THE MUSEUM AS A SETTING FOR NEW LEARNING

Thesis submitted for the degree of

Doctor of Philosophy

at the University of Leicester

by

Aviva Barnea

Department of Museum Studies

University of Leicester

December 1989

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION

This thesis 'the Museum'(1) as a setting for new learning is intended

to validate the hypothesis that the museum as a value, set aside from

other cultural institutions, has the potentialities to create new

learning.

> The word 'learning' rather than 'education' implies a programme
> of instruction, a syllabus and a certain formality. Learning
> also implies an everyday activity...and museums provide the
> opportunities to learn, but they are not schools (Feber, 1987,
> p 85).

Therefore learning is the embodiment of education, and through

learning educational goals are expected to be attained in new ways

that are in the spirit of progressive education that sees the

youngster and his needs as an active member in society of today.

The main objective is to set a long experience of pedagogy in museum

education at the Haifa Museum Education Centre (1957-1989)(2) in a

theoretical framework.

> 'The realization that learning is largely dependent on events,
> in the environment with which the individual interacts makes it
> possible to view learning as an occurrence that can be examined
> more closely and understood more profoundly' (Gagne, 1965, p 2).

---

1. The term 'museum' or 'art gallery' is used in this research

following the ICOM definition of a 'non-profit making, permanent

institution, in the service of a society and its development, and open

to the public'. (ICOM 1974). As referred to by G.D. Lewis in the

Manual of Curatorship (1984, p 7 and Note 1, p 20).

2. Haifa Museum Education Centre is abbreviated to The Centre.

The relevance of the content to the educational problems has pointed at the museum as a resource which has not yet been explored for education. 'Only a few sociologists or cultural theorists have directed their attention to the museum as a site to study' (Hooper-Greenhill, 1988, p 216).

The dependence of learning on circumstances such as the birth of the State of Israel in 1948, implies a great responsibility for the young generation and had posed a challenge for educators.

This research attempts to consider the sets of circumstances both socio-cultural and environmental that justify the conditions of learning at the museums as well as the content that is transmitted to learning audiences.

Our goal can no longer be merely to attain a sum of knowledge, it must be above all the education of an harmonious person (Jelinek, 1975, p 52). A person who is identified socially with his comunity and is aware of others' cultures. Setting off by looking at museums in their contemporary social context, we consider museums as public institutions that have a role to play in the socialization process.

Social processes that began after the second world war, have challenged the traditional patterns of education. Schools went through major changes, e.g., from being institutions of learning for the few, to being institutions open for everyone. Three movements, or processes, can be observed in education since the fifties. First, the cognitive-technological processes that began at the end of the

fifties, and reflect a materialistic approach to life. It was at its height in the sixties, and is losing its impact in the last decades.

Second, the humanistic-personal process that began in the fifties and sixties that turned against the established educational systems. It has become stronger and dominant in the spiritual educational climate of today. This involves the consideration of the personal needs of the child and adolescent as a consumer of the industrial age.

Third, the radical futuristic process challenges the basis of the educational establishment.

The first two processes, despite their difference, have a common goal, to cope with the problems of modern education by introducing solutions within the existing educational framework. The third process tries, through experimentation, to detach educational programmes from traditional pedagogy, the explanation for such changes in attitudes towards theories, is to be found in social changes (Lavy, 1984, pp 13-14). This relationship between schools and social changes would require a separate study, that can not be included in this research.

After a long history of being associated with education, the museum has emerged as a setting of new learning within the last few decades. The transformation from the museum's general function of education, to the defined one of 'new learning' has not been of a revolutionary, but rather of an evolutionary sociological process, that is accelerated lately, and connected to the spirit of the time. Museums in Europe became responsive to learning objectives of an array of

learning audiences, of which the most conspicuous are the pupils and students (CECA, 1987, p 12; Heine, 1979, p 23).

The extension of the social range of the museums' concerns, in the post world war period, is a new departure (Bennett, 1988, p 64). Museums intentions concerning the public, began to get shaped and defined. Consequently museum education role in developing countries, got a special mission of fighting illiteracy, such as in South American countries, and imparting knowledge for the sake of cultural awareness in multi-cultural societies, such as in Israel and England.

The immediate reasons for the emergence of new educational plans is the element of relevance to problems. The challenge of these problems is to find the relevant content of educational problems that are supposed to be examined in the context of a specific society and of general education, and apply the findings to educational programmes. The content of the educational programme has its own theoretical rationale. The rationale is based on writings of Simon (1964) and Young (1971), who approach school curricula as socially organized knowledge. The analogy to museum curricula is through this same approach. Therefore we selected the theme of cultures which serves educational and social objectives; a subject that can be taught through museums' collections in a way that no other educational institution can offer.

The Centre serves in this thesis as a case to exemplify the relationship that exists between the socio-cultural situation in multicultural societies in developing educational programmes.

Programmes that cope with the objective of socialization of the individual (Erikson, 1959; Berger and Luckmann, 1966; Durkheim, 1971). An objective which is one of the key roles of the museums of today, (ᴀɴoɴ, towards a new millennium, 1989).

Hence, we have searched for a wide range of disciplines that grant this research an interdisciplinary nature which conforms with the interdisciplinarity of museums (Riviere, 1980, 1985).

We referred to the fields of education such as general education, visual, art and museum education; to sociology of education; to history and philosophy of museums. A main source for building the museum learning methodology was a continuous museum education experience at the Centre since 1957. The analysis of the museum as a setting for learning by theory and practice are combined to one unit, thus providing this thesis with an insight into the structure and process of learning at the museum. New learning at the museum has been achieved due to the theoretical background, because it is impossible to innovate in the experimental field without being directed by the thought and ideas (Piaget, quoted by Bringuier, 1988, p 24). Ideas that are bound to develop due to social and cultural factors.

In order to analyze this assumption that the museum is a setting for new learning, a structure is needed; structure that is built on the elements that participate and interact in the making of the museum a place of learning: the learner, the object, the museum environment, and the museum educator. Learning is linked to the design of

instruction through consideration of the different capabilities that are being learned (Gagne, 1965, p V).

The philosophy, a theory of learning, intends to bring a synthesis among the different elements, each with its own qualities and characteristics. By combining them together, the relationship among the participating elements is revealed. We examine the different elements and factors that make the museum a setting for new learning.

In the study The Centre's present state is described. The discussion focuses on the Museum Modular Curriculum that is planned in correlation with the schools', primary and secondary curricula. The diffusion of the museum's concepts and methods have succeeded because of the collaboration with the schools' management and teachers. This secures the future of museums - the future of culture. The museums have an important part to play in the circulation of knowledge and spreading of general culture in a world which learning is becoming increasingly specialized (Kopeczi, 1989, p 4).

The research of both theory and practice in the museum as a setting for learning, gains a special importance in viewing the latest development in the national curricula; the 'Basket culture' educational programmes in Israel (1989), The GCSE (General Certificate of Secondary Education) (1987); the perspectives that are included in the Education Reform Act (1989) in England and Wales (Goddard, Moffat, Davies, 1989, pp 21-27).

The validation of the hypothesis that the museum is a setting for new learning is reinforced by introducing educational innovative projects that are pointers to future developments in the world of museums; projects that signify the trends of collaboration among museums and cultural institutions that apply the interdisciplinary approach to museums and to education.

Figure No. 1: Thesis organization and structure

CHAPTER I
Introduction

PART I
CHAPTERS 2-4
Social and Educational Ideology Rationale and policy in Israel in the pre-State period, late 1950s and 1960s

PART II
CHAPTERS 5-7
The Museum and Education

PART III
CHAPTERS 8-9
Theory of New Learning in the Museum

PART IV
CHAPTERS 10-11
The Museum as a Setting for New Learning: The Haifa Museum Education Centre: A Case Study

CHAPTER 12
Conclusion
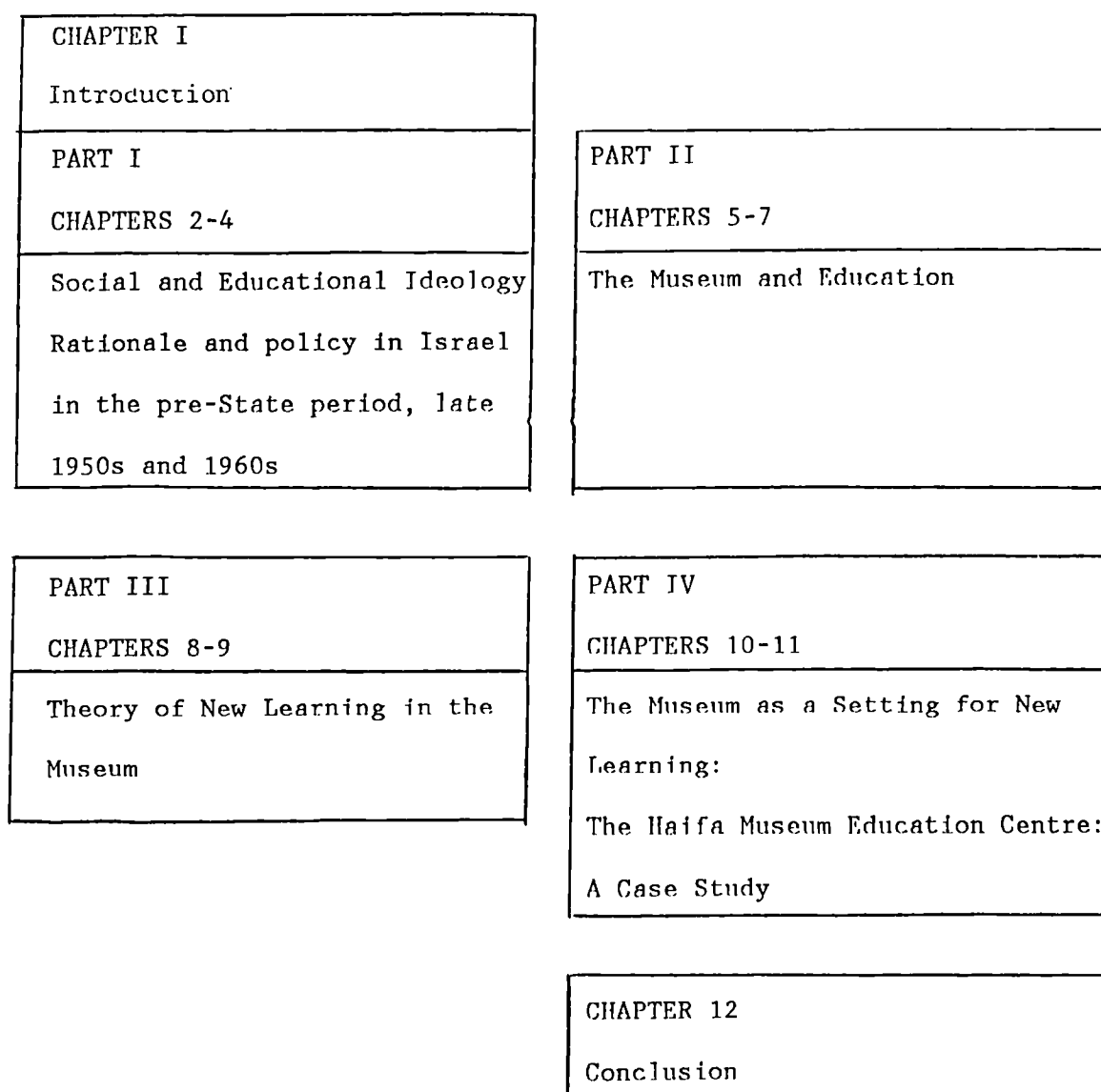
Figure No. 1 Thesis Organization and Structure.

