

School Society The Future

IDAC document 19/20

**This document was prepared for parents,
teachers and pupils**

By

Babette Harper

Claudius Ceccon

Miguel Darcy de Oliveira

Raymond Fonville

Rosisca Darcy de Oliveira

Drawings and Layout by Claudius

Translation: Ania Berger, Nina Lambert



In our previous document IDAC 16/17 - DANGER, SCHOOL we have seen that the Western world's model of school education, which is supposed to offer equal chances to all, in fact merely reproduces the inequalities between social classes.

we have seen that our school education, which we had expected to bring emancipation and enfranchisement, is in fact merely an experience of dependency. But we have seen, too, that the school - like society, of which it is only one mechanism among many is in process of changing.

1st chapter

Yes, it's stirring, crumbling, changing here and there because the school – like the factory, the hospital, like the whole of society – is not a prescribed entity, finished, unchangeable.

The school of today, despite its imperfections, its inadequacies, its faults, is no longer what it was 100, or even 10 years ago. It is not static, invulnerable. The form taken by today's school, is nothing more than

it's
2nd chapter

the precarious, provisory result of an on-going movement for change.

And this change often consists of small things, of simple actions, a variety of initiatives, which may sometimes fail but which nevertheless leave their mark. This process of change is the result, for the most part, of the actions of those teachers, parents and pupils who can hardly endure the school in its present form,

stirring...

3rd chapter

and who would like to create, would like to experience something different. It is the restlessness and the searching on the part of all those who feel dispossessed which stirs up the tensions, the conflicts, the hopes, the new alternatives.

A first stage in our work procedure – the effort to understand the mechanisms of the school – ends here. But this ending is also only provisory. The search must go

on for the new which is being born out of the old. However, since no-one has at their disposal a ready, global alternative to the existing situation, since the new is patiently constructed in a daily effort, we will continue our study by taking a close look at a few significant experiences in the construction of another school and of another education already in the process of being formulated.



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1st
Chapter

Not very long ago, doubtless as a legacy from mediaeval scholasticism, schooling in all subjects used to consist principally of learning dreary lists by heart - surely because, in an age when books were still rare, that was the most concentrated form in which knowledge could be acquired.

Thus, lessons in your native language meant learning the nomenclature of different kinds of words (definite and indefinite articles, possessive and demonstrative adjectives, relative and personal pronouns; all sorts of exceptions to spelling rules; conjugation models, etc.).

Studying a foreign language meant learning the same classification with, on top of it, long lists of vocabulary terms detached from any context.

In geography you learned lists of countries and their capitals, counties and their county towns, cities with populations larger than 100 000, the highest mountains, the longest rivers.

In history you learned the chronology of events, dynasties of kings, hordes of generals, flocks of poets, coveys of playwrights, galaxies of scientists. What was I required to reel off in my School Certificate history examination? A list of the romanesque churches of France.

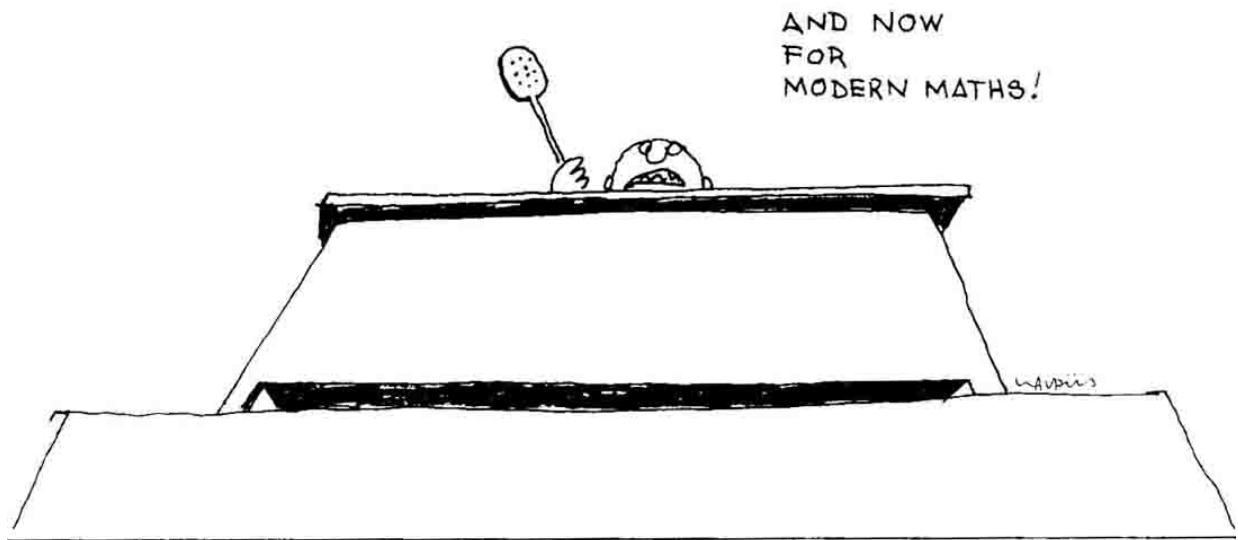
In those days, being good at natural science meant having assimilated the classification of animal species, being able to list the most representative specimens in each species. Likewise for the vegetable world, and you were considered the most learned of botanists.

You were a perfect chemist when you knew the list of the principal metals, metalloids and acids with their symbol and specific weight.

We could carry on in definitely with this list of false knowledge, monastic knowledge designed for people who neither live nor do and who will never use their knowledge as a tool.

Times have changed.

what has changed?



the subjects taught

The subjects taught at school are developing. Every now and again, school syllabuses are dusted off; new subjects are introduced (this is often a matter of fashion, with all the exaggeration which fashion implies): modern maths, new grammar, data processing, the New Novel... obviously, school learning must run along the same lines as university learning, of which it is both the preliminary and the outcome.

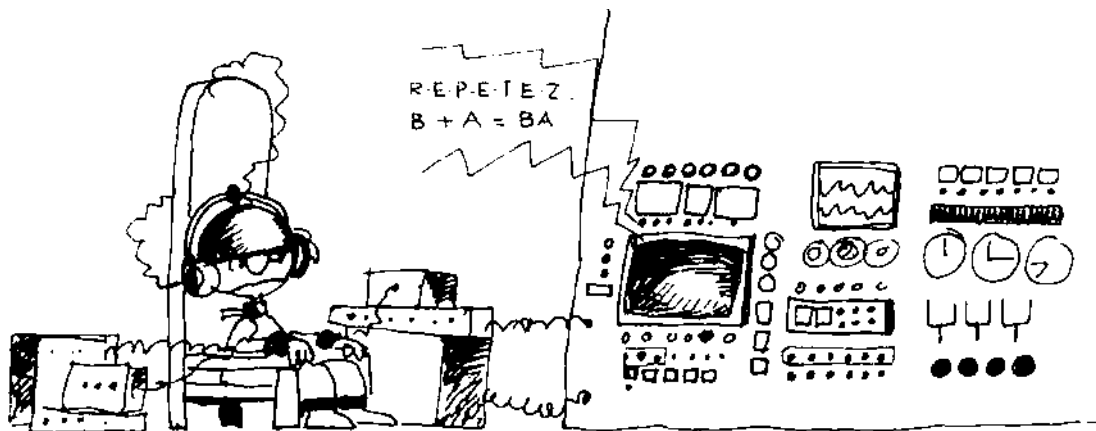
What these changes actually mean in practice, and how they are integrated in the great school machine, remains to be seen.

Modern maths is a typical example.

The introduction of modern maths, as its champions themselves pointed out, called for a fundamental change in teaching methods and teachers' attitudes. It was supposed to go hand in hand with a spirit of discovery, with creativity: to be intimately linked with group research (and therefore to encourage co-operation): and, perhaps, to be less selective than traditional maths. Some teachers went so far as to see in it a means of synthesizing the whole variety of knowledge dispensed by the school and, consequently, a possibility of remedying, however slightly, the lunatic compartmentation of school subjects.

What happened in fact? Barring a few exceptions, all that modern maths has become is just another subject, consigned to textbooks of the same type as all the rest and taught in the traditional manner.

A subject often felt to be more abstract, more remote from reality and from the pupil's everyday experience, than traditional maths. As for the decompartmentation, which was once hoped, not a trace of it remains.



teaching methods

A development is taking place in teaching methods and equipment, the most spectacular being the development in school equipment, whose quality and complexity are continually growing. In the last few decades, textbooks have steadily improved in terms of clarity and attractiveness. In addition to this, one of the greatest changes has been the increasingly generalized use (at least where the school budget permits) of audio-visual equipment of various kinds.

Schools, which represent a vast market not only for the publishing trade but also, and more particularly, for the great optics and electronics companies, are acquiring quantities of machines of all kinds, fed by a more or less extensive supply of slides, films and cassettes.

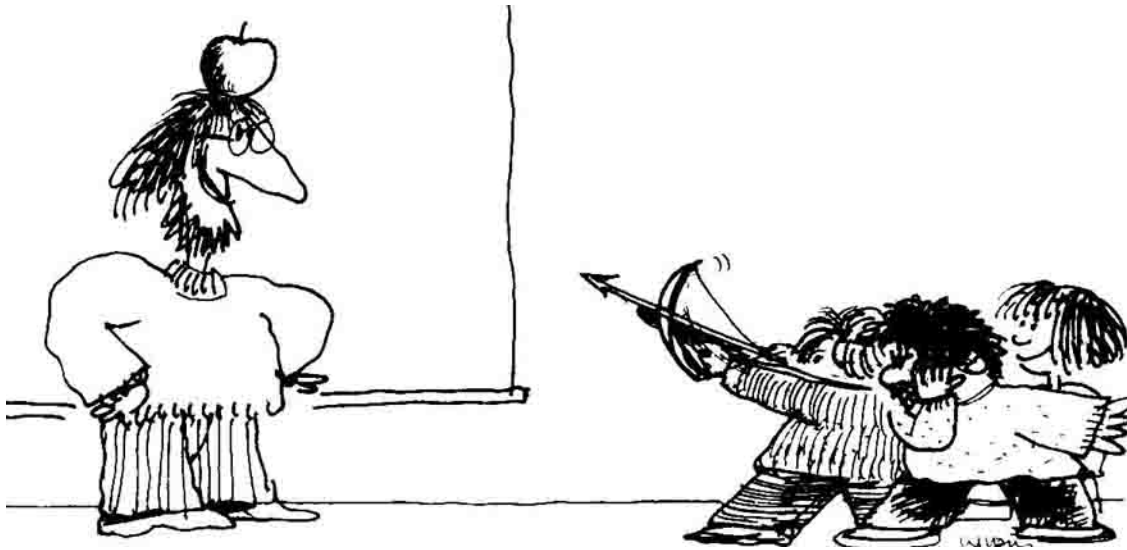
What are we to think of such technical escalation? There can be no doubt that some of the machines and materials are most attractive and highly valuable to the pupils. But one is entitled to wonder what fundamental change they bring about so long as they remain the property of the teacher who uses them as he sees fit - as a mere prolongation or amplification of his one-way message. On the other hand, the same equipment gains a very different kind of interest if it enters into the possession of the pupils (development of creativity and of a sense of responsibility, familiarization with the techniques involved).

Lastly, we must ask ourselves whether the fact of having the surrounding world presented to them in such an attractive way within the four walls of the classroom does not absolve both teacher and pupils from the necessity for real-life contacts with their environment.

Let us look a little further ahead: beyond the audio-visual teaching aids which, today, are more or less universally accepted, can we not discern other machines or super-machines: computers? How long before we have the roboticized school, where each child is connected up to his own computer and engages it in conversation as though that were the most natural thing in the world?

Science fiction, you may say. No, not at all, in a technocrat's mind nothing is science fiction. The costs have already been worked out. Let us look a little further ahead: beyond the audio-visual teaching aids which, today, are more or less universally accepted, can we not discern other machines or super-machines: computers? How long before we have the roboticized school, where each child is connected up to his own computer and engages it in conversation as though that were the most natural thing in the world?

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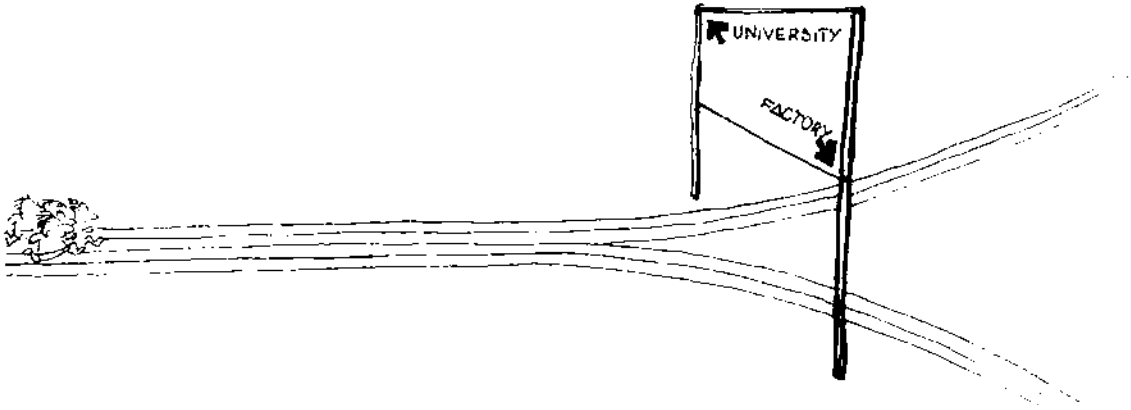
interpersonal relations

Children and adolescents, long reduced to silence on their school benches, are in some schools permitted or encouraged to speak out, to express their views, sometimes even (but this is rare) to take charge of their work. Some official native-language syllabuses actually give pride of place to free expression, take account of the pupils' interests and concerns, advocate respect of the spoken language.

These are indisputable improvements: but it should be recognized that they are often limited in their application by the weight of traditions and mentalities. A redistribution of the right of speech (not to say a redistribution of power) implies a radical challenge to the teacher's role and personality. Other limits are imposed by practical considerations such as the number of children in a class. And the gap between good intentions and actual practice leaves many teachers with an uneasy conscience.

In any case it is not easy to create a new relationship between teacher and taught within an institution which in other respects refuses all fundamental change. It is difficult to find the middle way between the hard line taken by the teacher who, "for the pupil's own good", never yields an inch and the over-permissive attitude of surrender which leads to total collapse. We are aware, too, of the risk of slipping into the demagogical all-pals-together pose, which is a serious pitfall for teachers who refuse their status both as teachers and as adults.

Relations between teacher and pupil are changing. In this they follow the general development of the relationship to authority -- authority which, in many areas of life, no longer dares assert itself in broad daylight with the violence and arbitrariness it once did. The age of corporal punishment is (almost) past, like the age when children were forbidden to talk at table.



educational structures

Educational structures are changing. The last decades have seen the abolition of streaming in primary schools. Today, wherever political power - for reasons of economic necessity or as a matter of principle - favors the democratization of schools and equal chances in education, this development goes further than the primary school: in order to avoid the formation of ghettos, all adolescents are taught under a single roof; the age for the traditional selection is postponed by one or two years, or even until the end of compulsory schooling. The stakes are dearly political, and blatant differences between progressive and reactionary forces are brought to light.

Such structural changes can undoubtedly bring a precious respite to a certain number of individuals; they can even raise the general educational level of a particular nation. But we are bound to note that they make no difference whatever to the inequality of social classes in face of the school institution, and that, moreover, they do not automatically lead to the thorough changes in teaching contents and in mentalities which would be needed.

The same could be said of structural innovations of another kind, namely, so-called remedial measures for pupils in difficulties. Some schools offer, at great cost, many hours of remedial teaching, either as a supplement to the school timetable or as part of it. But in many cases these measures produce no other effect than that of giving everybody concerned a clear conscience.

(If - consciously or not - a child refuses the nourishment offered by school, stuffing the same nourishment down his throat will hardly make him absorb it better).



Spurious changes

School is changing as a result of social pressures, scientific innovations and economic needs: indeed it is changing all the time, continuously adapting itself to changing conditions.

But these changes, innovations and reforms do not touch the heart of the matter.

For all the good intentions of educators, for all the new subjects taught and new techniques employed, the knowledge transmitted at school is still, in the majority of cases, divorced from the context of the pupils' lives, their experience and their needs.



What is needed is no longer to transmit knowledge or to follow an official syllabus but to equip the pupil with resources, offer him an opportunity to construct concepts appropriate to his intellectual development, give him the means to react to his environment. Seen in this way, teaching has a meaning only if the educator is capable of putting himself at the pupil's disposal, of adapting himself to the pupil's language, behavior and modes of socialization.

In a schools system which, despite all that has been said and demonstrated time and time again, continues to defend the false notion that development is achieved by learning instead of recognizing, with genetic psychology, that it is the child's development which makes learning possible, qualities such as inventiveness, creativity and up-to-dateness are still regarded as subversive. R.D.O. and P.D.

