THESIS

CHILD DEVELOPMENT AND THE ENVIRONMENT

CHILD DEVELOPMENT AND THE ENVIRONMENT WITH SPECIAL REFERENCE TO THE RURAL ENVIRONMENT AS A TEACHING AID.

THE RURAL ENVIRONMENT AS A TEACHING AID.

"Education is wider than schooling; to be really efficient it should include the pupils' general environment. It is the duty of the community to ensure that this environment is healthy".

PLATO: 427-347. B.C.

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A LOOK AT MAN'S DEVELOPMENT.

INTRODUCTION:

The first human beings probably lived about 2½ million years ago. But we did not begin to record history until he had invented writing which was only about 5,000 years ago. Because prehistoric man kept no written records, we still search for bones,tools and other remains that would enlighten us further as to his type of environment. Most of the tools that have been found and studied are made of stone. As a result, the entire period during which early man lived has been called the Stone Age.

By about 35,000 B.C. pre-historic man looked much like what we are today. We did not realize this until 1800s, when fossils were discovered in 1856 near Dusseldorf, Germany, and in 1879 when cave paintings were discovered in Spain. The most significant development of Man's evolution was the establishment of his psychological character and this was established so firmly that many modern social customs still reflect the needs of early Man. The brain was, above all, the one characteristic that would vitally affect future development and ensure Mans increasing dominance with the progress of time.

In a very hostile environment where strength was the key to success, Man was forced to use his intelligence to combat the natural disadvantages of physical weakness. At first, this meant using his powers of communication to organise efficient hunting packs that relied on intelligence rather than strength or speed. The next obvious development - and one of great significance for the future of Man - was the realization that weapons and traps, made from materials in his local environment could be made to aid him in his hunting. As he acquired skill in making these, they became more effective. This process was to completely revolutionize the future development of Man and

determine the form that society would take.

Man's physical development was complete. The only way in which he could develop further was culturally - and human culture has always depended largely on the machines made by man. In his quest for dominance, Man was faced with great natural obstacles; the only way in which he could overcome them and avoid remaining a mere "super animal" was by using his intelligence to construct artifical aids, thus compensating for physical short-comings.

Discoveries at first combined utilization of natural phenomena - such as fire, discovered 5,000,00 B.C., with the development of primitive machines - such as hunting weapons, 1,000,000 B.C. But machines soon became more important, although they were still simple aids to the human way of life. As man began to discover the possibilities of agriculture, the need for more machines to assist the process became acute. Ground had to be tilled and the produce prepared, i.e. 8,000 B.C. this was called the Paleolithic Period.

So tools were invented to prepare the land and from crude hunting tools used to break the soil, it was a logical development to relatively sophisticated machines like the plough. Likewise the food produced needed modification to cater for human needs, so before long machines to grind corn appeared.

As agriculture was established, so Man's way of life improved. Life was no longer a precarious existence dependent on the luck of the chase. Instead, men could be relatively secure with a steady source of food. They could also establish regular settlements consisting of permanent dwellings. This, in itself, called for further innovations, and such simple machines as hinges and crude taps appeared.

At the same time, methods of weaving cloth (discovered 30,000 B.C.) and making pottery, discovered 6,000 B.C., emerged to improve the quality of life. But above all, the new agricultural

way of life opened the flood-gates to future progress. As soon as society had progressed from its former hand to mouth basis, the way was clear for much under development. Trade could now be usefully employed for obtaining better standards. Thus, the first great change in Man's way of life took place - a change in which his inventiveness had played a vital part.

Society had become formally established, free of the insecurities which had plagued its earliest years, and would soon be able to provide the opportunities for men's ingenuity.

Then men began to trade with one another, on a larger scale. This started the invention of necessary machines, 3,000 B.C. Wheels and carts for transporting produce appeared. Ships with sails began to ply the rivers and seas. Water power was harnessed to improve productivity. Primitive manufacturing processes were developed to fulfil the new need for small luxury items unknown to men. As this process continued, men produced new weapons (in Bronze and Iron, 3,000 B.C. up to 1,100 B.C.) to assist in the inevitable quarrels that broke out as social tensions expanded with society. Simple calculating machines like the abacus appeared to assist in the commercial transactions that became commonplace.

Society, in this phase, lasted until around the middle of the 15th Century. Considering its Primitive beginnings, society had advanced to its logical conclusion. But in doing so, society set itself a new target. Once it was firmly established and Man had used intelligence to overcome the problems of survival in a harsh world foundations were laid for further developments. Once he had mastered those initial problems the route was open to a point where his inventiveness could be given full rein, unchecked by the compelling need to aim all his efforts at survival. It was then inevitable that a new form of society would spring up - one based on Man's ability to create technological advances.

This proved to be the second great step in Man's development, which continues unabated to the present. Indeed there are firm grounds for supposing that this progress has scarcely reached full momentum as the 20th Century draws to a close.

THE INDUSTRIAL REVOLUTION.

Society today has been largely conditioned by its technology. In the last 500 years, a staggering explosion in terms of knowledge has occured. The sum total of human knowledge has doubled and redoubled as men have devoted themselves to invention and the worlds technology has reflected this. Machines capable of tackling increasing complex tasks have been devised, and the whole foundation of society has switched from agrarian to industrial - a fact reflected in the life-styles of Man. The list of machines that have made this inevitable is almost endless. Most aspects of life today are totally dependent on machines of one sort or another. But society has developed and changed most drastically since the middle of the 15th Century, when the emphasis on technological progress really became consolidated. Industrial activity gradually replaced agriculture as the economic basis of Western Europe. This process came to a dramatic climax with the 19th Century Industrial Revolution - when suddenly factories, and mills sprang up to utilize new machines and manufacturing processes, such as steam engines and automatic machines for weaving cloth.