PART I

SOCIAL AND EDUCATIONAL IDEOLOGY, RATIONALE AND POLICY IN ISRAEL

IN THE PRE-STATE PERIOD, 1950S AND 1960S

INTRODUCTION - PART I

Theories discussed by British scholars in the early seventies and eighties, have provided new approaches for examining education relating to the knowledge transmitted by educational institutions and schools.

> It would have seemed that a field which was concerned with the social conditions influencing the development of knowledge, and with attempts to place ideas in the socio-historical setting, would have regarded educational institutions and how knowledge is selected and organized in them as an obvious area for research (Young, 1971, pp 26-27).

In this work the museum is discussed as a place of learning, thus an educational institution similar to a school from certain points of view, but different from others.

Examination of Israeli society and its problems against the background of the fifties and sixties will provide us with historical insight.

It is the aim of these chapters to examine the relationship of reality and education in Israel in the pre-State phase until 1948 and later in the fifties and early sixties. Reality that influenced the development of educational institutions, both ideologically and structurally Education was expected in its formal and informal frames to cope with the socialization of masses of people, young and old, coming to Israel from diversified cultural and economic backgrounds from 1948 onwards. Socialization has been the ultimate objective for society, but without neglecting the

individual's(1) mental growth (Erikson, 1959, p 52) as a member of society.

Landmarks in the history of education can be observed during the first years of the new State, when 'equal education' was the line in the building of the curriculum. This was in accordance with the ideologies and aspirations of the founders of the State. Later, towards the end of the sixties, a new line was adopted, one of equal opportunities in education, where individuals are assisted to be active and encouraged to develop their abilities (Dewey, 1938; Piaget, 1973, pp 174-175). A search then began for a new and different answer in the educational field.

In the mid-sixties, museums in Israel had hardly participated in the process of education. Until then, museums in the cities were small institutions, mainly engaged in acquiring and preserving collections, conducting research and building exhibitions. Later, society's affirmation about the museum's role in culture found its expression by allocating funds for building the Israel Museum in Jerusalem (1965), and the Museum of Modern Art in Tel Aviv (1971). The museums in Haifa, however, are still in a state of anticipation, waiting for new premises. The museum's law was affirmed later by the 'Knesset' (Parliament) in 1983, and reads as follows:

Museum Law, 1084 - 1983 (Excerpt on Education) Museum is a non-profit institution. It includes a collection of exhibits of cultural value.

---

1. For case of exposition, the pronoun 'he' will be used in its generic sense throughout this research (Gardner, 1983, p 5).

The museum permanently exhibits the collection, or part of it, to the public.

The aim of the exhibition is to foster education, learning or pleasure.

The very first project of museum education was launched in Haifa in 1957. It began in an informal way, as an afternoon activity in the Museum of Ethnology and Folklore Archives, which was located in a cellar. However, the museum exhibition, as well as the collections, provided *rich resources*, *for developing* an educational programme that aspired to accomplish two main objectives.

1. A social objective: creating communication among youngsters alien to each other's culture.

2. An educational objective: building new frames of knowledge', which can be realized by means of curricula and pedagogy, (Bernstein, 1971, p 47).

Much experience was accumulated through building multi-cultural programmes in these afternoon courses from 1957 to 1965. It has served as a model for on-going formal programmes since 1965 (Barnea, 1967, pp 665-668).

The activities that began in one museum of Ethnology and Folklore Archives spread to other museums where new spheres of human culture were taught. For instance, the life and art of prehistoric man were taught in the Museum of Prehistory; ancient cultures of Egypt

and of the classical world in the Museum of Ancient Art and in the Maritime Museum; contemporary art in the Museum of Modern Art; and Japanese culture in the Japanese Art Museum.

The diversified collections of the museums lent themselves to constructing a modular museum curriculum relevant to the different subjects of the school curricula for elementary and junior high schools. Thus, a unique programme has evolved, linking the museums in a city-wide system of education, initiated by The Centre of museum education in Haifa.

CHAPTER TWO: IDEOLOGY AND EDUCATION

The relationship between ideologies and patterns of education in

Israel: Historical development

The establishment of the State of Israel in 1948 can serve as a significant point of departure for an enquiry into the relationship between ideology and education. However, this year of 1948, (Lissak 1970, p 179), is an arbitrary one because actually there was a gradual development, causing changes of a social and ideological nature, gaining impetus with the establishment of the State. In analysing the historical development of the Jewish pre-State society, it can be defined as that of a politically oriented society, processes which were taking place in the State of Israel are rooted in the pre-State epoch (Horowitz, 1977, p 9). We learn about intensive ideological disputes resulting from an ardent aspiration to become a nation like other nations.

However, among the different political movements, the dominant one was the Zionist ideology. The Zionists believed in changing the reality of the Jewish life by building a new reality in Israel. Thus, they followed an ideology, which is 'a set of ideas through which people explain and justify an organised social activity, to repair and uproot or build a given reality' (Sellinger, 1970, p 325).

The educational project treated in this research began as a search for a new answer to the special problematic socio-cultural situation that prevailed in Israel in the late fifties and the sixties, a society that was confronted with tremendous hopes of building a new State for the Jewish nation, despite the tremendous problems. The State was newly born (5 May 1948), frames of social structure were changing, and Israel became a society in a State of transition. Overwhelming numbers of newcomers tripled the population

in just a few years because of the law allowing every Jew the right to return to his homeland Israel (1950). Before 1948 the population grew and developed slowly, due to restrictions enacted by the British Mandate (1917-1948) forbidding immigration of Jews to Israel. After 1948 the homogeneous population had to withstand a new situation, namely, absorbing the newcomers who were different from each other, but for their common Jewish heritage.

Knowing each other's cultures seemed to be the most important goal to be achieved in this multifarious society. Thus it was imperative to overcome the lack of communication among people, strangers to one another, which caused alienation and misunderstandings.

The important role of education in the life of the new society was signalled by the enactment of 'The Law of State Education' (1953), following 'The Law of Compulsory Education' (1949). This law of State education was supposed to end the different systems of education that had been formed in the pre-State years. Until 1953 there existed three organized systems of educational institutions, which belonged to different ideological and political movements or parties and were founded as follows: The general-national stream (1913), the religious stream (1920) and the Zionist-Social stream (1926). The three streams were approved by the Zionist Active Committee. However, in 1939 the three systems came under the administration of the Jewish National Committee, but they still retained their own special traits (Reshef, 1985, p 366).

The elementary and secondary schools, as well as teachers'
colleges and other institutions, were built differently, their
structural organisation as well as curriculum reflecting their
aspirations.   Side by side, there developed the secular education
for the majority and the religious education for a smaller part of
the population. Political ideologies influenced structure and
curriculum, as Benton seeks to show: '....that education and politics
are in fact closely connected aspects of our lives in society' (1974,
p 9).

It is noteworthy that there were small groups of orthodox Jews who
ignored the Zionist world outlook of Jews returning to their
homeland.   They managed their educational institutions
independently. This group believed in the redemption of the
nation by the Messiah.   They preserved their conservative way of
life, their folklore and communal life, including educational
institutions like those that existed in central Europe.   In the
'Kheder' (a study room for young children) and the 'Yeshiva' (an
institute for youngsters) the children and the youngsters learned
only the holy scriptures, the Jewish lore.   The teachers in
these institutions were evaluated by the religious community
according to their intellectual capacity, their knowledge of the
scriptures, but they were not asked for teaching credentials.

The parties were not only political organizations for their
members, they also founded economic and socio-cultural
institutions, such as sports clubs, children's dormitories,
women's clubs, libraries, newspapers, as well as school systems.

However, the majority of the Jewish public, the 'Yishuv' shared common national as well as social ideals, despite the political differences that existed among its segments.

The national Zionist movement coincided with the spirit of nationalism that swept Europe at the end of the 19th century and the beginning of the 20th century.

The socialist-Zionist movement was influenced by the spirit of the Russian revolution. These ideals influenced thousands, among them many students from Russia, Poland and other Eastern European countries. They aspired to combine national ideals with socialistic ones, in order to build a new and right society in Israel. Berl Borokhov (1881-1919), one of the famous ideologists and theoreticians of the Socialistic Zionist movement, described in a picturesque manner the desired change that Jewish society had to go through. He compared Jewish society to an upside down pyramid that had to be converted and set on its base. Namely, there had to take place a change from a society of unproductive individuals (such as merchants, peddlers, bankers) to a society in which the majority of the people would be productive workers (Borokhov, 1953).

The people who responded to these ideals and arrived in Israel before and after the First World War, were the pioneers, the forerunners of many others to come. The spirit of productive work, physical and manual, was pronounced by A.D. Gordon (1856-1922), a unique personality who became the leader of the

pioneers' movement in Israel. Gordon was a follower of Tolstoy, who believed in changing reality through one's own deeds, his main idea was 'work as an ideal'. He came to work in Israel in his later years to realise his ideal of physical work, joining members of a collective settlement, Degania, in the Jordan valley (Gordon, 1951).

Ideology, such as the constructive socialism was an influential factor in building a working and learning society. Ideology and values were intended to materialize the Zionist dream of a newly born nation in his own land (Shakhar, 1974, pp 19-24). It demanded the encorporation of the value of work in education (Ran-Polani, 1930, pp 7, 9).

The ideals of the socialistic-national movement found their expression in the organization of the schools and institutions, which the labour movement founded in the cities, villages and collective settlements (kibbutzim). The founders called the new type of schools 'houses of education for workers' children'.

In 1931 an educational institution of this kind was founded and named after A.D. Gordon. It was built on the foundation of a private institution, that had been previously initiated by parents and teachers in Tel Aviv. The school was primarily a realization of an aspiration of a few teachers, who were influenced and intrigued by Dr. Grossman, an American educationist, who lectured about Dewey's Progressive Education, Theories of School and Societies (1900) at the teachers' college in Jerusalem (1926-28). The young teachers' ideals at the college about progressive education

coincided with the ideals of the labour movement that needed a school that would follow its ideals (Zak, 1981, pp 13-17). The school got its new name when it came under the supervision of the central cultural committee of the 'Histadrut' (Federation of Labour), that initiated in the twenties a new framework concerning various aspects of social life in Israel.

The pioneers aspired to create a new society, and the school was considered one of the most important vehicles for achieving this ultimate goal. Educational principles reflected the founders' social ideologies, which were defined and incorporated in the school frameworks.