CHAPTER TWO
FRIENET



The story begins on 1 January 1910 with Celestin Freinet's appointment as assistant master at the two-class village school of Barsur-Loup in the French department Maritime Alps.

Freinet was called up for service in the First World War at the end of his second year at teacher training college. He never completed his professional training. Severely wounded in the lungs, he was shuttled from one hospital to another for four years, and when he decided to enter the profession, which was going to be his life, he did so against the advice of the doctors, who prescribed complete rest.

He discovered children, their diversity, and their delightfulness. But he could not stand the atmosphere of the classroom. Speaking for more than a few minutes on end tired him out. Prevented by ill health from teaching in the traditional way, he had to look for other solutions. He began taking his class out on "study walks". Physically exhausted, Freinet decided to read for a primary schools inspector's diploma. In this way he became acquainted with educational theory. In 1923 he visited some schools in Hamburg where experiments in "anarchic education" were taking place.

In the autumn of the same year, appointed as a teacher in a high school, he decided not to take up the post and went back instead to his class at Barsur-Loup. Some important innovations were made during that school year. Visits to local craftsmen opened a door between the school and real life. Becoming more solidly integrated in the life of the village, the schoolteacher began his career as a militant.

He campaigned among the villagers, urging them to join the co-operative movement, which was starting to develop in the region. The new school activities made Freinet aware of the contrast between the children's enthusiasm for study arising from such outings and the dullness of the traditional classroom.

In 1924 Freinet attended the congress of the International League New Education at Montreux in Switzerland. Here he heard talks by Genevese educators - Ferriere, Claparede, Bovet - and met Cousinet. But conditions at the village school of Barsur-Loup were far from ideal for the application of the "active school" principles developed for the use of Geneva's enlightened middle class.

At the start of the following school year he had the idea of making use of printing as a link between the children's thoughts and their schoolwork. This led to the first printed texts and to the first collection of such texts, the "real life book".

At the same time, by a symbolic act, Freinet abolished the teacher's rostrum, thus turning the teacher into his pupils' workmate. At the end of 1924 he published the result of his experiment in a trade union journal. The earliest reactions led to a correspondence between Freinet's class in Provence and Rene Daniel's in Brittany, opening up fresh perspectives for the new teaching practice that was gradually evolving.

Among the numerous attempts to make teaching and education less constrictive, Freinet's was the only one, which reversed the educational process: for him, knowledge is the fruit and end product of lived experience, analyzed and expanded by study.

Freinet's story shows that a combination of apparently unrelated factors and events may sometimes suffice to bring up a fundamental reassessment and development in a specific area.

Let us examine the process with this in mind. Freinet, as we have said, found speaking too tiring. His school at Barsur-Loup was poor, especially in books, which made the teacher's windpipe the only source of information. Taking his pupils out of the classroom on walks, he eased his own respiratory system and at the same time discovered that information was not to be found exclusively in his own knowledge or in books but also in the experience of people met on such walks, in watching animals, in the ancient stones of the village fountain.

He also saw that the children did not necessarily require his mediation to acquire such information: that, in some cases, the teacher is actually in the way, e.g. when interviewing a manual worker who will express himself more freely when there isn't an "educated" man present.

Was it also because he had difficulty in speaking for long periods that Freinet introduced techniques, which eventually substituted "education by work" for education by the spoken word? Printing transformed a bunch of competitive children out for high marks and prizes into co-operators; the newspaper motivated and encouraged expression and gave rise to communication and exchange with others; exchange led to correspondence, a source of mutual curiosity to be satisfied by inquiries, interviews and reportages.

Thus knowledge deposited on more or less fertile ground from outside was replaced by knowledge drawn from lived experience. Sometimes, when such knowledge was swallowed a little greedily, the teacher could help the pupil to digest it. That is all. Therein lies the essence of Freinet's practice. The only thing that matters is the approach. You start with lived experience, with what has already been acquired, and you offer opportunities for multiple and varied experiment in every field: the master intervening only to nourish this living environment, to suggest or establish communications with the outside world. That is what Freinet's "good" followers do.

For Freinet's story is also that of the militant who, after he was sacked by the Ministry of Education in 1934, built his own school with the help of some early friends; who succeeded in convincing thousands of teachers in state schools to adopt the "Freinet method", so that, unlike, for instance, A. S. Neill's, his experience more or less understood, more or less taken over by the Establishment - has at least not remained unique.



other experiments

Freinet appears, then, as the man who reversed the educational process: knowledge is the fruit and the end product of lived experience. Since then, numerous attempts, almost always limited in scope, have been made to translate into practice the principles of "educational training" to meet the aspirations of new generations. Many books have been published describing these attempts.

In order to illustrate the changes, which, in our view, are necessary to meet the principles and social requirements of the development of educational training, we have selected three examples, each of which represents an extreme position vis-à-vis the institutions existing today.

1. The isolated experiments conducted by Raymond Fonvieille at a barracks-type urban school in the outskirts of Paris, with very rigid structures and extending from the first school year to the school-leaving class for 14 to 15- year olds.
2. A global community experiment carried out as part of the Folk High Schools at Tvind in Denmark.
3. The "school-in-a-boat", an experiment entirely outside any institutional framework, which forms part of the spontaneous "unofficial schools" movement but, because of its itinerant nature, is partly protected from the usual social pressures. In order to enable the reader to place these references in their proper context we propose to give a brief description of each project and of their authors' intentions.



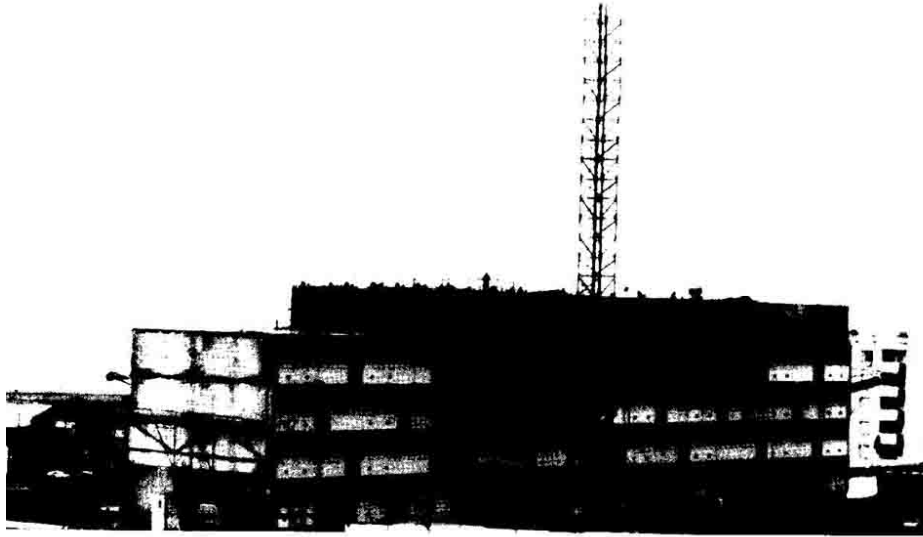
1. the classes at Gennevilliers

Gennevilliers is a suburban town of 50.000 inhabitants situated in a loop of the Seine north- west of Paris. For a long time market gardening was a major activity. Gennevilliers, which is only 4 kilometers away from the capital, has also been for long the home of folk employed in all kinds of marginal trades. Today it houses many industries, which, at first, found the unskilled manpower they needed among the local population, poor and of a very low cultural level. This has gradually been swelled by large numbers of immigrant workers, who now account for more than a quarter of the population.

The schools population, which results, is very difficult to deal with. The children are poorly motivated because they lack any permanent reference to social success due to schooling; and their families, which, because of their own low educational level, soon find themselves out of their depth, poorly support them. The educational innovations we already spoke of are not helpful. And these difficulties are multiplied tenfold in the case of children from immigrant homes where French is not spoken.

In my thirty-one years as a teacher in a barracks- type school of 30 classes (primary and junior comprehensive), working under a variety of principals some of whom were more authoritarian than others but all were swamped by the sheer numbers of children that had to be taught, I have conducted two distinct and significant experiments.

From 1955 to 1960 I stayed through the years of their primary schooling with a class of children whose parents had agreed that an educational method based on Freinet's should be applied throughout that period.



My aim was, above all, to conduct a global experiment. Time was not a problem: we were going to stay together for 5 years. Neither was there any problem as to the syllabus, except possibly during the last year, when any gaps that were left by our everyday activities could easily be filled.

First, I was going to experiment with ways of learning: --

Learning to address others, to communicate one's experience, one's impressions, sensations, feelings, and ideas;

Learning to write down one's own experience and, once one knew how to read, to read the experience of others,

Learning to identify the problems arising from daily life and from one's activities and, having posed the problems, learning to solve them with the help of figures, experiments and projects.

Also I maintained a very close cooperation with the parents (reinforced for a time by our common resistance to an inspector who wanted to dismantle the experiment). This helped to accomplish some spectacular projects, such as a correspondence conducted regularly for several years with schoolchildren in Los Angeles and with the French school in Moscow; correspondences with schools nearer home which led to exchange trips, especially one to Brussels; and, above all, the organization and financing against all odds (which included the Ministry and the town council) of a month's stay in the mountains.



From 1962 to 1970, an experimental class (unofficially recognized as such) for boys aged 14 and 15 who had failed in their previous schooling gave me the opportunity to test an important branch of teaching science. These boys had failed either at the end of primary school or after one or two years at junior comprehensive, especially in "transitional" classes where these existed. As a result of their failure they were condemned, almost without reprieve, to become technical apprentices: and the choice of apprenticeship was extremely limited by the requirements of the local industries and, in the case of non-industrial apprenticeships, by the small number of places available.

These classes, later to become known as "practical" and eventually as "pre-vocational" classes, were not obliged to stick to a prescribed syllabus. The only subjects required in order to qualify for apprentice training are, French and arithmetic. What mattered, after suitable reassurance and a rekindling of the ability to want, was to give these boys - all of whom were all too convinced of their limitations and shortcomings - the means for making a genuine choice. Thanks to the freedom, which for the reasons described above, I was able to enjoy, this class - together with three or four others, some of them run by former disciples of Freinet's - became the birthplace of institutional pedagogy.



The principles of institutional pedagogy are the following: -

The adoption by the teacher and - as an aim at least - by every member of the group of an attitude of unconditional acceptance of the others, of a desire to understand, and of personal commitment.

The exercise of self-management by the group in all its tasks and problems; this implies:

- **Choosing what is to be learned organizing the available time (within the limits imposed by the larger institution)**
- **Managing the collectively owned equipment**
- **Choosing and organizing activities**
- **Choosing one's group**
- **Developing, establishing and running the necessary institutions**
- **Defining the roles and responsibilities of each member;**

Continuous institutional analysis:

- **Of the larger institutions within which the group is functioning;**
- **Of the specific institutions with which every member personally has to deal; every member of the group is invited to do this;**
- **And of every sequence of the group's life.**

Lastly, between 1971 and 1972, I had the experience of a class of the same type at a technical college where my aims were the same but the students' mentality was somewhat modified by the fact that special workshops were available on request.

R.F.



2. the travelling Folk High School

It isn't easy to find the schools at Tvind, half-hidden in a sparsely populated rural area in the north-west of Jutland in Denmark. The basic principle on which the teaching at these schools is founded is that you learn through doing and that education is acquired through practical experience. For this it is essential that all the students, together with the teachers, should assume responsibility for their own training, so that everyone is, simultaneously, a teacher, a student, and a worker.

The oldest and best known of the Tvind schools is the Traveling Folk High School, established in 1970 by a group of young teachers who had traveled for long periods in the Third World. Feeling the need to communicate to other people in Denmark what they had seen and experienced on their travels, they realized that just talking was not enough. People had to have a concrete experience of going to these places in order to see, feel and understand what it was all about. This was the origin of the Traveling Folk High School project.

"We wanted to create a school where the students could study international problems from both a theoretical and a practical angle. Our object was to acquire knowledge so as to take up a position on fundamental social issues, at home as well as abroad".

Taking full advantage of the institutional flexibility of the Danish educational system, which will finance residential schools without insisting that they should train their pupils for a particular trade or prepare them for a particular examination, the Traveling Folk High School obtained official recognition for its study programme centered on international and social questions.

At first the school had its base in an old hotel at the seaside. From there, five old buses, bought cheap and reconditioned by the students themselves, set off twice a year for a study tour in India, each with eight to ten students and a teacher. Four months later they returned, summed up their experience and tried to share what they had learnt with other people in Denmark.

The main purpose of the course (if that is the right term) was to make an on-the-spot study of the living conditions of people in the Third World and to relate it to investigations into Danish society. The most original aspect of the project was the learning process chosen: trying to get as close as possible to the subject of the study, on the principle that the closer you are, the more you will learn. Thus, in order really to learn something about development problems, you have to plunge into the world outside the classroom. You have to say good-bye to the security of the school building, venture forth among other people and try to share their life and work.



On the basis of the accumulated experience of several expeditions undertaken over the years, the Traveling Folk High School arrived at its present pattern of a course spread over 17 months and divided into five periods.

1. First, for the space of two months, there is the whole business of preparing the voyage. The group of students and teachers has to tackle the problem of organizing its daily life at the school. As there is no cook, laundry or office staff, they have to learn to operate collectively as a group, knowing that if they do not perform these basic tasks, no one else will do it for them. This first stage is also a time for reading, researching, gathering information about the country to be visited and planning every detail of the voyage.

As the group is going to spend four months traveling in an old bus, there is a great deal to be done, not only mechanical repairs but also converting the bus into a place where people can live, work and cook. In order to do all this, the group must assume responsibility for itself and learn to function successfully on the basis of co-operation and mutual aid.

2. The second stage consists of a four months' voyage in a chosen region of the Third World. Usually the students are at first rather nervous about direct contacts with the population. But once they have taken the initiative of getting out of the bus and going to explore the surroundings, contact is rapidly established. They work together with the peasants in small villages, and the sharing of food quickly creates relations of trust, which in turn, lead to open discussion and a mutual exchange of knowledge. The experiences and explorations undertaken by each member of the group are systematically discussed in the bus. Learning is based on concrete observation and common discussion.

3. The third stage takes place at Tvind and lasts three months. The group is back from the study tour and it is now time to organize the material and experiences gathered on the trip and to find the means of communicating them to others. This work of theoretical study of the observations made has to have a product - a book, film, play or something else - which will help to share with others the lessons learned during the voyage. This discussion with people in Denmark gives rise almost inevitably to a desire for better knowledge of living conditions in Denmark itself.

4. The fourth stage is devoted to a thorough study of social conditions in Denmark, especially those of the working class. Direct lived experience is once more the source of knowledge and the starting point for research in greater depth. For a period of five months the students and teachers split up into small groups, leave the school and, as a full-time experience, share the life of Danish workers.

5. Lastly, back at the school, all try together for five months to sum up the experience acquired during the months of living and working in the Third World, at the school and in working-class areas in Denmark.

the continuation school

The pedagogical principles used at Tvind were tested and developed with young adults. In 1974 another school was opened at Tvind, intended for students within the 14 to 18-age range and offering a programme, which corresponds to the last two years of compulsory State schooling.

One-half of the school hours are set aside for practicing a wide selection of everyday activities. The other half is devoted to theoretical work, linked as closely as possible to these practical activities.

At the beginning of the year the students are divided into random groups each of which is responsible for an activity essential to the day-to-day running of the school: secretarial work, cooking, agriculture, building, mechanics, information, etc.

Those in charge of secretarial work, for example, receive and answer the mail, pay bills, answer the telephone. They are also responsible for bookkeeping; and have to keep all the other students informed of the school's financial situation. The group in charge of agriculture takes part in the daily work in the fields, grows vegetables, looks after the agricultural machinery, etc. The mechanical repairs group sees to the maintenance of the school's transport vehicles.

Boys and girls participate in the work of all groups on an equal footing. Each group draws up its own budget and keeps accounts relative to its own activities.

The theoretical work is done as far as possible in relation to, and on the basis of, the practical activities. The students investigate the technical and social aspects of the type of practical work they perform by means of enquiries and visits and through documents of various kinds. The enquiries may take the form of discussions with people having direct experience of the particular area being studied, visits to work places, or systematic reading.



Thus the students in charge of information follow the national and international news, discuss them and transmit them in writing to the others. They have also tried to find out why young people's views on essential questions are so rarely heard or read. They have visited a TV studio, a large daily newspaper and the School of Journalism. The "mechanics", in turn, have studied the electrical circuits of motorcars and have researched the question of why present-day cars have a much shorter working life than in the past. They have also visited a Volvo factory in Sweden and have worked for two days in a car repair workshop nearby.

Besides such investigations, the other aspect of theoretical work consists in more formal study of a certain number of subjects such as mathematics, languages, history, chemistry and physics, included in the syllabus for the official examination which students are expected to pass at the end of compulsory schooling.

