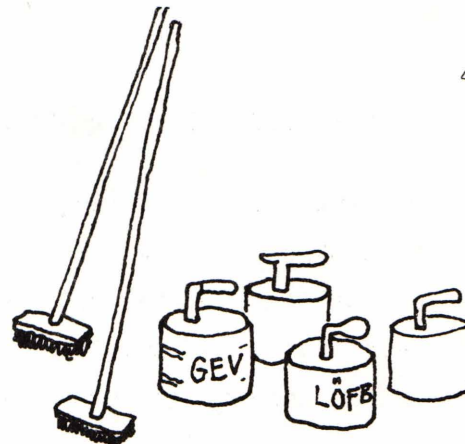
Fill the chest with equipment for outdoor games, lumber, blocks, small troughs, etc.

It can be suitably placed near a place of untouched nature on sand or gravel. Slopes offer the possibility to build chutes for balls or toy automobiles.

Construction and care: Building a chest and looking after it can be a routine part of the annual study plan. The contents can be gotten from a nearby lumber yard. The pupils should be responsible for the contents and straighten up in it when necessary. Suitable rules for the care of the chest can be drawn up between pupils and adults from the school.



An example from IPA's Idea Bank for school yards



BURK-CURLING

TIN CAN CURLING

Material 8 curling stones can be made from coffee tins of about 2 pound size. These tins are filled up $\frac{2}{3}$ of the way with cement. A door handle is anchored in the cement. It is then allowed to harden. The stone weighs around 10 pounds when ready. 8 long-handled scrubbing brushes.

Rink A rink is layed out on a skating rink, using a colour-powder dissolved in water.

The game Each player has a curling stone and a scrubbing brush. The idea is for the player to place as many stones as possible in the parish (large area around the tee), closer to the Tee than his opponent does.

When a player is ready to propell his stone or when a stone is moving the sweeper should be in the middle of the rink. A player projects his stone from the foot-hold - right-handed players from the left side, left-handed from the right side of the centre line. When a player throws his stone he should hold the brush in his left (right) hand pointing it forward.

The handle of the stone must be grasped only by the fingers of the hand. The lower arm, the hand and the fingers bent at the second joint should be held in a straight line, the shoulders should be as horizontal as possible. The teams throw every other stone. When the handle of a stone touches the ice or when a stone glides over either sideline or beyond the rink it is removed unless it bumps against a stone which has already been played. If by mistake two stones are thrown directly following one another by one of the teams, the play is considered invalid. The play must be repeated.

A team is given one point for every valid stone which is nearer to the Tee than that of it's opponents. Every stone within the parish is considered valid.

IPA's shcoll yard campaign 1979

An example from IPA's Idea Bank

WHAT CAN ONE DO TO IMPROVE THE NATURAL ENVIRONMENT OF THE SCHOOL YARDS?

If we first make an observation on what the climate is like and what vegetation is to be found on the school yards then we may discover that

- o it's windy
- o there is no shelter against rain
- o it is entirely too hot and dusty in early summer and in the autumn
- o there are only thorny plants which are even set along the fronts of the buildings
- o that there are no large shady trees
- o that there are no benches to sit on either in the shade or the sun

When it comes to climate and vegetation there are ample possibilities for improvement.

1. If it's windy, a wind screen can be made. This can be done with a barrier of either trees or bushes of quick-growing willows or poplars. In three to four years you have a four to five metres high screen as an effective shelter against biting winds. One can also build high board fences. Parents and children together can make these and can fashion them with as much imagination and originality as one could wish for. One should have in mind, however, that if a wind screen is to be really protective it must be high and should not be completely dense. Otherwise the effect of the wind is increased instead. The planking should also be aligned in such a way that seating arrangements, if such are desired, should face south.
2. Pergolas with roofs and pre-fabricated pavillions make suitable rain shelters. Roofs on supports, perhaps with flooring too, can be lengthened to make a covered passage-way to the school dining-room, etc.
Building a rain shelter is no problem. Here again the parents can help. The main thing is to ascertain where a rain shelter is needed. There are schools where the children needn't go out when it rains, in which case a shelter is perhaps unnecessary.
3. If it is altogether too hot in early summer and in the autumn, a planned choice of vegetation can provide relief.
4. If the schoolyard has been "endowed" with thorny bushes something can be done about that too.

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5. If big shade trees are lacking one can plant trees that grow quickly and have large spreading tops.

Solutions to these problems are given in the following description.

Use of vegetation to better the environment

Air is pleasant in the shade of trees and bushes. The foliage of large trees provides just such shade.

If planting of trees is not possible, because there is a garage or basement area under the ground, then pergolas can be built instead. A rich play of light and shadow in the pergola can be achieved with climbing vines and creepers. It is more pleasant to be in part shadow than to sit in deep shadow or in glaring sunlight. A roof can be put over part of the pergola for protection from rain.

One thing that is wrong with most schoolyards is too much tarmac paving. Tarmac gets hot and dry in glaring sunshine and temperatures up to 50°C have been measured on such surfaces. In other words, bad atmosphere can be attributed to entirely too large areas of tarmac paving.

But, as was pointed out before, if it is done with moderation then asphalt can be a good thing. It dries up more quickly in the spring and stays dry longer in the autumn. However, one should see to it that those areas are bordered with greenery and are interspersed with plots of grass. In that way you lessen the heat in the atmosphere, heat which asphalt contributes to.

In surfaces of dry sand such as areas with climbing bars, the air can be even hotter than over a tarmac surface. Therefore one should plant shade trees alongside sand boxes. Keep in mind that trees give least shade toward the north at midday.