The first shattering advent of the Industrial Revolution was confined to Western Europe - but it soon spread to the United States, a nation then in its infancy but with vast natural resources and great willingness to establish industry. The move to an industrial based economy was inevitable because, in a sense Man had perfected the simpler earlier system. That early system could expand no further without technological advances, but these served to completely change the form of society.

The real significance of the Industrial Revolution was that it represented the point where technology advanced sufficently to determine the very form of society. Previously, machines

served the men who made them and helped to improve the quality of life. After the Revolution, however, exactly the reverse was true.

Men were forced to live in a society shaped by the needs of industrial production.

The substitution of power-driven machinery for manual labour began in Great Britain on a wide scale in the last decades of the 18th Century and in Eire somewhat later,** roughly in the next 100 years it has spread throughout the Western world. This caused a break from the traditional way of life that had existed until the advent of industry. It is posible to isolate certain generalities about industrial societies, quite apart from specific differences that particular societies impose. Initally because workers are needed to operate machines the old rural structure of society collapses in favour of dense urbanized society. This provides both the means of growing production and supplies a market for the goods produced. After the primitive conditions of early years - when workers are forced to endure low wages, long hours and poor conditions - a situation is reached where workers can enjoy some of the fruits of their industry. But by the time this is achieved, the society in which they exist, and for which they have been toiling, has undergone a complete and revolutionary change.

This also explains why those nations which have been industrialized for years are now suffering recession, despite their great wealth. Nations who are just beginning the process can afford to undercut the best prices offered by established industrial nations in world markets. Because there are still vast areas of the world which are rich in natural resources through weak industrially, this will continue in the forseeable future. South America, Africa and China may figure prominently in this respect until they too reach a fully industrialized state.

** See Major Project (National Schools Register).

So considerable ground must still be covered before the industrial phase of world development is complete. This second great phase of world activity which began in the 15th Century is still not sufficiently complete to permit a third momentous change in the nature of society.

Quite apart from the basic alterations made by mechanization to the industrialized societies of the world, it is possible to see in specific terms how this process has affected the life-styles of the people - and to see how machines have become a part of Man's everday way of life. This is a vital aspect, one which determines almost every facet of human activity.

Washing machines, television sets, dishwashers, air-conditioning, heaters, radios, clocks, vacuum cleaners, hair dryers, kitchen appliances - and a host of other machines - have come to dominate domestic life. Boats, aeroplanes, trains, cars and motor cycles have revolutionized transport. Machines also play a key role in supplying the leisure needs of urbanized society. Not only do they exist to do their jobs, they also demand a society geared to utilize them to the full.

And within established industrial societies, the lives of people are further changed by the continuing advance of machine technology, which enables them to enjoy more leisure time as machines take over more and more of the work.

Quite apart from the way in which machines have implemented new social conditions, I think that they have also influenced the way in which societies are run. Governments become more and more like machines because of the complexity of industrial society, with components and output like any other machines. As society becomes more and more machine-orientated, it seems logical that nations should be run the same way. The eventual hope, I feel must be a truly international world - where various nations will integrate their own personal machine

into a bigger machine - this can be seen slightly in the E.E.C. community idea.

The prospect of this, however, is limited, by one major factor. Again, it is a matter of what Man's ingenuity has enabled him to create. And just as the advance of technology has brought the advantages of industrial society to increasing portions of the world, a similar advance in weapon technology has taken place. Men have not forgotten their old hostility towards one another and have created destructive weapons on a vast scale. It is now possible to unleash forces that could totally destroy Mankind. I think that this unhappy prospect is only too real as tension between nations expand rather than recede. Unless Man can learn to defeat his agressive instincts, he will destroy the very society he has so laboriously created.

SUMMARY:

Mans intelligence and curiosity made inevitable his eventual dominations of the plane he inhabited. His ingenuity was applied to creating machines to do the work he was incapable of performing. He was outstanding in his effort - so much so that the machine he invented now completely dominates our form of human society. But we must remember that Man is still the master of his machines, however dominant a part they may play in life. The real danger in the highly-mechanized present, and even more highly-mechanized future, is that Man will lose sight of this salient fact. Should this happen, society and Human Individuality will vanish completely. This must not be allowed to happen.
It seems to me as if we are right back where he begun, in one way that is out primitive fight for survival only this time it is our fight not against a harsh environment; but against ourselves, and the machines which we have made, to get us to the plane on which we stand.

THE RURAL AND THE URBAN CHILD AND THE SUBURBAN CHILD

The rural child sees a natural order in his environment, and he may understand many aspects of his way of life more readily than the urban child will. The country, where children walk and play close to nature, has traditionally been the ideal environment of childhood. The air is fresh and the pace of life gives the child time to find his/her place in the community. But does the urban child have a head-start in coping with the technology of the future?

I would like now to explore some aspects of both rural and urban environments and how the environments influence and effect their developments.

Growing up in a rural area is often portrayed as idyllic and pleasantly removed from the noise, grime and continual pressures of life in the city. Yet, I am wondering are these really typical paintings of the changing nature of rural childhood. Ireland is still essentially agricultural, and not as densely populated as most other E.E.C. countries. Here a number of children will grow up to do the same type of work and enjoy many of the same amusements as their forefathers did. But in highly industrialized cities, however, technological advances, as I have previously mentioned in my introduction have altered the work, leisure lives of people, who inhabit them. Towns are expanding into the countryside bringing with them many of the advantages and disadvantages that are part of their fast-moving way of life. Children, who are quite receptive to new ideas and methods, will be quick to adapt these new influences in their daily living pattern. The increasing availability of television, radio, and magazines, means that country children need not be isolated from urban life. Television, particularly, has exposed them to the same information and ideas as their contemporaries in town.

Families who have had their roots in the country for generations still exist, but the total population is no longer stable. In increasing numbers people are moving out of rural areas in search of more job opportunities. Some villages are within commuting distance of large cities, and many urban families choose to live in the country enjoying greater recreational space. Large sections of the countryside are being extensively developed and these new housing estates bring rapid increases in population. Some rural backwaters become "week-end villages" with cottages for families who live and work in the city. Also, the promotion by the Tourist Board of "Irish Farm Holidays" helps children from both societies share their experiences, each are enhancing the education of the other.