Each school was organized as a self sufficient unit, with its garden and kitchen, as well as other necessary facilities. The school's activities were organized by the children's society, and teachers had only a consultative role at school. Social awareness was encouraged by discussing actual events in a forum that the children organized.

Manual work in the school's services, as well as in vocational courses, such as book-binding, carpentry and gardening, was highly esteemed. They were looked upon as preparatory courses to train the youngsters to become future workers in agriculture and industry. The other aspect of work was aimed to self realization through work.

We may define the school programme as a child-centred one. The educators who planned the school structure and curriculum planned a comprehensive programme that provided the studies and the training schemes for the youngster to develop his own capacities, as well as to become a contributing member to society. The growth of the individual given a reasonable amount of guidance can be trusted to obey inner laws of development, which create a succession of potentiality for significant interaction. Interaction that varies from one culture to another (Erikson, 1959, p 52).

A renowned scholar Riger (1940) summarized the special traits of the 'houses of education for workers' children' (Reshef, 1976, p 378). The school can be called a progressive school, judging by its pedagogic methods and human relations practiced there such as: The school is oriented towards a working society and those ideals influence its educational goals; its progressive education has been moulded by the labour movement; relations among teachers, pupils, teachers and parents can be defined as direct and open; independent research and work of the children is encouraged and tutorship is extended when needed.

Another kind of elementary school that was developed in the same spirit was in the kibbutz. The school was not considered as just a place of study, but it comprised most of the child's activities during the day; It was full and well-rounded education. The schools in the kibbutz continued to educate in the same way even after the houses of education for workers' children stopped functioning.

The curriculum in the kibbutz varied considerably from the curriculum in the city, the official one. Prominence is given in the kibbutz to nature study (home) and geography. Classes are smaller (20-25 pupils at most) than in the city where classes number up to 40 children. The smaller classes enable the teachers to develop methods for individual or group work. Social problems concerning children were referred to the pupils' council (Bentwitch, 1965, p 114).

As previously mentioned, shortly after Statehood two laws were enacted in relation to education. The first was the law for compulsory learning (1949), that intended to have every child attend school. Until the advent of the War of Independence (1948-1949) children could be seen selling all kinds of merchandise in the streets, while the older ones worked in small shops, learning a trade. After the enactment of the law, parents were obliged to send their children to school.

The implementation of the new Law of State Education was a widely discussed subject by politicians such as Ben-Gurion, the first prime minister of the new State. Ben-Gurion's active participation in education reminds us of a similar move taken by a president of the United States, Thomas Jefferson, who called for a crusade against ignorance.

> Education in this country, in America, we use the word broadly to describe the development of knowledge, skills and character, is a pillar of democracy.... mediator for social, economic and intellectual opportunity.... We want our educational system to make available to all of us the full

complement of advantages a civilized society can offer (Bloom, 1984, p 55).

The involvement of leaders of nations signifies the importance of the role of education considered by political figures, who realized the potentialities of education to the welfare of the countries.

What was Ben-Gurion's appeal to the teachers, and what were the principles that he propounded at the convention? He referred to the two already mentioned laws: the Law of Return to Israel, and the Law of State Education. These laws express the expectations of the Jewish people to return to Israel and to build a new society through the major tool of education provided by society for society (Editorial, Hachinuch, 1955, p 3).

Ben-Gurion stressed objectives for the educators to follow. Basic education should stem from the values of Jewish culture and the aspiration of the nation to build a society founded on values such as freedom, equality, tolerance and mutual assistance. He stressed the three sources for achieving these goals: The Old Testament and ideals preached by the prophets, as the source of Jewish culture; the knowledge and the cultural legacy of other cultures; the realm of science.

Consequently, the curriculum could not be confined any more to Jewish Studies, but had to incorporate subjects such as the sciences.

> Education in modern society is far more than commonly
> realized. On the one hand the child must learn in order to
> succeed in life, therefore he is supposed to adapt himself to
> society as it is. On the other hand there is the Jewish love
> that is traditional that is not in full accordance with the
> life of a modern State (Bentwitch, 1965, p 194)

Ben-Gurion called upon the educators to fulfill social goals and not be content with just transmitting information. He encouraged teachers to consider their roles in society as spiritual leaders and realize ideals through volunteering work in small and remote places. The best teachers were expected to volunteer to work with new immigrants, in order to learn about the different cultures of Jewish communities with which they were unfamiliar. He urged them to be those who would understand the youngster's cultural backgrounds, and become aware of the special traits of each community, thus contributing to the process of socialization of their pupils.

The speech was a message to those whose work had to become a vocation, through their work in the classroom, the micro environment, and their service to society, the macro. Ben-Gurion's ideas were intended to motivate teachers to search for new ways, methods and programmes in the reality of the new State.

With the approval of the Law of State Education, it was expected that the political parties would not be involved any more in the supervision of the educational system. The State was supposed to replace their involvement in education. Ideals and goals would be inspired by the State. The Law of State Education was approved after lengthy discussions and concessions to the religious parties

needed for the coalition headed by Ben-Gurion. What was the result

of these concessions? The religious and orthodox parties went

on with their systems of education. The only stream of education that

ceased to exist was the Labour's, with the exception of one school,

the A.D. Gordon elementary school in Tel Aviv, which continued

to follow the principles of the 'houses of education for workers'

children'. It was the belief of Ben-Gurion and the Labour party that

all the ideas that were practised in those schools would form part

of the general system of education. In reality, ideals that had

been part of the educational programme of the schools of the

Zionist-Socialist Labour party were replaced by vaguely defined

goals, such as a society that will be built on freedom, equality,

tolerance and mutual assistance. Only in the last few years

has there been a growing movement among parents in Israel to establish

schools according to their ideologies in the spirit of the Labour's

movement, which had been neglected.

Archer's statement about the questions of 'how do state

educational systems develop and how do they change' seems to

describe the situation of education in Israel when it became a State.

> Education has the characteristics it does because of the goals
> pursued by those who control it... change occurs because
> new goals are pursued by those who have the power to modify
> education, previous structural forms, definition of
> instruction and the relationship of society....education is
> fundamentally about what people have wanted of it and have been
> able to do to it (1984, p 1).

The new heterogenic society in israel confronted problems that

asked for new solutions. The uniformity in education through equal

educational programmes practised in the different segments of society did not appear to cope successfully with society's socio-cultural needs. Criticism and the urge for change have developed among educators (Shmueli, 1964, pp 195-196), and as a result the Law of Reform in education was approved in 1968, a law that created new conditions in the field of education and was instrumental in the integration of newcomers with oldtimers (Adar and Adler, 1965, p 9).

The years between 1953 (when education was organized to follow the line of uniformity in education) till 1968 and (when this line failed to be replaced by equal chances in education) were very exciting years for individuals to act in the field of informal frames of education.

Further analysis of education cannot ignore the aspect of selection of the kind of knowledge which is the content of educational programmes. The field of educational sociological research deals as much with the inclusion of a subject matter in the curriculum as with the ways it is classified and transmitted.

The same concepts are true concerning the knowledge that is the basis for museum learning, which is transmitted through message systems, curriculum, pedagogy and evaluation (Bernstein, 1971, p 47). The museum, its collections and environment that create the learning in the museum, a special branch of general education will be discussed in the third and fourth parts of this thesis.

CHAPTER THREE: SOCIAL AND EDUCATIONAL RATIONALE

Correlation Between Socialization and Education

3.1 <u>Social Objectives of Education: Socialization and Identity of</u>
<u>the Individual</u>

After viewing the relationship between ideologies and education
in the pre-state period and the early stages of the State of Israel,
we have recognized that much was expected of education. Both
politicians and theoreticians held discussions on education and its
role in building the new society, amalgamated from the different
communities. However, it seems that the leaders talked in terms of
expectations without realizing the concrete problems that were
inherent both in the process of absorption of the newcomers and
the lack of communication among them.

The problem was of people of diversified socio-cultural
backgrounds who were supposed to fit into new patterns of culture
and of life in a new country. The majority of the pre-state
settlers were of western descent, and they laid the foundations of a
modern western State of Israel. The majority of the newcomers, but
for a fraction saved from the Holocaust in Europe, were eastern
Jews from countries of Islamic culture. They came from places such
as Yemen and North Africa, countries which in the 1950s were still
in pre-industrial stages of development, but the reality they
encountered in Israel was of an industrial country, European in
nature. Not only were the objective conditions different, but
also the mentality of the people they met was strange and
unfamiliar to them. Jewish people of Islamic culture were religious
people who believed that the days of the Messiah had come. Their

encounter with a non-religious modern State of Israel was a disappointing experience for them.

The people, especially those from Islamic countries, who emigrated to Israel after 1948 and in the early 1950s came as whole communities, not as individuals for political and historical reasons. They settled together in villages, or in parts of the cities, which became demographically homogeneous. Thus during the preliminary period of their stay in Israel they continued preserving their former patterns of life as brought from their native countries, but soon they began to change.

The reality in the new country was of a society in a state of evolution. In what form it would be shaped was hard to foresee. Owing to the lack of previous experience in the field of absorption of such numbers of people (immigrants tripled the number of 'Yishuv' in less than a decade), the authorities decided on equal measures for all newcomers, without discrimination. In order to keep pace with the changes they enforced laws such as the compulsory education and state education acts, and patterns began to change.

Hierarchy in the family underwent a change. The person who decided about the sources of livelihood became the son, the earner who decided that certain folk customs and habits seemed inadequate and outmoded, and thus they were discarded. Dialects and habits were left behind with the older generation, who found it hard to adjust. Alienation in the family had become inevitable between the

old and the young, and the strong ties that had kept the extended patriarchal family together for generations were crumbling. The old ways of life were soon to adjust to the new ones.

It is worth noting that later in the 1970s there was an awakening of a movement of the younger generation to return to their 'roots'. Ethnic festivities such as the 'Maimuna' of the North African communities began to be shaped, commemorating ethnic memories of their homeland. Food, clothes, dancing and music were displayed publicly, in order that others might learn about a culture that had to change owing to the new circumstances in a new reality.

It must be pointed out that the official trend concerning absorption was in the spirit of encouragement of cultural assimilation, ignoring the specific cultural traits of the various communities. There was a lack of understanding of anthropology, and therefore a lack of respect to people with various and other folkways and manners unknown yet to those who were responsible for the process of acculturation, such as social workers, teachers and other government functionaries. Only in the 1960s was an invitation extended to Margaret Mead to advise in planning the settlement of people of various communities in the agricultural region of Lachish, in the central part of Israel.

The social and cultural adjustment of the individuals to the new environment is defined as the process of socialization. 'Man is biologically predestined to construct and inhabit a world with others'. This would become for him the dominant and definite

reality! The sociology of knowledge understands reality as socially constructed reality. For our purpose it is enough to define 'reality' as a quality appertaining to phenomena that we recognize as being independent of our volition and to define 'knowledge' as a certainty that phenomena are real with certain characteristics (Berger and Luckmann, 1966, pp 204, 210, 213).

Socialization, which has been the ultimate objective for society, has to be realized without neglecting the individual's (Berger, 1966, pp 160-170) mental growth as a member of society (Erikson, 1959, p 52).