The process of photosynthesis goes on in the green of blades of grass and leaves of trees and bushes. It is a process which cools the air and contributes to lowering the temperature. Increased humidity binds dust and other forms of pollution, making the air feel clean and pleasant.

All this indicates the importance of an abundant play of light and shadow on the schoolyards. Naturally, the whole of the schoolyards shouldn't be in shadow. The important thing is to determine where one wants shade.

practice

Vegetation can also be used to divide off nooks, to separate different areas, to screen off a view as well as being something one can play with and in. A dense thicket of, say, aspens, pussy willows or lilacs, growing in some corner of the schoolyard, can provide opportunities for more unusual forms of activity. In spring, when the sap begins to run in the trees, one can make pipes out of willow twigs. One can play hide-and-seek in the thicket, listen to the rustle of leaves, savour the fragrance of earth and plants, watch the play of light in the foliage, perhaps find worms and ants, or even dig a hole in which to hide something.

One can choose plants which can supply excellent material for play-things or which can be used in connection with biology lessons. The seed pods of maple trees make wonderful noses, pines and firs have cones, quince and other trees of the same species produce fruit (quince is spiny), hazel and walnut produce nuts.

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Trees such as basswood, elm and hazel become good for climbing if they are large when planted and are protected for a few years by a circle of bushes.

If one is going to plant new bushes to replace old thorny ones one should bear in mind that a variation in the choice of plants can offer so much: bushes that blossom at different times of the year, that are different in colour and shape both as a whole as well as in the foliage, that are fragrant, are different in bulk and height, thereby giving a feeling of rythm to the border. All this can implement important sensory perceptions and impressions - important for adults but even more so for children - and can make us aware of the changing of the seasons.



Plants which favour animal life can be set in a sheltered corner. They can be applicable to studies in biology since they were chosen for having fruits and seeds which attract special species of birds and insects. The nectar and pollen of certain plants attract bees and butterflies.

In Sweden there are only four species of poisonous plants which are tempting to eat and therefore are considered dangerous. They are:

- Tibast - Daphne mezereum
- Gullregn - Laburnum alpinum
- Idegran - Taxus Baccata
- Liguster - Ligustrum vulgare

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These plants should not be used on a schoolyard.

Hedges can be used to create rooms and nooks. A lilac bower is a classic element in typical Swedish gardens. One can differentiate the areas by alternating tall with short trees, high with low bushes, willow in the most hardy at all bushes. The playing of building can be hidden behind a low bank planted with a robust type of willow.

The children should be allowed to plant spring bulbs such as crocus, scilla, winter aconite, etc. These spread and in time make whole carpets of flowers, if given enough space. Tulips are not as satisfactory. After a few seasons they have blossomed out and must be replaced with new bulbs.

To simplify the care of flower beds one can use, instead, some kind of plant that covers the ground such as hop-lucerne (a ground creeper). This prevents weeds from taking root and, also, binds the moisture in the soil.

If there is no uncultivated piece of ground in the schoolyard one can, if circumstances allow, implant a woods-like clump even in relatively small plots.

As a rule it can be done in this ways: One can divide up the plants into four categories, the border and bushes, the protection and the final trees. Blackthorn and types of willow are used around the edge. These are set more closely together than the rest so that the border closes in quickly. This prevents undesirable underbrush and weeds from taking root in the grove. About 40 to 50 % of the total number of plants can be made up of bushes such as bird-cherry, Lonicera, mountain currant or hazel. One should avoid thorny bushes in places where children are likely to play.

Protecting plants - those that grow quickly and are meant to protect the final trees while growing - consist of alder, birch, maple and larch. They answer for about 20 % of the whole. The final trees, that is to say those one wants to have left, are oak, elm, ash and rowen, beech and kinds of cherry and apple. Within five to six years one has achieved an "imposing volume", according to the park department of Helsingborg. There they have done this type of lay-out for many years and are still experimenting in an effort to get the best possible results. They have found out that it is best to set the plants in the spring before budding starts and that working the soil is very important. Top soil should be laid on to a depth of 40 cm. at least. Even here ground-covering creepers can be planted to advantage.

In the city of Umeå, in northern Sweden, they planted similar groves in a residential district, taking bushes and trees from a nearby woods. These plants have a better chance to survive than would trees and bushes taken from a plant-nursery which imports them from Germany. Such plants require entirely different conditions as to placement, climate, etc. than those grown in native circumstances.

THE ROUTE TO SCHOOL

Pupils are not confined only to the schoolyard. The greatest dangers to the children are the traffic-conditions on the way to and from school plus the immediate traffic situation surrounding the school.

According to a accident investigation where children were involved made in 1979 by "Children's Accident Investigation", SOU 1979:28 one finds the following reflections:

"The number of fatal accidents where children are involved is estimated at around 250 per annum while child mortality has on the whole decreased in Sweden during the 20th century, mortality among children as a result of accidents has remained static. This means that the cause death as a result of accidents makes up the greater part of the total death rate among children. It is estimated that 40 % of deaths in the age group 1-14 years are caused by accidents. More than one third of these occur in a traffic situation."

"It is criteria that the individual should be able to move about on foot unhindered in well organized urban traffic without being in danger.

On the street there is an atmosphere of fear and anxiety. The streets are full of noise, fumes, vibrations, dirt, visual hindrances and the all-over risk of bodily injury and death.

"The coming demands for space made by the increasing traffic are almost unlimited. We must protect the child's right to go back and forth to school without risk."