The true rural child, however, is one who has his roots in the country and remains part of a small community, whether in an industrial country or a basically agricultural one like ours. Growing up in such a community is essentially different from the life of the urban child, who comes into contact with a larger number of people most of whom he might never actually know or even see twice. The rural child grows up from the moment of his birth, as a member of a tight community, in which every family plays its own part and every individual has a place. Away from the towns life goes on at its own pace. The child is aware of a pattern of life. He sees how season follows season not as the city child sees the rain on the pavement changing to a heat haze, but in terms of the harvest, ploughing or the coming of new animals, birds and flowers, etc. For him, birth and death are part of the natural order of things, for he observes these aspects of life first-hand as he works with animals.

The country child will be acquainted with most, if not all, of the people with whom he comes into contact; they know his background and the history of his family. Many years ago the

entire community might have consisted of one family. People in a small village often share a common outlook on the world in which they live. The status of any individual is clear and there is a high pressure towards conformity. This is reassuring for a child. It can make him feel safe. On the other hand, from an early age, his good points and his misdemeanours will be familiar to everyone. Thus, he may sometimes feel restricted by the narrow pattern into which he is expected to fit. Yet for him life will have a completeness and a consistency; whereas the urban child's life may seem fragmented by the more complex pattern of activities in which he takes part. As all the people with whom he comes into contact are familiar, the rural child may have difficulty later on in less 'homely' situations. If he has not learned a formal way of talking to people whom he does not know, example, shop assistants, policemen, bus-conductors, he may feel he is socially inadequate. The way in which any person talks to someone they know well is a shorthand way of speaking, based on a long term mutual understanding of each others experiences and attitudes. Between such close associates, it is possible to refer to complex situations and events in a few words. In families that are really isolated, the children often talk in this shorthand way all the time and have real difficulty communicating with outsiders.

Close relationships are especially important for a rural child. His friends will include people of all ages, partly because he has less choice. There may be no one of his age within walking distance. His grandparents, or other members of the wider family, might live in the same house or nearby, and the extended family group will have special significance for him because each member is part of his everyday experience.

The pre-school child will spend most of his time with his family. Until he goes to school he may have almost no contact with children outside his immediate family and relations. While they may miss large groups of children through a nursery school education, they are not lacking because of this, actually some may

hold the opinion that late starters to school do better. They are rich in other kinds of experience. They are allowed to be more independent, to roam freely at an earlier age, than would be practicable in the cities. The child's father often works close to home, at an occupation which allows the child to be with him and to help him. Also the mother rarely goes out to work. Here the old primitive type of education by immitation of the male and female roles still plays a very important part. The wide open spaces in the country create another problem for the children living there because they often have to work harder to get a good education.

The country school house has been nostalgically portrayed in literature as a cosy, one-roomed building, with all the village children growing and learning together with the same teacher and using the same equipment as their ancestors.

EXTRACT:

OLIVER GOLDSMITH (1728-1774)

THE DESERTED VILLAGE

"Beside yon straggling fence that skirts the way,
With blossom'd furze and unprofitable gay,
There, in his noisy mansion, skill'd to rule,
The village master taught his little school;
A man severe he was, and stern to view,
I knew him well, and every truant knew;
Well had the boding tremblers learned to trace
The day's disasters in his morning face;
Full well they laugh'd with counterfeited glee,
At all his jokes, for many a joke had he;
Full well the busy whisper, circling round,
Convey'd the dismal tidings when he frowned;
Yet he was kind; or if severe in aught,
The love he bore to learning was in fault.

The village all declar'd how much he knew;
'Twas certain he could write, and cipher too;
Lands he could measure, terms and tides presage,
And e'en the story ran that he could gauge.
In arguing too,the parson own'd his skill,
For e'en though vanquish'd, he could argue still;
While words of learning length and thundering sound
Amazed the gazing rustics rang'd around;
And still they gazed, and still the wonder grew
That one small head could carry all he knew,
But past is all his fame. The very spot
Where many a time he triumphed, is forgot".

But country schools are less likely to have much money spent on them, for administrators in many localities regard them as antiquated institutions and would prefer to move towards centralized education. However, many communities take a keen interest in their schools and carry out improvements on their own. In other schools conditions remain primitive. The heating system may be inefficient and students may have to use cramped benches, secured to the floor, instead of specially designed desks. Many extra facilities which are taken for granted by urban schools, for example, slide projector, record-player, etc. rural schools have not got.

I must say that I believe that the physical conditions of education are not as important as good teaching but cramped buildings and material restrictions are not always conducive to a high standard of work. As a result many rural children will commute into the town or city for their secondary education.

Teachers for rural sections are not always easy to find, simply because the restrictions of the countryside - limited cultural facilities and opportunities for promotion, the feeling of being cut off from one's colleagues - all of these can make a job

seem less desirable:

> THE TEACHER SHOULD BE WILLING TO ADAPT TO THE LIFE OF THE REGION. TEACHER TRAINING, HOWEVER, I BELIEVE, IS USUALLY MORE CLOSELY GEARED TO THE PROBLEMS OF CHILDREN IN CITIES, AND PRACTICE IN TEACHING GENERALLY TAKES PLACE IN URBAN AREAS. THIS, I HONESTLY FEEL, NEEDS TO BE CHANGED, AND I HOPE TO SHOW PROOF IN MY MAJOR PROJECT THAT THE RURAL ENVIRONMENT CAN OFFER A GREAT DEAL AS A TEACHING AID NOT ONLY ITS OWN ENVIRONMENT BUT AS A CONTRIBUTION ALSO TO THE URBAN ENVIRONMENT AND TO FUTURE TEACHER TRAINING IN THE FIELD OF ART EDUCATION.