Of course, linking the teaching of these subjects with practical experience is not always an easy matter. But an effort is made to connect reading, writing and arithmetic; at least, with the practical activities and language learning is often integrated in exploratory visits to Germany and England.

School life at Tvind is best described in the simple words of one of the teachers: "We work on our occupations whatever they may be, both from the practical and the theoretical point of view. In the course of our practical work questions arise to which we have to find answers in our theoretical work. And we apply the knowledge we get out of the theoretical work towards improving our practical work." M.D.O.



3. the "School – in a Boat"

Leonid Kameneff, the "promoter" of the "School a Boat", denies that he forms part of the "parallel schools" movement (1). Indeed, the definition he gives of his objectives and, more especially, the experiment itself clearly show that he is not. Yet definitely belongs to a broader current in education, which challenges the schools system.

The parents who send their children to parallel institutions do so because they are afraid of what the gigantic personality-crusher of State education will do to them, or because several years of bleak and unhappy experience of State education drive them to do so.

Those who undertake these experiments are either teachers who, for a period of time, have been the systems accomplices (usually misfits), or else they are people who have had occasion to measure its effects. Leonid Kameneff, a psychologist and psychotherapist, was in a good position to do this.



Parallel schools are for children from privileged homes. Privileged in terms of money, because the fees - although in a number of cases, particularly in that of the School in a Boat, they are scaled downwards - are nevertheless too high for working class families, which have great difficulties even with the costs of compulsory, education, which in France is supposed to be free. Privileged also in terms of culture, 90 % of the parents being - in the case of the School in a Boat - of middle class origin, including 50 o/o of intellectuals. In this sense Leonid Kameneff's experiment can be bracketed together with the parallel schools. Where it differs from them is in its objectives. Elsewhere, it is a matter of placing children faced or threatened with failure in an environment, which will increase their sense of security, so that they may meet the challenge of traditional examinations or competitions with a good chance of success.

Here it is, rather, a question of coping with all the demands, many of them unexpected, that are thrown up by an itinerant way of life: communication (hence language), travel, shopping, food, etc. It is also a question of maintaining, arousing or reawakening a constant curiosity about anything that may turn up while traveling or stopping at one place or another.

In 1969, Leonid Kameneff, owner of a sailing boat and a keen sailor, proposed to a few parents (in most cases the suggestion was made through the child) a year of schooling on board the boat while sailing in the Mediterranean.

Since then, the form of the experiment has developed (2): there have been several boats, there have been donkey caravans, and there has been a stay on a Greek island. The most interesting development occurred perhaps in the first two years, when the acquisition of knowledge and learning was imposed by the need to cope with situations, which were vital to the group, and the mistakes of conventional schooling methods were brought sharply into relief.

"What remains fundamental is this: -

We travel through the world, encountering and getting to know whatever comes our way: civilizations, customs, spectacles of all sorts; - We stay in small groups composed for the most part of children. What is fundamental, too, in spirit but also in fact is: the freedom of these young people who live according to the laws of men the same laws as those which govern the lives of their elders who do not lead a life of "miners": of children, yes, but not of minor children." R.F.



H. Elwing



We are now more or less familiar with the structures in which all these experiments take place and the objectives aimed at by the innovators. We have an idea of their specific concerns in the field of education and training. What we do not know as yet are the actual details of the approach adopted in each case. This is what we shall examine next, always bearing in mind that the choice of approach may be largely symbolic.



The Mother Tongue

The early stages

Thanks to the parents' ability to guess at their meaning, a baby's first efforts at communication (crying, calling, imitating, smiling, making gestures) are generally sufficient to express the child's needs, whether it be for food or some other simple want. Yet it is not long before these are replaced by that unique medium of communication, language, which will continue to hold a privileged position throughout life.

The child's language learning takes place in a natural way and within the family circle, of whatever size it may be and to whatever extent it may be sensitive to his needs. It takes place through imitation, whence follows the importance of models during this period and of a good use of language. Language will serve as a kind of visiting card for the individual throughout his life, presented not only to those around him but to everyone with whom he will have a relationship of any continuity in the future.

It must be obvious that early language learning suffers from great inequality because of the vast disparity in this respect between families depending on their social origin and the region in which they live.

By the time the child goes to school a deep ditch has already been dug between those who are more and those who are less advantaged.

The transition to reading and writing is, of course, less natural than the earlier acquisition of spoken language - if only because reading and writing occupy a smaller place in everyday life than speaking.

Nonetheless it is true that the three activities belong to the same system, at whose origin lies the process of thinking - a discipline not listed in the syllabuses of today's educational establishments and are linked by a logic which ought to make them appear in-dissociable from one another.

If we want to communicate what we think to a person who is in front of us or at the other end of a telephone line, we say it. If we want to communicate with someone far from us in time or space, we write our thoughts down for that person because we cannot speak them. When we receive a message communicated by someone near or far, we listen to it (another skill which finds no place in the educational armoury and is so neglected in everyday life that no one seems able, these days, to be "a good listener") or else we read it.

Thus the objective of the act of writing is the same as that of speaking. This is so true that many books published today are simply transcripts of tape recordings.

The school, which decrees that the first year of obligatory schooling shall be the year in which the child learns to read, thereby destroys the logic of the communication process. Man wrote what he could not say to others because they were absent, far away or not yet born. And if no one had written, there would be no question of reading.

The arrangement of the curriculum mentioned above is favored because it does not awaken critical thought. This is surely the school's basic objective, and surely this is why schools place such emphasis on lesson-content, specially chosen to transmit a body of knowledge to serve the interests and goals of the society (whatever it may be), which has established the school in the first place. This arrangement underlines the difference between the thinkers (thinkers of good thoughts) whose works are there to be read and the rest of humanity, who are lucky enough to be fed with ready-made ideas and who, therefore, have no need either to think or to write.

A more logical approach along the lines suggested earlier was the basis of my own teaching of reading in a homogeneous class of 32 children. The symbolic content first activity seems very imp to me today.

On the first day of term, all t year olds were waiting in the yard, under my supervision, divided into the five first due to receive them. They found a large caterpillar and some or watched it very carefully before the crowd got hold of it and crushed to death.

As soon as the children had settled into the classroom, I asked them to tell stories. Timid silence gradually gave way to a few nervous attempts, and finally someone mentioned the caterpillar. Of course this was the story, which claimed the children's attention because had just lived through it. I wrote on the blackboard, in my best writing, exactly what they had said:

this morning
in the yard
there was
a big yellow and green
caterpillar



The children copied this story and soon were "reading" it or reciting it by heart.

During the days, which followed the process, I have described developed into a habitual pattern of work. In this way, each child could satisfy his desire for self-expression through story telling. As they spoke, I carefully noted the stories down in order to submit them to a collective decision and reproduce the chosen story on the blackboard. Every day a story was set in type and printed in large letters by our printing press. Every day the printed page would take its place in the big folder belonging to each child, eventually constituting his "reading book". Another batch of the same printed passages was sent to another class of schoolchildren who, in turn, sent us their printed stories. My pupils did their best to make these out.

Every day, as they copied out the story they had chosen, the children gradually mastered the skill of writing, an indispensable tool that soon made possible the first hand-written exchange with our correspondents. This, our first real contact with them, took the form of a letter which we had put together orally and copied out. From the beginning of ~ one of the more advanced a boy who had been in school, was writing and his own stories. Several friends emulated him. This meant were no longer tied to the collectively produced text for correspondents but could each send his own story, corrected and copied out, to an individual correspondent of his own. It is worth noting that the first child to succeed in transcribe without help what he wished to communicate announced, not as one might expect "Now I can write" but "Now I can read!"

After this stage of all-round learning activities closely (with their own experience the children entered a more technical phase, in which the study of the words they had already encountered led to analysis of their sounds and the construction of new words which extended their control of language. They became familiar; too, with other stories from children's books, which formed an important element in the cultural environment of the classroom essential step, had already been taken.

The children had understood that writing, talking and reading all form part of the same range of possibilities of establishing communication with others. They had absorbed the knowledge that their own personal stories, on which the whole class concentrated its attention if only for a moment, had value. They have found the means of telling those stories. They knew that the spoken word does not belong exclusively to public speakers, that writing is not an art reserve for authors. They could never be condemned to silence.



after communication comes exploring

Just at the child's first steps in language learning fulfill the individual's overriding need to communicate with those around him, so other learning activities will enable him to satisfy his need for exploration.

Exploring our environment and taking possession of it must entail making comparisons, making judgments, measuring the relative size and importance of the places in which we grow up, the objects we use, the exchanges we make with others.

Exploring also means understanding the why and the how of natural phenomena, and of everything that makes up and peoples the natural world, as well as understanding the complex technology familiar to the young people of 1980.

Exploring involves going beyond the limits of our own immediate world, seeking to know and understand faraway countries and those who live in them.

Exploring means deciphering traces they have left behind, the artifacts and written documents belonging to them, rediscovering the paths of progress followed by our predecessors on this planet.

And exploring also means striking out towards the unknown, creating from out of the depths of our own secret sources what no one has created before.

codes...

Just as there are codes - sounds, signs - which facilitate linguistic communication, so there are other rules, which regulate and facilitate our more exact knowledge of materials, elements and places, our natural surroundings.

As with language learning, so with these codes: they all have to be learned.

Traditional schooling on the Cartesian model in the French-speaking world, by partitioning and fragmenting all things, by arranging all things in orders of precedence, rationalizing them, imposing a uniform value on them, has quite simply destroyed life and its forms of expression: curiosity, experimentation, trial and error, adventure, initiative.

other codes...

It also appears important that the child should become aware very early on that there are different codes for different countries, fields of activity and techniques and should realize that these are not inferior to but only different from the codes accepted in his own environment: that it may be useful to know some of these codes, such as languages (anyway the languages of countries we intend to visit), currencies (especially of the countries with which we are in contact) or the specialized languages of the activities we engage in, be they music, electronics or sailing.

We do not propose to indulge in yet another theoretical analysis of what a truly dynamic learning process might be, but, rather, to show by means of examples drawn from situations actually experienced in the course of the educational experiments we have describe that there are other, more exciting and richer pathways to knowledge than those imposed by educational institutions. *R.F.*

Mathematics and Arithmetic

For the very young child, the early beginnings of mathematical knowledge are included in the exploration of his environment, in the efforts he makes to take possession of it.

He is led towards a mathematical approach when placing himself in space, when gauging the distance, which separates him from a desired object - will he be able to reach it? When organizing his ideas of what is hot and what is less hot, or when comparing something heavy with something less heavy. In the same way his quest for balance, the experiments he makes with the various elements, materials and furnishings that surround him lead the same child towards scientific deductions, which are often linked to mathematical ideas.

Within this subject area, too, and enabling the child to link together these first experiments and communicate his data to other people, is the code most commonly used after that of language - the number-code. Moreover these number- words are practically as familiar as any others to the young child, for simple numerical data are very closely related to his everyday concerns.

As with the language-code, children of the same age group show considerable inequalities in their ability to learn these mathematical and scientific codes. A mathematical or scientific cast of mind is fed, like a stream, by two springs: curiosity and necessity. Everything depends on how the child's environment has protected or given rise to those springs, how his questions have been answered. Similarly, it would be wrong to think that the same problems are easy for every child or complicated for every child.

a beginning...

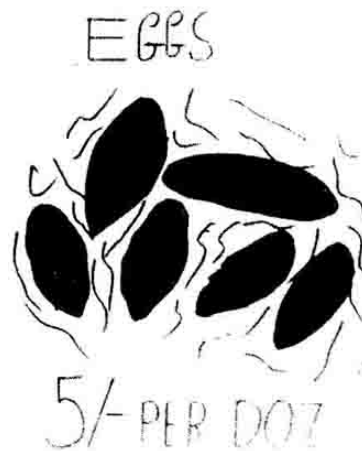
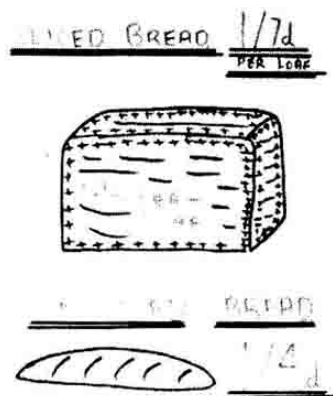
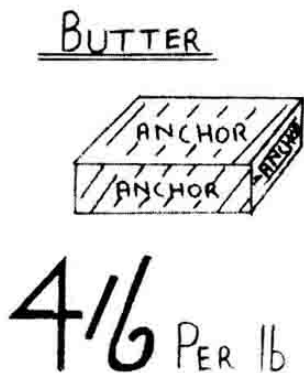
At the same time as taking charge in the manner I have just described of the language-development of some six-year old children, I was also required - as is usual - to teach them to do sums. (In those days it wasn't called mathematics at this level. The year was 1955 and I was convinced - having seen how school was failing the children - that whatever I did couldn't be worse than what had been done hitherto. (My proof was provided by one little boy, kept down a year, who was unable to write his name after a full year at school, not counting the time he had spent in the nursery).

The large number of perfectly normal fourteen-year olds whom I had in my class some time later on who couldn't add up confirmed this conclusion, and this in turn justified all my innovations.

Everyday life should provide the content of arithmetic lessons. But the classroom is still an artificial environment. The children's stories contained much in the way of numerical data: the class fish-tank, for example, with its newcomers its tragic fatalities, its tally of different species, gave us plenty of opportunities to do sums, but of course in everyday life the transactions most familiar to the children involved handling change when they were sent to the shops.

So I thought of instituting a class currency system with counters which were made by one pupil's fathers and which looked like the real thing. After a few false starts I ended up in charge of the Central Bank myself, distributing payments in return for jobs done (especially those connected with the printing-press: type-setting, cleaning, distribution of copy etc.) But there were also various financial operations which were performed by the children themselves: changing money, selling pictures to be sent to our correspondents, the child responsible for running the service being entitled in each case to draw a properly regulated profit. Soon everyone was counting, exchanging, buying and selling: some became hoarders, others, who seemed always short of cash, arranged loans. The system worked well until they lost interest. Thanks to it, they assimilated the fact that counting is an everyday activity in social life.

At the same time a series of real life activities had come into being: weighing, measuring, doing research with numbers, as the example which follow will demonstrate.
R. F.



Sums and letters from abroad...

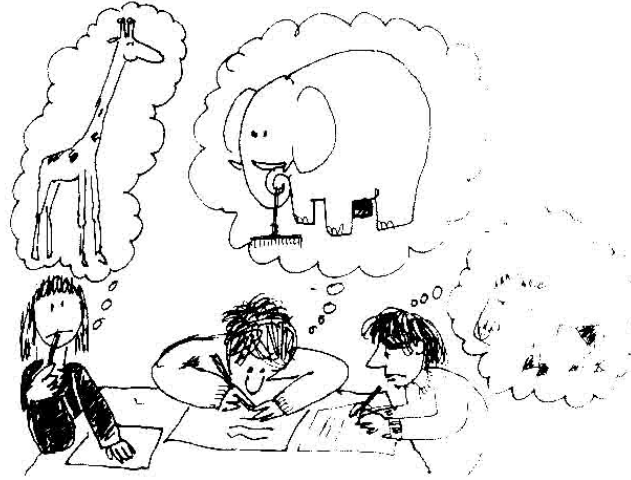
Some of our correspondents went to school in the suburbs of Brussels. Our first batch of letters, sent at the ordinary postal rate, cost a great deal - 9 francs 10 centimes. Luckily the post-office clerk discovered that "school homework" came under the official heading of "business correspondence" and could be sent at a cheaper rate: 0,20 francs up to 50 grammes and 0,10 francs for each further 50. So we drew up a table of prices and the child responsible for posting our material could put the correct postage on his packages.

It was luck, too, which put me in touch with an American primary- schoolteacher from the outskirts of Los Angeles; we arranged an exchange of individual letters between members of our two classes. The Americans wrote in English, which I translated; my pupils replied in French.

Our detailed study of the information sent to us and the document received from this source brought a vivid and valuable element of curiosity into our normal classroom lives. My pupils were staggered, for example, to read the following statement: "it's very hot here, about 90 degrees F."

So we were plunged into the study of thermometers, their different scales (Fahrenheit, Centigrade) and the complicated series of calculations necessary to establish an equivalent for this 90F figure. We discovered accordingly that the temperature in Los Angeles was about 31 degrees Centigrade, and one of the children remarked: "Well, it's not so hot there after all." This led to a study of different and of the summer tem recorded in Paris.