HANS NORDSTRÖM, The Natural Environment of the Future,
(Investigation) Swedish Council for Building Research,
1971

According to accident statistics the prognosis for the future is the following if the traffic planning contains along the lines now accepted:

every fifth inhabitant will be killed or injured

every eighth inhabitant will be killed, seriously invalided or seriously injured

every twentieth inhabitant will be killed or seriously injured

every fiftieth inhabitant will be killed or seriously invalided

"This means", says Hans Nordenström, "that every school class will lose a pupil as a result of a traffic accident. In all probability every household will be afflicted of a traffic accident with the subsequent suffering it causes and every family will probably come into close contact with the victims of traffic disasters."

By some means we must do everything in our power to avoid accidents that are caused by badly thought-out planning. We must have separate areas for cars and pedestrians in newly built districts. In the older districts where the traffic cannot be separated from pedestrians we must have traffic lights and traffic supervision. The routes the children use are not only to and from schools. Some children have to go alone to day nurseries and play schools. We must provide transportation for children living in communities far away from schools, even if this is to accomodate only a single child.

We must make a thorough investigation about how traffic signs are functioning at schools and other buildings that children visit, how safety measures are working out, how rules and ordinances are being applied and followed, and how information regarding child behaviour in traffic is brought to the attention of adults. Now many of those driving cars daily - private drivers or professionals - know that a little child, say five years old, reacts on impulse without further thought of danger. The drivers usually do not know that a small child lacks the sensory ability to judge the speed of an automobile, if it is standing still or moving, if it is coming forward or driving away. It is doubtful if small children see the traffic around them at all, their thoughts are simply somewhere else.

When one begins to plan a schoolyard and the routes that will be used to and from it, it should not be overlooked that the children themselves know best which are the most frightening streets to cross. Discuss together with the children the whole route that they use to go to and from school and plan together the safety measures that should be taken. In this way the precautions taken are based on the logic of the children themselves and will function with the best results.

"Satisfactory behaviour in traffic is based upon the ability to concentrate, to understand different situations, the ability to analyze them, the ability to see cause and effect, to show good judgement, and the ability to understand the theoretical intricacies of traffic. Even if one masters all of this, one must take into consideration the situation as a whole and perform according to a set pattern. We expect small individuals at a stage of development where they can hardly tie their own shoe-laces to fulfill these unreasonable requirements."

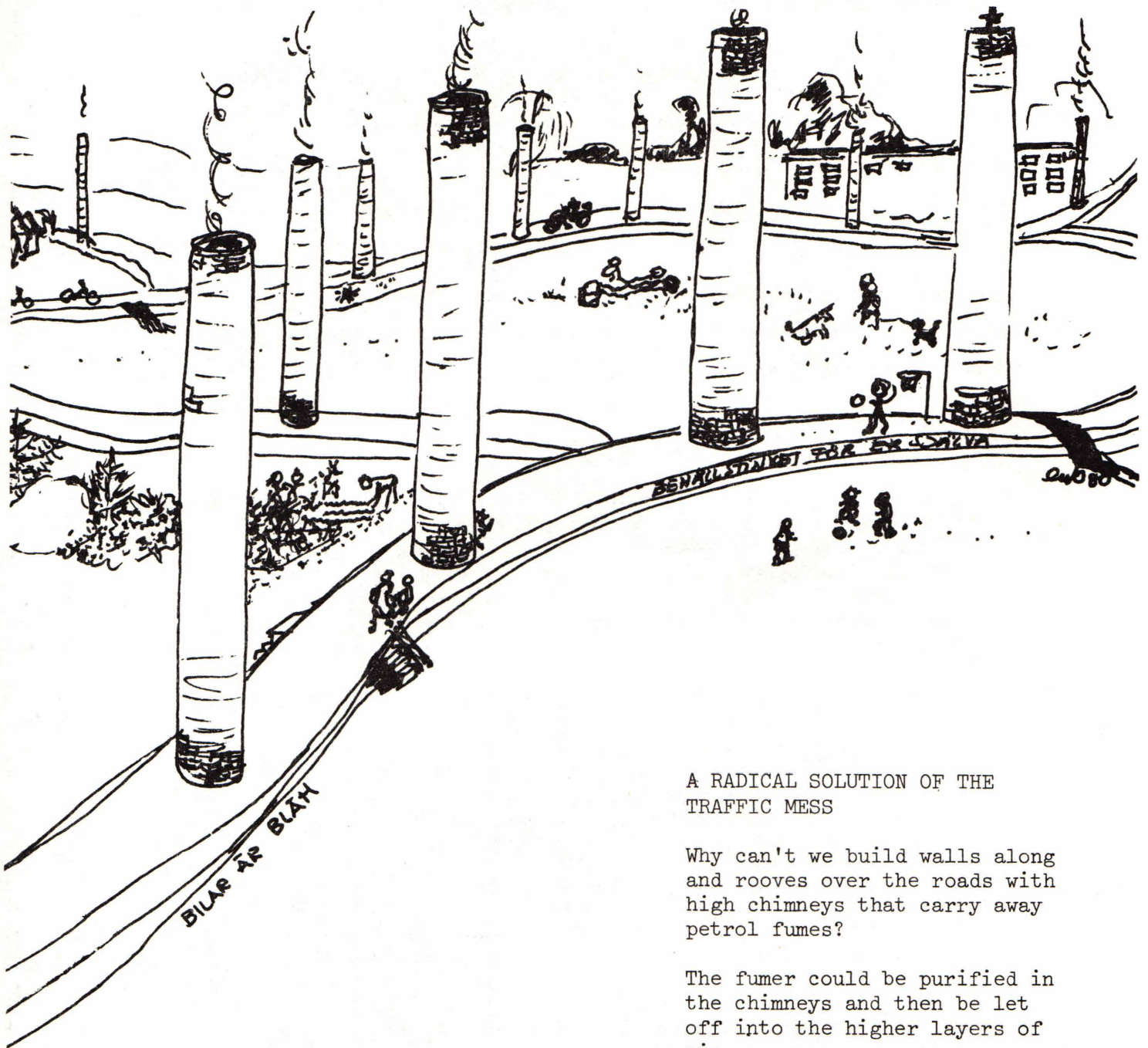
HANS WOHLIN, "Studies of preschool children's play-patterns in modern housing areas". The Royal Institute of Technology 1960