I think that in a rural school children feel at home right from the start because they are already familiar with it as a part of their community. Often children settle more easily in country schools and are found to be more co-operative.

Intellectual development can be associated with the culutral environment in which the child grows up, and in this respect the rural environment may be lacking in certain ways particularly in the extra educational resources of Theatre, Cinemas, Museums and Art Exhibitions. Does such an environment mean that children in rural areas do less well at school? Or does their intelligence reveal itself in other contexts than city children? They do seem to respond differently to intelligence tests; they may be strong in perceptual tests and weak in verbal ones.

> THE ATTITUDE OF RURAL CHILDREN TO SCHOOL AND WORK IS UNLIKE THAT OF AN URBAN CHILD SINCE THEIR ASPIRATIONS ARE DIFFERENT. THIS IS VERY IMPORTANT. IF THEY CANNOT IMMEDIATELY PERCEIVE WHY THEY ARE DOING SOMETHING, THEY MAY BE MORE RELUCTANT TO DO IT; THIS IS THE RESULT OF THEIR ENVIRONMENT.

Because the rural child is able to observe his father's daily work, and because that work is highly practical, he expects to understand just why any activity should be performed. He can see for himself why his parents do certain tasks, for example, feeding the animals, shearing the sheep, digging the potatoes, thinning beet, cutting peat, etc.

The urban child, on the other hand, must get used to his father leaving each day for the factory or office, where he performs some mysterious function for which he gets paid but which has no other obvious point to it. Rural children tend to do less well on school tasks which test their Abstract Reasoning ability rather than their ability to deal with practical problems.

They also tend to have difficulty, where speed is important, since they are not used to being hurried.

The fact that country children do see the point of the jobs their parents do, and are involved in helping with them from an early age has a healthy effect upon their psychological development. Rural children tend to be better adjusted than urban children during adolescence. The reasons seem to be that they are given a gradual increase of real responsibility long before urban children of the same age are considered 'grown-up'.

Adolescents in town often suffer from their in-between state, feeling that they have no real place of their own in the community to match their desire for independence. I see this very clearly with my own class of 14 and 15 year olds, as I have a class of individuals from both a rural and an urban background so I see a marked contrast in this respect. With the rural child maturity is not forced or unnatural, and she can accept her responsibilities without losing the ability to enjoy the freedom of childhood. As cities all over the world absorb rural areas more children from the country will grow-up in the same way as urban children. They will have to adapt to a more complex existence. Once they learn their way around in this new life, their rural heritage of self-sufficiency and community spirit will become a valuable asset.

Having looked briefly at the factors which may influence the development of a rural child, I would like now to take a closer look at the urban child's environment in to-day's world.

Many young people leaving school to-day even though brought up in rural areas turn their Backs on the fields and villages which they grew up in and move out into the industrialized cities in search of better wages and a higher standard of living for themselves and their families. As a result, more children each year are growing up more familiar with buses and skyscrapers, rather than thatched cottages and goats.

The view from their window will not be a constable landscape of green fields and sturdy trees, blue skies, and crystal clear water, but a panorama of a sprawling metropolis from the fifteenth floor, perhaps, or just someone elses rear window.

Even though a large proportion of children are brought up in cities a country life is still idealized as the perfect setting for childhood. But the city street, with all its complexity and colour can be as exciting a challenge for growing minds and bodies as the rural setting, or sea-side setting. This has been shown for example in "THE FRONT DOOR PROJECT" in Pimilico, London, where the urban environment was used as a Teaching Aid with excellent results.

I often wondered what it would be like to be brought up in one of the more congested 'high-density areas of a very large city - I'd say that this would depend partly on the way in which the high-density of people has been achieved. In practical terms, there is a world of difference for families between living in a row of houses or in a flat-block twenty stories high. Of course, there is a third setting - a tenement block in a congested slum, where populations multiply and have to live within a limited space.

While doing holiday work in London two years ago I became involved in voluntary aid work, which brought me in contact with families living in deplorable conditions. For example, very near the Tate Gallery - just down the road from Vauxhall Bridge, I met a

family of 12 living in a two-roomed flat. What chance have children being brought up in such a setting. I wonder have some Irish cities got the same problem? Coming up against experiences like this I have thought very deeply about - how could such a situation occur in the first place - and what could be some possible solutions.

Well, for the pre-school child, the chief advantage of living in a house in the city is the freedom of movement he has between indoors and outdoors.

The back garden or little yard outside the back door may be only a few feet square. It may contain nothing but trodden earth, weeds, or flag stones. But there the young child can at least wander and explore, outside, on his own, dig a little, watch things grow, watch people going up and down, look at aeroplanes flying by, etc. Then he can always feel secure that he can go indoors again, whenever he feels like it and see what his mother is doing and, perhaps, help a little doing simple things.

The child's graduation from yard to street can be relatively easy in this kind of housing area. This involves trust. He is first trusted to play out on the pavement in front of his house, or with a friend in his backyard. Then he may venture a little further. He may go, perhaps, to the shop with his mother and then he may go on his own for a message. This is an early lesson in independence and helpfulness.

Now, in contrast to this the daily life of a young child living in a 'high rise' flat is rather confined and removed from the hustle and bustle of the city life below. An increasing number of countries are trying to solve the problem of housing a growing urban population by building upwards rather than outwards. These mammoth blocks, twenty storeys and more have created some social problems particularly where families with young children are concerned. I think that the most serious effect of 'high-rise living' for the pre-school child is the loss of freedom simply to potter about on his own, which he would enjoy in a house with a

small yard.

Young children develop, both socially and intellectually, by venturing further and further from their mother's side; but there is a long period, from about 18 months to 5 years during which their adventurousness needs the security of a safe base - the mother, to whom they repeatedly return for comfort and security, only to venture out again with renewed confidence.