The process of socialization includes the following aspects: psychological, anthropological, political socialization and adult socialization (Sills, 1968, pp 534-562). Each one of these aspects of socialization would demand a special review. Our interest is aimed at 'the aspect that will focus on the developmental aspects of individual behavior, which occur in or directly involve interaction with one or more person, i.e. in the social context'. In the areas of research we are interested in 'the studies of the effects of institutions on children, that indicate the quality of stimulation provided by the environment, may have consequences on the learner' (Burton, 1968, pp 534-536).

The individual is not born a member of society. He is born with a disposition towards sociality and he becomes a member of society. He is inducted into participating in a societal dialectic process

for externalization, objectivation and internalization (Berger and Luckmann, 1966, p 149).

Every society is faced with the task of socializing members in its culture, and providing them with a sense of belonging and security as they move into different statuses at different stages in their life circle. By the means of socialization, the individual acquires the culture of his group, or groups. Society ensures society's regeneration by its members (Liegle, 1983, p 119).

There exists a dichotomy between schools of thought concerning the relationship of society and the individual, and consequently the function of education. Durkheim's idea is that society is an entity by itself with its own traits, that the individuals lack. He was an ardent believer that 'the ends of education are social, the means by which these ends can be attained must necessarily have the same character'. He pointed out that the role of psychology in education, even though it is a real science, is not to teach the educator about the ends he should pursue (1971, p 93).

Durkheim based this opinion on research in the field of comparative study of cultures and claimed that society has to mould the person to fit its autonomic conditions ({Durkheim, 1902-3, 1973, p 48} Liegle, 1983, p 120).

Peter Berger contradicts Emil Durkheim's view of the role of society in relation to individual socialization. Socialization, according to Berger, means not only that the consciousness of the

individual is constituted in a specific society form by society...
but also that 'psychological reality is an ongoing dialectic
relationship with social structure'. (1971, p 107). The relationship
between the individual and society is that the individual has
the ability to choose modes of apprehension and emotion to guide
him in choosing what is real and unreal. The self exists by the
virtue of society, but society is only possible as many selves
continue to apprehend themselves and each other with reference to
it. The individual internalized what appears to him appropriate
outside himself. Having internalized what is appropriate, he makes
it part of his own consciousness and is able to externalize it again
as he continues to live and act in society. What is internalized
by the individual, continues Berger, are the repertories of
identities that are part of the objective 'knowledge' of a society's
members.

The cognitive approach to socialization emphasizes the roles of
understanding in the development of interpersonal conduct and
morality (Gleitman, 1983, p 312)

Knowledge that constitutes the fabric of meanings without which no
society could exist. Knowledge about society is apprehending the
objectivated social reality and in the sense of continually producing
the reality. Thus knowledge serves as a channeling, controlling force
in itself, using the language to transmit it to the next generation.
The linguistic apparatus becomes a social 'science' corresponding to
the objective reality of the specific mode of a certain segment in

society's life (The hunting example, Berger and Luckmann, 1966, pp 27, 89).

Language is defined as a system of vocal signs, is the most important sign system of human society. The quality of the sign is that it indicates both the subjective meaning as well as being objectively available in the common reality to be shared among men. The objective reality is translated into a subjective reality, and vice versa, 'by the language which has to be internalized and is the principal vehicle of this ongoing process of a symmetrical nature between the objective and subjective reality' (Berger and Luckmann, 1966, pp 50, 155).

Thus, language marks the coordinates of life in society and fills life with meaningful objects; objects which represent themselves to consciousness as constituents of different spheres of reality. This reality has the power to shape and produce a specific type of a person whose identity has a meaning related to a particular body of knowledge which has been socially produced (Berger and Luckmann, 1966, pp 35, 36, 85).

The process of socialization can be described as a dialectic one. Simultaneously the individual has an ongoing response to the experience of the world. Thus self and society are interwoven entities that lead to the identity of the individual with society. The successful process of socialization can be defined as a

> never ending dialectic process that can be analysed in terms of 'movements' - externalization, objectivication and internalization. The dialectic is lost when one of the moments is lost. (Berger, 1971, p 112).

Durkheim's study of the development of education is a good example of his ideas about casual explanation. He writes that education changes as society changes. In principle there exists close relationships between society and education. Durkheim argues that 'society' is the subject matter of sociology and the social matter is distinct from the 'individual' dimension'.

Such an approach is unacceptable by educators who consider freedom and creativity of the individual as important elements in their educational ideology. As well as educators who consider the importance of psychology that

> is seen as a distinct subject from that of other areas ... and the individual is constrained to conform to a set of values that was made for him. (Blackledge, 1985, pp 7, 8, 11).

For Durkheim, society replaced God and is greater than man and tells man through socialization, how he should act. Education's function is to fit people into society according to what it wishes him to be. Subsequently education must provide the norms and values the child needs. It has to build up a consensus for society in order to exist. Durkheim does not suggest any method to be used by education. Methods have to be formed according to the way society is developing. Durkheim's point of view is that the individual makes the rules of society as part of his personality in the process of socialization (Blackledge, 1985, pp 14, 15, 23).

Berger and Luckmann do not discard Durkheim's idea about the influence of the 'social dimensions' but they present a more balanced theory of the relationships between the individual and society. They suggest

that interaction among people produces the ingredients of society such as values, norms, ideas, language and social institutions.

In order to help the individual to mould his mental and social attitudes, education should influence his affective domain, with the control of conscience and wisdom, and not restrict itself only to the cognitive domain. Education is a long process accompanying the youngster to adulthood. The results depend on standards and methods selected by a particular institutional setting that are socially constructed processes of teacher-pupil interaction achieved by conversation (Cosin, 1971, p 1).

Reality is not an absolute term, it varies from one society to another, and in terms of time as well. From this aspect should be viewed the vocation of the educator as one of the main factors participating in the role of the socialization of the individual. The educator is able to help construct the right model of socialization, only when he becomes acquainted with the specific social setting of the individual, understanding comprehensively him and his specific conditions in order to help the individual to become active in the objective reality of life.

3.2 <u>Educational Objectives in Israel</u>

3.2.1 Curriculum - A Socially Organized System

In view of the socio-cultural situation in Israel, the educational system was expected to be sensitive to the diverse needs of individuals and to initiate adequate museum programmes. The educational authorities had to plan a curriculum applicable for the various groups. The organizers of the curriculum were to follow a trend of mind, 'that education cannot be treated as products like cake and bread' (Young, 1971, p 24). They had to be creative in building programmes.

Teaching and education, are not merely didactic and psychological, but an educational problem. It is a matter of dealing with contents and values that are appropriate to be taught, more than others which are inferior under the same circumstances (Simon, 1964, pp 67-68).

What is the role of values in the curriculum? They serve as moral criteria concerning the educator and his right to determine what values it is obligatory to transmit to the youngster (Izhar, 1982).

The educator's prerogative in selecting certain values stems from the nature of the values themselves (Berger, 1971, p 11). The educator as an individual has to be alert in ensuring the equilibrium between the individual's values and those of his society.

But how do values relate to the curriculum for the benefit of education? Nowadays, when technology takes over, there is a danger of the humanistic studies becoming inferior to the technological

ones. Moral values cannot be derived from learning only the sciences, since by its nature moulds scientists as people with moral virtues, as became evident in the behavior of scientists in the Nazi period, who developed in the name of science the most inhumane inventions. Therefore, there is no justification for placing science, though it is essential to our civilization and progress, as a central subject of the curriculum, and giving an inferior standing to humanities (Kurzweil, 1964).

As aforementioned, the leaders talked in terms of expectations, of equality in education. Translation of these ideals to the State Law of Education in 1953, and the curriculum which was built accordingly, did not meet the challenges of a pluralistic society in a stage of transition. An analysis of the resulting educational programmes (1971) revealed findings that show failure: such as the following case of statistics indicating that only a relatively low percentage of youngsters of oriental descent succeeded in acquiring high school diplomas, in comparison with youngsters of European descent, 6% versus 35% (Doron and Chen, 1977, pp 24-27).

This means that those students who failed to receive the diploma were barred from higher studies and the acquirement of academic status. It proves that equal education in the spirit of social equality may have been a progressive ideal, but it did not satisfy positively the needs of every group in the heretogeneous society of Israel.

The failure of certain segments of the population to reach standards of learning equal to those of the other segments called upon the

attention of the educational authorities to look for new ways. Consequently, a new line was accepted which called for reorganization of the entire school system, integrating youngsters from different socio-cultural stratas in the same school.

Despite the geographic proximity of children's neighbourhoods, there existed a social and psychological gap that caused alienation. The fact that no change took place indicated that the educational system had not succeeded in keeping pace with the social changes that took place in 1948 onwards. The new line of re-planning the schools was aimed at three goals: Narrowing discrepancies, upgrading the status of the children of oriental descent, thus distributing youngsters of the same descent in various schools.

For the sake of comparison, it is interesting to examine another plan, the reorganization of the educational system in New York (Editorial, 1962). The New York planners' goals were similar to those in Israel of building schools of a high standard and abolishing ethnic segregation.

Despite basic differences between the two cultures in Israel and in New York, there exists a common feature, the belief that education through the school system can serve as an effective factor in reaching social ideals.

In view of the state of matters of the school system in the late 1950s and 1960s, a new line was taken by the Ministry of Education. The change came with the acceptance of the fact that there are groups who

have to be taught through approaches and methods of education applicable to their needs.

Zalman Aran, the Minister of Education and Culture at the time, admitted in his speech to the Knesset (1964) that discrepancies exist in the standards of learning and scholastic accomplishment among the children of newcomers from Asia and Africa and those of European descent. However, new methods of enrichment and training of learning abilities had been sporadically launched earlier, before the Minister's declaration. The new methods followed the line of differentiation in learning, combined with social integration.

Subsequently, Aran nominated a planning committee for new educational programmes. These programmes contained elements from the legacy of the 'houses of education for workers' children', such as children's society meetings and open discussions, as well as special days of creativity in the visual arts and music subjects, which were not included in the former programmes.

Old ideas which had been dormant for about fifteen years (1949-1964) were revived. The famous painter and art lecturer, Ardon, was appointed to head the department of art education, in order to introduce the arts into the school curriculum.

During the years from 1953 when the State Education Law was enacted, modifications in the system were made, but a substantial change took place only after 1968, after the new programme of reform (1969) in

education was enacted and approved by the Knesset, which states as

follows:

> The reform program is the main instrument for reorganization and
> improvement of elementary and post-elementary education in
> Israel. The general outline was submitted to the Knesset by the
> Parliamentary Commission for changes in the structure of
> education, and approved by the Government on 7 July 1968.
> (Editorial, 1969, pp 16-19)

The new structure of school was as follows:

<u>1st stage</u>
Elementary Education - 6 years : Grades I - VI inclusive

<u>2nd stage</u>
Post-Elementary Education - 6 years : Divided into two sections:

A. The intermediate section, consisting of Grades VII to IX
B. The higher section, consisting of Grades X - XII

3.2.2 <u>Culture   As a Socially Structured Subject in the Museum</u>

School, which is a socio-cultural institution with its own system,

accepted and approved by society, is an organic part of the overall

system of society.   School in Israel did not appear to adjust its

educational programmes and curriculum to the changing circumstances

prevailing in the 1950s and 1960s, as revised in the previous pages.