In some new districts with terraced housing - the suburb of Täby for example - the streets are layed out without pavements. Thus parents are forced to drive their children back and forth to school! In other communities - Malmö for example - so-called Woonerf are constructed in newly built housing areas in order to reduce the speed of the traffic. Woonerf is the Dutch for residential street. One builds low banks or slopes on the streets and let them undulate. They are planted with interesting bushes and trees and there are charming arbours and playgrounds here and there. With this sort of arrangement one can say that the children and automobiles have an interplay on equal terms!

In some communities the problem of dangerous school routes has been solved by depending upon pupils from the 6th form working as unpaid traffic police. They are encouraged to do this task by being invited to visit soft drink and candy factories. However, it cannot be reasonable to place the heavy responsibility to answer for other children's lives in the hands of a boy or girl who has just had their 12th birthday. According to professor Stina Sandels it is at the age of twelve that children have sufficiently matured so that they can take care of themselves in traffic. There is an added health risk for these "traffic police" due to exposure to traffic fumes.

Other communities have realized this and arranged with parents and pensioners to take over the duties of the school traffic police. In England there are such adult police, they are called "Lollipop". They are dressed in long white coats and have in their hands large signs which say that children are crossing the street. Even if this activity is a welcome task for retired people and parents who stay at home, it must be more rational for the regular police to have the responsibility for the physical safety of children going to and from school.





A RADICAL SOLUTION OF THE TRAFFIC MESS

Why can't we build walls along and rooves over the roads with high chimneys that carry away petrol fumes?

The fumer could be purified in the chimneys and then be let off into the higher layers of air.

Then we could keep our air good and clean. We could bicycle, walk or play wherever we like and we would not have to be afraid of being run over....

HOW CAN PLAY ON SCHOOL YARDS BE ENCOURAGED?

"Children do not play only to while away time when they are at a young age. Quite the contrary - a human being needs a period of immaturity in which to play. This is a necessary phase in the process of growing up."

JEROME BRUNER in "Play, it's Role in Development and Evolution"

Eva Norén-Björn is a researcher who works on the Swedish Child Council. She is the author of the book, "The impossible Playground", the Liber Publishing Company 1977.

She says in her book:

"When a child begins school his development has progressed so far that he can see life with a perspective of his own and through the perspective of others. He has begun to develop the ability to follow collective rules and play games according to a set of instructions. The child has now added a new way of playing to his physical activity and his world of make-believe.

It is a long way from this beginning ability to follow simple rules and to being capable of taking part in complicated games. Therefore the child must have many opportunities to take part in games with more or less difficult rules. The child must have many opportunities to observe his own behaviour and that of others. He must learn to recognize when he breaks the rules, how to accept them and then to follow them.

In the beginning a child thinks the rules of a game are "sacred" and decreed by "the powers above". One must follow the rules exactly and if anyone tries to deviate he is "wrong".

During this period the child has great difficulty in recognizing when he himself breaks rules and he experiences many conflicts. Children carry on endless discussions and quarrels about this. Finally the will to continue the game is so strong that they learn to compromise. They begin to understand one another and to identify with others. Games with rules lead to better training in how to control the body and to use the muscles with greater precision.

Adults can help along this process by having patience and giving encouragement while solving conflicts. Children should always have suitable material to use for their games.

It is very important that adults sustain this process of development by passing on games that have been played by an older generation of children to the younger generation. Grown ups can add from memory "forgotten games" from their own childhood.

We should remember that a somewhat older companion, one who has just passed through the stage of development which a child now finds himself in, has an enormous amount of influence. This older companion who has mastered what "I" am struggling with, has an air about him of indisputable authority. This friend is perhaps the child's most important teacher. This older companion is greatly admired while a younger less advanced playmate is scorned for his clumsiness and childishness which "I" have just succeeded in passing beyond by the skin of my teeth.

These social processes are an important feature of play and make apparent the importance of mixing age groups at least during breaks on the school yard. They also show the importance of adults such as teachers, parents and the leaders of games on playgrounds taking part in children's groups and directing them in the right direction.

Adults are important in contributing to a feeling of security and as persons who can bring about an understanding of the smaller children and of the behaviour of certain "childish" children. An air of acceptance in adults is catching and affects the attitudes of children among themselves.

In consequence:

- o one can partake in the games of children
- o give instructions for new games - there are good books of instructions
- o encourage children to play with different forms and age groups and different neighbourhood groups whose games are a part of local loyalties.

To teach children how to play different games is a good way of vaccinating them against a "gadget culture". Besides, using outdoor lessons in certain subjects, the contrast between breaks and lessons in the schoolroom can be reduced. Events from what has happened on the school yard can be brought up in the lessons and made an important part of them.

One can find out more in Tuuli Skorpi's book, "Games and Picture Stories", why play is so important in a child's development. In "The Importance of Playing" (1978) by Torben Rasmussen and in "The Impossible Playground" (1977) by Eva Norén-Björn this theme is taken up. In their books one understands how important playing games by rules is while one is trying to accept the outlook of others. This ability for acceptance is a requirement for identifying with other people.