Living in a high flat interferes with this natural development of independence. The mother does not have the flexibility of care which ground-floor living allows. The child cannot explore his surroundings by degrees - either he is restricted to staying in the flat with his mother, or he is separated from her in the playground down below while she gets on with her housework up above. Even if she can see him from the window, they both know that she cannot reach him quickly in case of need; nor can she develop with him the casual responsiveness to his play which is such an essential part of the friendly relationship between mother and child.

Also there is another important fact, the child's outdoor use of his toys is curtailed; it is not easy to take a toy car or triangle up and down in the lift, and toys left about downstairs, in the natural carelessness of childhood, quickly disappear.

This is why Nursery Schools and Play Groups are so very useful. They have done much to alleviate the isolation of many pre-school children in the city. There they find companionship and their exploratory activities are properly supervised.

As the urban child grows older,a lack of play space, and dis-interest in the small play area at the base of the flat which has outgrown their age now forces the child out into the street and confrontations with other children. From the very early age of four or five he is expected to stand up for himself and to find his place in the rough and tumble. It is a hard lesson he has to learn - open to a "wholesome climate" will he "drink in good from every quarter" "like a health-giving breeze" as recommended by Plato?????

Will he fit into the street "gang"; what values will they have? Will he adopt their values, good or bad? Some children have more difficulty than others in making this adjustment.

Even under good conditions, home for many urban children is too small and often too full of younger brothers and sisters, to be an attactive place to spend much time. The child in central urban areas learns to look to the outside for his amusements and his relationships. This early need to play outside of the home can be quite beneficial to a child if he gathers around him a solid group of friends who are not mischief-minded. City children learn to be independent and are often rather creative in their play. They can make up all sorts of games; for example, battles with dustbin lids and sticks, etc. Even though I've noticed that the game of "Cowboys and Indians" which was the in-thing when we were young, is now more sophisticated, and has been replaced by "The Arabs and "Disralis"; the Cops and Robbers is still in vogue. But I have noticed quite a dramatic change in street games in the past few years - see list for "Visual Library" in Museum Exhibition". In most circumstances city children are not isolated and lonely. Given the early sense of independence and mobility of public transportation, the child will meet friends at school and begin, perhaps, to get involved in football, soccer, etc.

This means that the child is becoming socially independent of his family quickly, and also comes to terms with his environment - by, perhaps, finding his way around the city, discovering places, coping with traffic hazards, and accidental learning situation s on the way.

A major problem can develop when the street becomes more important than the home as the child's centre of activity. Then parents begin to feel that they are losing control over him, and that his contemporaries especially if they are troublemakers, influence him too much. As he moves towards his teens trouble with the law becomes more of a possibility. The urban youth will,

perhaps, mix with a group which includes trouble-making adolescents older than himself, and early delinquency, including drinking, drug-taking and sexual precocity may be the result. This type of influence leading to delinquency is not just found in the urban youth; some of my own students have brothers a few years older than them serving prison sentences for various crimes, also younger brothers in special school for "troublesome" boys. Naturally because this effects my students I have taken an interest in the various cases so that I may understand the situations and he sensitive to events which may arise because of these backgrounds.

CASE HISTORY

For example let me take the case of one of my second year students; I'll call her "Fleur" as a code name. Fleur is a fourteen-year old. Some words that could describe her - rebellious, highly sensitive, very creative, stubborn, kind, wounded, ashamed of her background; sometimes very withdrawn and non-communicative. Physically she is undernourished, underdeveloped for her age. She has one good friend but does not mix very well otherwise. Only interest outside school is basketball and now our local museum and disco's.

Family:- Sixteen members plus father and mother.
One sister-in-law with two children lives in an estate of 60 houses.
Size of house: Kitchen, livingroom, two bedrooms, toilet, no bathroom, back-garden, front-garden ;
3 brothers are serving 8 year prison sentences; ONE is 18; married with two children; an alcoholic father. To observe this child in class one could easily see how troubled she is; black rims under her eyes from lack of sleep and nourishment. So, naturally, this is why I am really certain that classes should not exceed 20 members, because otherwise students like "Fleur" can be very easily mis-understood and instead of helping them to cope they can be made either more subdued or more rebellious, instead of being

helped to develop.

At this moment I can think of at least 20 other cases where disturbed home environments have deeply disturbed my students. Things like broken homes, a drunken parent, a father working away and many other major social problems which upset and affect my students. I think knowing about the students' environment is very important; for a more sensitive understanding of various situations. It can be most disheartening to have stimulated a class into some creativelearning situation and to see one or two students completely lackadaisical or sitting there with tears in their eyes, troubled, and not able to communicate their feelings.

Happily, now Fleur is beginning to communicate more, to trust people more, and because of our Museum Project, her outside school interests are becoming wider, as she co-operates with her fellow classmates - One could write a book on various class CASES but I think I had better now stick to my present theme.

As the congestion and stresses of modern city life increases one priority for many couples with a reasonable income and young children is to move out of the built-up areas into housing which offers a garden, perhaps, streets planted with trees and hedges and a wider view of the sky. They choose to give their children a "Suburban" rather than an urban oriented childhood.

The surburban way of life is becoming more prevalent as urban populations expand. These suburban developments with new entertainment and shopping centres nearby are establishing

themselves as a standard environment for thousands of families. In some ways surburban children get the best of two worlds. On the whole the air they breathe is clearer; their roads are safer and their play space more green and open. Their houses, most of them newly built have been planned to use space efficiently so that the whole family feels less cramped than in older, re-converted city dwellings. Their schools are designed to provide more classroom space and playing area.

The variety and stimulation that a city offers on a large scale through its theatres, museums, libraries, recreation and shopping facilities, are usually within the distance of a short drive. As suburban living becomes more popular youngsters will find many of the facilities which they once depended on being taken into the city to enjoy will have moved out to the developments.