A similar opportunity arose when a boy told his French pen friend that he weighed 62 lb. and measured 4 ft. 6 inches. The necessary conversions would have been tedious if they had not served to establish the answers to important questions: "Is he taller and fatter than me?" Along the same lines, but with my 14 to 15-year olds, our English correspondence brought us some hand drawn posters which gave us examples of current grocery prices (before decimalization) One was of a half-pound of butter (the English pound is equivalent to 453g.) costing two shillings and three pence (2/3 d.) or a dozen eggs worth five shillings. *R.F.*



working out the budget

Our school farmers' group produced calculations and estimates to establish which sort of animal or plant would be the most suitable for them to breed or grow in order to supply cheap food for the whole school. The building group made the calculations necessary in order to build a new bicycle shed for everyone's bi-cycles. They also made estimates to show whether it was worth keeping the old washing machines or whether it would be better to buy new ones. (Folk High School. Tvind)

sums and items of class-room equipment

When we decided to set up a photographic laboratory with all its equipment including an enlarger, plenty of sums and even some quite advanced mathematics were required - advanced, that is, to the normal level of this class – as well as calculations of focusing points and the distances required to obtain various types of enlargement.

Designing a new book-cupboard for the class library involved not only taking account of factual data (the number of books we possessed) also projections into the future: we had to allow for the functional and aesthetic aspect as well as for economic realities, and some fine mental gymnastics were the result. And of course, the subsequent order for wood had to be taken account of our knowledge of carpentry and of how we intended to put the cupboard together. *R.F.*



learning the basic skills

With Leonid KAMENEFF
(School children out of Uniform),
let us see how vital needs help to shake up
the supposed logic of progression in
learning.

Normally, the learning of basic skills is progressive: you cannot do one thing until you have learned how to do another. (Ed.: At least, this is one of the items of received wisdom among certificated pedagogues.)

Once again it was the children who led me towards the answer. When Johnny asked me how to use the sextant, he didn't want me to teach him to do arithmetic (which, nevertheless, was necessary in order to establish the ship's position). I tried to teach him the necessary calculations, and we soon fell out with one another: he couldn't learn properly because that was not what he wanted to learn, and I got angry because I didn't think he could fix our position without calculations. So we gave it up. A few days later he returned to the subject, only this time we were both wiser and his question was strictly limited. He had found out his limitations and set himself to overcome them step by step. Instead of moving from simple operations to more complicated ones, he started in a more natural fashion with the end product, the result, and with this to guide him was able to reconstruct by a series of short steps the whole series of operations and manipulations of figures, learning to do each as he went along. In this way the whole time was spent to fix our position, which was what interested him, instead of getting bogged down in a more general study of mathematics just because this was supposed to be an essential prerequisite of the task in hand. I was careful not to supply anything more than the answers to his question. And this series of short steps brought us to our goal; he can now handle the sextant without difficulty, as well as reading the arithmetical tables he needs.

I too made an important observation: at each stage in the process he made an effort to understand what was going on. He wouldn't learn in a mechanical fashion because that did not seem to bring him any closer to his goal. As a result I too was led to reflect on the reasons for what I was asking him to do, and the marvelously clever and informative navigation tables and nautical almanac we were using appeared to me in a new light.



exploration of the natural environment

Every child is instinctively drawn to explore his own universe and to study everything that makes it up. Of course the world, which surrounds him, differs greatly from that surrounding other children, according to whether his birthplace is a huge metropolis or a little mountain village, the African bush or the Far North of Canada.

The school, enclosed as it is by four walls, scarcely seems able to assist him in his exploration. And yet, if only it will open its gates to the children's personal experiences, it can show the various paths to knowledge lying open before them.

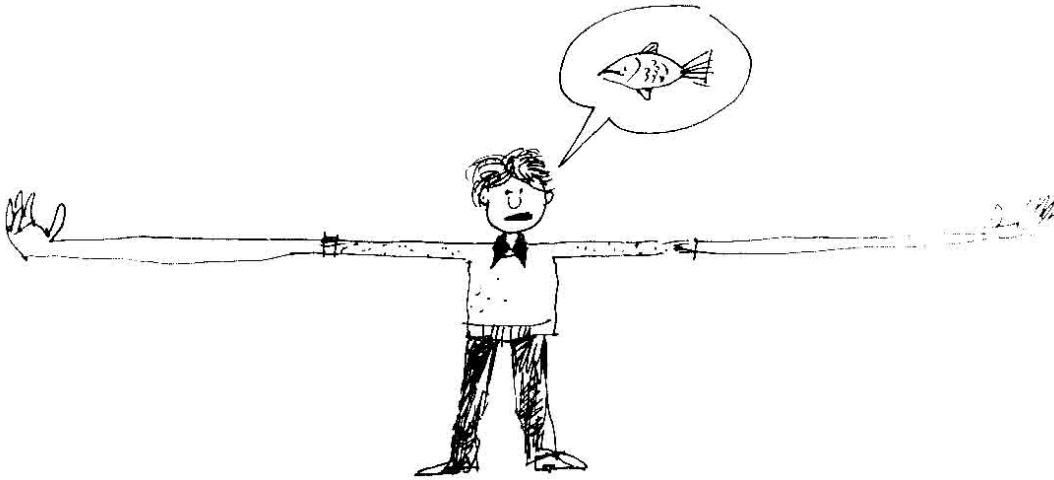
The following discovery is an example:

the mole-cricket

(Mole-cricket: insect of the family orthoptera so named because of the underground passages it digs.)

Daniel, 9 years old, brought into class this morning an insect called a mole cricket, which his father had found while digging the garden. No one knew anything about the creature, myself included. We watched it, and Daniel told us everything he knew, explaining that gardeners considered it a pest because it destroys the roots of plants.

Meanwhile Gilles also 9, had gone to the class information library to find, among the thirty or so science books at all levels of difficulty, a second-year senior-school textbook which he showed us in triumph, open at the page which gave an illustration of the little creature and described its characteristics. In this way I was reassured of their ability to find out facts from the material available to them. *R.F.*



A Talk About Fishing

Another way of establishing communication when children and adolescents are herded together for teaching purposes is to encourage them to talk in detail about something they know a lot about, perhaps a hobby; this helps them to get to know one another, to make contact with one another and paves the way to previously unknown activities.

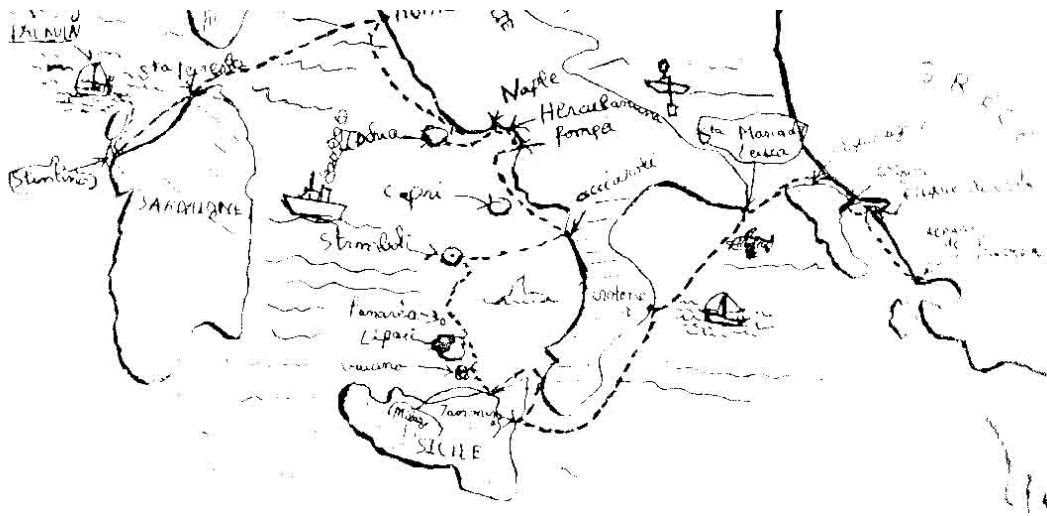
By way of example, take Patrick's lecture: he is a fisherman and animal-lover.

A member of a class of rejects in which, for a whole month since the beginning of the school year, no one has really listened to anyone else, Patrick has volunteered to talk about fishing. He arrives late, as usual, but has brought all his material with him. Normally, he doesn't say much; how could he be expected to speak without visual aids? Nevertheless he is speaking, and, for the first time, the class is listening. What he says has nothing to do with the empty, meaningless phrases they have heard so often before; it is full of mysterious technical terms they do not understand. He mentions swivel-hooks, gentles, bait, size 12 hooks, 3-kilo-fishing line. One or two fellow-fishermen in the audience realize that here's someone who knows what he is talking about. Nor is Patrick content with just talking. As he speaks, he never stops doing things; with remarkable dexterity born of care and skill, he fixes invisible nylon fishing line around tiny hooks, making ready his equipment in front of his admiring classmates.

Next he embarks upon a precise description of various different techniques of fishing, and replies confidently to the trickiest questions.

In addition, he has prepared large drawings of some of the small objects he has brought, and shows them to us in order to make his explanations easier to understand. He has collected and displayed pictures which he has found in the information section of the class library for the benefit of his ignorant audience, in which I include myself: these are pictures of different species of fish.

With this piece of work, coming as it did at the beginning of the school year, Patrick achieved several goals: he won his classmates and teacher's recognition and he showed the others an approach to study which would take precedence over everything else for rest of the year: a constant linking together of knowledge derived from personal experience with knowledge derived from books (more theoretical and based upon a wider culture) and the communicating of one's own experience to others. *R.F.*



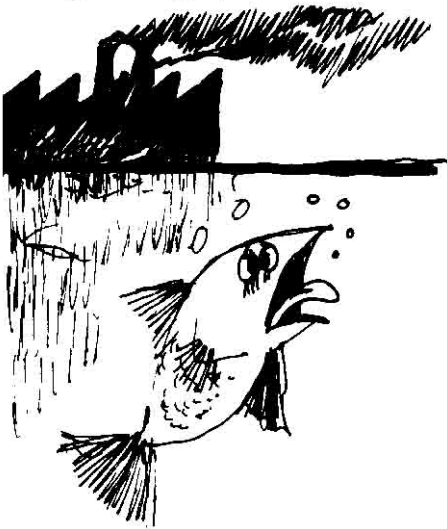
the need to explore

It took all the rest of that day to get there. Then, suddenly, it was as if someone had waved a magic wand: scarcely had we entered the great bay before everyone felt better. No more seasickness! The excitement of our arrival cured it completely. When, at nightfall, Regis dropped anchor in a sheltered little inlet, we were all feeling so full of beans that three of the children set out exploring straight away. The truth was that they were hungry, having lost every scrap of what was in their stomachs, and they were looking for - a baker's shop! But we were a long way from any- thing of the kind, and that was that. So far as bakeries were concerned, the place was a desert island. They saw a little stream, heard some strange noises, and imagined alarming shadows. In no time they were back, chattering nervously, eager to return to the warmth of the cabin and the light of the oil-lamps. We talked over the various events of the crossing, delighted to have got there, pleased to have crossed the sea. This time we were really away. When morning came, all were quickly drawn out of their bunks by the lure of the unknown. The need to explore, if it hasn't been stifled, is one of man's basic needs. Once outside their familiar, routine environment, the children rediscovered this need and ran off to ferret about like young rats - even to the extent of forgetting their breakfast.

Luckily, the following year brought me a good reason to abandon programmes and external constraints: I owe this above all to Pierre Michel He was a twelve-year-old, full of curiosity about everything around him, who went out in the rubber dinghy as soon as we arrived anywhere and immediately started sight-seeing, looking for things, collecting sea creatures to observe or to eat, collecting plants and flowers, measuring the depth of the water, comparing his findings with maps of the local sea- bed and correcting the latter if necessary, and so on.

Pierre-Michel was the precise opposite of what is known as a "shirker". If someone else had done the things he did, I might have thought he was simply dawdling. But coming from a boy as conscientious as Pierre-Michel it soon struck me as I an interesting method of learning. Our ship's cook of the previous year, Pierre, had already shown us the way with his individual project work: but I had been too firmly stuck in my traditional approach to realize it. Jimmy, the nine-year-American boy, was just as serious minded as Pierre-Michel, and followed his example: he was always in the dinghy, observing something, hunting for something, or else he was on the quayside looking for an excuse to help out, or for something he could bring back to work on. *School children out of Uniform Leonid Kameneff.*

fighting pollution



The school fishermen's group had noticed that a growing number of the fish they caught in a neighboring fjord were diseased and could not be eaten. The group took samples of these fish to a laboratory in Copenhagen and were told that they had been poisoned by a chemical substance. The subsequent investigation carried out by our students in the locality led them to suspect a chemicals factory, which made pesticides.

They went to visit the factory and the land around it, and were able to confirm that the factory was, indeed, depositing an enormous quantity of mercury in the waters where they used to fish. Another enquiry revealed that, as the result of the death of a former owner, the factory had become the property of the University of Aarhus. Our student group then decided to compile all this information in the form of a play, and later this was acted for the benefit of students at the University as a way of enlisting their support to prevent the factory from continuing to pollute the waters of the fjord. (*Folk High School at Tvind*)

understanding our technical environment

During the last hundred years, Western society has, unlike any other, filled our environment with various materials whose everyday use, from our early childhood onwards, makes them seem indispensable.

Thus, for a Western child it is just as natural for a light to come on when he presses a switch as it is to see the sun rise in the morning and set in the evening. It's such an everyday occurrence that a certain lack of curiosity, a lack of desire to acquire a deeper knowledge of technical matters is the result.

What must we do in order that curiosity and the desire to explore are not put to sleep by habit, but that, on the contrary, the universe of technical appliances becomes more and more familiar to us, so that we do not become over-dependent on the specialist technician who alone understands its mysteries?

I believe the answer lies simply in ensuring that workshops, laboratories, corners of classrooms contain a great variety of different objects to tempt the children's curiosity; that every object which might raise questions is brought in to be examined: that every interesting technique is duly explained; and that everything that can be is made or repaired by the children themselves rather than bought or replaced at great expense. *R.F.*

Below are a few examples to illustrate this approach:

- an extract from a class newspaper of 1965
- a motor car in the classroom
- copper-plating of offset plates.



Thursday, 10th February 1965

Jacques Simard and Daniel Vogel installed the telephone-bell. When we plugged in the connection, the bell rang in Mr. B.'s classroom.

Our science laboratory is ready at last and we did several experiments. One of the boys was in charge.

Saturday, 13th February.

The workshop group continued to dismantle the car. They took but the windscreen, the seats and the doors. (Extract from "Paris-Port": a newspaper edited by pupils from the class at Gennevilliers)

the car in the classroom

During the few days which followed the beginning of the school year (autumn 1963) many former pupils came to my classroom, impelled by nostalgia and the wish to see how their successors were measuring up. This provided an occasion for them to speak with pride about projects they had completed - setting up and equipping a photographic laboratory, organizing and financing a week's stay at a youth hostel - and also about some that hadn't come off, more particularly the acquisition of an old car "to tinker about with".

The new students took up this idea, and the class council decided to buy a four-horsepower model. It isn't a common type of engine and we searched long and hard before finding a member of the staff who wanted to get rid of a Simca 8 which had been laid up in his yard for a year.

At last day came to bring our new acquisition to the school. The class chose two boys to help me on this expedition, and it was Jean-Jacques who was at the wheel of their very own car as I towed it behind mine into the rear courtyard of the school. Guy was almost as relieved as I was that we had made it.

From then on, after much discussion and decision-making, they worked hard at dismantling the car so that we could bring it into the classroom. This was to be another glorious episode in the great enterprise, for it formed the subject of a film turned at the suggestion of some social psychologist friends of mine.

Then, finally, the real study of mechanics could begin. They started with the main part of the cooling system, the radiator, "to see if it leaked", and this was an opportunity for a proper lecture by the keenest and most competent members of the class. Our enterprise had got off to a fine start, but our hope of reconditioning the car and seeing the engine working before the school year ended came to naught. It had been too badly damaged by frost.

Perhaps it's pure chance, but, as I write, fifteen years later, Guy the well-known dunce is a technical lecturer at the college for the coach- building trades. *R.F.*

Copper plating

On Tuesday, 21st May in the afternoon we went to Massy-Palaiseau to visit the printing works of the "Editions de Montsouris". Some well-known publications printed here include the magazine *Echo de in Mode* and *Selections from Reader's Digest*.

Next day, during our French period, we organized ourselves into groups to write accounts of our visit for the class newspaper. When I went over to help Richard's team which was struggling with the problem how to explain the copper plating process in relation to offset plates, I realized that their problem was not one of composition but of comprehension. The copper plating process was a mystery to them, and I was forced to admit that my explanations could do little to enlighten them.

I told them that it would be possible to perform the experiment ourselves and asked them to bring in four batteries so that each team could set up its own workshop.

The UNESCO manual says:

"Electroplating experiment: Having obtained some copper sulfate, dissolve it in a beaker of water to produce a solution of a deep blue color. Using a metal wire, connect the positive terminal of a dry battery with a piece of copper, which is then placed in the solution. With a second wire, connect the negative terminal of the battery with an iron nail, which has been carefully cleaned to remove every trace of rust or grease. This nail should then be placed in the solution, taking care that it does not touch the piece of copper. After a short time the nail will be covered with a thin copper film. You can also plate other metal objects with copper if they are connected to the negative terminal of the battery and covered with solution."

