developing a philosophy of art which must use such terms as beauty, form, design, composition, matter, content, pattern, harmony, rhythm, structure, balance, scale, proportion, value, etc.

(1) An examination of the psychological aspects that enter into the field of art appreciation and art criticism, such as perception, association, temperament, psychological types, the subjective and objective approach to art appreciation, artistic expression, forms of artistic expression (realistic, naturalistic, idealistic, romantic, fantastic, imaginative, expressionistic, abstract, surrealistic, constructivist forms and their relation in the history of the Fine Arts), the relation of the appreciation of these forms of expression to the development and integration of the individual.

(c) An examination of the creative activity in human beings in relation to the foregoing and to the development and integration of the individual (self-realisation through self-expression).

(d) An examination and application of Gestalt psychology, which is included here because it has its origin in a theory of visual perception; it postulates that all mental experience becomes organised in the form of structures which when relatively incomplete possess an immanent tendency toward their own completion; it rejects the assumption that isolated local determination of psychic processes ever occurs and maintains that all organic and inorganic stresses tend toward an end: the state of equilibrium or harmony; and because it lends itself readily to an association with art appreciation and practice and has been successfully linked with the principles of contemporary education.

(e) An examination of the sociological aspects involved in the practice and appreciation of art, to be conducted in relation to the History of the Fine Arts, with a comparative
study of art and religion, art and morals, art and environment, the position of the artist in society, art and civilization.

(f) Practical application of the theories advanced in this philosophy of the Fine Arts in the form of art criticism, written on current exhibitions of local artists; appreciative or critical essays on any original works of art available for examination; discussion of literature on art and aesthetics; the administration of art centres, directing of art galleries and conducting of art appreciation classes for adults and children.

2. THE SCIENTIFIC APPROACH.

It is generally believed that the arts develop best in an atmosphere of scientific ignorance, and that the artist's power of expression is due entirely to inspiration or to the ease of continual practice, irrespective of theoretic knowledge. This belief, which an investigation of the studies and activities of any of the masters of the Renaissance would prove to be unfounded, has had much to do with the present day cleavage between the sciences and the visual arts, and is directly responsible for the lack of durability in more recent forms of art, the slip-shod painting and sculpture, and the defective craftsmanship that is a characteristic of nearly all modern art.

The science of art, like any other science, is concerned with certain basic principles that form the framework of empirical investigation and practical application. It is concerned with problems that are vital to both the artist and the connoisseur and deals with the technique of painting: the nature and properties of pigments; the preparation of grounds for painting in oils, tempera, gouache and water colours; chemical and physical aspects of the various materials and
processes used in the arts; colour and light; optical effects relevant theories and definitions concerning the phenomenon of light, nature and properties of materials for sculpture; the technique of sculpture; the making, tempering and sharpening of tools; the conservation of painting and sculpture; the restoration of historic paintings and sculpture; a study of the defects that result from bad technique and the technical history of the Fine Arts.

Courses in the science of art at a university should go far beyond the few practical hints and limited theoretical knowledge which pass for "kunstwissenschaft" today. These courses should be conducted on the same lines as a course in physics or chemistry with lectures in theory, specified periods of experimentation and proving in the laboratories and application in the studios to given problems of practice, conservation, restoration and the comparative study of fraudulent and genuine works (for professional connoisseurs or museum directors). As can be seen from the foregoing, this is the objective approach to the study of the Fine Arts in contrast to the psycho-philosophical approach which is concerned with the subjective factors in artistic expression.

The science of art in its more specialised branches has been greatly fostered within the last fifty years by the foundation and development of museums and art galleries which have taken on the character of research stations for this progressive science and demand special qualifications from their directors and staff. The best of training in this science -- in fact the only training worth while -- was offered by the German Universities which up to the time of the war were known to be the most advanced and thorough in this field. This training has created a new professional career, that of the "kunstforcher", the art expert and museum curator. In England such training is offered by the new Courtauld Institute in London and in the United States of America by Harvard University where the work is done in the magnificently equipped Fogg Museum and directed by Walter Gropius of Bauhaus fame.
While recognising the significance of this approach to art education we must be very careful in our consideration of its importance to our own specific problems. In South Africa there is at the moment very little purpose in providing for the professional training of such art experts because our art galleries and museums are few in number and, not being endowed to spend vast sums of supplementing their collections with masterpieces, do not meet with the same problems and responsibilities with which the directors and staff of European and American galleries have had to cope.