Well, the suburbs with their urbanized imitation of the countryside, offer a pleasant way of life which attracts people out of the city as soon as they can afford the same. Therefore, a larger proportion of poor families remain in the city and their children may, by comparison, be underprivileged. Various studies carried out in affluent countries indicate that the central city child is increasingly at a disadvantage compared with the suburban child in basic living standards and under certain conditions, in educational achievement as well. Some social historian have suggested that the pressures of urban life may soon break down the family as we know it. It is true, I think, that family life is changing as a result of crowded living conditions. A traditional pattern of the family for centuries, as we have seen, has been one in which very little movement took place away from the community, with the exception of emigration during troubled times which has been a factor which we Irish have had to live with for sometime. Fathers going off to England to get a job and mother and children staying at home. Thank heavens this very disturbing situation is not as bad as it use to be.

Also another fact which I've been thinking about it is that as

workers become more skilled, they also become more ambitious. Ambition then leads then to move about in search of better opportunities and pleasanter living areas, and so there could be a danger here too that the fiber of the family network is stretched and broken.

It seems to me that city planners were concerned for quite sometime to move old established families out of their centre city homes and make room for city offices, shops, etc. Now they find that they have created more problems, by doing this, and are now trying to recreate the sociable atmosphere of old-fashioned neighbourhoods. To me it seems like a circle; destroying and creating and the re-creating landing right back where we started. But what do we gain or lose in this shifting process? I think this is a question we all have to ask ourselves. Are as as a community creating a healthy environment for our children of the present and of the future?

SUMMARY

Having had a brief look at the Rural, Urban and Suburban environments and how they can influence child development I would just now like to have another look, if possible, into the imaginative environments of the Space Age Future and the development of the Cosmic Child.

SPACE AGE ENVIRONMENTS.

The speed with which changes are introduced into a young person's environment today almost justifies his impatience for the space age future. Parents of teenagers in the 70s would probably have been born somewhere between the 20s or 30s and their grandparents could well have been born in the 19th Century. The world of these parents and grandparents was vastly more confined and contained, and at the same time more expansive and empty than that of the future. They, unlike to-day's children would have been brought up against a background of affluence for the few and hard times for everyone else.

The world then marvelled at the great ship Titanic and when it struck an iceberg and sank, was appaled at the tragedy that this technological triumph brought in its wake. Though the world-wide links of wireless and telegraph existed, the fantasies of Jules Verne and H.G. Wells seemed indeed fantastic. From the overcrowded 'old world' of Europe people could look to the challenging 'new world' of America and the colonial empires, safe in the knowledge that a few refinements could turn the wide open spaces into a reasonable imitation offamiliar home surroundings.

Now, the present generation has seen the fantasies of Wells and Verne largely realized. To them the new world is suddenly just as overcrowded as the old one. In fact most of the children born to-day are a part of the "Third World"- i.e. the emerging countries of Africa, Asia and Latin America. For them - and many other young people - tomorrow's world must be a totally different environment. The old frontiers are closed, there is nowhere now on Earth as we know it for men to go. Some architects suggest underwater cities, but how long before these too would be overpopulated and their sea-forming resources, empoverished? So the large problems of pollution and overpopulation are causing men to look at life on Earth in different ways.

It is obvious that the grandchildren of contemporary teenagers will have to be educated for a world that is both lacking space and faces the challenge of the enormity of space in the solar system and beyond. What will be very significant about children in the future is that there will be a lot of them. Despite advances in birth control knowledge, population is increasing faster than food production, even with the aid of advances in agricultural technology. By the end of the 20th Century more and more children living in what will seem to them a smaller and smaller world.

In such a world as this, the in-habitants will have to be more resourceful and inventive not simply in order to continue enjoying the benefits of increasing affluence or even to maintain their present standard of living, but to "survive" and stay alive. This is especially true of the millions in the "Third World

It is natural that when faced with the urgency of the population explosion, tomorrows children will look beyond the earth for solutions. However, will colonization of the planets for example, provide a solution similar to the colonization of the new world by the old? The old land frontier of the United States provided an outlet, a safety valve, for the pressures of over-population, poverty and appression in the old world. These older pioneers were people like our own fleeting from famine and eviction hoping to make their fortune in the "New World" of that era.

Today a preoccupation with space exploration requires enormous financial resources - whether it is a minor outlay for the latest space toy or mounting a project for putting men on the moon. Whether in science fiction or a real space centre, it is not the less well off who are going to go to the planets. It is' the most advanced and affluent countries that have space programmes not the most backward. While space continues to be a focus of the aspirations and fantasies of children in the future, unless one of the near planets proves against all expectations, to be

hospitable to Man, or the problems of deep space travel (in other words of time) are met, it will not directly solve Earth's population problems.

Indirectly though, tomorrows child will be affected by the space programmes of the few wealthy nations. For these programmes represent again another frontier - that is one of knowledge in science and technology. The child of the future will not be learning to live only with the population explosions but with the knowledge 'explosion' as well.

If to-days teenagers are taught radically different things in entirely different ways in vastly different schools to their parents and grandparents. How different will education be in the future?

The fore-runners are already with us in the form of the 'new mathematics', new ways of learning languages and still rudimentary teaching machines. We live in an age of scientific revolutions: scientific revolutions by their very nature drastically after old knowledge. What is taught and how it is taught in contemporary schools reflects, albeit at some distance, what is going on at the frontiers of knowledge. The space programme has already produced what are called "Spin-offs". For instance, it has led to a tremendous advance in computers especially in their miniaturization. Computers that are part of a space craft today, go into the universities tomorrow and will be in the schools the day after.

The knowledge explosion means that no one to-day, let alone in the future, can possibly know all there is to know. This has tremendous implications for the education of the child of the future, for no pretence can be made to teach him everything, even in one subject.

In the future there will probably be two contrasting tendencies in formal education. For most children education will be more general and less specific - it will concentrate on ways of knowing and on ways of finding out, not on facts for their own

sake. This is very different to the schooling of even a generation ago which stuffed students with immutable facts. The second trend, for the few will be the lengthening of the educative process. Also the continued knowledge explosion will require that even the best-trained will undertake periodic retraining as knowledge learned will soon be outdated. To summarize these two trends: in the first the children of the future will learn more and more - not about 'more and more' but about 'how and why'. In the second, for the more resourceful and inventive, there will be more and more to learn - again not about 'more and more' but 'less and less'.

