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"DRAWING" IN EDUCATION .

Part I

THESIS 1976/77

Frances Breen 3rd Year Communications

Today we are living through the 'Communications Revolution'.

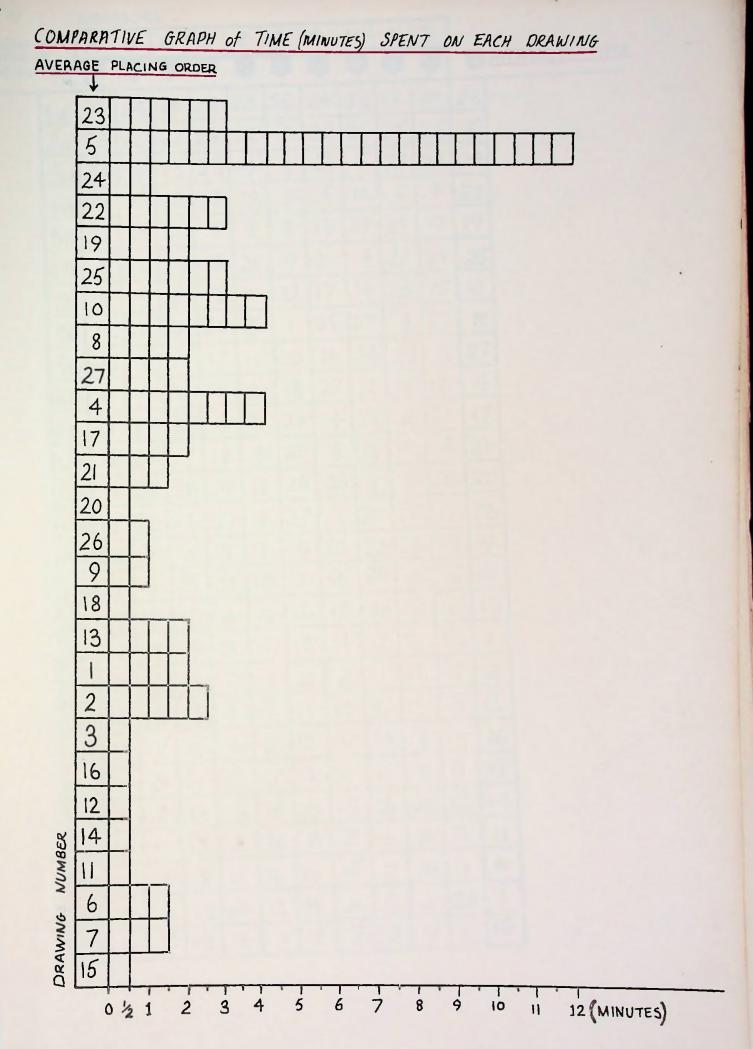
The ever increasing influence of the Mass Media has prompted much research and theorizing. This research deals basically with how man is equipped to understand and evaluate these new forms of communication. The reforms which we see today in the structure of education are the results of this research which has shown that communication is no longer monopilized by the printed word. The importance of literacy is now being questioned. The trend of these reforms has been summarized in the following paragraph from Design Education by Peter Greene.

"In addition to literacy and numeracy we need a third fundemental lanugage that of vision. This has sometimes been called 'Graphicacy'. Whatever the term, what is clearly evident is the need for visual literacy to complete a balanced education".

In my research into this subject I have taken one particular means of visual expression that of drawing and image-making. I realise that drawing in itself would not provide the type of visual awareness necessary for a more involved approach to our changing enviorment, but I believe that it should play a very significant part not only in Art and design education but in the overall system of education. My thesis is based on the various methods I have used during this year to devise some means of assessing the role of drawing. It was hoped I could come to some conclusions through making a survey on what place drawing held in schools today.

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SURVEY :

When I began my research of the relevance of drawing I found myself in a very ironical situation. I was attempting to analyse drawing through written sources. Practical experience was necessary.

About two months of my research time was spent collecting drawings and opinions of adults and Primary school children. I began two surveys

- (A) A survey of 27 adults
- (B) A survey of Primary School Children (5th. and 6th. Class)
 I choose to concentrate on the adult survey as this offered
 possibilities of conclusions. The survey of primary schools is
 on-going. However, some of the examples and comments are used to
 illustrate points in the Thesis.

The Nature of the Survey:

Each person was asked to draw:

- (I) From observation their own hand.
- (2) From memory a box of matches.
- (3) From observation a tea-cup.

I choose these subjects because of their familiarity and for the average person they would not seem to have posed too great a challenge. Length of time taken to draw each subject and certain information regarding occupation and previous experience were recorded.

The Adult Survey:

The main object of this exercise was to survey the opinions held by a number of adults about drawing and their drawing ability.

I have now got a collection of 3 drawings each by 27 adults. Of these I took the 27 drawings of hands for examination. I gave these to ten different people and asked for an assessment in order of ability. The ratings given by these individuals are given in the table on the following page.

THE SURVEY

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I am rather wary of the insistance of the 'National School Curriculum on the non imposition of 'Adult Standards of judgement or performance. It denies children the fascination which they have with adult work. This fascination is particularly evident when they watch such programmes as 'Amuig Fén Speir' or Paint with Nancy' where they can onserve people creating birds, animals, people or places. These type of programme are a great stimulus to children to create their own images. It is clear from the interest shown in these programmes that children do look for guidlines. The exploitation of their need for guidelines can be seen in the numerous cheap issues of painting and drawing books. These books are little more than copying devices in which the aim is to reproduce exactly what is printed on the opposite page. They do little to provide an analytical drawing skill which could be used to collect and understand information. The merely exploited the obvious need for drawing instruction.