Consequently the process of socialization through knowledge and

learning failed its objectives of the integration of the various

groups in the new society of Israel after 1948.

We find that Durkheim's views about education are applicable to the

situation of museum development in Israel in the fifties and sixties,

that was directed by the concepts of equality in education.   He

believed there must be basic values shared by all members of society,

in order to preserve it from chaos (1971, p 92).   The theory 'that

people have to think the same way to keep society from chaos' was in

contrast to educators who regarded education as a free arena of ideas, programmes and experiments, as had been applied in schools of workers' children till 1953.

The institutions that appeared to be free to follow ideas in this spirit, were the museums. The museums in Israel in the 1950s were already legitimate socio-cultural institutions, but not accepted as institutions of learning, such as the schools. The museums which are rich in knowledge inherent in their collections, seemed to be the appropriate setting for informal education and for selection of subjects that could provide a diversified programme for learning and new programmes were initiated in Haifa museums (1957).

The first selected subject was 'culture'. It was taught at the Museum of Ethnology and Folklore Archives, which provided both the original material of its collections as well as its setting for learning.

In the museums knowledge is distributed through the objects: Objects like words make us think of their meanings (Vygotsky, 1962, p 121). The meaning of the object like of a word represents a close amalgamate of thought, feeling, history and way of life which leave their imprints in the style.

> By style is meant the constant form - and sometimes the constant
> element, qualities and expression - in the art of the individual
> and a group ... It is a manifestation of the culture as a whole,
> the visible signs of its unity ... It reflects the 'inner form'
> of collective thinking and feeling. (Schapiro, 1953, p 287).

In this study our focus will be on the socialization through the museum's context, the objects. The museum that aims to socialize the youngster by a new mode of learning, of acquiring knowledge and values that are generated by objects. Objects that constitute reality and represent cultures in the past and present.

There was a dichotomy of approaches and attitudes in the community towards one's own cultural heritage. On the one hand there was a total rejection of by the younger generation of objects that might be reminiscent of the cultural background. They strived to deny in the process of their acculturation (or 'culture contact') which should be viewed as a two-way process affecting both groups in contact (Beals, 1952, pp 628, 629). While, in the older generation especially, there was a desire to cling to objects as tangible proofs of familiar patterns of life in the new alienated surrounding (Muller-Lancet, 1968, pp 1-2).

The Museum Education Centre has constructed a curriculum based on a body of knowledge derived from the objects of the Museum of Ethnology and Folklore archives or on loan. The objects represented a wide range of cultures of Jewish communities and of other peoples' cultures. The various exhibitions, though small in size, enabled the representation of certain cultures which were familiar to those youngsters, whose parents still retained them, as well as to familiarise them with unknown cultures of their peers, with whom they came into contact at the museum.

A constant inter-ethnic tension between immigrant groups of antipodic cultural backgrounds underlines the intricate demographic pattern of Israel of the aforementioned reality. The objectives of the exhibitions in Haifa Museum on Bokharan (1968) as well as the exhibitions of Morrocan communities in the Israel Museum (1974) were to awaken latent consciousness in one's own culture. Cultural objective was to present material to the public of unknown cultures. To acquaint audiences with unfamiliar cultural treasures of living communities.

The concept of the subject was based on the definition of culture of the British anthropologist B. Tylor. His comprehensive definition that will serve the thesis reads as follows:

> Culture in the ethnographic sense is that complex whole, which includes knowledge, belief, art, morals, law, customs and any other capacities and habits acquired by man as a member of society (1958, p 1).

We tend to understand culture better by recognizing its history and its manifestations in the arts and crafts. This leads us to cultural awareness, that can be achieved through learning the special traits of each culture which is presented in the museum.

The various aspects of culture follow the most diverse patterns, and do not lend themselves profitably to generalization despite their common traits. By means of a comparative analysis of cultural pluralism and cultural differences, specific traits of a culture for the educational objective of cultural awareness become apprehended.

In this work, art is sine qua non to culture:

> Art can also be a means of coming to understanding and developing respect for the variety of realities, values and expressions which are different from those of one's culture. Art makes idea and feeling visible, and has a potential for enrichment and aesthetic enjoyment (Allison, 1984, p 16).

The museum, being an institution embracing human heritage, has set a challenge for educators, to combine by means of teaching, the two areas, culture and art and through them transmitting social values. Thus, the implication of the museums as a place of learning was expected to make popular education its superior role, and enhancing the museum with a new social function (Alexander, 1979, p 221).

CHAPTER FOUR: POLICY, IDEAS OF EDUCATION IN PRACTICE

The Evolution of the Museum Education Centre in Haifa

.

.

4.1 The Cultural Background of the City of Haifa

By examining the correlation between social and educational objectives, we have built the rationale, the theoretical framework for the need for a new branch of education and learning in the museum. We shall not remain in the abstract realm of theory, but we shall describe an actual project that aspired to realise social ideals and translate them through a particular educational programme in the museum education centre in Haifa.

In order to understand the background and the specific role of the museum education centre in Haifa, let us become acquainted with the cultural life of the Israeli city and the state of its museums.

The cultural life of this city of about 180,000 inhabitants in the early 1950s was not rich. The lack of cultural institutions provided the public only limited possibilities of choice. The majority of activities were initiated and organized by the Histadrut (the Trade Unions' organization), which developed as an agency for cultural activities. The public of these activities consisted mainly of workers of Haifa that was in those days the main port of Israel and the centre of heavy industry. Theatre troupes and orchestras came from outside the city, performing in unsuitable buildings, such as cinema halls.

Haifa museums, where the new programme of museum education began in Israel, were in the fifties and sixties 'by and large in a state of anticipation, rather than achievement' (Barnea, 1967, pp 52-54).

Despite the variety and wealth of the collections, (some rich indeed by any standards and worthy of better conditions), only one, a small museum but a gem and truly unique, was suitably and appropriately housed. That was the Grain Museum in Dagon Silos. This museum and another small private collection of Jewish ceremonial objects, were the only private ones in the city the other five were public institutions.

A museum of much scientific importance for the study of ancient man is the Museum of Prehistory, was situated in a part on a spur of Mount Carmel. This museum was shaped out of the private collection of two Haifa citizens, Mr. Vreshner and Mr. Olami, who made a survey of dozens of prehistoric sites on the Mount, and the result of excavations carried out by the Hebrew University. Finds (which are in the museum) included flint tools, bones and skulls of Carmel man, and form a link between Neanderthal man and Homo sapiens. The evolution of prehistoric man is represented in four dioramas depicting hunting, life in the cave, the beginnings of primitive agriculture and a reconstruction of the excavations at Nachal Oren. All were built in the museums exhibition hall.

Little more than a brief survey can be made of the other more important collections in Haifa. Two of ancient and modern art, respectively are housed in the City Hall. The first, based on the private collections of Dr. Alexander Rosh and concentrating mainly on Hellenistic-Roman art in the Eastern Mediterranean, contains interesting collections of burial portraits from Fayum of the 2nd and 4th centuries AD, Coptic woven materials and Jewish coins minted in

Caesarea and Acre. The museum has been enriched by mosaics excavated at Shikmona and objects found elsewhere in the vicinity.

The Museum of Modern Art, was founded in 1951 and transferred to the City Hall in 1955. It puts much stress on the art, sculpture and crafts of Israel. Other treasures include an outstanding cabinet of graphics by contemporary artists and an important collection of posters on the arts. The museum was first developed by the art historian Dr. Fritz Schiff.

The Museum of Ethnography and Folklore Archives has set itself a task peculiarly in consonance with the current phase in Jewish history. Ancient Jewish communities were destroyed in the course of the Second World War, others have been emptied of their inhabitants by migration to Israel and to other countries. Thus the salvaging of whatever survives of the rich cultural heritage of these Jewries has become a categorial imperative. Specifically, the collections include religious and ceremonial objects, distinctive apparel, utensils of daily life and jewellery,

A unique achievement of this museum is the collection of more than 7,000 Jewish folk-lore tales, recorded with the aid of teachers, social welfare workers and others coming into closer contact with the new immigrants who have settled in this country over the past two decades. The project, based upon a countrywide movement of recorders, holds an annual gathering at which the latter are enabled to meet the story-tellers. Nine volumes of these folk-stories have so far been published - some in translation.

We shall conclude this account of Haifa's museums with a description of one of the very few museums outside the mother country devoted entirely to Japanese art. The Museum of Japanese Art, most of whose treasures were donated by Mr. Felix Tikotin, is situated in a pavillion surrounded by an enclosure, both reminiscent of the Japanese style. Narrow canals run along the outer edge of the exhibition halls, reflecting the works hanging on the walls. Among the collections are paintings representing various techniques, woodblock prints of old masters, specimens of Japanese crafts (kimonos, ceramics, lacquer and metalware). The museum actively promotes the study of Japanese culture by holding demonstrations of flower arrangement, the tea ceremony, lectures and film-shows (Barnea, 1967, p 54).

Public awareness of the museums was limited at that time to small groups of people, particularly of West European descent, who had already been familiar with museum activities in their native countries. The only museum that enjoyed a stable audience was the Museum of Modern Art. A small group associated with 'The Friends of the Museum of Modern Art', formerly known as 'An Association for Art', initiated lectures in cooperation with Dr. Schiff, the Museum's Director. Unfortunately, this group gradually dissolved in the course of time, with the passing away of the old members and lack of new ones. Only in 1978 was a new association of 'The Friends of Haifa Museums' established.

During this period the museums, as public institutions, were expected to contribute their share to the cultural life of the city and make

new audiences acquainted with the treasures that served till then a limited circle of citizens. Being unexplored and yet not exposed to educational activities, the museums presented a challenge to educators to initiate in the museums cultural activities within a framework of learning.

The potentialities of the museums for instruction had been recognized by Dr. D. Noy, the Director of the Museum of Ethnology and Folklore Archives, who allocated one of the three halls in the structure to serve as a classroom.

Both the subject of the Museum of Ethnology and Folklore Archives and the readiness to see learning as part of the museums, encouraged the founding of 'the courses of peoples' cultures in the museum' (Barnea, 1971, pp 665-668).