WHAT CAN ONE DO TO PROVIDE CHILDREN WITH AN OUTLET FOR THEIR
SUPPRESSED ENERGY?

The school yard, looking as it for the most part does with it's enormous and often empty asphalt surface, is an ideal place for active playing. One can play hop-scotch, jump rope, run, play various kinds of ballgames, dance, play tag, chase one another around, etc. One can practice bicycle training there. In other words, the asphalt area is perfect to accomodate a horde of children all pouring out of the classrooms at the same time and who need to get rid of excess energy.

Exercise is essential for both teenagers and pupils in the lower forms. However, that the younger children need to move around is more obvious. It is hard for a 7 year old to sit still for any length of time. Bodies grow, proportions change and a child must be almost constantly active in order to learn to handle new muscles.

Kerstin Lunding in "School yards and recreation rooms", from the Report nr. R 33:19 of the State Institute for Building research, states:

As the result of studies made in many countries, it is maintained, according to unverified information, that an early training of the neuro-muscular functions which regulate and coordinate kinesis is important and cannot be compensated later. Children are very active physically while growing, one can assume that through active playing they get an all-round training of their physique if opportunities are given. This can be one of many points of departure when it comes to equipping the school yard or athletic field for lower and middle form pupils.

Eva Norén-Björn confirms Lunding's supposition in the book "Play, playgrounds and play-equipment" and also states there:

"A large part of a child's imagination and demeanor is expressed through action. This action lays the foundation for being able to mentally comprehend the course of events, what's happening in other words. Aside from the fact that children need to be very active, their very motions are more exaggerated than those of an adult. Greater latitude is needed for a child's activity than for an adult who has a more restrained and curtailed programme of action. A child doesn't stop short as an adult would and he makes a wider sweep when running around a corner than an older child or adult would. It requires training and more training for a child to attain greater precision in his movements and this is what he gets through playing. This requires SPACE."

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There are certain kinds of activity, such as climbing, sliding, or balancing on something, which cannot be done on a flat paved surface. Children should be allowed to make use of any available trees and mounds or rocks that aren't too high or steep. Instead, of using equipment meant for the purpose children would rather practice balancing on the fences bordering the garden plots or on the backs of benches. This should be kept in mind so that the fences put up are suitably made.

Most of the playground equipment such as bars for climbing around and horizontal bars for sommersaults are hardly used at all. Many of these are too simple to engage a child's interest for any length of time. Ping-pong tables, a basket-hall wicket, high walls good for practising tennis, and such, have a highly functional value and therefore are used to a greater extent.

Eva Norén-Björn defines functional value in this way:

"The power of a play area or equipment to stimulate a child to play, work, or to exploratory behaviour and companionship, in other words to an activity which is developing for the child in pleasurable ways and voluntary forms. It can also be an inducement to the solving of problems, to learning, and to activities with a definite goal, to work."

What she means is that a plaything or playequipment has a high functional value if it is stimulating to experimental and exploratory behaviourism in the child, starting from the child's stage of development, and if it is conducive to positive social communication between children themselves as well as between children and adults. She continues: "Close contact with other people is the most important experience that our childhood environment can give us."

If a parents club decides to build, on the school yard, an arrangement of bars for climbing around in, it should be understood that it is the procedure itself during the process of building, when parents participate with the children, that is so important. It has become apparent that the usual type of bar arrangement is seldom used. However, it is conceivable that such an arrangement is more often used when in a school yard than it would be in a residential area, provided that there are other kinds of play-equipment on the school yards as alternatives. Bars for climbing are suit-

able for physical training and the set-up can also be a place for just getting together and chatting for a while. But if the bar-arrangement is to be what everyone expects of it in the long run then participation on the part of the parents must continue. It should not be a matter of a single occasion. One might consider enlarging the bar-arrangement, painting it or changing it in one way or another every spring or autumn.

One important thing to know is that there must be coarse sand to a depth of at least 40 cm. under the bars and under the swings. It should be sand that doesn't pack together. One must also see to it that the frame around the sandbox is not so close to the bars that the children can fall from the bars onto it and hurt themselves. One can have the children make sketches of the construction of the bar-arrangement and perhaps even make models which they can exhibit later.

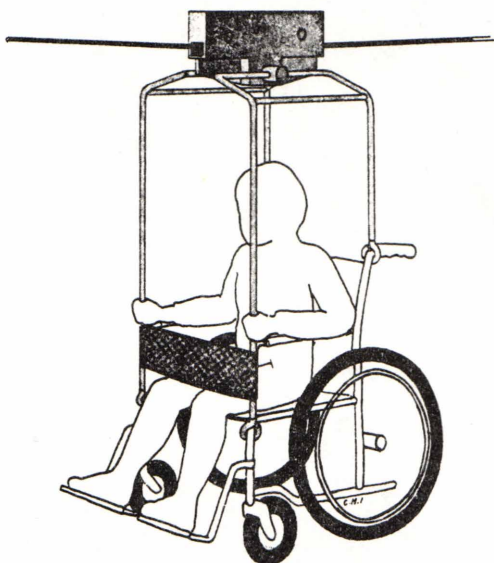
At the Kalleberga school in the town of Ronneby the children, parents and teachers all helped to make such an arrangement. They also made mounds from dirt taken from an excavation and covered them with ready-prepared turf.

At the Tomtberga school in Huddinge the children were allowed to make board fences, out-door furniture and playthings as part of their handicraft instruction. It was the teacher who took the initiative for this and he has said that in four years the weather had destroyed more than the children themselves had.