I have finally come to the conclusion that some means of instruction is essential in drawing, and that it would be unreasonable to expect children to develop completely through a 'self-activated learning process'. I see this instruction as being necessary in order to give children a method of compiling a visual vocabulary. It is essential that children should have confidence in expressing themselves visually if they are to truely benefit from a more balanced education... One which no longer places total emphasis on literacy.

The final comment on these results is given as follows:

"One must realise that this area is completely new to a very large number of teachers. It will take sometime before the full impact of the subject will be observed. In-service training courses for teachers will have to be provided".

It is only hoped that these courses will help teachers to give Art its relevant place on the school curriculum. The true function of art in schools is not only as a means of selfexpression through pictures but its various activities must also be recognised as having practical application to other subjects. Of all these activities I feel drawing is probably the most important because as I stated earlier it is the most readily available means of image-making . However, compared with experimental activities such as collage or technical work such as weaving or pottery, drawing is the most difficult to formulate a method of instruction. To teach drawing I do not believe it is essential that the teacher should be able to draw, though it would in some cases be an advantage. However, the teacher with personal drawing ability might be enclined to rely too much on her own method of construction for giving children examples. The main elements of instruction would be within the powers of any teacher seriously interested in giving children a means of developing their visual vocabulary. These elements would be to provide the encouragement and opportunity of practise, and when it comes to actual guidelines of how things are drawn, numerous examples could be found in the visual information available to students in schools. With the help of these examples certain methods of construction could be explained by the teacher.

Executive Council.

CHAPTER IV

THE OTHER SUBJECTS

A. QC5

QC5A1 Social and Environmental Studies

QC5A2 Art and Craft

QC5A3 Music

QC5A4 Physical Education

	teach the subjects?	Do you feel you are teaching them satisfactorily?							
Yes	%	Yes	%						
7,102	93.5	5,138	69.5						
6,925	91.3	4,034	54.6						
6,010	79.4	3,684	50.7						
4,884	64.6	2,492	34.2						

This is an area which should give cause for concern, for although a high percentage of the teachers are teaching the subjects, a low percentage of them feel that they are teaching them satisfactorily. Only 34.2% are satisfied with the way they are teaching Physical Education, 50.7% for Music and 54.6% for Art and Craft.

B. QC6 Do any of the following create difficulty in teaching?

	Q6A	School design
	Q6B	Inadequate materials
	Q6C	Size of classroom
	Q6D	Lack of suitable books
	Q6E	Lack of support from other teachers
	Q6F	Inadequate in-service training
	Q6G	Size of classes
1	Q6H	Lack of alignment between primary and
l		post-primary curricula
	Q61	System of inspection
	Q6J	Lack of storage space
	Q6K	Lack of outdoor space
	Q6L	Unsuitable furniture
	Q6M	Other

Yes	%
4,338	57.6
6,087	80.3
4,327	57.3
4,613	61.2
1,097	14.6
4,198	55.8
6,274	83.0
5,262	70.1
3,080	40.7
4,807	63.8
3,391	44.9
4,630	61.6
3,066	41.6

There are many factors that may make a teacher feel that he is not teaching a subject satisfactorily. In QC6 a list of questions was asked as to whether or not they created difficulties in teaching. Nine of the thirteen questions were marked by more than 50% of the responders as creating difficulties, 83.0% gave the size of classes, and 80.3% inadequate materials. The difficulties in teaching are increased by the number of these factors that are present in a school.

These questions were asked of teachers of all classes and groups, and as Q6H is of most concern to teachers of the senior classes, the question was asked specifically of teachers of 5th and 6th classes. 84.5% of them answered yes, that lack of alignment between primary and post-primary curricula created difficulty for them in teaching.

It also states that:

"The work therefore should be a self-activated learning process on the part of the pupil rather than a lesson imparted by the teacher, and the desired result is not the excellance of the finished product but the physical mental and emotional experience gained by the child".

There are limits to the power of self-activation. These are imposed by a desire to meet standards which are not within the bounds of previous experience. At this stage it is the teacher's responsibility to explain some of the conventional means of approaching a problem. Basically there conventions should be proposed as examples rather than imposed as rules. The children could adopt from these examples with the help and personal guidance of the teacher a method of approaching their own problems. The role of the Arts and Crafts class in the later years of the Primary School seems to be somewhat vague. Perhaps this is because it is often treated as a separate subject to be enjoyed only on a single afternoon each week instead of having a more integrated use in relation to other subjects being taught. It is given a separate identity and unfortunately many teachers have neither training or confidence necessary to give it a more worthwhile place. The authority which these teachers have when teaching other subjects is undermined through lack of confidence when it comes to Arts and Crafts. Thus it is not given its rightful place and is not seen as important in the development of other subjects.

The extent to which Arts and Crafts is being taught in schools has been surveyed by the Education section of the Central

Tapestry.. because they appear to be bizarre and unrealistic representations. In fact they are no more so than the enlongated ladies of our own fashion pictures. '8

Differences in conventions do not just apply to societies which existed before our present day society. They apply to every society in the world which has developed from a different cultural background than our own. Thus to attempt to provide the visual awareness necessary to interpret a wide variety of visual material it is essential that we become acquainted with these conventions.