To avoid promoting an absurdity by our new system of art education in the form of a graduate with the qualifications of a professional art expert without any hope of being absorbed to serve the needs of his community, we must select from this special form of training those aspects that can be of direct use to our artists, teachers and art critics, and introduce these aspects into our system so that they supplement and complete our knowledge of art, and do not merely provide some obscure specialization with no bearing on our immediate needs.

So, the science of art — in the ideal system for this country — must be a part of the practical approach in art education, applied in such a manner that it will contribute to both the vocational and cultural education in the field of art. The study of this science should, in addition, be undertaken concurrently with the psycho-philosophical, the historical and practical approaches so that each branches as the Psychology of Colour, for example, and the historical development of art techniques and materials could be viewed in their relation to the whole.
3. THE HISTORICAL APPROACH.

Altogether apart from aesthetics and the science of art, but, as I have shown, in a position where close associations with those approaches, there is the general history of art which deals in detail with the forms of artistic expression from primitive times to the present day, period by period. As one of the most familiar methods of art education in universities and schools, it will not be necessary to describe its nature, but I would like to stress the method of following it that I believe to be the most likely to lead to a satisfactory conclusion, namely the 'comparative' method.

In the historical approach the relation to the psycho-philosophical is established by a concurrent study of the contemporaneous works of writers on art and philosophers in addition to a study of the works of art of that period, so that at all times during this study of the History of fine arts the significant associations of art and environment, art and politics, art and religion, art and customs, etc., can be used to ensure a more positive knowledge and appreciation of the periods under consideration. It should be noted how the art of each period enlightens the culture of each period; the formations of styles and mannerisms should be noted; the influences which spread from age to age and from land to land should be traced; the manner in which the artist used his material, the significance of technique and the function of the work of art in relation to the life, customs and environment of the people of each period should all be examined in studying the evolution of the artistic activity of mankind.
This comparative method has not been applied to our present University courses, which cover little more than a superficial survey of the historical trends of architecture, painting and sculpture, supported by a limited number of convenient textbooks on the subject. In view of the fact that we also lack direct and personal references to historic works in museums and galleries, such courses are unsatisfactory and their value in a cultural education is extremely limited.

The subject can, of course, be efficiently presented by dealing with it objectively, concentrating on purely historical and archaeological facts. Such an objective study has its advantages since it will reject the emotive propaganda spread—consciously and unconsciously—by enthusiastic admirers of either primitive, classic, renaissance, post-renaissance or modern forms of art. These propagandists, who can also be found amongst our art historians and art philosophers, very often mislead students into dismissing one period as bad or blindly accepting another as good without considering their own individual reactions to the works of such periods. But if we are concerned with culture and the integration of the individual, the history of the Fine Arts must be regarded as an anthropological study and a source of reference in solving contemporary aesthetic problems. In addition, as I suggested in the previous chapter, greater attention should be given to the vital art forms in South Africa: the naturalistic or organic art of the Bushmen and the geometric and anthropomorphia art of the Negro which we can study here at first hand.

4. THE PRACTICAL APPROACH.

In Chapter 5 of this work I presented certain evidence regarding the creative activity of humans to support my claim that creative expres-
sion in forms of art is not a special or esoterically form of human behaviour, but is a normal characteristic of man and must be regarded as a normal function of human reaction to experience, and that this universal process operates in a specific manner in the field of aesthetic experience and behaviour, and has a special significance in the integration of the individual and the equilibrium of the society of which he is a member.

We are now concerned with the practical means that will ensure a manner of expression that will be "fluent", convincing, direct and lacking in none of the essentials that are required in an art form to lead the individual to self-realization, to objectify the special experiences of the artist so that they can be communicated to the spectator and so complete, with a positive degree of efficiency, the function of art. This end is achieved by the practical training in art expression and embodies many facets, two of which are of especial concern here, namely, the training of the teacher who will guide children and adults to integration through expression and appreciation of art, and the training of the professional artist in his specialized form of expression in the fields of either painting or sculpture.

The results of the "Bauhaus" system of training is well known to all modern art educationalists and in our survey of essential considerations for a practical system of art training in South Africa the achievements of this organization (which is now functioning in the United States of America at Harvard University) cannot be overlooked.
The existence of this famous school for architects and artists was brought about by the initiative, courage and ability of a handful of brilliant scholars and artists with the architect Walter Gropius at their head. These men had realized that the academy system had lost touch with reality, that it had become the typical embodiment and chosen instrument for the "l'art pour l'art" mentality which was withdrawing the artist from his proper function in society, lulling him into a dream of genius and leaving him unequipped for his struggle for existence. These men recognized the fact that this preoccupation with the production of "geniuses" was forcing the majority of the academies' pupils (for all could not attain this distinction) to become social drones. They also saw that true national art, pulsating through every branch of human activity was dying from a surfeit of imitation of historic types of art and the aesthetic speculation which was substituting "good taste" and eclectic adaptability for creative expression.