The education of the child of the future, as of todays children, will not start at school but at home and in the family. What will be the role of tomorrows family?

I would just like to reflect for a moment on some point which I have previously mentioned concerning the family. Those historical factors in family life may put the future problems of the family into prespective. Before the great Industrial Revolution of the 18th and 19th Century the family was an omnicompetant social institution: it was not only the place into which children were born and where they were reared but also an economic unit.

Today the family is a unit of consumption; then it was a unit of production as well for industry was generally domestic. The family was also an educational institution: in so far as people learned to read at all, home was where they learned. If people were ill, it was the family members who nursed them back to health.

However, with the Industrial Revolution, what are called the 'non-essential' functions of the family - economic production, formal education and hospital care - moved outside the family circle into more specialized institutions:- factories, schools and hospitals This does not mean that the family had no longer a function, but rather that it was left to concentrate on those functions for which it is best suited. These are called the essential functions of the family: the care and upbringing of dependent children who will

become stable adults, and , also providing an emotional haven for adults away from the world of work.

But will the grand-children of today's adolence be brought up in a setting we would recognize as a family? The knowledge explosion, which can potentially solve the problems created by the population explosion, requires the selection and training of the most resourceful and inventive children. Is this too important a responsibility to be left to an individual family? Social scientists have argued that there are two components of measured intelligence. The first is believed to be hereditary about which society can do very little. The second is acquired, and much of this basic intelligence is developed in a family setting. Children from certain familial backgrounds for example those where a high degree of literacy is valued, do better at school, other things being equal, than children from a less stimulating intellectual background. If tomorrows society needs its most able children to solve its urgent problems, can it afford to let some children be "spoilt" by the inadequate environment of their families?

Some children of the future may, for this reason be brought up outside the family. On a large scale this would imply a vast shift of social resources in the case and upbringing of children. Whether this would be possible has been speculated upon by social psychologist, Bruno Bettleheim, at the American University of Chicago. He has written a book called "The Children of the Dream". In this he discussed whether the Israeli system of "Kibbutzim" could provide the solution. He was seeking a potential solution to the vicious circle of the cultural deprivation of some American children. As this deprivation begins at home with the family. But I honestly do not think his idea would work, for the simple reason that no system can divorce the child parent love relationship, and substitute it with a professical institute. Ivan Illich in his "Celebrations of Awareness" mentions that "Institutions create certainties and taken seriously, certainties

deaden the heart and shackle the imagination". This same theme is also carried through to his second book which deals more specificly with education, i.e. "De-schooling Society". So from reading Illich I think that this type of child developing in set institution alone in the future would not be satisfactory.

On the other hand schools provide the bridge between the family and the rest of society; children cross the bridge by learning skills relevant to this wider society. While the school system of the future will extend downwards, for the youngest children will probably not be unlike the best schools of today. However, schools will differ more markedly for the older children. Having first equipped children with the social skills to get on with others, the teaching system will then have the difficult task of developing more "creative thinking".

Paradoxically this will often be done by more formal methods. Already teaching machines are familiar, and they will become increasingly important. The simple reason why they will be so important is because they can be programmed to an individuals needs to a far greater extent that one teacher can tailor himself to the individual needs of a whole class. Those teaching machines will centre on 'problem solving' - how to arrive at an answer will become more important than having the 'right' answer. I would imagine that perhaps there might be no strictly right answers: the knowledge explosion would tend to make teaching immutable facts inefficient.

All this implies that the child of tomorrow will need a much more flexible mind in order to cope with rapidly changing life styles or unexpected situations. Even if our great-grand children are not living on Mars they will still need some educational guidance to find personal fulfilment in an over-crowded and computer-programmed society.

SUMMARY:

Having looked at various environments and considered some of the factors which will effect future children I would like to give a brief summary of what part education will have to play in the present to prepare for the future.

Since there will be an emphasis in the future on firstly "Problem Solving" i.e. how to arrive at an answer - in other words "Design". Secondly the teaching system will have the difficult task of developing more "Creative Thinking". And also a third, and very important point is that in a highly mechanized world, there will be a greater need for "Self Expression" and for personal fulfilment.

This role I honestly think is that of Art Education. As George Santayana expresses it "Free labour or Art is simply nature unravveling its potentialities, both in the world and in the mind, and unravelling them together, in so far as they are harmonious in the two spheres. Such labour is therefore a great corrective to distraction, since it concentrates attention on the possible, and trains the Will to discriminate and organize its true intentions".

The ideal individual of the Future would be in my opinion a "Space Age Renaizsance" person. Capable not only of being Creative but also intelligently able to adapt his ability to teamwork, with his fellow human beings. I also share Rousseaus love of Nature and would wish for a more Harmonious relationship with nature, and a Simplier life style.

So the next question is "How do we take a step in this direction from where we stand".

I feel that the Lund International Congress of Art put forward a very realistic statement from both English and German speaking sections, which helps to clarify our role as Art teachers. "Art, like religion, is one of the highest forms of expression whereby mankind can evoke and symbolise the quintessence of the experiences of life, its inward aspirations and its spiritual awareness. We believe that through the knowledge and understanding

of the artistic heritage of mankind as well as through the practice and appreciation of the living arts of our time, rightful relationship can be achieved between the creative individual and the constantly evolving pattern of the community of which he belongs. This relationship constitutes the dynamic of a vital civilization worthy of humanity" - "With these considerations and aims in mind the role of education is to initiate and prepare the child to play an essential and active part in the pattern of an evolving community. The indivisible purposes of education are therefore spiritual, social and intellectual. Education must be concieved as a whole to create a unity between these human qualities".