This would seem to be the basis for an educational structure for the teaching of drawing. Variety of technique and materials are the most important elements. The teacher should make available for example and discussion the many different techniques and conventions of drawing. However, this type of approach should be very limited in the earlier years of school and increase only with the childs gradual need for instruction. Training in these years should probably be confined to developing the proficiency of hand movements to achieve regularity and control. Orgami is used in Japanese and Chinese schools to train manipulative skills. The concepts of drawing and of folding lines are very similar so perhaps both could be used in the early training of drawing skills.

The 1971 Primary School Curriculum states in its Aims and Approach for Arts and Crafts:

"The teacher will not impose any adult standards of judgement or performance but he must help the children to observe and see with growing discernment and finer appreciation; otherwise there will be no development, no true expression of feeling'.

Ealain agus Ceardaíocht Art and Crafts

atmosphere of the classroom, the approach to the work and the enthusiasm of the teacher are of the utmost importance. A pleasant, natural teacherchild relationship is essential, for it is only in such an environment that the child is likely to develop that sense of security, trust and involvement, without which all efforts to implement this aspect of the curriculum would be largely in vain.

Art and Craft activities can be integrated with every aspect of the curriculum through interpretation, design, project work and illustration.

The syllabuses outlined herewith are not meant to be either restrictive or exhaustive. Many of the activities will grow from the children's own interests and preferences. No teacher can cover all of them; while certain activities might be selected for more detailed treatment in order to ensure worthwhile development, no individual activity should be favoured to the neglect of all others. This simply means that a judicious selection can be made (having regard, as far as practicable, to the wishes of the children), that two or three activities are done in some detail and that the remaining number of activities undertaken are as representative as possible, depending on the conditions that obtain in the school and the facilities available. Although much will depend on the special interests and skills of the teacher and on the school environment, the temptation to devote too much time to a 'pet' craft should be resisted.

'Where there is a way, there is also a will. We learn by watching other people. Direction and comparison are essential. I doubt if anyone can claim to have developed totally uninfluenced by other people. We make use of the experiences of others when approaching our own personal problems.

We express ourselves through the conventions of a particular time. We learn to speak with accents of home and family. So too the language of drawing does not develope as something totally spontanious it is trained and developed by example. We absorb from others certain schemata of image-making and add this to our own visual vocabulary. When I sap certain schemata of image-making. I do not mean rules of drawing instructions which could be taught in methodical lessons at the end of which pupils would be able to reproduce certain types of objects.

M.D. Vernon speaks of how we follow certain conventions in our society as to how solid objects should be represented when reproduced on plane surfaces.

'Outline drawings are in fact entirely unlike the objects they represent; they are not even very like photographs of these objects. But the artist learns that if he draws certain types of lines on paper, they will convey to the observer the appearance of certain solid objects which have become associated with them through the conventions of drawing. 'Beach society has its own particular conventions of drawing. 'We sometimes scoff at the conventions of earlier socities—for instance in Egyption paintings or in Medieval pictures such as those of the Bayeaux

CAIBIDIL VIII
Ealaín agus Ceardaíocht
CHAPTER VIII
Art and Crafts

Aims and Approach

The child expresses himself in pictures long before he can do so in writing. His natural interest in investigating materials and objects, his efforts to shape, mould or arrange them so as to express his own imaginings, and his enjoyment of sensory experience—these are the sources from which his pleasure in Art and Craft derives.

The child finds Art and Craft activities absorbing and satisfying; they are outlets for his creative and artistic ability; they enhance his sensitivity and develop his appreciation of design, pattern, texture and colour in the world around him. They are the basis of many traditional skills and occupations which have been beneficial and satisfying to men and women down through the ages and they are the foundation on which adaptability and enterprise rest. It is doubtful if any other aspect of the curriculum can do so much to foster simultaneously intellect, imagination, observation and manipulative skill.

It is for its intrinsic value, therefore, rather than for any specific training which it involves, that a place must be found for Art and Craft in all classes in the primary school. The activities which are invisaged are many and varied but must be adapted to the age, aptitudes and interests of the children. The teacher's own special interests and talents may influence to some extent the choice of work but they should not be allowed to dominate it. He will not impose any adult standards of judgment or performance but he must help the children to observe and see with growing discernment and iner appreciation; otherwise, there will be no levelopment and no true expression of feeling.

While engaged in Art and Craft activities the hild is never passive. He is always doing, making, experimenting, expressing some facet of his charicter and personality. The work should, therefore, oe regarded as a self-activated learning process on he part of the pupil rather than as a lesson imparted by the teacher, and the desired result is not he excellence of the finished product but the physical, mental and emotional experience gained by the child. While some activities are suggested n the following pages, it must be stressed that they are not to be taken literally as a rigid set of exercises, but rather as the type of activities which night be undertaken for experiment. Whatever activities are chosen, the emphasis is on experimenting, creating, discovering. For this reason the CAIBIDIL VIII
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All of this indicates the relevance of drawing in many varities of work. If it has such importance in the training for specialized jobs after secondary school should it not be given more attention in the earlier stages of learning?

A METHOD OF DRAWING INSTRUCTION ?

If drawing is to be given more attention in schools what methods are to be used?

'When it comes to 'Art' teachers and writers still seems
to be divided into two opposing camps— the 'instructors' who
tend to forget that children have minds of their own; and the
'inspirirers' who may overlook the sad fact that children usually
need a few rules and regulations in order to grow up comfortably.