Working from the same basic principle that has been the foundation of this thesis (that art is socially, economically and spiritually indispensable to the "wholeness" of society) they evolved a system of training that ensured a synchronization of mental and manual development of the artist's ability to create. This training, Walter Gropius said, should "develop and ripen intelligence, feeling and ideas, with the general object of evolving the 'complete being' who, from his biological centre, will be able to approach all things of life with instinctive certainty and will no longer be taken unawares by the rush and convulsion of our mechanical age" and, he went on to say that "only when understanding of the inter-relationship of the phenomena of the world around him is awakened at an early age, will he be able to incorporate his own personal share in the creative work of his time."

1 Walter Gropius, Essentials for Creative Design ("The Octagon", Journal of the American Institute of Architects.)
The manner in which this system was effected began with a rejection of the traditional specialized training of the artist which did not clarify the meaning and purport of his work, nor his relationship to the world. The old idea of school was replaced by a working community where the powers and talents inherent in its members were united in free group labour organized to integrate living.

The basis of the preliminary training of the artist, as laid down by the Bauhaus system, is the one on which the art training in our schools should be founded. This system embodies a comprehensive course introducing the pupil to proportion and scale, rhythm, colour, light and shade, at the same time as he is passing through every stage of primitive experience with materials and tools of all kinds in workshops and studios. It enables him to find — within the limits of his natural gifts — a means of expression as well as a receptivity for a real appreciation of art forms; it concentrates on the development of manual skill, the understanding of materials and training the powers of observation and thought, and it forms the only foundation upon which advanced or specialized training can be successfully based.

The subsequent professional training differs from the preliminary training only in degree and thoroughness and not so much in the essence, because the essential feature of the Bauhaus system is the unity of its entire structure in all stages of development. The curriculum includes craftmanship, collaboration on problems of design and construction, experiments with materials and a comprehensive study of the social, formal and technical aspects that enter into the modern practice of art.
This insistence on working strictly in terms of the present is one of the characteristics of this system that makes it seem more promising than any other for application in South Africa, where the European traditions of art education have not survived transplantation.

If our tradition-loving and conservative authorities would like some precedent to justify the introduction of such a system into our methods of education, the History of the Fine Arts can provide an example in that phase in the development of art called the Renaissance, which did, unquestionably, reach the highest peak of creative expression in the history of the artistic activity of mankind.

The Florence of the Renaissance enjoyed the reputation of being the city of the most elevated political thought and the most varied forms of human development. So acute was the appreciation of the significance of culture in every sense of the word, that despite the incessant political and social intrigues, the minor wars and the general uncertainty which raged about it, the Florentine spirit remained artistically creative as well as keenly critical and discriminating. In such surroundings only a man of consummate address could hope to succeed. Each candidate for distinction was forced to make good his claims by personal merit, and show himself worthy of the crown he sought.

The high degree of achievement reached by men like Giotto, Masaccio, Botticelli, da Vinci, Michelangelo — to mention only a few — speaks volumes for the significance of the Florentine spirit. By comparison the leading artists of today are pigmies, their efforts puny and confused, and it is this comparison that makes us search for the reason for such a tremendous discrepancy. Obviously, the approach...
must be by a study of the training which these men had to go through before they could be launched on their respective careers. And by such a study our own shortcomings are ruthlessly made bare; for the superficiality of our educational system, leading to equally superficial specialization, does not provide an artist with even the barest fundamentals of the theory of aesthetics or the basic principles of the scope of the artistic faculty.

During the Renaissance no artist could hope to succeed until he had mastered every aspect of art, the technical as well as the aesthetic. His knowledge was assimilated in that nearest to perfect form of art school possible --- the bottega. Here his training, as described by Eugene Savage, included the entire range of plastic arts, all applications of design, sculpture in relief and in the round; architectural details of every conceivable type --- doorways, pulpits, doors, mouldings executed in wood, stone or bronze; designs for buildings secular and ecclesiastic; compositions for murals covering entire wall areas, or more restricted details for altar pieces; individual or family portraits. Here he learned to mix media, to grind colours, to carve and model, to prepare surfaces for painting, to burnish gold and to cast in bronze. He listened to, and sometimes took part in, the discussion of specifications and plans for great projects, heard the reasons for changes of motive, for subtleties of line or mass in composition, for certain effects in colour-relation, and learned the intricacies of the structure of domes and vaults.