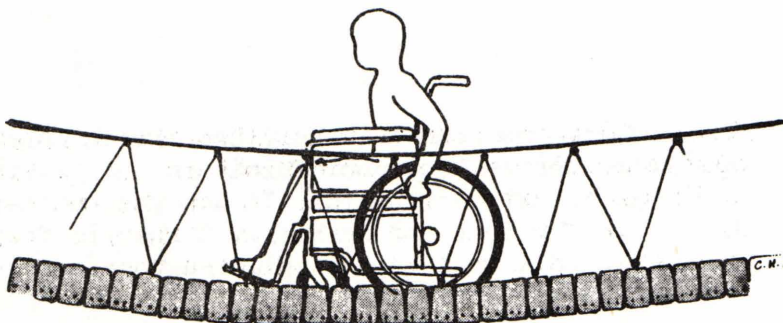
Special recreational devises for handicapped children

Extra arrangements are needed if children in wheelchairs can have access to and get any satisfaction from the various activities going on in a well-equipped school yard. The following pictures show recommendations made by a senior student in the industrial designing section of the State School for Art and Industry. These recommendations were presented in the student's final examination project.

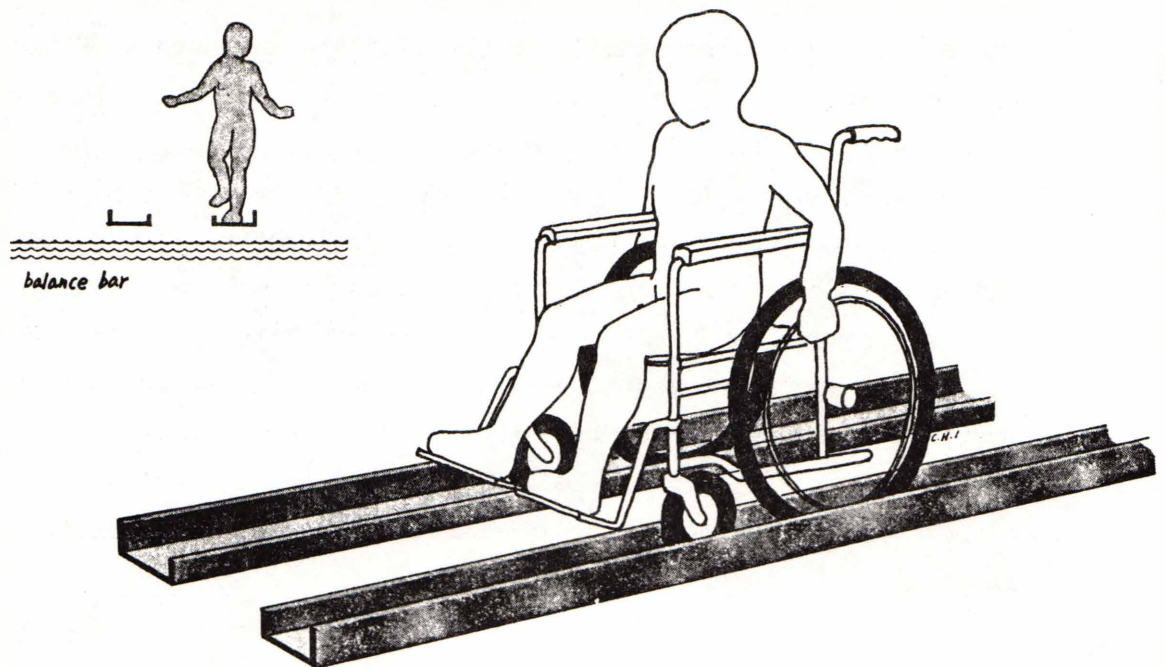
Linbana



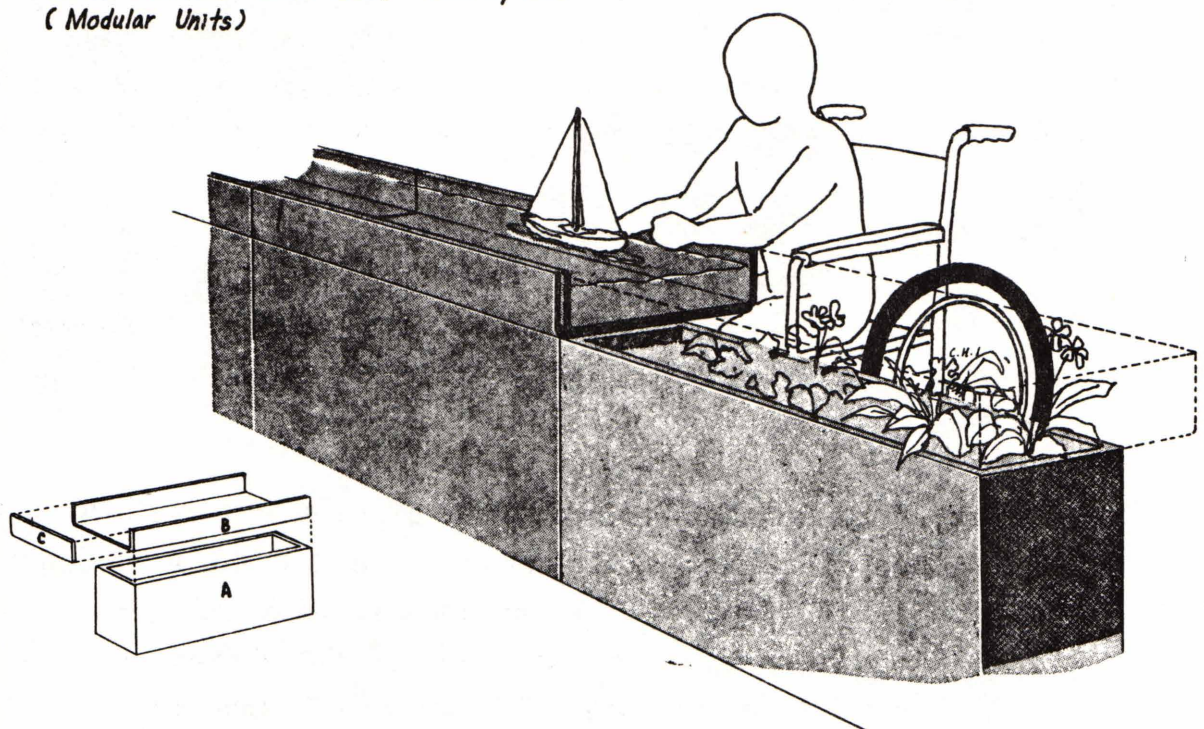
Hanging Bridge



Railway Bridge



Water Channel, Sand Box, Planting Bed (Modular Units)



PARK PLAYGROUND ACTIVITIES ON SCHOOL YARDS

The schoolyard in the country in the old days was a part of untouched nature with trees and stones, perhaps a brook, wildflowers, slopes with juniper trees and mushrooms. These advantages were taken for granted. In contrast the schoolyard in a town soon took on the appearance it has today. It was made rectangular in shape and empty of interest. But it was a little bit more stimulating. During the war years most school yards had a kitchen garden. It was considered important that the children learned all about growing vegetables as the produce from these gardens was really needed. However, little by little the gardens disappeared leaving only the school yard as we know it today: bare, empty, almost frightening in its desolation and uniformity.

An environment which is too "prearranged" and rigid can be harmful for children in many ways. The child is not tempted to change things, examine them, try out anything. It gets disappointed and bored. There is a risk that the only thing they can do is to become destructive. Vandalism is an economic factor which most schools must take into account when planning their budget. Vandalism costs money and is undesirable but a factor that is even worse is that a child's natural zest to discover, it's instinct to find in order to learn, and it's creativity is destroyed for all time to come.

We cannot change the school yard to the best advantage by only changing it's physical appearance. The measures we take for improvement should increase the possibilities for many different sorts of activity. As many people as possible of all ages should be involved.

The realisation that changes are necessary is no new idea. The motion for improving school yards was introduced in the Swedish Parliament in the thirties. The Stockholm city Educational Authority had an article in the Swedish School Newspaper in 1946 which was called "A Programme for the Designing of School yards". The following is a quotation from it:

"Let us be quit of these old-fashioned yards meant for military drills! A school must not only have a few bushes scattered here and there. It must have pleasant gardens with lots of green trees and bushes, flowers and lawns. One should consider arranging a garden between the yards of the primary and the elementary school. This can be used as a walk for the teachers, where they are more or less protected from the children's more boisterous games but are at the same time able to keep an eye on the pupils. The child should be able to play games on the own or games supervised by a teacher. Just a football is not enough. If one can plan so that the children have to chance to occupy themselves even out-of-doors it is a very good thing."