Just because something is fun is not authomatically a good reason
for doing it.' 7

Which is the correct approach that of the 'instructor' or that of the 'inspirer'. I realise that it would be very wrong to adopt the role of supreme dictator of standards but at the same time I believe there are times when children and adults need assistance in making decisions when they themselves have not had experience.

Is it because it is considered a leisurely activity that 32 of the 35 children in the Dublin school insisted that they would prefer to draw a picture to describe their summer holidays that to write an essay? Perhaps then this euthopianmeans of expression which is outside the bounds of letters, spellings and grammer should be preserved and not formulated into a set position on the education programme. However, this argument is the product of a system which insists on perpetuating itself. It would be ridiculous to allow such a conclusion to hinder the development of visual education in schools.

"One of the most vital functions in education is not the accumilation but the assimilation of knowledge, that is in making it a living part of ourselves in both theory and practice. That the training of the hand and eye is of the first importance in the earlier periods of a childs life is emphasised by the recent discovery, that those portions of the brain governing the hand cannot be developed after the age of sixteen." 6

However, precise this information is today it does suggest that many people are forever handicapped because of not receiving earlier instruction. Though I do not give broad statistics as a result of my survey of adult drawing generally it did illustrate the point that drawing was now beyond the capability of those adults who had no previous training or experience.

THE PRACTICAL APPLICATION OF DRAWING IN EVERYDAY LIFE

To speak of drawing outside the realms of art brings to mind the many professions which make practical use of visual expression These cover many areas of work, e.g. medicine, nursing, geology, written expression can be used together. One medium compliments the other.

Because of the increase in the use of visual meterial in the classroom learning now takes place in a much broader sense than through text-books and teacher monologue. Visual aids are now part of every school programme. As part of understanding and collecting on certain topics children are given projects, these projects involve making models, charts, maps and diagrams.

Emphasis is usually places on the visual content of the project as it is this which creates the most immediate impact. What of the children who do not attend Art classes or those who attend but are not visually stimulated? Many children have limited experience in expressing themselves visually. How do they cope with this type of project? If a child has had no experience in expressing himself visually it seems most likely the he will be inhibited and lack confidence. Many intelligent ideas are lost or less clear because of this inability in the area of visual communication.

I have found through talking with two groups of fifth and sixth class primary school children (one from the country and one from the city) that drawing in itself is not a regular part of their school hours. The children have the notion that it is frowned upon as a leisurely activity. I doubt if this was the direct intention of the teachers in these schools but the children's impression does help to preserve the idea of art as a gift to be persued only by the chosen few because due to circumstances early ability was recognised and encouraged.

VISUAL LITERACY.

In the light of this worldwide campaign to provide literacy is there a policy concerned with visual communication. I am not suggesting that a means of visual communication could be used as an alternative to the written word. But what I do suggest is that due to the vast increase in man's visual influence both in our enviorment and in communication it is now necessary to place more emphasis on educating children in visual awareness. It is essential therefore that art education should be given a greater role in the structure of the education curriculum.

THE PLACE OF DRAWING IN EDUCATION

It is not my intention to put forward an alternative to the present system of Art Education, but I would like to seriously consider the significance of drawing in an overall programme of education. Current trends in Art Education discuss how the art class relates to other areas of study. How important is drawing as opposed to other activities such as painting, collage and craftwork in this proposed intergrated system? It has been suggested to me that drawing is often neglected because children insist they cannot draw. As an alternative they are given something which they can do... such as painting or collage.

Many would say that you cannot isolate drawing in particular from any other art class activity. But I believe that in an integrated system, drawing would have immediate practical use. This is because the process of drawing is the most readily available means of visual expression. It is direct. The child can easily adopt his writing tools to drawing tools. Therefore visual and

in literacy schemes in devoloping countries. Theo.H.Oltherer made the following remarks regarding experience in these countries. "We know that the gap between the 'Haves and haves nots' is really the gap between the informed and the not-informed. Our experience equip us to help to create the intellectual and material conditions necessary to bridge this gap and to bring the socities outside the written world inside".

Some people may question these efforts to broaden the circulation of the word. Why is to so necessary that they should be informed or that they should be brought 'inside the written world'? Theoretically these arquments concerning preservation of culture and identify are valid. However the situation has got to viewed realistically. These nations are part of a world which is becoming smaller due to the increase in scope of the mass media. The inter-dependance of nations makes foreign issues the concern of every nation. Imported products, argicultural and industrial machinery carry printed matter which must be read. If the people of each nation are to understand their situation they must be informed about the social and political events which take place. The objection to U.N.E.S.C.O. efforts must lie mainly with the benovolent and some would say interfearing manner in which they operate.

Our own efforts to educate here no less than those of U.N.E.S.C.O. are all part of the world wide campaign to make the printed world available to all. It is essential that people be provided with skills in reading and writing if they are to communicate fully their ideas and opinions.

have been further publicised in the many leading articles in the newspapers in recent years. 'National Campaigns on illiteracy advocated ';'The Right to Read', 'The growing illiteracy Problem', 'What Passes for Literacy'?.

Recording the incidence of illiteracy in schools is relatively simple but what of the situation outside schools? Statistics in England have given 5% to 6% of population illiterate. No such survey has been carried out in Ireland but it is obvious from the numbers attending courses set up as part of the Adult Literacy Scheme that many people are illiterate. The scheme has an enrolement of 300 students who learn on a tutor/student basis and about 400 attend the course in Basic English. These figures are an indication only of the number who are aware of their handicap and who had the courage to take the necessary steps to become literate. Concern for the many who have neither motivation nor opportunity to learn has resulted in special television and radio programmes which aim at teaching basic reading skills. They give clear information on where to go for help. The adult literacy scheme in England use a symbol devised to break down the communications barrier and enable illiterates to recognise instantly, where help is available.