On the fresco platform with his master he learned what kind of convention in figure, foliage or drapery was more easily read as such from the floor, and how infallibly the device of value distribution

enabled him to spin out a subtle and magnificent
pattern. And his master was often at once archi-
tect, engineer, sculptor and painter — sometimes
literary man, musician and scientist as well.
The theories of aesthetics were not assimilated here
for reasons of intellectual snobbery, but because
a knowledge of them could be applied to the work in
hand. And this fact contributed to the amazing
achievements of the Renaissance artists.

Another aspect of their training was the intensive
study of the forms of ancient times. They began
with the nearest means of approach, namely, the works
of the Romans, which were closely subjected to the
discriminating analysis of the characteristic
Renaissance mind, the development of these works
was traced to their source and utilized to express
the spirit of the new age. Here was no mere revival
of antiquity, but a genuine recognition of the im-
portance of the historical background and the realisa-
tion that it was a sound approach to such a compre-
hensive subject.

The wide range of problems on which the artist
was employed brought him to maturity richly endowed
in knowledge and experience. Tradition, theory
and practice gave him the means to a full expression
of his individuality. In the bottega he learned
the relationship between architecture, painting and
sculpture, the essential elements of composition,
every aspect of practice, technique and design.
Inspired by the enthusiasm of his master, he studied
the art of the past, realising that to contribute
constructively to the future, he had to be familiar
with the forms of the past. In continual and
close association with all schools of thought in
his city, he was stimulated to explore the fields
of natural history, mathematics, music, drama and
literature. Continually adding to experience and
knowledge, he came to give
a vast storehouse of knowledge, he came to give
expression to an art before which, despite the
advancement of five centuries of civilization, we
stand amazed.
By comparison our own slipshod methods of art training are pathetically inadequate. A student of medicine, on the other hand, is not permitted to escape a rigorous training in general surgery because he intends to spend the rest of his life prescribing mild correctives for minor ailments. Nor is a law student who wishes to confine his activities to conveyancing allowed to escape Justinian. An architectural student cannot scorn Vitruvius because classic details are no longer applicable to buildings of concrete, steel and glass. But the artist, we find, is allowed to practise even the most rudiments of his branch of art are only vaguely known to him, and the historical background of his work is shrouded by ignorance and indifference. He may have been trained to draw, paint or model from nature with some conviction, but often knows nothing of the responsibilities of design. For him the function of art is little more than a materialistic pursuit or the expression of an ego so limited and impoverished that it might well have remained inarticulate. And the lack of discrimination on the part of the public encourages him in the production of tenth rate work — the same public that would go up in arms if a laboratory assistant or an orderly at the hospital claimed enough knowledge of surgery to perform on it a dangerous and delicate operation.

The notion that the rigours of an intensive training are inclined to destroy originality does not speak very highly for the amount of originality possessed by a student holding that view. The Florentine painter went through such a training and in no phase of art development is originality forcibly expressed. Every artist worthy of consideration will show his originality no matter what form of training he has enjoyed, but training on the bottega system is more likely to ensure his ultimate success than any other. This plea for originality at all costs has assisted in plunging modern art into the confusion which now exists, with our leading
artists behaving as though they were the high priests of a restricted cult practising its esoteric religion in the seclusion of an intellectual fortress whose fastnesses deny entrance to the "uninitiated".

If we are to have better art training, and in due course better art, the clutter of separatism, superficiality, charlatanism and inefficiency must be swept aside; we must come down to basic principles. The art student must be equipped with the knowledge, the power, the skill and experience attained by the masters of historic times. Upon that foundation only can he build according to his individual talent.

The time has arrived for a revaluation. The weakness and futility of the Beaux Arts system has been revealed by the banalities of eighteenth-nineteenth century academic art and the brutalities of nineteenth-twentieth century revolutionary art. Today we are no longer thrilled by innovations, we are suffering from an excess of originality and are weary of revolutions. Our aesthetic needs require something less complex and something more stable than the nourishment at present provided, and our art training must be revised to form a fundamentally complete and balanced structure in which the intimate and personal can find an orderly and convincing expression of beauty.

If we take as our model the bottega — the real workshop of the masters, the system of training which develops the highest expression of the creative ability — we may arrive at a point where our achievements can be measured more favourably with those of Giotto, the Lorenzetti, della Francesca, da Vinci, Michelangelo . . . .
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