There was an attempt to do something for the children during the breaks. Today we consider that this was a shockingly meagre goal, but the idea had taken shape and it needed only time to expand. In November 1949 the first organized play on school yards was started under the direction of the Stockholm Park Department's recreation section. Stina Wretlind-Larsson who at that time was a supervisor took the first steps toward starting staffed playground activities for school yards. This was begun as a trail project.

At Abrahamsbergs Elementary School the children have lots of fun on the school yard during the break after their morning meal. Two women from the Park Department arrive at 10 o'clock each day with armfuls of stilts and skipping ropes. They have a wagon full of skittle games, swings, etc. This is a joint project begun by the Park Department and the City Education Authority for the elementary schools which aims at giving the children a healthy way to work off excess energy after the morning meal at school. We passed by Abrahamsberg's school yard - there was a rousing good time being had by all. The children were cavorting around with toys as if at a fun fair in spite of the rain which was pouring down. The heads of the group Astrid Schelin and Britt Almqvist were in the midst of a bunch of children trying to portion out toys, calm down the worst enthusiasm and organize the games. They had a job we could not have managed - not even for five minutes. But they brightly assured us that they enjoyed it. Here they were obviously fulfilling a purpose - and after all it was only for two hours a day...

Members of the teaching staff who kept watch on the paved school yard were also satisfied and explained that the children had become less restless since the toys and equipment had been made available. They now know what they want to play and need not be so noisy and boisterous while killing time during the break. The use of proper playthings and the organization of games is not only pleasant for the children. People in general and the higher authorities have been clever enough to figure out that this improved situation will result in fewer chances for misconduct. This later observation was made by the Dagens Nyheter (a leading Swedish Newspaper) the 3rd of December, 1949.

In 1968 Stockholm's city Education Authority arranged a competition called "Suggestions for Changes in the School Yard Environment". One hoped this competition would bring forth new ideas for shaping the environment for recreation and entertainment. As a result of this competition there was an exhibition at the Stockholm City museum with many new and unusual ideas. There were models of toy fortresses, see-saw swings, interesting and new types of out-door benches, greenhouses, hothouses, models of apple and pear orchards. The idea was to bring the children into closer contact with the elements of water and earth, plants and animals. Some persons contributing to the exhibition suggested that it was most important to encourage parents and others living nearby to take an active part in what is going on in and around the schools. This was 1968. What has happened since then?