4.2 Subjects in Informal Frames of Museum Education

Surveying the evolution of the museum education activities at the museums themselves, as well as outside the museums in other public institutions, one can observe three phases during the gradual growth of subjects and educational frameworks in the years 1957-1988: The building of the educational approach in teaching cultures through art and crafts, at the Museum of Ethnology and Folklore Archives (1957-1965); Applying the same approach in teaching the culture of Japan at the Museum of Japanese Art (1960-1961); Teaching ancient cultures in Israel (1962-1970). An expansion period of activities, including outreach activities in neighbourhood cultural centres

(1963-1968); Activities in a community centre on Mount Carmel, the Rothschild Centre (1963-1968); Activities in a public library at Neve Shaanan (1964-1968). The continuity of the educational approach that was formed in the afternoon courses was in building a collaboration with schools(1) in city museums of Prehistory, Ancient and Modern Art, Ethnology and Folklore Archives, the National Maritime, and from 1984 at the Haifa University Archaeological Museum. The latest stages of The Centre's development were the interdisciplinary projects.(2)

The selection of the subject cultures to be taught at the museums follows the theories of scholars such as Simon and Young, who stated that the selection and organization of material must develop from the available knowledge at a particular time. Scholars who were primarily concerned with the 'content' of education rather than with the 'structure' or organization of the educational system (Blackledge, 1985, p 290). The knowledge that seemed appropriate was found in the material of the Museum of Ethnology and Folklore Archives, which served the main core content of the education system. For example, artefacts of material cultures, such as everyday tools, jewellery and ceremonial objects were displayed in an exhibition entitled 'Arts and Crafts of the Jewish Community in Yemen'.

The visual encounter of the youngsters with these artefacts was of an experience of a primary nature. The exhibits evoked curiosity and a desire to know more about the objects, their origins and usage.

---

1. This subject will be discussed in Chapter ten

2. The intersciplinary project will be described in Chapter twelve.

Objects made of different materials motivated to learn about the
techniques by which the objects were made, thus adding the 'how' and
the 'what' to the 'where' questions that required learning. In order
to understand processes of making things, workshops of arts and crafts
were organized.

Through such combined courses of learning, both theoretically and
practically, the youngsters acquired information as well as such
values as respect for unknown peoples. Their curiosity formed a state
of openness, which enabled guidance and teaching in an alert and
relaxed ambiance.

Audio-visual aids such as reproductions, slides and movies were
introduced to supplement necessary material. For instance, films and
records about dance and music of a village in Ghana in West Africa
were brought during the study of 'Arts and Crafts of West Ghana', that
was conducted in relation to an exhibition of the same subject.

A young man defined his attitude in a conversation towards the course
on peoples' cultures in which he had participated for five years while
he was a child: 'what is left with me' he said, 'are primarily the
values I had acquired at the museum, and in addition the knowledge I
learned about cultures.'

In the 1960s a slides and a reading library were founded, in order
to serve teachers and members/participants of the museum activities.
The libraries, though small in size, formed the foundation for an

educational unit in the museum that strove the function independently, only according to its needs and requirements.

The role of the museum educator has been to find material, as well as ways and means in building a comprehensive picture of a culture through its artefacts and its various aspects; namely to build a new pattern of teaching in the new learning environment of the museum.

The method that suited to teach a culture comprehensively, was the integrated method of teaching. This method of teaching had been widely practised in Israel, especially in the first grades of elementary schools. Projects such as the cycle of the seasons, cycles of holidays formed year-round subjects. In higher grades there was a strict division of subjects, with no continuity of the integrative method.

In the Kibbutz,(3) however, the entire school curriculum was based on the integrative method in teaching two main comprehensive subjects in the project method, humanities and sciences. Well-equipped workshops enabled the children to experiment and create, in order to enhance theoretical material. This is based on the fundamental point that maintains a balance between the practical and the intellectual phases of experience (Morrish, 1967, p 123).

---

3. The writer became acquainted with the integrative approach while teaching during the years 1946/47, 2nd and 6th grades at Kibbutz Ramat David.

A similar approach was followed in a different set-up, at a school for retarded children in Haifa (1947-1950). Means were scarce, workshops did not exist, but the classroom served as a multi-functional workshop. Despite conditions inferior to those in the Kibbutz, the same approach was applied and special attention was given to expose the children to various materials and techniques.

The integrated method proved to be the only way to reach the children and make them participate in the classroom, namely working and experiencing with different materials stimulates the learner to express his impressions according to one's own abilities. It is the increasing sensory awareness whilst exposing the participant to pertinent information (historical, geographical) at opportune moments, that facilitates heightened perceptional response. The approach that incorporates cognitive study of the content of the subjects, as well as creative work in multi media, developed to become the heart and core of the integrative method of the teaching of every subject in the museums of Haifa. The focus was on what 'has to be educated' (Blackledge, 1985, p 290).

The subject of cultures constituted the curriculum that has been established during the first years of the educational activities at the museums. The subject was divided into two main cycles of syllabuses, that had the same educational objectives: cultivating the sense of belonging to one's own culture and the awareness of other peoples' cultures.

The cycles of syllabuses were: Jewish communities' cultures and the ancient cultures in the land of Israel and peoples' cultures. The arts and crafts courses were related either to the first or to the second cycles, however they were always linked to exhibitions like the theoretical courses.

4.2.1 Jewish communities' cultures

In Israel like in other newly-born states, it is important to create a natural awareness of each individual's responsibilities in the work of development and hence an awareness of an identity with one's own nation; a national awareness which is rooted in the socio-cultural values that its wealth and its unique attributes' (Editorial, Unesco Inter-Clubs, 1986-1987, pp 3-4).

'Life and Work of the Jewish Community in Yemen' (1963) was the name of an exhibition at the Museum of Ethnology and Folklore Archives. The exhibition made it possible to develop a comprehensive study of the community in Israel and was based on an extensive research of the community's life and work in Yemen, before immigrating to Israel (Barnea, 1956).

The Yemeni community was one of the first to send its messengers still at the end of the last century to Israel to rebuilt the Land of their Forefathers. A community not as numerous as the other Eastern communities, about 50,000 people, had immigrated with all its members to Israel in 1948-1950, in the well-known project called 'The Magic Carpet'. The Yemeni Jews being isolated in Yemen, with hardly

any connection with other Jewish communities, preserved their own special traits for centuries, not having been influenced by outer factors. They excelled in their arts and crafts, being compelled to deal with 'Arti' such as tailoring and shoemaking, as well as in the 'Arti maggiori' such as silversmithing, embroidery, etc. Their music, art and crafts were a big asset to the new Israeli culture.

After a long study of the geography of Yemen, the history of the Jews in Yemen, the acquaintance with ways of life, beliefs and oral traditions and constant visits to the exhibition hall, the children worked for a few months in the workshop, which gave them ample time to get acquainted with the different arts and crafts, such as embroidery, basketry, jewellery and building a typical Jewish home, which had its own traits. This was made possible by tracing a rare description of a Jewish Yemeni home (Rathjens, 1957).

In addition to the creative work complementing the theoretical part of a yearly course, yearly courses of arts and crafts were established. A course of 'arts and crafts of Jewish communities' was instructed in relation to the cycle of Jewish holidays. Special small exhibitions with objects from the museum's collections, or objects on loan, were on display, which assisted to enhance and recreate forms, motifs and techniques.

4.2.2 Ancient cultures of Israel

The Jewish people had always dreamed of coming to the Promised Land, but the idea was purely religious and national. Individuals, like communities, already had cultural roots in their native countries, such as language, arts, crafts, folkways, and mores that were part of their ethnic memories (See Tylor, p 46).

The sense of a belonging, and of cultural identity to Israel had to be acquired, a sense that back in the past was shared before the destruction as mentioned in the Bible, Old Testament, Mishna and Talmud, sources of the Jewish lore. The culture of those remote times has been excavated by archaeologists. The discoveries brought to light a culture that had existed in the past. Thus archaeology became one of the primary sources, vital for the study about material culture, crafts and the arts of the past.

The acquaintance with the unveiled archaeological findings at the museum creates a common denominator of feeling of belonging to people of the same origin, who enjoyed in the far past the same spiritual, as well as material culture. Learning about the arts and crafts, such as ceramics, weaving and mosaics, as well as architecture, transforms the intangible term ' the culture of the past' to a tangible and concrete experience. The written sources such as the Bible, the Mishna and Talmud, serve to prove the authenticity of historical events, as well as the descriptions and usage of objects that have been discovered.

The past finds its portrayal by the objects in the exhibition halls, and the museum takes its role as a communicator and an interpreter of the past, thus helping to form the sense of belonging to a common Jewish heritage and forming a common cultural identity.

Guided study tours to archaeological sites followed series of theoretical lectures on different subjects, within the framework of the course of 'Cultures in the Land of Israel'. For instance, one topic was: Massada, the site of the last battle of the Jews against the Romans (72 BC).

The tours, which included both children and parents, provided an opportunity to learn about a culture in situ and heritage became closer and better apprehended. The tours became events of both an educational and social nature, in addition to the monthly activities at the museums that were devoted to lectures and films of various cultures. These encounters of parents and children gave and children provided an occasion for mutual cultural experiences to families of different backgrounds.

The experience that has been gathered in the first years of teaching cultures theoretically and practically had proved that the theoretical aspects of the subject were better enhanced through doing, through experiencing. By painting, modeling and constructing, the youngsters expressed their impressions and created a picture of a culture.

A yearly workshop on pottery was intended to complement the theoretical knowledge of archaeology in ancient Israel. The participants (eleven to fourteen year olds) built various shapes of jars and vessels, following the various styles and techniques of ancient periods, such as the Neolithic (or Stone) Age, and the Bronze and Iron Ages, thus learning about cultures of ancient Israel or Biblical times, e.g. Philistines. This was a method of acquiring a way of learning to respect the ingenuity and mastery of people of far-away periods, by no means an exercise to recreate the original artifacts (Gilman and McConnell, 1977, p 71).

4.2.3 Peoples' cultures

Personal intellectual horizons are becoming wider every day. The man of today has interests extending far beyond a purely national framework. The curiosity goes hand in hand with an awareness of international problems that arouse the need to solve them (Editorial, Unesco, 1986/1987).

The museums are the relevant institutions where young people can satisfy their curiosity by trying to understand cultures, their past in order to better understand their present.

The second cycle of subjects was centred on the topic of peoples' cultures, and was taught for the purpose of attaining identity beyond one's own (Barnea, 1971, pp 665-668). This concern offered useful contrast to the attitude of the formal educational establishment, which did not include international education as a subject in the

curriculum. The pedagogical reality in Israel, is that our educational institutions are bound to a heavy informative curriculum, but they lack common ideas about international education, except for the courses of peoples' cultures at the Museum Education Centre in Haifa (Ben-Zvi, 1969).

To know other peoples' cultures was a vital need, because of the isolation of Israel by neighbouring Arab countries, while at the same time the Jewish people lived side by side with an Arab minority in the same land.

An additional important reason for acquaintance with other cultures was to know better the background of the Jewish communities in Israel, which is the mix of Islamic and Christian cultures. The cultures of the native lands of the newcomers from Islamic countries, as of the European and American Christian background of the Western countries, that became part of the Jewish ethnic and historic memory. Again we witness the link between the two cycles of cultures of east and west, which meet on the common ground of Israel.

'Actualia' was a concept employed in teaching people's cultures to acquaint the children with actual historic events, such as learning about African cultures in the 1960s. It became quite a frequent subject taught in museums in the decade when many African states attained their independence. Newspapers of that period provided an abundance of up-to-date material about African cultures, their geography, history and social structure, as well as arts and crafts. Children were able to absorb a great deal of information, which they

passed on by delivering brief lectures to group members, as well as by submitting written materials. The material collected by the children laid the foundation of a sector in the library of current data. Their alert response proved the relevance of the subject of cultures to young people who live in a changing world.