When we came back into the classroom after the midday break all the necessary equipment was already there. Every member of each team was fully occupied; while some were preparing the solutions others connected up the batteries according to the instructions.

We began our experiment with nails and ended by copper plating a whole variety of different objects in the room, including all the scissors. After vehement protests from the child in charge of the scissors, we were obliged to undertake an unforeseen variation, something we had only glimpsed on our visit to the printing works: the process of de-copper plating. At the end of all these procedures everyone understood what was going on.

We made another discovery. Our statisticians had taken care to note down the amount of copper used every month by the works, the number of plates covered with copper and the thickness of copper plating, which we were told was three microns. This gave us the chance to become familiar with a new unit of measurement, the micron, and to compare it with the measurements obtained with the various precision instruments already known to us.

There was nothing artificial about any of this work. *R.F.*



learning practical skills

new energy sources

The working group concerned with the problem of energy had decided to construct a solar panel. This was the practical result of their research on cheap alternative sources of energy, which could supply the schools needs. They began by reading everything there was in the library concerning energy. Then they invited an engineer to help them digest this information and to explain to them how they could build the solar panel themselves. Later the group decided to cover an entire wall with a map of the world and to show on this map where the different raw materials, which can be transformed into energy, come from. Then they divided into small groups and each studied a raw material in depth. As the research went on, each new item of information was filled in on the large map as soon as it was gathered.

Tvind.

When it comes to practical activities, the approach varies depending on whether an experiment can or cannot go wrong without danger. Overcooking rice, for example, is not dangerous; the crew will protest, and the ship's cook will attempt by trial and error to find the correct cooking time. On the other hand, making a mistake about a light-house simply because one hasn't yet learned to tell them apart might not be so funny; and in this case the one who knows (child or adult) stays with the one who doesn't and tells him what to do.

It may seem wrong-headed to leave someone to manage by themselves, to work out laws which are already well known, to discover a better way of holding a tool or doing something else. It is of course possible to intervene, to give the beginner a few hints. But if you start by saying "Do it like this" and "Don't do it like that" you obviously risk, on the one hand, making the learner completely passive and eternally dependent on "the one who knows" and, on the other hand, shutting the door to other methods of work, other ways of solving a problem. For years I had brushed a carpet on board the *Paladin* in a certain way, sure that it was the best way, until one of the children who had never seen me do it set about the task quite differently and much more efficiently...

Here in our school, the "ones who knows" does not regard his knowledge as a certainty and takes care not to impose it. He offers it as assistance should it is needed. Nothing more. As a result, the children are more active and inventive and the adults readier to learn, to deepen their knowledge and to make it more precise, readier too to notice what the children are able to teach them. I think that none of the adults here considers himself as a teacher, and none of the children as pupils, although we all know and willingly admit that we form part of the school.

Ecoliers sans tabliers L. Kameneff



exploring the world around us

Trying to broaden the scope of the current geography syllabus in schools is a rather complex undertaking. Various movements, especially Freinet and the Centres de Vacances, have had some success in promoting the study of children's permanent or holiday environment. But these studies have often remained centered on the natural rather than the human environment for lack of a coherent analysis of the relationship between man and the natural world. Moreover, it is rare for such studies to provide a basis for extrapolation, for comparison with other types of environment.

As a result of modern ease of communication the term "environment" has stretched to include the whole universe. Many people discovered environments through television - and what a superficial acquaintance it is, fleeting indeed like the image which conveys it.

Interschool correspondence, as preached by Freinet, is certainly one method of deepening and making more personal this acquaintance with the outside world, but not many classes are fortunate enough to conduct a correspondence with a school outside France. As for the trips young people take with their families or under the aegis of various associations, if they consist in stopping at holiday villages well protected from local life they are not particularly conducive to a deeper knowledge of the country and its inhabitants. Only a few privileged children spend holidays, which allow of life in the area.

Experiments like those of Tvind and the "school in a boat" serve a measure of the full absurdity of those endless lists our fathers used to learn.

On a more modest scale, the week's stay in England which formed the climax to a year's correspondence conducted with an English school by my own class whetted their appetite for travel and enabled them to discover a different milieu.

For those not lucky enough to have such opportunities there remains the intelligent use of books, and research materials, now generally of excellent quality, varying from magazine pictures to television programmes and videotapes. *R.F.*

breakfast at the hostel

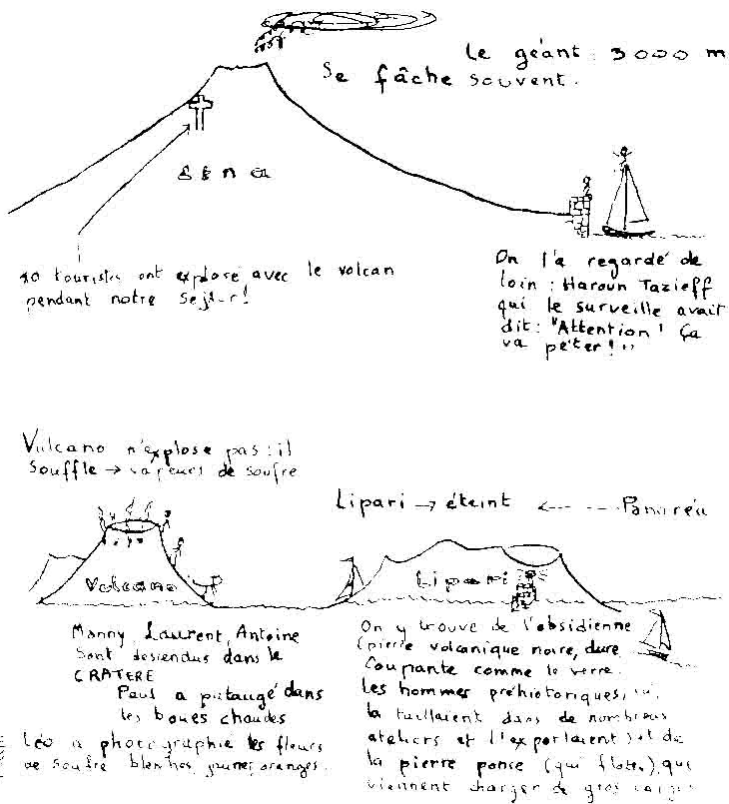
On Tuesday morning the hostel served us with "breakfast". Everyone was already downstairs when I got to the dining room. There was so much food that I wondered how I was going to manage it all.

An English boy told me that I should put cold milk on my cornflakes. Then we had baked beans, eggs and bacon and pie, all on one plate. Then toast with butter and jam.

To drink, we had tea with or without milk. All that takes some getting used to! I really prefer the bread-and-butter I have at home.

Thierry Vulliemard

(Extracts from the diary kept by the children from Gennevilliers about their stay in an English youth hostel)



discovering local life

Bizerta is a friendly place. A coast guard took Pierre under his wing and taught him Tunisian cooking, went to the market with him and even came on board to help make couscous, "bricks" and tajin.

Cherif came to sing and dance for us and had the children singing and dancing too. He brought reeds, which he made into flutes, and took us into town to meet and hear his musician friends.

Mount Etna was already visible on the horizon. Its three thousand meters of altitude make it visible from quite a distance! Since ancient times it has been the great signpost for all sailors cruising in the area. We watched it smoking from afar. The following year it was to erupt, pouring lava all around. But when we were there it was still behaving itself.

Pierre was fascinated. Before coming with us he couldn't stomach text-books or encyclopedias yet here he was, devouring everything that could be found on volcanoes.

Kamaneff

The school journalist's group welcomes all visitors and can greet them in Danish, English and German. The members are responsible for producing a newspaper, and once a week they summarize the events of that the week for the whole school's benefit. The pupils in the food group draw up the budget of food produced and consumed by the school and issue recipes for healthy and inexpensive dishes. They have prepared a little book about different foods eaten all over the world. *Tvind*

exploring the past

Of all the different types of curiosity, of all the urges to explore with which humanity is endowed, it is surely the urge to explore the past which has been most distorted by school. For the metaphysical questions, "Who am I? For what purpose am I on this planet? What are my origins my immediate and remote ancestors, my biological descent?" it is but a short step to the study of man's history. So far, so good. But thereafter, it is easy to slip into the exclusive study of the nations of the world: their emergence, their greatness (especially that of our nation) and their conflicts (preferably those we won).

**OH! LES ENFANTS!
ÉCOUTEZ-MOI!**



When I was at school, the people in charge of the history syllabus had clear-cut ideas about what we were to learn. We were only to be interested in the history of the French nation. This began with "our ancestors the Gauls", whose resistance to the Romans, personified in the shape of Vercingetorix, was the symbol of our national spirit, and ended well before the modern period, the study of which might have given us the idea that history and politics have something to do with each other and that the struggles of everyday life are at least as important as the exploits of Chevalier Bayard before the walls of Brescia.

It would take too long to analyze here how such biased teaching leads to inflamed and dangerous nationalism or to hopeless resignation among people who feel themselves powerless in the face of destiny, both their own and that of the human race.

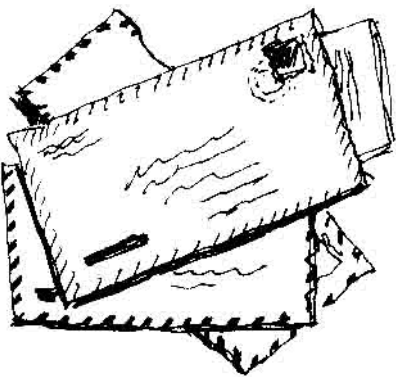
Let us simply ask ourselves what can be done to make the exploration of the past a meaningful and comprehensive activity for every individual.

There is a vital curiosity to be satisfied. This curiosity first expresses itself in words - in the young child's disconnected questions about his own origins, the history of his family, how it fits into history and society, about current events which are brought to him more and more insistently by the media. All these questions must be answered, his interest must be encouraged wherever he goes, and above all there must not be any institution (church, school) to come in and confuse him with its labels and its hotch-potch of William Tell, Buffalo Bill and the Joan of Arc. He must be able to explore at will, to follow the thread which leads backwards in time from his own birth (which, luckily, is no longer a mystery; I was still born in a cabbage-patch) to the marvelously preserved three-million year-old specimen we know as Little Lucy. His way will pass through all the stages of invention, effort and suffering which have led men from shaping stone to the conquest of space, not forgetting (but only just not forgetting) the sorcerer's apprentices of atomic science who have mortgaged the future of our species, the renowned warriors, both past and present be sent, who prevent or have prevented people living together in peace, the slave mongering colonists and the righters of wrong and prophets of all dispensations who colonize other men's spirits. Let him follow this thread by asking questions of people still living around him about the events of their lives, and of people further away (on his travels or by writing letters) whose experience differs from his own. Let him follow it by learning to read what is written in the archives, by learning to interpret pictures.



Where we as educators can and should intervene is in pointing out that all these components of the past, gleaned here and there from grandfather or the almanac, from a monument or the TV set, from the newspaper or a lithograph or a creek vase, are simply the pieces of a giant jigsaw puzzle, and that, once put together in the right order, they will not necessarily provide a panoramic view of the past but may cast light on it and thus equip us for a better understanding of French colonies.

And let us hope that through out this research, two types of answers will go hand in hand: answers to personal problems obtained by self- analysis and answers which enable us to place ourselves in the pattern formed by the historical evolution of society. *R. F.*



what others remember

From the exchange of letters mentioned earlier - our correspondence with a Californian class - I should like to select two extracts:

"In your last letter you sent lots of drawings of flags. Our flag has 48 stars and 13 stripes. The 48 stars symbolize the 48 States of the Union and the 13 stripes refer to the 13 English colonies which were here at the beginning."

"On the 22nd of February I had I my eleventh birthday. In America this day is a holiday because it's George Washington's birthday, too. He was the first President of the United States."

This took us into the War of Independence, the part played by la Fayette and - because we received letters written in French from some correspondents in Canada - the whole story of the colonization of North America and the loss of the French colonies. *R.F.*

a worthwhile education is part of a comprehensive enterprise

More and more often, as we see from the experiments now in progress whose facets we have just described, there is a tendency to include the whole of learning in its early stages within a single enterprise, which provides strong motivation for its participants and makes the acquisition of skills and the learning of facts a necessary prerequisite for success.

The length and breadth of this enterprise must certainly depend upon the age of the children or adolescents involved. It can also take a more or less radical form. There is a wide gap between the desire to learn English manifested by a few schoolchildren in my class and an enterprise like the "School in a boat"; where the former was the result of correspondence with a class of English children and takes as its objective a journey to make their acquaintance, the logical conclusion of a year during which letter-writing was only an intermittent part of their activities (and the journey was of very limited duration), the latter mobilized the young people involved in it to create a total enterprise, containing within it problems of safety and survival as well as more humdrum learning problems. *R.F.*

doing it ourselves

"Why must things be done for us, just because we are young or are still at school? Why is there always someone who does the cooking for us, repairs our cars, grows our vegetables, answers our telephone calls, does our book-keeping for us?"

All this work is a necessary and useful dimension of our daily life at school! Why should not we, who live and work at the school, assume the responsibility for doing all this ourselves? We learn a great mass of things while we do these jobs, and that will be useful to us for the rest of our lives". *Tvind*

english

The following example will serve to extend a little further the notions normally held concerning the limited competence of a student council as an administrative body.

This particular decision was taken too late (after we had come back from the Easter holidays) to result in really fruitful work. There were 24 boys in the class. Six came from the general secondary school, where they had begun to learn English; four were likely to end up in the lowest stream of third year (quatrieme d'accueil) and three hoped to enter the commercial stream. They would all be following a syllabus, which included English. One of them asked during a council meeting: -

"Couldn't we learn English?"

I replied by outlining the limits of our possibilities.

"We only have a very short time left before the end of the school year. Besides, I am not an English no use as a model for your efforts." On the other hand, I could, even in 'such a short space of time, show them one of the methods of individual study leading to a basic knowledge of a foreign language.

The council decided that studying English would not be compulsory. Then they debated how to put their decision into practice:

"How can we get hold of the text-book for the Assimil method? How can we organize a successful course? Whereabouts in the time-table should we put the English sessions?" And in a quite natural way the student council found that it had the administrative skills necessary to find a way round the problems posed by the introduction of a new activity. From our point of view, as adults, the important point is that in this operation the children were able to do three things: introduce a new subject into the teaching programme, set themselves a limited and accessible goal, and modify the suggested timetable.

The fact that they clearly understood the nature of the task before them – that of learning how to learn on their own - is underlined by the choice of one member of the class. He told me: "I'd rather see if it wouldn't be possible to learn Russian." I explained all the problems and the much-reduced help I would be able to offer, but in the end he ordered a simple Russian course from Assimil. *R.F.*

We arrive at about 8 O'clock in the morning. We get out the gramophone and tape recorder and settle down to work.

We put on a record to listen to the accent and follow the lesson in our book. Then one of us picks up the mike and reads the same passage. We listen to his pronunciation and if he hasn't made too many mistakes we go on to the next person, who does the same sort of thing. There are two or three of us in the group and we carry on for about half an hour. *R.F.*

an undertaking :

the visit to England

Following the example of their immediate predecessors, my class of 1968 - 1969 was keen to continue an exchange of letters with an English class from our twin-town of Birkenhead. This correspondence was intended to provide support for our first unofficial attempts at learning English.

Unfortunately we could no longer correspond with the same English teacher, a dynamic personality who had given the venture its impetus and had succeeded in integrating the correspondence into her teaching of French.

Her successor was less enthusiastic; nevertheless, we agreed that in addition to the letters, which continued to arouse great interest and contained many enclosures (as we have seen earlier), we would try to arrange a meeting on the south coast of England. This would take the place of the exchange visit, which had often been arranged in previous years, but which had now become too expensive. It became the chief undertaking of the year, and the children initiated various activities to ensure that it would succeed. Because of lack of funds (and, doubtless, lack of confidence), the English children never showed up at Brighton. But we carried on regardless.

Our desire to make the acquaintance of this other world, which our correspondence had shown to be so different from our own, eventually won the day. We were to spend five days in two youth hostels on the coast. As money had been our major stumbling block throughout, the children had employed every possible means short of dishonesty to raise most of the money to pay for the undertaking.

In the end we attained our goal. And indeed, such an undertaking must succeed if it is to be of any use as an example! *R.F.*

maltese venture

In Malta they speak Maltese. But the inhabitants speak English quite well, and there are many English people there. Bernard and Regis and to a lesser extent, Salim and Michel had been studying the language with the help of Assimil tapes for some weeks.

Their meeting at Sfax with Tony, and old sea dog from England, who sailed, single-handed, a huge schooner that was almost as old as he, had given them a little practice.