A lively look at words and letters with donald gee BOB HOSKINS and GAY HAMILTON PATRICIA HAYES, ROSEMARY LEACH NORMAN ROSSINGTON, MARTIN SHAW Script BARRY TOOK (Repeated: Thursday 10.45 am) Adults wanting help with reading can ring 0232 22488 or send their name, address and telephone number to: On the Move. Room 208, 28 Bedford St, Belfast BT2 7FE

These surveys and comes deal with the situation in Ireland and England only. They say nothing of the Literacy rate in other nations. On a more worldwide scale U.N.S.C.O. have been involved

a vocabulary are those imposed by the persons lack of experience in modes of visual expression. At what stage can a person be called visually literate?

In my search for ideas on the subject of visual literacy
I spent much time examining the area of illiteracy and the
relevance of the written word. This was an effort to form some
parallels between both means of communication.

LITERACY:

'A child will learn little else in today's world if he does not learn first to read properly' In modern life learning depends largely upon one's ability to interpert the printed page accurately and fully Thus if we are to be full members of society we must be able to understand the critiscise the written information concerning our position. Literacy is vital. It is the people who are illiterate who can best describe the restrictions of their position. Surveys have been made in schools to calculate the extent of the problem. One such survey conducted by the 'City of Dublin V.E.C.' revealed that in the year 1972/73 1100 students entered the City's Vocational Schools with a reading age of less than 9 years.... one third of the total first year student population had not yet reached the age of functional literacy. Another survey among first year students at the Central Technical School, Tralee, has shown that 40% of the students could not read properly and needed remedial help' Though these surveys do not represent every school in the country their results however, are sufficiently alarming to cause concern among all those responsible for the teaching of reading and writing. The problems of illiteracy necessary that everyone should be a genius. Everyone is an artist who is ready to make a sketch or a drawing of any object, which he wishes to explain to another, when he finds that language fails to convey his ideas. The art of Drawing, therefore may be attained to a sufficient extent for practical purposes by everyone who exerts the necessary attention and assiduity".

The art of Drawing is a natural gift. I found through talking with people in many areas other than art and design that this is still widely held opinion. As part of one survey I asked a random selection of adult subjects to draw three particular objects (the outline of this survey is given on page 1. II.)

None of the subjects were naturally gifted. I do believe though that the mere fact that they made an effort to draw proved that there was ability, an ability which lacked one thing only, direction and practise.

E.H. Gombrich in his essay 'Meditations on a Hobby Horse' says "We like to assume somehow, that where there is a will there is also a way, but in matters of art the maxim should read that only where there is a way is there a will".

There are basic skills which a person must learn if he is to approach any task with the confidence necessary to achieve a satisfactory result.

'The artist no less that the writer needs a vocabulary before he can embark on a copy of reality' This may seem to contradict the statement made earlier referring to drawing as transgressing conventional means of expression namely vocabularies and set rules of symbols and signs. But the vocabulary referred to here is a visual vocabulary. The only limitations on such a

I speak of drawing not mearly as a means of creating pretty pictures but as it is used to convey ideas and information Through drawing and presenting images we overcome the limitations of printed language. Examples of this concept brought to a specialized level can be seen in our many systems of sign language. Graphic signs and systems are used in widely ranging fields such as cartography, chemistry, astronomy, music, heraldry, railway and traffic signals. We have only to look at the historical developments of language to understand how efficient means of communication developed through abbreviated use of images. These many systems of graphic symbols use visual communications within set rules. These rules are necessary if they are to be universally viable.

In comparison to these media drawing operates within a much less definable set of rules. We can only identify these rules in the conventions of drawing that we are aware of. Therefore to be in a position to use drawing to its maximium it is essential to become well versed in these conventions, and for comparative purposes it would be necessary to know the conventions of earlier civilizations.

Is it because the rules are much less definable that drawing is rarelly used by the average person? In 1853 writers of the 'Popular Educator' had the following opinion on this subject.

"It is frequently asserted that the art of drawing, like that of poetry is a natural gift, and that unless you possess this you can never excel. It may be true that to rise to the highest emminence in any field requires a peculiar bent of mind; but to acquire a useful practical knowledge of drawing, it is by no means

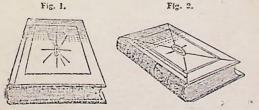
LESSONS IN DRAWING .- No. I.

INTRODUCTORY CHAPTER.

In order to assist our pupils in obtaining some elementary notions relating to form, to colour, and to light and shade, as well as to natural perspective in Drawing, we shall suppose, as a first lesson, that you take up some object, such as a closed book, and that you place it before you in various positions, in order to observe the effect which is produced upon the eye in each of these positions. Three things will particularly attract your attention, when you look at the book in any given position : first, its PORM; then, its coLoun; and next, its CHIARO-SCURO, OF LIGHT AND SHADE. When you have carefully considered and understood the appearance of the book in these particulars, you will be able to make a Drawing of it. If you have never been accustomed to use a pencil, or make a sketch of any object before, your first attempt may not please yourself, or, indeed, any one else; but a first attempt must be made; a second may be more successful; and a third, the most successful of all.