In the country districts nothing - in some urban areas there has been set up ordinary climbing-bars and swings.

However, in Stockholm these first attempts to change things 1949 have developed into a programme for 51 schools, plans are being made for 5 more, and 20-25 schools have sent in applications for improvements.

The games and activities on the school yards are under the direction of the Park Department together with recreational pedagogues who from 9:00 a.m. to 3:00 p.m. are in charge off and play with the children during breaks. Adults act as leaders of games and divert the children's attention from quarrels and conflicts. They are on hand to answer questions, give comfort, lend advise and act as examples of good conduct. They help the children to repair things that have been broken. This is important today as children are constantly exposed to the idea that broken things are simply thrown away and new ones are bought - an idea that is strongly encouraged by commercial interests. When one learns to use and take care of old things, one is creating a new and it is a good experience to work with others who have this aim.

In schools where there are many immigrant children this personnel carries out the work of a welfare officer. There are parents from other countries who are not familiar with the severity of our cold

climate and have not thought of providing their children with warm caps and mittens. The play leaders keep such articles of clothing on hand. When dealing with parents and teachers they must in some complicated situations ask for the help of interpreters whom they can call in from the Immigration Service. The school yard as it is usually layed-out today lends itself to causing conflicts. It has been noticed in schools with pupils of many different nationalities the conflicts are greater and the efforts of the play leaders can result in a bad situation being handled with good results. Grown ups can make good use of the different cultural habits displayed in games, they can help out with language difficulties, get children better acquainted, and teach them to respect and appreciate one another. Before this personnel came to the schools there was a hard aggressive attitude evident between the children and mobbing was a big problem.

There has been a better understanding between the different language groups. The teachers and playground personnel have realized it is necessary to make a common effort to work out problems. Their co-operation has been so successful that many times the teachers are found making their way over to spend their coffee breaks with the playground personnel on their premises.

In order to deal with language difficulties there has been an effort made to employ interpreters. In some schools this has been an absolute necessity.

The premises available have been mostly sheds in which equipment can be stored. The sheds are warm enough to use in winter and there are telephones in them.

The pupils themselves look after the lending out of equipment and collecting it again. Some schools have shelters for bad weather - but it really takes nasty weather to drive the playground personnel indoors!

Hobby horses lined up
waiting to be used.

Some schools can get employers from "sheltered workshops". They can be well trained carpenters who are partially pensioned because of injuries received during their work - such as back injuries, rheumatic complaints, etc. These go around from school to school taking care of difficult repair jobs. Everywhere the children gather round them in large clusters. They can teach the children to be a bit more handy with their own repairs and can at the same time "philosophize with them" about life.

In Helsingborg there has been another type of playground activity. A school with bad problems of vandalism contacted the playground personnel. The people from there went around and asked the children in the primary level what they wanted to play with in the breaks. The children didn't actually know what they wanted but when given catalogues it was easier for them to make a choice.

The park personnel bought the material which consisted of balls, stilts, skipping ropes and simple games. Each form took care of its own equipment. The children marked their things and were held responsible for them. This project was successful and was extended to the middle and senior level also.

Balls, roller-skates, more difficult games, playing cards, and chess sets were bought for the senior level also. Each form was given a key to common storage place in which they each had a shelf. A recreation leader was employed to work with the senior level - he was a well known handball player. He organized competitions among ball teams.

A strange thing happened:

"The vandalism stopped and none of the material has disappeared. Some has simply been worn and has had to be replaced. However, all of the children have developed a feeling for responsibility and the atmosphere between the children on the school yard has undergone a complete change", says Marianne Billing in the Park Department.

ARTS AND ARTISTS IN SCHOOL

Access to good art should be the privilege of every citizen, old as well as young. The ability to comprehend his environs and what it gives expression to is established during childhood. The child is open-minded and receptive to matters of colour and form. Where an adult has ceased to see, a child takes in his whole world of light, substances, colours, action, space and forms. He thinks over his impressions and adds them to his fund of experiences. It is of vital importance to human beings that they have a variety of experiences and are mentally activated. If we give a child an eventful and exciting environment with many sources to draw on then we can be sure that the child acquires a treasure-trove to dip into in his adult life. The prospective artist and the future consumer of art are recruited from those groups who, in early childhood, have been in contact with good art.

What we remember is that which is unique and different, which awakens curiosity and which stimulates inspection and the asking of questions.

But art should not be something used to put a gold frame around a meagre environment. In such a case art loses its intrinsic value and is regarded as dubious by those who see that there are many fundamental needs in the environment which should be taken care of first. Art cannot compensate for an unfavourable environment. The contrast between an interesting and an impoverished environment becomes too great if one places a sculpture in a monotonous, meagre and dreary setting. That would be doing art a disservice.

Artists can enter into the school environment in various ways: They can be consultants who work out different types of embellishment together with the children, parents and teachers. They can be the actual producers of some form of art. As is done in the municipality of Järfälla, the artists can be employed by the community to have change of all information concerning the field of art distributed in the schools. When children are included they too can be helpful

when it comes to purchasing some kind of art as well as taking part in the planning of new schools and the refurbishing of old ones. Most of the established Swedish artists of today have the necessary technical knowledge conditional to such collaboration.

The artist Birger Boman has expressed it in this way:

"An artist's participation should be looked on as an unexceptional event which should be financed by the usual funds for planning and building. His participation should not be something which should be paid for out of some special grant set aside for works of art. Instead, one must come round to a concept of the artist as being an everyday member of the team that works with environment planning and where he/she is as much taken for granted as is the building engineer.