Malta offered an excellent opportunity to improve their fluency.

And so, after our stay in Tunisia, it was a completely different universe, which greeted us. Less obviously colorful, to be sure, less obviously beautiful, but just as fascinating. No more magnificent vegetables; here, the soil is so poor that for many centuries the boats which put in at Malta paid their mooring fees in sacks of earth.

On the other hand, what a riot of tinned food! Pierre improvised the craziest dishes, juggling with huge green peas in tiny tins, with colored jellies, with complicated sauces mingling sweet and salt tastes. Our English neighbors taught us how to prepare a real English breakfast. It was delicious, and quite substantial enough to replace our midday meal. But although we were happy to eat English-fashion in the morning, by lunchtime our stomachs seemed to demand a real French meal once again.

But Malta was more than just a chance to practice our skills in the international language of travelers. It's an enormously interesting island. Traces of the former British presence are, of course, still to be found, and seemed surprising to us in this Mediterranean setting. (Traffic is on the left, and cars stop at metal-studded pedestrian crossings ...

There are also unusual relics of the last war, like underground chamber constructed to allow submarines coming from the open sea to surface in safety. And then, from further back in time, the world of the knights of Malta with their palaces, their magnificent library, a huge exhibition of Armour ranging from the most precious to the most humdrum, from the most cunning to the most absurd... And finally, from even further back, there remain the remarkable vestiges of prehistory, man: an underground temple, which is certainly unique in the world, mysterious inscriptions, lofty cyclopean temples, and graveyards of enormous beasts... *Kameneff*

we explore ourselves and others learning through institutional

One of the aims of education should be that each individual learns to know himself and other people.

Knowledge of oneself ought to lead to true freedom. The freedom that enables each individual to exert full control over his own behavior and to recognize the barriers erected by conformism for what they really are; obstacles which make every man his own prisoner and every other man's rival, if not his enemy.

Knowledge of others may lead towards the dawning of that day when cooperation between men of all races; and of all regions of the earth will enable us to work together for a better way of life and for the general good.

It is with knowledge of those close to us that this knowledge of one- self and others should begin. The school should encourage each child from the youngest upwards, to study and understand the relationships, which exist within his class as a group. In this way, as in a mirror he will see and understand his own behavior. For a child, understanding other people also means being able to place himself in relationship to adults, not as an inferior, but as a potential equal, someone who is less knowledgeable and physically weaker for the time being but not forever.

In the new type of working group, the kind we have seen develop in the situations previously described (which has nothing to do with rows of pupils listening to a teacher) it's easy to see that when an individual tries to observe himself, it is not an isolated self which he perceives, but a self surrounded by others, acting upon them and being acted upon by them. He will not (and neither will his fellows) be able to understand these actions and reactions unless they are placed for him in an institutional context; in other words, as well as taking into account all the factors which influence one's own and other people's perception of oneself (factors such as race, class, and social status, religion, personal status, recognition, competence and so on), we must also include the surrounding institutional context (its structures, premises and powers).

Let us attempt to see how questions such as these may be asked and answered by means of the technique of institutional analysis. The following examples are drawn from the day- to-day life of my own classes. *R.F.*

Institutional analysis in practice

I make a habit of introducing the children to this method immediately, in the first hour after the beginning of term, situating the class within the institution and asking each student to try to define his own place within the class. I have transcribed a few disjointed sentences from our long (three-hour) discussion as we recorded it: a discussion full of information, questions and proposals.

"You have just become members a class called... You will have the opportunity to use our workshops, and can call upon the help of the technical teachers... It would be a good idea for us to get to know each other... Why are you here...? Some of you had already started another course of study. There must be a reason why you didn't carry on with it. Others ... I'm going to introduce myself as well... Why are you here? What you have come here to do? What, in fact, do you expect in the way of help from this class, and in what areas do you think you are in need of help?..."

When this first session of introduction and discussion is over, and we have placed ourselves in relation to the surrounding external organization, the Technical High School (Lycee Technique), we attempt for the first time to analyze our own proceedings.

"Lots of things happened... Various proposals were made... One boy tried to make the rest of the class do what he had been doing last year in another class... He got up a sort of vote, but only five others responded... If I refuse to take decisions for you, it's absolutely not because I want one of you to decide for all the others but because I hope each of you will participate in decisions taken in common..."
(Beginning of the school year, 1970)

At the beginning of the year we plan to analyze our proceedings at the end of every working session and the students are invited to speak about what they have been able to observe.

Thus, on 3rd October 1969:

"I'd like us to stop work so that we can see what has been going on. First, what do you think of it all?"

"- The atmosphere in our group is good. We've really done some work."

"- We haven't done much maths, we were always talking about other things."

"- (R.F.) I personally think we have to distinguish between two stages. During the first... you weren't really working as a group. Each of you was doing his own

individual work. For example, if I told one of you something, he didn't bother to tell the others..."

During the course of the year certain exceptional situations demand more detailed analysis. Such were the two episodes I have described in a collective publication called "Changing the School". The first of these analyses denounced the way in which essential posts of responsibility within the class had been monopolized by a particular group of students, which had set itself up as a real bureaucracy. The result of this denunciation was a series of resignations by the students in question, who attempted through this form of blackmail to prove that they were essential to the smooth running of the class. Our analysis had thrown light upon the subtle inner working of certain institutional mechanisms. Doubtless it found its echoes in the world of politics and trade union activity, which these boys were to enter some years later. All this took place in 1965.

The second event, which occurred at the end of September 1969, is ants, which gave expression to the student desire to throw in the sponge, faced as they were with the difficulties of taking charge of themselves and of the organization of such a complex social unit. The analysis centered upon a demand made by one of the group: "We want you to be the boss, to be completely in charge. We are all going to stop work until you take command of the class." In this case, too, the connection with the collapse of the workers' struggles of May 1968 is an important one to make.

More fugitive happenings of the same type were also subjected to analysis. Thus, on 26 January 1972, the students refused to discuss a visit to a factory made the previous day. The reason was that a talk by one of their number was planned to take place immediately afterwards. I analyzed the situation as follows: the situation as follows: "Now we're all waiting for the talk because then the traditional school set-up will be reproduced. A teacher will do the talking - never mind if it's a real teacher provided by the institution or a temporary one - and the rest of us can go to sleep with a clear conscience."

When the yearly balance sheet is drawn up, it's time for more personal analyses. For example, Christian stated that what he was most pleased about was having learnt to express himself. He also analyzed the way in which the use of language had evolved within the class. And, in contrast, he wondered about his own isolation at the end of the year, and tried to understand why he felt he had become separated from the others. Such public self-examination at the age of fifteen indicates considerable courage and a considerable advance in self-knowledge. *R.F.*

an attempt at synthesis

If our definition of education includes every experience, every emotion bringing new knowledge to an individual or a group working together; if it include experiences and emotions which bring new competence, a new way of looking at familiar things, a heightened curiosity about the unknown, a better understanding of oneself and others, a greater ability to analyze constituent elements of the immediate and more distant environment: then the different approaches we have recorded should enable the reader to elicit the basic principles of what might become tomorrow's education.

We can make an attempt to bring together the guiding principles behind the experiments we have mentioned; in whatever institutional context they have been situated. Starting with experiments, which have already taken place, allows us to imagine new ways of behaving, new ways of thinking, which might in-, form a larger educational movement conceived in this spirit.

In my own case, apart from the results of my own classroom practice, my participation in the attempt to evolve a theoretical basis for the "self-government" school of educational thought has enabled me over the past fifteen years to isolate three essential conditions for a radical change in school education:

- A non-directive attitude on the part of the teacher;**
- Control to be exercised by the students themselves over the task as a whole and over the contents of their work (syllabus, activities, methods, organizations etc.) “Institutional analysis” of all the elements and events which make up the enterprise as a whole.**

The first principle to be formulated usually concerned the attitude of the educator himself, for it seems clear that within an institution that scarcely accepts any redirection of traditional approaches, the decision to initiate different rules for the functioning of his class belongs (or originally belonged) to the teacher himself. And apart from his original decision, he needed to possess an attitude compatible with the transfer to the pupils of many prerogatives, which had been his official right, so that he could take on his new role in the educational process. But nowadays it seems preferable, if we are to argue for a future free from repressive institutional constraints, to define the educator's role and attitude only in terms of what the seekers for knowledge may expect from him.

The expectations of the real seekers for knowledge whom I have known - and they are rare, for children more commonly live through their schooling like geese allowing themselves to be crammed lead me to the belief that every acquisition of knowledge, if it is to be properly integrated with what has already been acquired, must spring from present and pressing necessity and/or from a formal request by the learner.

They also lead me to realize that learning which forms an integral part of a real enterprise, one that has a certain amount of breadth and duration. Tvind, the “school in a boat, a correspondence with another school) has more chance of leading to a positive result than any

isolated learning experience. Moreover, the idea of an enterprise implies almost inevitably the idea of collectivity. We must note, too, that group dynamics should prove beneficial to each member of the group.

It follows from all this that the child and the adolescent must, like the adult who is no longer within the school environment, have the right and the opportunity to take part in such "enterprises" as he may choose, in the company of others for preference, but alone as well if he is the solitary type.

These deeper, more engrossing interests may only develop as a result of a more diverse but shallower exploration of a variety of subjects, and will then engage the student's research for a longer period.

The choice of a variety of possible activities also implies the chance to choose one's fellow-workers. And it implies the opportunity, together with them, to organize the work, the activity or enterprise, which has been decided upon.

In this context, it goes without saying that "opportunity" includes the idea of resources - the utilization of existing resources (especially material ones) and resources with which one supplies oneself (these may be material or technical). When group work is being planned, certain techniques are available which make the class function more easily and with greater efficiency.

And, finally, when coordination becomes necessary within a group or between several groups, it is necessary to invent institutions which permit tasks to be organized and difficulties to be resolved: whence the need for the somewhat unusual form of study aimed at a knowledge of institutional mechanisms.

In this context, the introduction of analysis becomes indispensable. Here, too, if qualified help is necessary we may have recourse to an "instructor". The aim of this is to ensure that an understanding of the psyche-sociological phenomena, which have so much influence upon us and upon our relations with others, may become one of the faculties of which we shall have the use, as we have of our hands or our voices, rather than remaining the preserve of specialists.

This totality of learning activities, manual, technical, intellectual, organizational, analytical, concerned with relationships and with institutions, with things accomplished and learnt in a whole variety of different situations, is the only possible true education for a life of freedom, creativity, imagination and responsibility, a life which will flourish in the fullness of self-awareness and confidence.

Only conscious, thinking individuals will be able to refuse and reject the supposedly immutable law whereby the strong have the right to crush the weak, the rich have the right to deprive the poor of food, and one man has the right to appropriate the use of other men's spirit and strength. *Raymond Fonvieille*

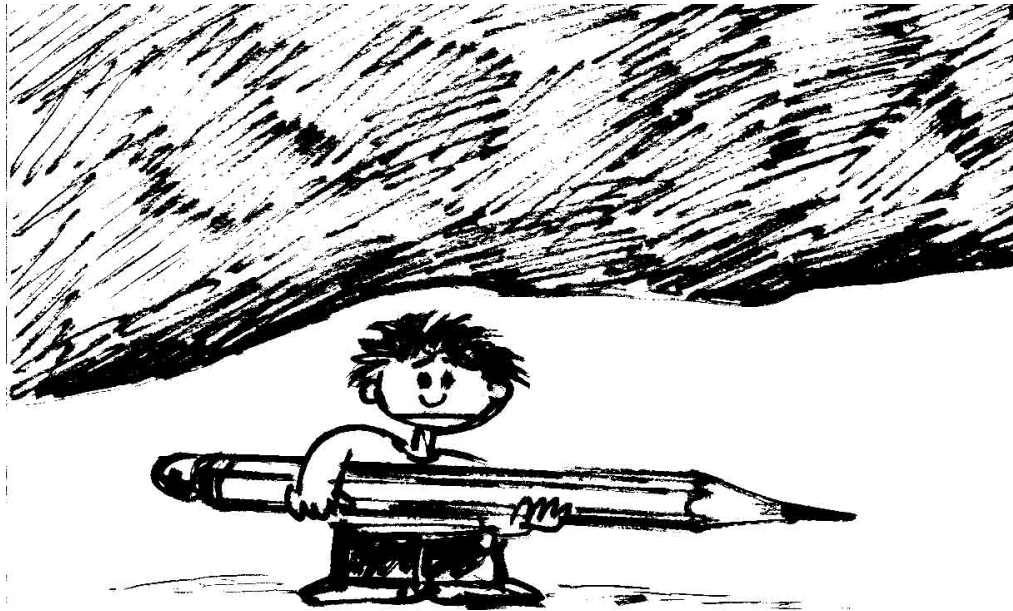
3rd Chapter

and who would like to create, would like to experience something different. It is the restlessness and the searching on the part of all those who feel dispossessed which stirs up the tensions, the conflicts, the hopes, the new alternatives.

A first stage in our work procedure – the effort to understand the mechanism of the school – en-

on for the new which is born out of the old. How since no-one has at th disposal a ready, or alternative to the situation, since patiently or effort, by *

My pessimism has remained with me all day. I feel that I am merely pouring water into a sieve. I almost feel that to meddle with education is to begin at the wrong end. I may have an ideal but I cannot carry it out because I am up against all the forces of society.



By reversing the educational process - by positing that knowledge is the fruit and goal of analyzed experience - alternative pedagogies undoubtedly make for a richer classroom life and develop the schoolchild's creativity and self-reliance.

The trouble is that these experiences rarely spread beyond their promoters' radius of action. So long as society remains centralized, specialized and hierarchical, so long as the individual in his everyday life is completely deprived of all power of creative and self-reliant action, the spread - or even the survival - of these experiments in a different kind of schooling will meet with suspicion and opposition on the part of those in charge of the official educational system.

It is also true that these experiments, which take advantage of chinks in the established system or of the margins of official tolerance, go to the very limits of what is possible. The educators, parents and children who succeed in creating for themselves a free space for a different kind of school make of their practice a living negation of the dominant mode of social organization and, by extension, of the type of school which is functionally related to that mode.

Even if they are insignificant in terms of numbers, even if their development is hampered by all kinds of obstacles and barriers, even if their impact on the educational system as a whole is only slight, these experiments have an exemplary value. They serve as an inspiration and a point of reference for the imaginations of those who would like to lead a different kind of life. They challenge the dominant system's logic.



Yet we don't think this is the heart of the problem. Many educational scientists have looked for solutions in trying to change the teacher pupil relationship, the style of work in the classroom, or the whole institution of the school - remaining prisoners, as it were, of a vision, which could not conceive of educational practice outside the school universe.

It is a commonplace today to say that schools are going through a crisis - a euphemistic way of saying that education has lost its sense of purpose. Today, even those who recognize that education and school are not necessarily identical with each other are puzzled by the former and at a loss for coherent ideas about the latter. They don't know what to do about this huge ship they are on board of; they know it is adrift, they see it filling up with water, they panic, but they don't know what is to be done.

In order to go beyond perplexity and consternation, we believe there has to be a fundamental change of outlook.

First of all let us try to think clearly about the possibilities of a different kind of education. Let us consider the role of the school.

“The institutional function which devolves upon the school is to extend and corroborate - and not to counteract or remedy - the disintegration, infantilizing, deculturating action of society and the State. If there existed an educative civil society, i.e. a civil society founded upon a living culture, school could not have the effect it has nor be what it is. ”

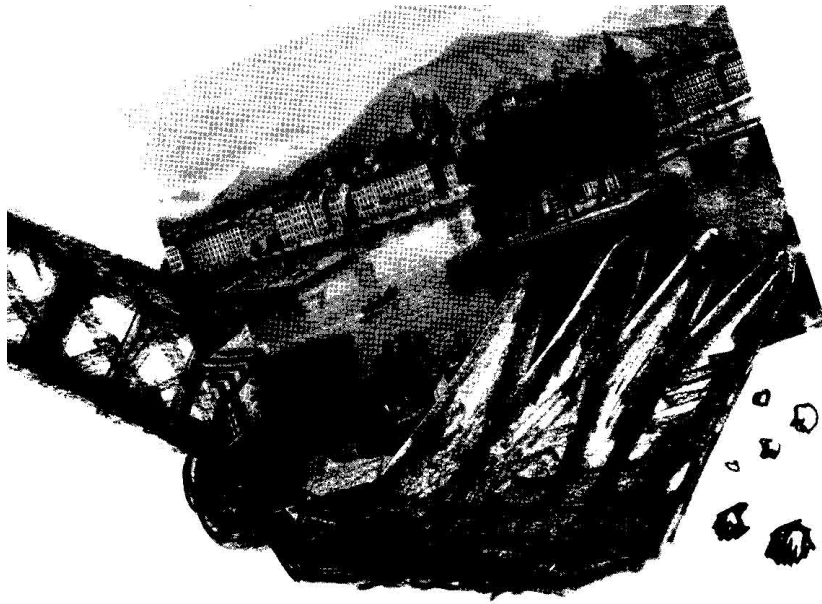
M. Bosquet : Ecology and Politics, 45.