It is frequently asserted that the art of Drawing, like that of writing poetry, is a natural gift; and that unless you possess this, you never can excel. It may be true that, to rise to the highest eminence in any science or art, requires a peculiar bent of the mind; but to acquire a useful practical knowledge of the art of Drawing, it is by no means necessary that every one should be a genius. With regard to the sister arts-poetry and painting-it may be truly said, in regard to their elements, at leas, that every man is endowed with some ability for their acquisition and their application. Every one, for instance, is poetical when he speaks on a subject with which he is well acquainted, or in which he is deeply interested; and, in like manner, every one is enartist, who is ready to make a sketch or a Drawing or any object, which he wishes to explain to another, when he finds that language fails to convey his ideas. The art of Drawing, therefore, may be attained to a sufficient extent for practical purposes by every one who exerts the necessary attention and assiduity. The artisan, the tradesman, or the connoisseur, may, by the use of a few well-directed strokes of the pencil, convey an idea of his plans, operations, and views in relation to artistic productions, of which the most laboured and elegant composition, consisting of many hundred words, would fail to convey the slightest impression to the mind of the hearer or the reader.

But to return to our example already suggested. Let the pupil take up the book before mentioned, and hold it in a horizontal position on the pulm of the right hand—that is, flat, as it would lie on a table; then raise it in this position to the height or level of the chin, with one end towards you, and at the distance of about twelve inches from the face; then, if the front or fore-edge of the book be turned to the right, it will present the appearance represented in fig. 1.



If the hand be held in the same position, but the farther end

of the book be turned to the left, it will appear as represented in fig. 2. And, if the hand be held in the same position, but the farther end of the book be turned to the right, it will exhibit the appearance represented in fig. 3.



In these different positions, you see how remarkably the appearance changes, and still it is the same book. One thing, however, cannot escape your observation, and it is this: that the two ends of the book, especially in the view represented in fig. 1, appear to be of different lengths, although they be in reality of the same length, that end which is farthest from you appearing to be the smaller. Now this is according to a law of nature, the law of perspective, by which all bodies at great distances appear less than the same bodies at small distances, and that in proportion to the greatness of the distance. Every one must have noticed the regular appearance and gradation of the effects of this law, when looking down an avenue, where the trees at the farther end appear almost to approach each other, although you know that they are exactly at the same distance as those at the near end, see fig. 4; or, when looking alongside of a wall of uniform height, and of a considerable length, the top and the bottom of the wall seem to approach each other in the distance.



There are positions in which you may look at the book and not perceive any difference in the apparent lengths of the two ends, viz., when you look down at it from a point directly over the middle of the side, or when you look up at it from a point directly under the same; also, when you hold the side of the book facing you, and look at it from any convenient distance. Generally speaking, however, the appearance of the book, and of the dimensions of its different parts, will very with its position; so that, as the position changes, the appearance changes. A complete knowledge of the laws which regulate these appearances, will enable you to give a true representation of them on paper or canvass; and these laws are known under the name of the principles of perspective. It is plain, from what y have said, that these principles are not arbitrary, and that the are not mere matters of choice or of human invention. There discoverable in all the appearances of nature; and, in until the principles of perspective were well understow tural appearances were not well understood; and, consert the art of drawing was not well understood. It is there have been men who possessed great natural observation,—men who could draw well before was fully understood,—and among these there hav



80 Visual language in action. A selection of visual signs from such widely ranging fields as cartography, chemistry, mathematics, geometry, astronomy, music, engineering, heraldry, shorthand and telecommunications. Also included are railway and traffic signs, military signals and symbols, navigational signs, road signs and some examples from the international language of 'tramps'

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Conclusions from Data Recorded:

The variation in placement of each drawing can be seen in the corresponding graph. The final column of placings is the calculated average resulting from these variations. The number of places of deviation from this average was recorded:

e.g. — stands for one place difference, • stands for same as average. The graph on page I9 indicates the occurance of each rate of deviation.

The conclusion drawn from this chart is that the majority of the assessors established basically similar criteria in judging the drawings.

The high figures of deviation can be traced to two sources:

- (a) Individual assessor, (b) Particular drawing.
- (a) Assessor C varied greatly in the assessment of drawings numbers I8, I9, 25, I6, 8, 7, 20, see graphs.

It is clear that this assessor had a much different set of criteria than those of the other judges. Each assessor did say that personal preferences of style influenced their choice. This may have been more apparent in the judgement by C. It would be interesting to note how the average placement changed if assessor C was eliminated.

Assessor i placed drawing 3 thirteen places from the average and explained that this was due to personal preference. Did this judge use the same criteria in his placing of other drawings? From the graphe it is evident that he did follow the general pattern of assessing ability from fair to poor.

This general pattern is the result of each individuals preference being strongly influenced by established conventions of what is a good drawing or a bad drawing. These are the extremes. The drawings in the middle bracket show the greatest variation in judgement. Many judges admitted that the task of placing these drewings in order was almost an impossible task. The drawings themselves tell neither of outstanding ability nor inability.

In considering this middle group in relation to individual accupation and comments the following conclusion was made.

Most of the people were quite interested in drawing but because of the nature of their work and education they had not given time to developing a confident approach.

The top group showed more interest and were quite confident in doing the drawing. Their occupations may suggest some reasons for this interest. Subject 3. – Engineer, who enjoyed sketching when younger.

5. - Publican who paints and sketches in his spare time.