Another example of applying the concept of Actualia was in teaching the subject of Pre-Columbian cultures of South America, connected to the exhibition of 'Ceremonial Masks of Ecuador' (1964). The instruction began with study of the present actual economic state of the Indians of the Andes, then traced their history back to the times of the conquest and the encounter of the Spanish conquerors with the indigenous peoples, the Incas, the Maya and the Aztecs in the 16th century.

In addition to peoples' cultures in the Museum of Ethnology and Folklore Archives, a wide range of topics about Japanese culture was developed relating to the changing exhibitions in the Museum of Japanese Art. A sixth grader's composition on 'Tranquility in Japanese Painting' allows an insight of an Israeli youngster into an encounter with a remote culture. The composition reads as follows:

> We, the children of the Japanese course, have learned a great
> deal about Japan and its culture. At one of our meetings we
> discussed the Japanese painting whilst looking at the painting.
> We were mainly impressed by the tranquility in the paintings,
> when each one of us was impressed by another painting. Japanese
> painters do not emphasize each thing more than others, as seen
> in a Sumi-e, or a colourful painting. They paint asymmetrically
> and, above all, they tend to put the human being on a lower step
> than nature, unlike European painters who place the human being
> in the centre, above nature. In the museum we learn about a
> culture, which is expressed through the art of the people and

this is at the centre of our activity in the Japanese Museum. (Barnea, 1969, p 15)

A third museum of a new discipline opened its doors for education in 1963, the Museum of Prehistoric Man. The museum has a rich collection of finds from the caves of the early man on Mount Carmel.(4)

As was previously pointed out, the exhibition was the core of the courses, as well as the point of reference; either mounted by the curator of the Museum of Ethnology and Folklore Archives, or by the museum educators.

Didactic exhibitions that were built by museum educators (1966-1977) were different from the exhibitions planned by museum personnel. While the educators considered in choosing the subject of an exhibition primarily from the youngster's aspect, his psychological and social needs, the museum curator was interested primarily in the museum collections to be researched and displayed. The few examples which are described here exemplify the basic idea of the communicative potentialities that are inherent in the exhibitions to awaken social and cultural awareness and provide a source of enrichment to the learner.

The didactic exhibitions intended to discuss social and educational issues through exhibitions; for instance, a relevant social issue such as becoming aware of Islamic culture of the neighbouring countries and of the Arabs living in Israel, through an exhibition

---

4. An interdisciplinary project of 'the early man in his natural environment' (1987) is described in Chapters eleven and twelve.

of 'forms, motifs and symbols in Islamic minor arts'. In the exhibition were displayed artefacts of clay, bronze and cast iron, with geometric, floral and fauna motifs, images of animals and imaginary creatures, as well as calligraphy in Hebrew and Arabic. The exhibition proved the mutual cultural influence of different people living together, and their acceptance of each other's culture by adopting each other's forms and motifs.

Another exhibition entitled 'Creatures That Never Were' displayed artefacts such as painted vases of scenes from Greek mythology, Egyptian/Hellenistic harpies from the Ancient Art Museum collections, and masks and sculptures of West African tribes from the Museum of Ethnology collections. This was aimed to enrich the imagination, and to make the youngster aware through the exhibition of beliefs, folk tales and legends, as transmitted by the artefacts.

The exhibition that was the central theme for the afternoon course of peoples' cultures became an occasion to schools' day study. The six grades of primary school who learn about West Africa and Ancient Greece in history were exposed to a new learning experience through objects at the museum.

The elements of international education played an important role by giving the youngsters the occasion to participate in the twentieth anniversay of the UNESCO. 'The encounter of east and west' that was organized by the UNESCO found its echoes in an exhibition that had the same title as the project. In the exhibition were displayed children's works depicting dwellings and landscapes of countries in

the east, such as Japan, and in the West, such as in Norway and Finland.

During the 1960s, the educational activities developed and grew in variety of programs and in volume, namely in the number of participants in the informal framework of the afternoon courses, and in the mornings as part of the formal education system of the schools in the city and in the district (1963).

4.3. Outreach Educational Activities 1963-1968

Outreach programmes began in newly founded public institutions, in two neighbourhoods of the city. The first was a community centre on Mount Carmel and the second was a public library at Neve Shaanan. The management of each institution applied to the museum to initiate new kinds of cultural activities for their members.

By going out to the communities the museum expanded its role as an educator in the cultural life of the community. In a smaller town people can visit the museum frequently, but in the city of Haifa of the fifties and sixties there was the need to arouse first the interest in the museum itself, considering the fact that the first museum was founded only in 1949.

The educators at the museum were the first to realize that one has to reach the community and deliver the message of the museum in the peoples' own cultural localities, a community centre and in a neighbourhood library.

Through these activities the museum could reach a wide range of new audiences unfamiliar with the museum itself and the kind of activities that developed in it. Thus, the same kind of activities with the same pattern of organization was formed in these two new locations. Children were organized into groups within a two to three years range in age. Monthly meetings that included lectures with slides and films were organized. The novelty of learning through visual means aroused a special interest, especially considering the fact that television broadcasting had begun in Israel only in 1967.

Museums, like every institution, thrive to the degree that they make their resources available to a public (Sebolt George, 1984, p 78). We discuss here outreach programmes that have gone to a considerable effort to reach people, children and families that had little opportunity to choose their activities (Kenney, 1984, p 78).

The activities outside the museum walls required modifications that were made in correlation with the people in charge of the institution of the activity, such as social workers, who were better acquainted with the needs of the community. Subsequently the educational activities complemented existing community cultural services and enriched the cultural scene with a new kind of subject that originated in a museum.

The strategies such as lectures followed by visual devices developed community interest in the museum itself as an educational-cultural institution (Pitman-Gelles, 1981, p 111). The outreach activities though modified using optional components in situ, added to make the

basic programme, of Jewish and peoples' cultures, accessible to new audiences.

However programmes at these external sites lacked an important dimension, compared with the activities in the museums, which is the encounter with the original exhibition in the museum environment. Another missing aspect was the lack of opportunity to work at workshops in immediate proximity to the exhibition itself. The implication of the comparison of the two modes of educational work led to the realization that comprehensive teaching from the point of view of the museum educational integrated approach, reaches its objectives only on the museums' premises when direct contact with exhibitions and collections is provided.

But the outreach activities that have been initiated by The Centre proved to be rewarding concerning the museums' image and public attitudes have changed in regard to the museum; the museum ceased to appear as an exclusive high-brow institution, that serves limited groups. The museum has begun to be looked upon as an exciting place of interest, where new vistas are waiting to be explored. The growing interest in museum activities brought new contacts with schools who expressed their wish to collaborate with the centre in building learning programmes for school classes in the mornings.

The idea of the new educational framework was to assess the accumulated experience and use it for future planning of a Museum

Modular Curriculum (5) that began to be built in the mid-sixties and
continued to develop till today.

---

5. The Museum Modular Curriculum will be discussed in Chapter ten.

CONCLUSION - PART I

Education and society are inseparable (Dewey, 1938; Erikson, 1958; Simon, 1961; Berger and Luckmann, 1966; Berger, 1971; Durkheim, 1971; Young, 1971; Blackledge, 1985). The motivation for writing about museum education through learning evolved from examining the sociological point of view the correlation between society, ideologies and patterns of education in Israel, and their part in socialization of the individual youngster. Namely museum's relevance to society in Israel in the late 50s and 60s (Lissak, 1970; Horowitz and Lissak, 1977).

The museum was found to be a stimultating place in which to devise educational programmes. It contains all kinds of exhibits which tell us a good deal about the past, the natural world or people of different cultures near and far (Van Wengen, 1982).

Arguing the concept of 'what is to be educated' is not a 'static entity' but a social invention. One must explore how forms of knowledge that build the curriculum are related to the vested interests of particular groups (Blackledge, 1985, pp 290-291).

The subject of other people's cultures, as well as the cultures of various Jewish communites, were selected to the benefit of using and incorporating knowledge beyond the immediate information. In the museum exist all the possibilities to explore a subject that can influence social attitudes.

Youngsters expressed the change in their attitude towards other cultures at the opening of an exhibition 'Tribal Cultures and Landscapes in West Africa' (1967). A twelve year old pupil gave his oppinion about this issue, saying:

> When we shall visit Africa we shall be new kinds of ambassadors. After learning about West Africa, we begin to realise that African people, like us, possess cultures of their own, consisting of social organization, or a tribe and clans, beliefs, traditions, language, arts and crafts. They are a primary society, being closer to nature than we are in our technological societies.

Upon analysing this opinion, one could see that barriers of alienation about a strange society were removed by acquiring knowledge, thus paving the way for a better international understanding and tolerance among strangers.

In this way an additional goal seemed to have been achieved, which is the broadening of horizons beyond one's own country. The process of identity with others extended from one's own social group of his nation, to one's feeling of belonging to the human society, thus two steps in the right direction have been achieved through learning in the museums.

The museums were a new kind of institution, both within the network of the cultural institutions in the city of Haifa and also within the educational system. Therefore, the introduction of museum activities and their inclusion in the framework of all museums in Haifa was a long process, but for the Museum of Ethnology and Folklore Archives that incorporated education in its initial plans.

The intensive work in the museums and the expansion of the activities out into the neighbourhoods made the museums familiar to a wider public, who became aware of the museums' potentialities and rewarded the museum with new audiences.

The educational programmes that have developed in the museums have laid the foundation of a city-wide activity in seven museums in the city, organized by a museum education centre, part of the museum system of the city financed by the municipality. The acceptability of museum education as part of the mainstream of education was an act of granting a legitimate status to the museum as a setting for learning.(1)

The educational approach through learning that has evolved in the museums drew its theories and methods from general education and from former experiments in the field of museum in Israel. The concepts of 'a child centred' education that had been practised in the ' houses of education for workers' children', concepts that were democratic and true to the youngsters' nature. They influenced the building of a flexible learning framework at the museum. The participants in the museum activities were not expected to demonstrate any command of knowledge through examination, but enjoy learning through active participation and recreation. Thus youngsters have been exposed to a new way of acquiring knowledge outside and different from the traditional framework of school.

---

1. The acceptance of the activity of museums educational WORK by city authorities would require a special study that cannot be included because of the constraints of this research.

The museum's informal setting of education which is an open and democratic framework gives equal chance to every individual to come to learn, without any prerequisite demands. Social factors such as peer influence has been shown to affect participation in the extra curricular activities (Burton, 1968, p 542), when children used to come in small groups of their peers to the activities in their free time. The social system considers school as an institution that transmits knowledge and prepares the youngsters to be active members in society. In the special reality of Israel in the fifties and sixties, the school system did not seem to cope with the socio-cultural problems of a society in transition; a situation that was an outcome of social and political factors. Consequently new answers in content and structure were found in the framework of the education through learning that has been built by the museum education centre. an educational structure that proves its validity till today.(2)

By way of conclusion it may be said that the museum educational programme through learning is based on two main concepts: 'social-centred' and 'child-centred' concepts. These concepts influenced the choice of subject matter of cultures as a response to Israel's socio-cultural problems. They inspired the formation of pedagogical methods of involving the individual's cognitive and affective domains, encouraging him to acquire new cultural habits of visiting and learning in the museum.