In others words, we should stop tilting at the school: it's only a windmill.

Let us look elsewhere; especially as...

While the children
are at school
and while school
prepare them
to become adults
and trains them
for life
in society,

life
and
society
are going up
in smoke



We used to think that History was the adventure of our mastery over a Nature exterior to ourselves.

We used to think that the natural environment was merely an assemblage of objects delivered up to the power and exploitation of man, a kind of inexhaustible reservoir of mineral, vegetable and animal matter freely at our disposal.

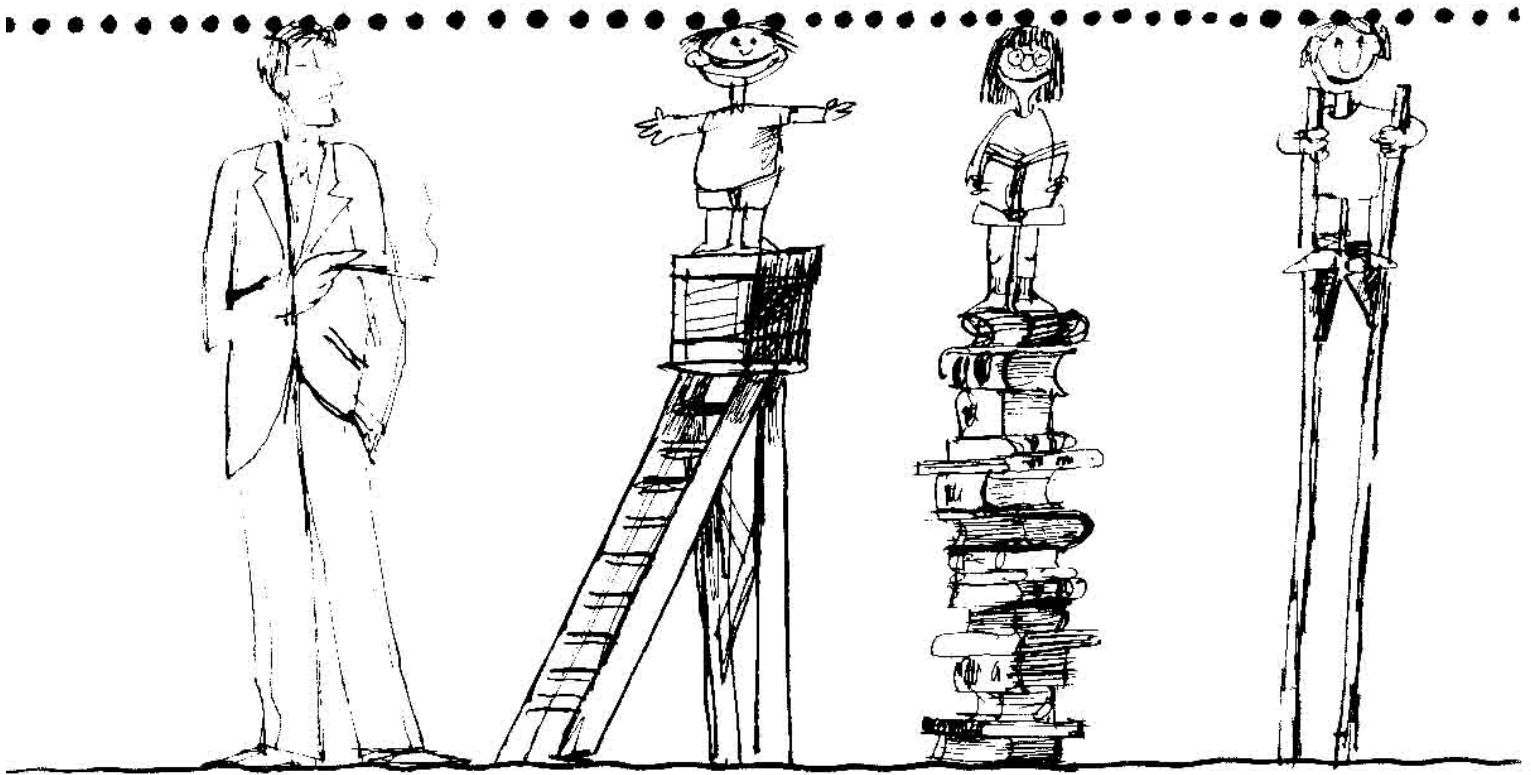
We used to think that everything that is destroyed can be replaced, that resources of energy and materials are inexhaustible and, above all, that man's physiology and psychology are infinitely malleable and flexible, so that everything can be imprinted on them and everything can be erased.

S. Moscovici. Beyond the Crisis.

We used to think that scientific discoveries and their technical applications would do away with social inequalities and abolish differences between men and nations.

We used to think that economic growth was the only possible way of achieving final victory over poverty and scarcity, the shortest path leading beyond violence, conflict and clashes between men.

We used to say that urban and industrial civilization was utopia already accomplished - still subject to improvement (for progress is continuous and the power of technology infinite), but not to any qualitative change that might cast doubt upon its inner logic.

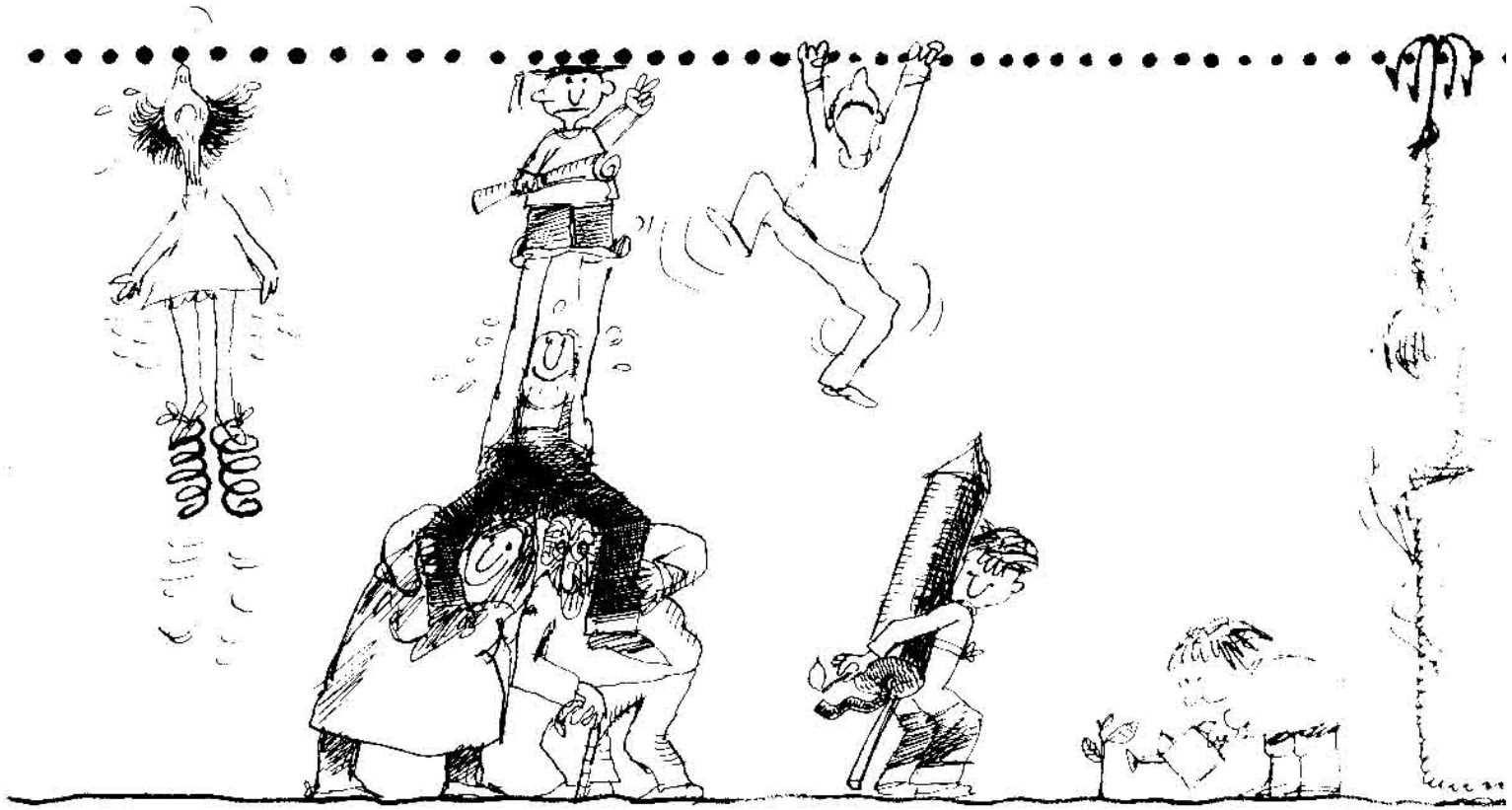


We are beginning to realize that the industrial mode of production and growth is in process of unbalancing a fragile system. We are destroying the earth's non-renewable resources at ever-increasing speed and consuming other, potentially renewable ones at such a rate that they are becoming scarce. And nature defeated, poisoned, and ruined means the self- destruction of man, who is an integral part of nature.

We are also realizing that the logic of the industrial mode of production reduces the value of what is plentiful and blows up the value of what is scarce.

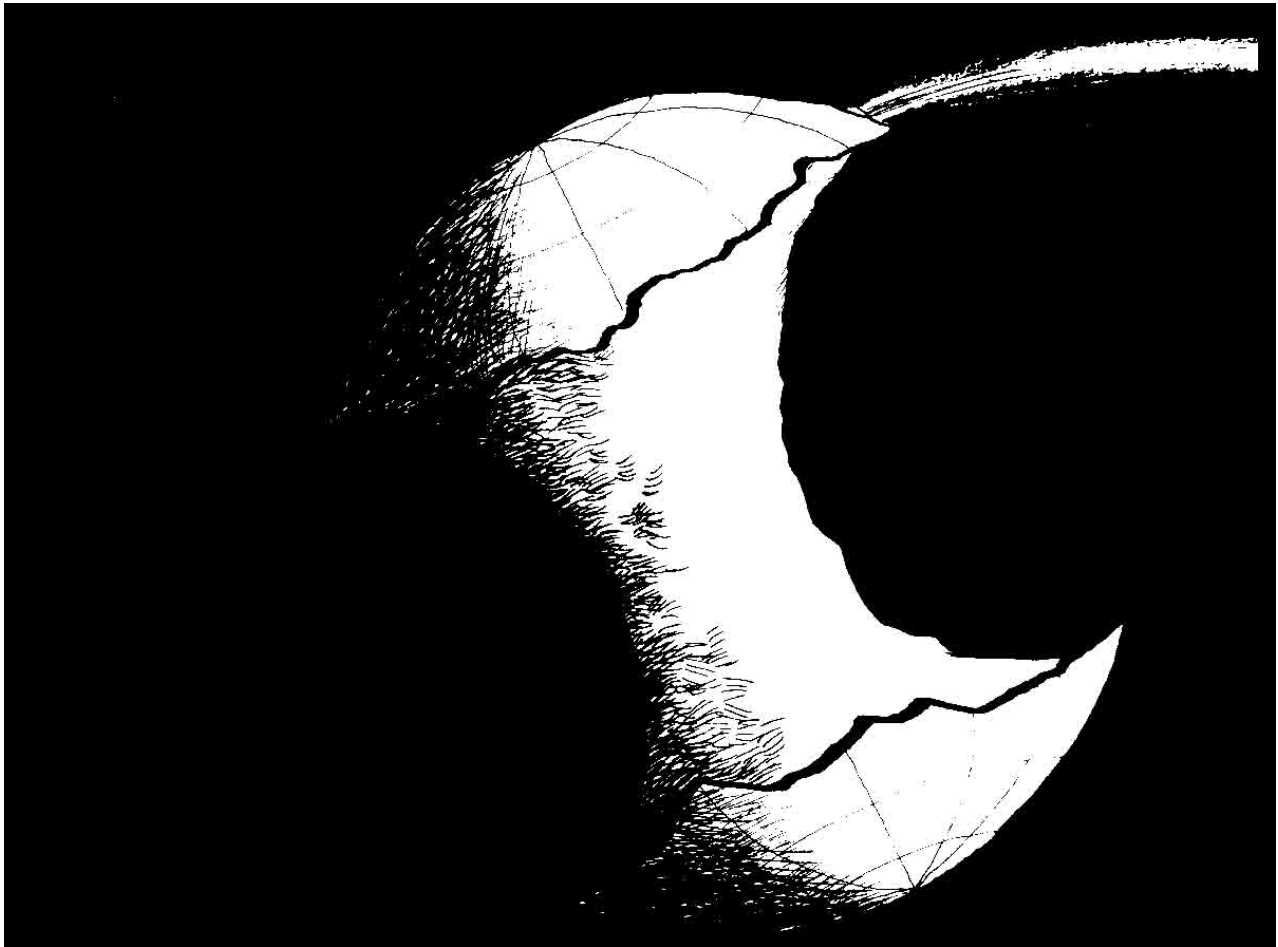
Contrary to appearances, the source of poverty in our industrial societies is not insufficient production but the nature of the goods produced which prevents equitable distribution. As soon as the mass of the people can hope to enjoy what was until then a privilege of the elite, that privilege is devalued. The poverty threshold is, so to speak, automatically raised by one notch and new privileges - from which the masses are excluded - are brought into being.

A. Gorz Ecology and Politics



Thus, by constantly creating inequality and hierarchy, the industrial mode of production and the consumer society, which accompanies it, engender more unsatisfied needs than they can meet.

The rate of growth of frustration is very much higher than that of production.



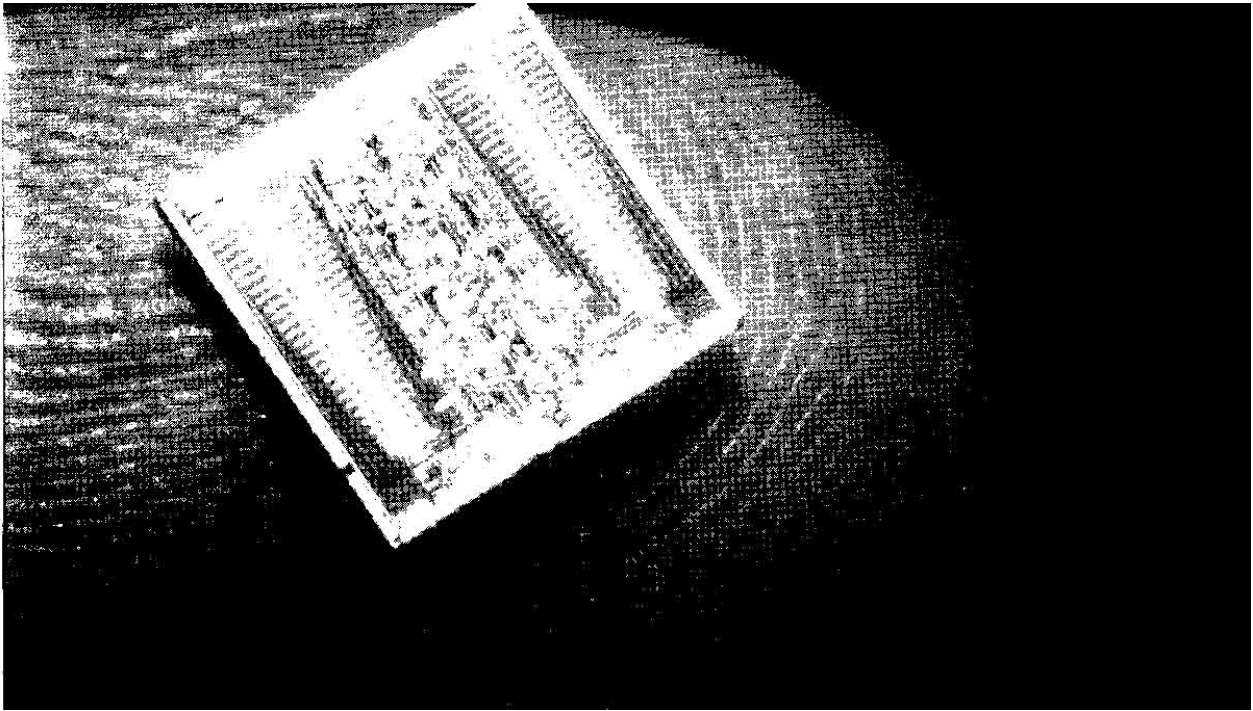
Inevitably, the awakening has been a rude one.

We believed we were on the point of mastering the secrets of life and matter. We thought we were about to inhabit other planets. Instead, by polluting life and matter, by pillaging resources below and upon the ground, by destroying our cities and the countryside, we are demonstrating our inability to master our own selves and to inhabit our own planet.