- 24. Boy who spends a lot of time wood-cutting and making model ships.
- 22. Children's nurse who helped children with work they got in hospital school. She liked to sketch in the evenings.
- I9. 'I hate drawing things on a page and just leaving them.
 I have to do something around them'
- IO. Science Student. Drawing experience in Disection Class.
- 8. 58 year old woman. Liked drawing and calculating distances. Did not like composition of pictures.
- 27. Doctor, certain amount of drawing for practicals.

The people in the lower group were either not interested or had no experience. There was one exception:

I2. Farmer, Building Contractor age 50. Education in drawing in woodwork class. For him drawing was very important in the layout of jobs. He then continued to explain by drawing certain constructions which he would use for description to clients. These drawings prooved that his drawing had been developed for a different purpose than aketching natural forms. He had learned through practicel experience effective means of producing certain objects.

Thus it is clear that in no way is one drawing a total assessment of individual ability, but the relation between occupation and interest and the placing of ability does indicate a certain trend.

Time

I recorded the time taken by each person when drawing the hand. This is shown on the graph. This shows that the drawings placed high in order of preference were given more time than those placed lower down. The eight drawings executed in \frac{1}{2} minute occur below the I3th. average placing.

Future Work

Though this survey was limited it did help to broaden my understanding of the factors involved in making any type of survey.

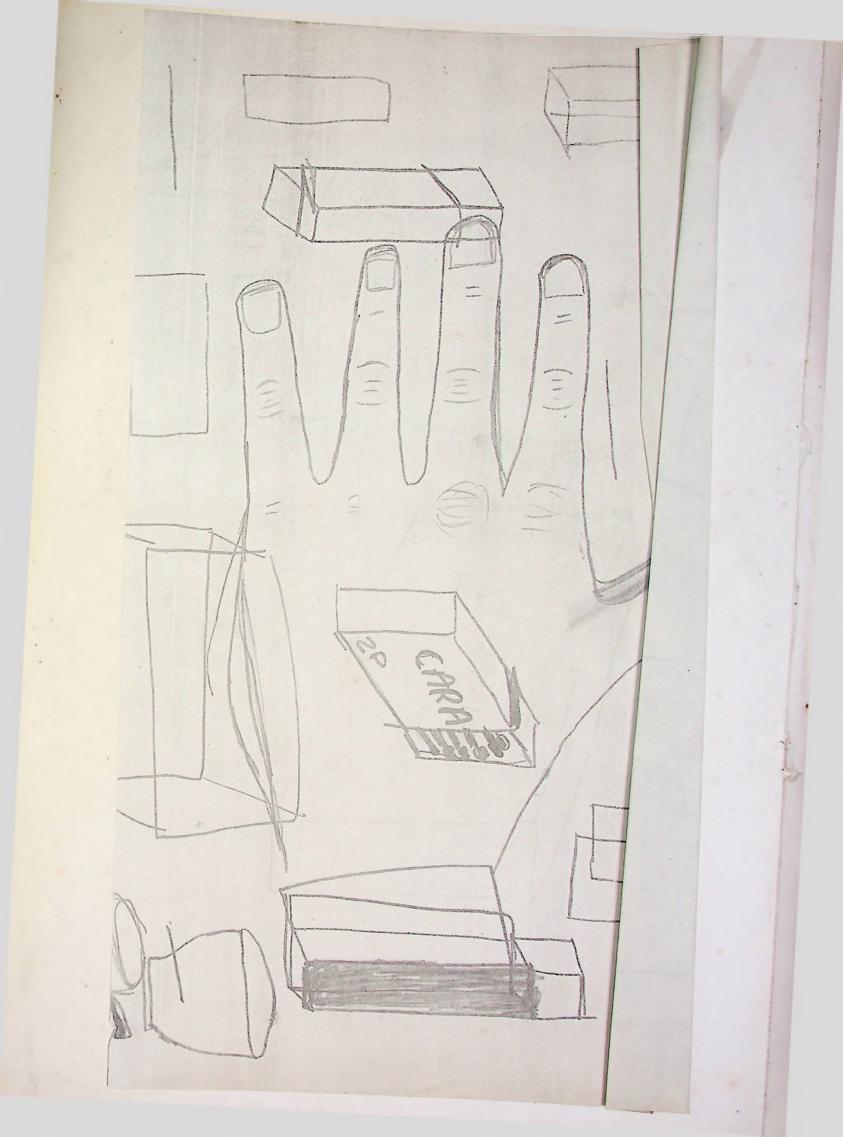
The work could be extended to include more assessors from varied or specialized fields of work. Also the number of drawings could be taken from isolated areas e.g. Town, country or different proffessions – e.g. ARchitects, builders, Housewives.