So if we as Art teachers are to treat education as a whole, how do we bridge that gap between "Creation and Construction" which has a tendency to exist in some schools still? - "The Art and Craft Classes". "The Art and Design Classes". I think there is still great confusion about the values of art/of and mechanical construction. This miss-(impression) conception must be abolished before taking a step in the right direction. They should both be treated as merely different media for the expression of the same aesthetic activity.

The distinction, as Herbert Read clearly states it - "merely reflects the 'split' nature of our civilization, a civilization which can complacently tolerate that divorce between Form and Function, Work and Leisure, Art and Industry, which is basically the divorce between Mind and Matter, between the individual and the collective aspects of consciousness".

I believe that up to the Industrial Revolution this split did not exist, or at least it was not as great, expecially between Art and Industry. So I propose to bring Art closer to my community in my Major Project. Proving how Utility is undivorced from Art, and is in fact a quality of Art - so uniting Art and Industry.

With my children, I am aware that they need first of all, a guidance in the training of their senses in order to appreciate the quality in material, the visual proportions in measurements, the tactile relationships of areas and masses, colour, life etc. The desire to make beautiful things must be stranger than the desire to make useful things; or rather, there must be an instinctive realization of the fact that beauty and utility, each in its highest degree, cannot be conceived separately. But it is easier to recognize this truth in all its abstractness than to apply it to the practical organization of the school workshop or the school curriculum. This unity can only be secured by the right kind of teaching.

I propose to take steps in this direction.

Teaching in a Rural Secondary School, I propose to take the environment, and trace its development pre-Industrial Revolution up to the present day, - when I say Pre-Industrial Revolution I mean as far back as the Stone Age.

The aim of my Project is to build up a "Visual Library" of the natural and man made legacies and resources of this environment Students of all ages from National School and 1st Year Secondary School - 6th Year plus Craftsmen in the community, and other interested members, will be involved.

This Visual Library will prove how unified Creation and Construction are - how unified Beauty and Utility is, and as a result how unified Art and Industry is.

In working together National School students will be linked with Secondary School students and all will be linked with members of the community in which they live. This I think will be a very valuable experience for all those invdved.

When created this "Visual Library" can then be used as a source of information for everyone from the individual looking up his family tree: as a reference for craftsmen; for designers - that includes town planners industrialists and businessmen etc.

It would also be an invaluable source of integrated studies for students, national secondary, vocational and third level. Also to Teacher training students, and new teachers who would be appointed to the area.

One could call it a Natural and Historical Museum. The reason why I do not call it so is because I have become increasingly aware through giving lectures to students in the National Museum, that a "Museum" is a place for only occasional visits and not really an everyday used source.

This is exactly the type of isolation of Art that I feel very strongly against. Now I am aware that this Project will take time to reach an effective stage, but the creation of it will be an important setting for learning situations. When designed it will be continually added to as new material is discovered. And perhaps in the "Space Age" Future our "Visual Library" will I hope be one of many. Still used by students and members of the community in which it is, plus other communities in a sharing exhibition link, which I hope will bring more harmonious relationships between various communities.

"Some men see things as they are and say why? I dream of things that never were and say, Why not?!

R.F. Kennedy.

CONCLUSION

Having discussed various environments and how they effect child development I feel that my proposed project should help people to appreciate their environment, and their heritage. Also that students will see the Unity of Art and Industry by observing how they are one in the Natural and man-made environment.

Just to pause for a moment, and think about one other important point which I've mentioned earlier: i.e. In helping the individual to develop more "Creative Thinking" and an approach to "Problem Solving" - I hope that we would educate more Versatile and Adaptable human beings.

Because I honestly think that the largest problem in our environment is "Specilization" - a characteristic of Western education. In a book called "Design for the Real World" by Victor Papanek, he mentions an event which I think very relevant to this point. A writer called Bucky Fuller came across two important papers; one on anthropology and the other on biology. And both these researchers were working completely independently. It happened by chance that both of these people were looking into all the species that were extinct.

Both of them were trying to find a commonality of causes for extinction. Both found the same cause independently - that was - "that extinction is a consequence of over-specialization. As you get more and more over-specialized, you inbreed specialization. Its organic. As you do you outbreed general adaptability".

So here we have the warning that specialization is a way to extinction and our whole society is thus organized.

My conclusion at present is that man is by nature a generalist. It is his ex tension i.e. tools and environments which are designed that help him to achieve specialization. But by misdesigning these tools or environments we often achieve a closed feedback loop, and the tools and environments in turn affect men

and groups in a way that turns them into permanent specialists themselves.

From the linier thinking of the Renaissance when men still thought all their knowledge classifiable, we have inherited our graphs, divisions, classifications and lists.

Typically when we wish to classify areas of knowledge too vast to be so comprehended we make the crowning mistake: we educate specialists.

But as we move towards the Space Age Future, as we see divisions that the last few generations have painstakingly erected out of the quicksand of their statisticions - minds crumble away, we find no need for more such distinct areas but for Unity and Harmony. No longer to educate the Specialist then, but the Synthesist.

I hope the beginning, not the end.

Mary Stratton. T.T.C.

Book List.

1. "Design for the Real World". Victor Papanek.
2. "Art and Industry". Herbert Read.
3. "Education Through Art". Herbert Read.
4. "Education Through Art". B. Russell.
5. Lund Congress Report.
6. Psychology of Preception. Dr. Vernan.
7. Irish Education. Atkins.
8. De-schooling Society by Illich.
9. Celebration of Awareness by Ivan Illich.
10. Plato's Republic.
11. "History of Western Education" by Rusk.
12. Dibs by Virginia Axline.

Further References: The development of the Major Project -

(1) i.e. "The Idrone Art Project".
(2) A Catalogue for Art Project.
(3) AnApproach Pack for Learning Situations based on it.
i.e. a full Syllabus.

Supporting material, slides; photographs; recordings; photocopies, etc.