S. Moscovici. Beyond the Crisis.

The extent of our blind assurance was matched by that of the surprise, disenchantment and confusion, which followed.

Limits and resistances have become apparent precisely where they were to have disappeared: limits to natural resources, limits to man himself. This explains the cries of alarm against the destruction of nature and the cries of protest against certain standards and principles of social life: protests against the pillage of the natural environment and protests against the very foundations of individual and collective life. What determines the scope and novelty of the present crisis is that it affects man's relations not only with his natural environment but also with his social environment.



Free choice among a wide variety of goods and services does not signify freedom if these goods and services sustain social controls over a life of toil and fear.. The rationality of a civilization which produces, which is efficient, which can turn the superfluous into a need and make destruction constructive, is profoundly irrational

Marcuse, One-Dimensional Man.

Certain things were already well known - for example, the destructive effects of the capitalist division of labor, separating manual labor from intellectual work and execution from decision, separating the producers from their means of production and their products, closing the circuit of passive consumption.

The work of a factory worker has no meaning in itself because every worker or workshop produces mere fragments devoid of any use-value. A usable by-product will emerge only after the re-composition of these fragments, and such re-composition is the monopoly of those who control the production process. His pay which gives him access to market consumption thus replaces the meaning and content of the worker's activity. The circuit is closed.

The new feature today is that the sense of powerlessness and alienation felt by the worker separated from the product of his labor is no different from that felt by any individual in face of the State or of the bureaucratic apparatus, which governs his life.

The hierarchization, inequality, dependence and dispossession of the workers inherent in the factory mode of organization of labor are spreading more and more to a whole network of institutions and relations, which permeate the tissue of social life.

Everywhere - in factories, cities, political parties, children's holiday camps, research centers, within the State itself- the individual is lost in the infinitesimal smallness of his own tasks. Such fragmentation and specialization of tasks are justified by a need for rationality and efficiency, dictated by a purpose, which is itself fragmentary and does not allow the agent to identify himself with the whole.

The feeling of disaffection and of non-belonging caused by this is passed over in silence in the name of the efficient operation of the mechanism. Knowing everything about nothing, sticking to one's last, respecting the hierarchy, following the rhythm of the machine, observing the norms of bureaucratic output - these are the rules of the game and the conditions for individual success.

“Larger, faster, more uniform. These are the three ingredients of the magic recipe for the three modern economies: economy of scale, economy of time, economy of effort. It matters little if human wastage piles up beside the scrap heaps of waste materials; a side effect, no more. What counts is to multiply output and scale, multiply by reproducing and reproduce by multiplying – twofold, tenfold, a hundred fold.

Giganticism serves yet another purpose: that of reducing the autonomy of the nations, of social and cultural units, and atrophying the control exercised by the citizens over his city, by the individual over his work and life, and by the community over its own power.

When one thing increases while another thing, linked to the first, diminished, a disproportion inevitably results. There is disproportion between super-science and its servants, the scientist, whom it dwarfs by integrating them into a central research and thinking programme; there is a disproportion between planetary communication which extends human vision and hearing by ten thousand miles and the total incapacity to communicate with another human being ten meters away which reduces them to blindness and deafness.

S. Moscovici. Beyond the Crisis.



Although it may still be in a confused and fumbling manner, more and more people are beginning to realize the increasingly hierarchical, unequal and enslaving nature of the whole of society.

A latent, diffuse discomfort, a kind of discontent based on a vague sense that "the chips are down", is spreading to all levels of society, from the bright young executive to the street hawker: the young are fed up, the women protest vociferously, the workers are worried by rising inflation and unemployment, the silent majority fear violence and the loneliness of cities, all are disenchanted with traditional forms of political participation (parties, elections, trade unions). The crisis is made up of all of these elements.

Crisis in everyday living where the quality of life and of human relations is going down although the level of consumption of material goods is going up. We consume more and live less well. Crisis, too, in prospects for the future, since no one is satisfied with life as it is today yet no one can see a solution even on the most distant horizon.

No more utopias to guide the long march towards a better tomorrow: the left, the working class, the wretched of the earth, the wind that blows from the east, the east that is red, green belts around modern cities, the conquest of the sky... so many shattered dreams, so many hopes of change dashed by the confrontation with

"reality", frustrated by the dead weight of institutions and machinery, disappointed by the realization that many of the goals one strove towards and enemies one fought were not the right ones.

“The situation recalls the myth of Er: invited to lead a new life, the souls of the dead invariably choose a life identical with their former one. They hope to see more clearly into the nature of their passions, yet it is their passions that blind them. In the same way, classes and peoples which set out to create a new society are always liable to reproduce the same one; they think they are refashioning it in the most rational and most productive manner, when it is precisely this rationality and that productivity which stand in the way of all innovation: - and so, like the souls of the dead, they are lost. ”

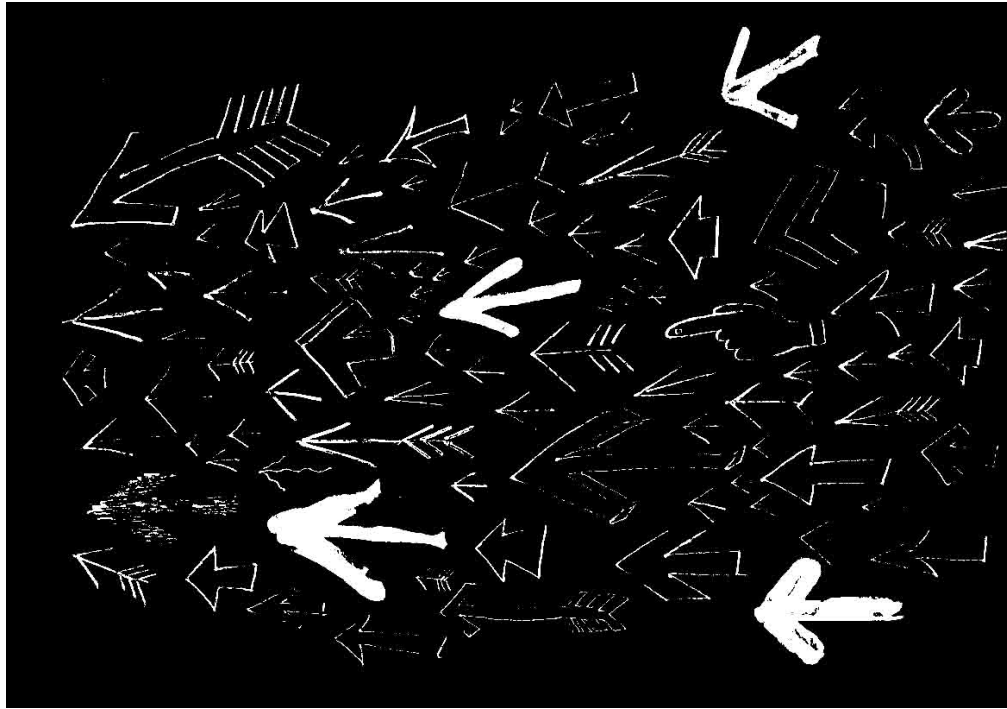
S. Moscovici. Beyond the Crisis.

In the midst of the prevailing pessimism and uncertainty, conservative thinking is making a strong comeback. Taking advantage of the confusion among their challengers, the spokesmen of the established order are raising their voice once more. They reaffirm the primacy of order over ferment, of work over doubt, of technology over ideology, of consensus over conflict, of uniformity over difference and of the singular over the plural.

Permissiveness is at an end; the party's over, its time to form ranks once more. Realism and clever management are the order of the day, the only recipe for coming through the crisis. Let the young, the women, the workers each take their allotted place in a new world well ordered around secure values and virtues.

Once again people are talking about the inequality of races, saying that intelligence is unevenly distributed and that nothing can be done about this law of nature, reminding us that science is neutral and that technology can solve all problems if only the agitators will stop making trouble and let the rulers get on with the business of ruling. In brief, men are born unequal; the proof is that in all societies there have always been rulers and ruled, givers of orders and executors of orders, experts and ignoramuses, intellectuals and manual workers, the developed and the underdeveloped.

If nothing can work without the social division of functions, if knowledge alone gives access to power, then nothing can be more normal than that the most gifted and the most deserving should do the thinking and issue orders and the less enterprising should obediently carry them out.



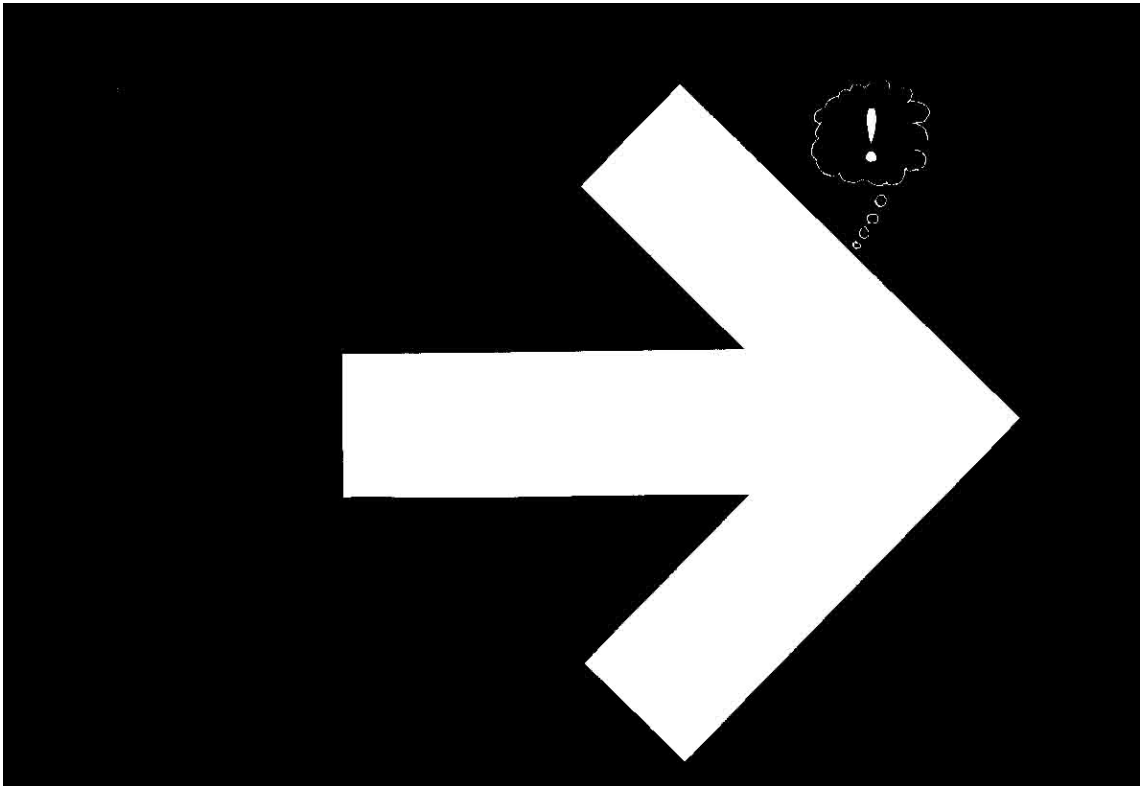
That we are in the very midst of a crisis of civilization is easy to see. To predict the outcome is much more difficult.

It may well be that a strengthening of the mechanisms of social control and an extension of the tools of technological manipulation linked to the industrial mode of production will successfully defuse the present crisis and reestablish the social consensus.

In that event, things will have changed once more merely to remain as they always were. The idea will be to do what has always been done, only a little more and a little better. Humanity will enter still more resolutely upon the path of uniformization and centralization, society will become still more mechanical, automatic and anonymous.

If that happens, thinking about education will lose its *raison detre*. Already today, the school as an agent of socialization and transmission of knowledge is being swamped by cultural changes - of which the growing power of the mass media is the most obvious - and is unlikely to come through unscathed.

Assuming that there is a strengthening of the production-oriented and technocratic social design, the school will probably be submerged by the data processing approach. Already now the most advanced experiments in programmed instruction are enough to prove the efficiency of learning machines - if learning consists in being able to repeat correctly what has been correctly programmed.



But the future is not predetermined. It is not written in advance; it develops step by step. Neither is it identical with futurology, which is only a matter of extrapolating the present into the future without any new premise. What exists today is not the only possible reality. Probable trends do not exhaust the full range of possibilities.

Like hope, the future has to be constructed.

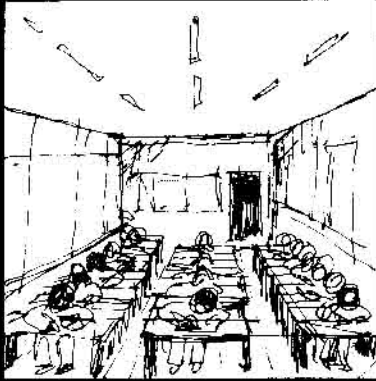
Uncertain it may surely be, but reflexion upon the future based on the examination of present reality is in itself an action and a proposal.

“To extend the present into the future is the best means of blinding oneself about the future. What is going to be decisive in the future is precise!, what is invisible toad because it is still microscopic, unforeseeable, unknown.

We must bet on the impossible and work rewards the improbable. ”

E. Morin

The improbable, the future, hope - they are already in existence in embryonic form in the upsurge of all the social and cultural movements - women, ecologists, regionalists, young workers - which, refusing the uniformization and centralization inherent in the industrial mode of production, are fighting for the right to be different, their right to identity and autonomy.



We are coming to the end of our inquiry into school and society, our attempt to survey some reforms, innovations and experiments which have emphasized more and more strongly the need for a revolution assuredly bolder and more profound than those whose imminent arrival is periodically heralded. As we approach the 21st century we are still asking ourselves 19th century questions and chasing after the shreds and tatters of early 20th century revolutions.



Times have changed. Today, the demand for autonomy, for knowledge, for control are added to those for bread and freedom, equality and democracy. In the workings of a univocal world where all large cities look alike, as do all large offices, factories, universities, motorways and television announcers, men and women are losing their ability for thought and autonomous action and their individual and collective identity.

If we want to rediscover the meaning of our life, if we want to recognize ourselves in what we do, if we want to re-appropriate the power to fashion our own future, we must fight the gigantism engendered by centralization, the division of tasks required by production-oriented efficiency, the uniformization of lifestyles imposed by the mass mode of production. In short, we must rediscover the paths, which lead to decentralized communities, the only framework in which human beings fully in charge of their own activities can adopt and carry out decisions in common.

“No overall project can fully succeed unless it makes a frontal attack upon the very foundations of the pyramids of the modern world - the factories, cities, research centers, States and all the rest. ”

S. Moscovici. Beyond the Crisis.

Herein lies the root of the problem and its radical critique. Only a different mode of social organization and production, based on units and projects capable of being conceived, understood and managed in their totality by every one of their members, can render possible a different education. Only they themselves can render possible the emergence of a different life with a different meaning. Only a different way of thinking and doing can render possible the emergence of new institutions and new structures of knowledge.

Recasting the mode of social production and organization and recasting the modalities of the acquisition of knowledge are one and the same.

How to achieve it? There is no predetermined single path that leaders, planners, managers or experts can prescribe.

Listen to the half-stifled voices of children, young people, women, of the ignorant and underdeveloped, of all those who are worried and unhappy because they do not like the lives they lead and would like to live differently.

Vast numbers of social experiments performed by the widest variety of individuals attempting to determine for themselves their concepts of life and their needs would testify to the possibility of new contexts for life, work and knowledge.

To put it baldly: a different education will become conceivable only if the day-to-day experience of every citizen and every community - in their work, their leisure, their relationship with the environment and with others - becomes once more a source of pleasure, of asking questions, of creativity and hence of knowledge. A different education will become possible only when the protests and aspirations to a different society and a different life become a reality.

THE OLD LOGIC WOULD HAVE TO BE OVERTURNED

Then, education would no longer be dispensed solely by a specialized institution and by certificated professionals, but would become a continuing activity directly linked with every dimension of people's everyday life.

Education would not be solely the individual acquisition of skills and techniques aimed at their future application in adult life, but a collective effort to acquire knowledge and ways of behavior of use to the community at large.

Education would no longer be measured by marks, certificates and diplomas; the test of its validity would be its ability to provide the right answers to the most widely ranging and complex situations encountered in real life.

Education would not be limited to the transmission of specialized knowledge designed to enable everyone to occupy his or her allotted place within a hierarchical society; its object would be to train autonomous and polyvalent individuals capable of living within communities that are, full of conflict, self-determined and therefore in constant process of change.

With such an education everyone would know why he was learning; knowledge would be constructed out of living and doing, and could be experimented with for the benefit of oneself and others. Such an education would make community life its own laboratory and its school, instead of making school a false community of interests, which we cannot grasp, interests which are beyond us.

Miguel and Rosika Darcy de Oliveira