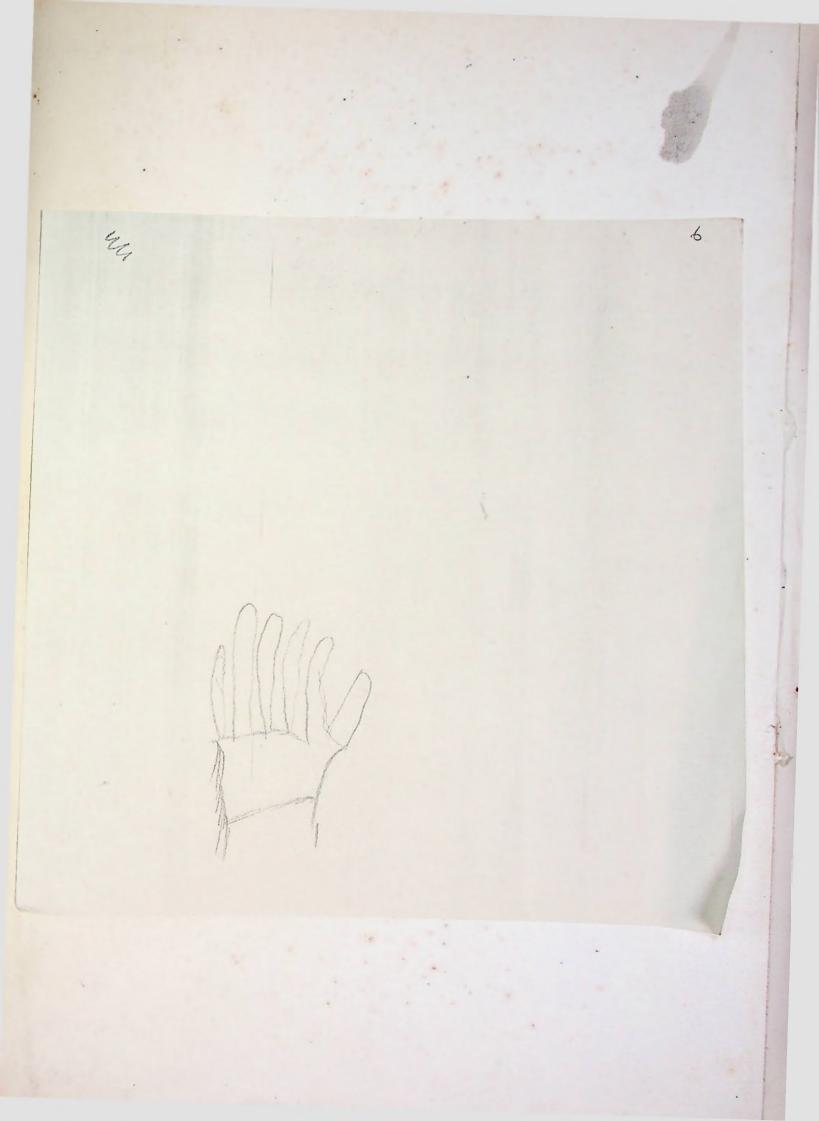
A Survey of Primary School Children (5th and 6th class)
As of yet this survey is only at the first stages with collections of drawings and comments from two schools only. The value of this survey would not be evident until a wider selection of schools could be surveyed, and comparisons made between work of students and policies of education in each school.

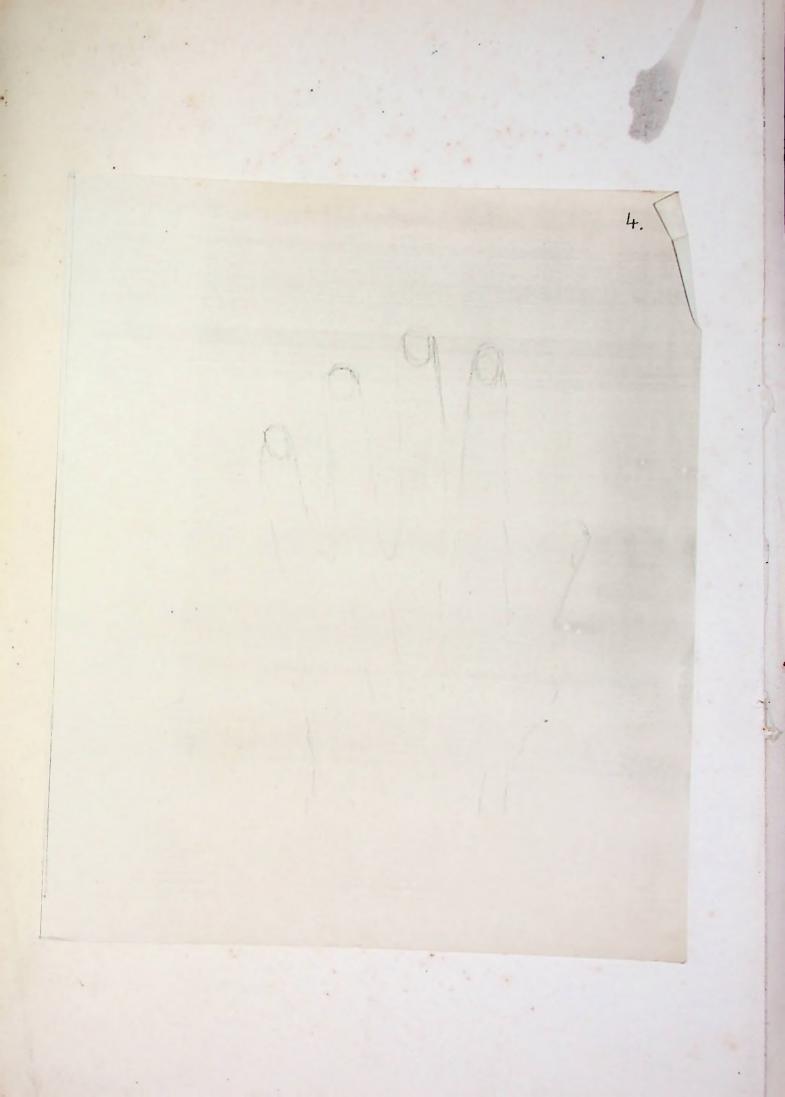
Hopefully this work could be continued next year as my thesis for Principals of Teaching course. This course would offer much opportunity of collecting drawings and discussing the subject with the people involved in teaching





























15. THE FRIENDLY HATCH







19.