---

2. The present state of the museum education centre is discussed in chapter eleven.

PART II

THE MUSEUM AND EDUCATION

INTRODUCTION - *PART II*

In the centre of the interest in Part Two of this research are two constituents, museums and education, and their interrelationship which has created the setting and the concepts for new learning.(1)

The museum and education are two elements in the weave of the culture of western society. While educational institutions have been found from early times in different societies, museums appeared for the first time in Hellenistic times, third century BC. Both museums and educational institutions were established by society to fulfil its aspirations and objectives. In order to understand the interrelationship, we have to refer first to the museum and discuss its nature, and modes of functioning and operation in its socio-cultural context.

Museums have long been considered cultural and intellectual symbols. The museum is the treasury of the creative spirit of a society, embodied in objects of art and crafts. This legacy is to be transmitted to future generations of members of society. Education in museums is expected to fulfil this vocation. Societies which are considered socially advanced have established storage systems to better serve the need of collection; among them are museums and schools (Finlay, 1977, p 1, Taborsky, 1982, p 339).

---

1. Theory of learning in the museum is discussed in Chapters Eight and Nine.

The term "museum" has had different connotations in the history of culture. The meanings of the term have changed in relation to changes in society. It changed from its original term 'museum', coined in the times of Ptolemy Philadelphus, third century BC, to denote the house of the muses in Alexandria, to the 'museum', the socio-cultural institution of our times.

The new definition of 'museum' has been formulated by ICOM in 1974 and reads as follows: 'The museum is a non profit making, permanent institution in the service of society and its development, and open to the public.' Today's complex society, combined with a high public expectation of services provided for them creates a demand that the museums effectively promote its services (Lewis, 1984, p 7; 1985, p 8).

The years after the Second World War saw basic changes in society from different aspects. Society in Europe became more open, thus influencing long-established institutions, such as the education system, which began revising attitudes and establishing new methods in teaching. The individual learner was a major concern, and attention was given to searching for ways adequate to his abilities and needs.

The management sensed the new winds after the war, when people began anew to look for their cultural heritage. Museums responded to peoples' needs to rediscover a past. They fulfil this need by giving us a picture of history. This description seems to fit the small local museum, being visited by its small public, as well as the great

museum where attendance soars because of tourists who come to look at European history as reflected in its monuments...and through its monuments each state presents its own view of the past (Horne, 1984, pp 1-5).

The growth of educational activities in museums evolved out of the initiative that appears to have come from some of the museums in Britain, who opened their doors to the public, rather than from the schools. However the commitment to education in the museum was not unanimous, nor did the development depend on official encouragement from the city authorities such as in the case of Haifa Museum Education Centre, as far as financial funds are concerned. It evolved through growing interest, both on the part of the museums and the educational institutions themselves, or of individual educators. Thus we find systems of museum education, varied in structure, but the content of the activities has always been inspired and tightly linked with the museums, and needed the partnership of schools. This collaboration on all levels, among museums and schools is frequently recommended. (Bloom, 1984, p 31).(2)

Because of the lack of an overall, identical system of museum education, each system serves as a unique example worthwhile to be studied from two points of view: of the museum and of education, as well as their interaction which forms museum educational plans and programmes

---

2. Museum school partnership is discussed in Chapter Ten.

There is still no comprehensive history written about the growth of education, nor is there any comprehensive bibliography, but there is an extensive literature, that allows following the development of education in museums (Bassett, 1984, pp 448-459).

The state of education in museums was discussed in a UNESCO seminar in Algiers 'on the training of curators and technicians for museums' (Chatelain, 1968). Museums were called upon to realize the changes that had taken place in satisfying the needs of the individual student at school when students were allowed to extract knowledge more easily and more freely according to their interests.

The museums were expected to make radical changes in practice and grant facilities to the public at their premises. The objective of restoring the museums to active socio-cultural institutions could not have been restricted only to setting new practical arrangements, and calls were heard for new techniques to reach the public;

> It was essential that the various categories of the museum's staff...should be kept abreast of all the infinitely varied techniques capable of rendering the museum alive and interesting for different types of public (Gabus, 1968, p 6).

Namely, the change required had to emerge from within the museum.

The educative function, as mentioned before, has to be one of the major factors in the transformation of the museum to an open institution, by bringing in new audiences from educational institutions, such as school children, high school youngsters and university students. 'The function of the museums' collections were also to be redefined, not to serve only an elite

of visitors and scientists, but to be the disseminators of
culture, otherwise they could not constitute a museum at all'
(Marcouse, 1968, p 17). Years later 'This objective has still
to be achieved in 1985, because museum professionals are mainly
concerned with things and not with people' (Cossons, 1985, p 41).

Following the UNESCO seminar in Algiers in 1968, where the appeal
to museum management had been expressed, the National Museum in
Cracow, in cooperation with the Polish National Committee of
ICOM, planned a symposium devoted to the 'new public' of museums,
in the same year. The message was that the museum must be meant
for the public, must become adapted to it, and has to be dedicated
to its service (ANON , 1968, pp 2-4).

The same issue of museum public relationship is discussed by
Cameron fourteen years later. He suggests measures that the
museum is supposed to take (1982, p 181) such as: To supply
orientation facilities for the visitor, in any subject the
visitor is interested in. To enable physical access to
collections for study purposes, as well as further information,
when required, and to present information in clear language.

After the Second World War, museums grew to become part of a whole
cultural apparatus, which includes schools, concert halls,
theatres and communication media such as radio and television.
The museums of today are expected to stride with the time, to
attend to the public and respond to its needs. 'The social

upheaval of the 1960s caused museums to take a fresh look at their audiences' (Berry, 1985, p 40).

When the museums reached the state of becoming aware of the importance of the public to the life of the museum, they realized that the public consists of different audiences (Digby, 1974, pp 29-31; Harvey, 1987, pp 6-9). Museums had to employ public relations to respond to the expectations of the visitors of the services provided for them (Lewis, 1985, p 8; Bellow, 1985, p 11). Thus the museum has begun to be prepared to follow the right strategies concerning its exhibitions and ways of communication, in order to respond to the challenges that stand before the museum as a socio-cultural institution. These include a concern for special categories including young children and school parties (Heady, 1984, pp 97-98); Ethnic minorities and handicapped audiences (Berry, 1985, pp 40-48).

Museum education can be defined as a planned attempt to increase interpretation and communication between the exhibits and a specific audience. Museums were now ready to offer education not only to privileged groups, but to new audiences of people from all ranks of society. They could come as individuals, or in groups to find special programmes for learning and enjoyment.

The museum of today is no more a separate and aloof institution to serve the masses, but rather an institution ready to interpret the collections through communication to its audiences, confronting problems of today. 'The museum has been regarded

as a means of educating and enriching the lives of people and as the most obvious expression of cultural identity' (M'Bow, 1982, p 71). In fifty years the museum has moved from the Victorian concept of a museum; the emphasis is more and more on activity in relating the collections in the museums to the world outside (Hudson, 1980, p 8).

CHAPTER FIVE: THE MUSEUM AS AN INSTITUTION

5.1 The Nature of the Museum

Museums as one of the cultural and intellectual expressions of society are considered like other public systems which developed from the 'social nurturance' actions of humans. The museums' functions are similar to other institutions dealing with conservation and storage of learning collections such as libraries and schools. 'The increase of such institutions is understood as a progressive development of a society which understands mankind' (Taborsky, 1982, p 339). In this capacity the museum has research and educative roles.

However, societies differ in the methods of preservation of general heritage of both social images and social knowledge, and they have to be analyzed in the context of their own societies (Taborsky, 1982, p 340). Therefore specific research will be required in order to probe the relationships between specific societies and the phenomena of methods of preservation and heritage.

We may state that societies operate by different social patterns and use practical methods to deal with social images. Each pattern is termed as syntax, a structure (Taborsky, 1982, p 241; 1983, p 364). The syntax is only one of other descriptions that have in common 'an attempt to analyze an aspect of social existence which seems beyond everyday reality and yet is necessary to it' (Taborsky, 1983, p 364).

The nature of a museum is revealed by its collections, each with its own traits and with the particular historical circumstances of its formation, namely the collecting of its objects, the development of its own rationale and its accessibility by its public.

There are museums in the present that developed out of past private collections of people of various ranks of society. There are collections that are still in their original state, others are dispersed in various institutions, without bearing the status of a museum. Because of the constraints of this research, the path of following the chronological development of museums was avoided.

5.2 Sources and Formation of Collections

The urge of collecting is already known from early times. It seems to be 'a reflection of an inclination innate in the nature of man, towards inquisitiveness and acquisitiveness, combined with the wish to communicate to others and it intends to respond to social needs' (Wittlin, 1970, p 7). The urge to collect and the act of collecting is given the causal factor for the existence of museums (Taborsky, 1982, p 339).

Two main kinds of collections can be distinguished: (1) Individual's collections, which were amassed by powerful and rich ones, people who were able because of their status to acquire and keep expensive objects. As in the Illiad, where Homer

describes the collection of Priam, the King of Troy, who gathered beautiful objects in his treasure chambers (Wittlin, 1970, p 7); (2) Communal collections, found in public places such as temples which served at times as houses of treasure, or banks. Here the sources are votive offerings.

A source of both individual and communal collections was booty, caught in wars, or brought to the court. For example, a present of a fine gold vessel offered to the ruler by tribute bearers, in a procession of tributaries from Phrygia, can be seen on a bas relief on the eastern stairway of the Apadana, of the Achmanedian palace in Persepolis time of Xerxes I beginning of the fifth century BC (Godard, 1965, p 112, plate no. 48).

Objects that were in collections were evaluated according to the rarity of the material they were made of, or the durability of metal, qualities that grant to the metal object a superior value. The possession of precious metals in ancient times represented condensed wealth, as nothing else could, and it decided the fate of nations. A list of categories of collections cut across the orderly patterns of life, such as: Economic Hoard Collections, Social Prestige Collections, Magic Collections, Collections as Expressions of Group Loyalty, Collections as Means of Stimulating Curiosity and Inquiry, and Collections as Means of Emotional Experience (Wittlin, 1970, p 4).

'All societies seem concerned with the preservation and production of social images and the generation of knowledge about

these social images; however, they use different methods for dealing with these social needs and the museums are one specific method' (Taborsky, 1982, pp 340, 341).

There is a clear relationship between the ideas and the ideals of a period and the building of the collections. Writing the history of the collections and giving an account of their relevant period will explain from what background a certain collection evolved. Therefore, history as well as sociology are not only fundamental for the understanding of the collections, they are prerequisite to the understanding of societies' attitudes towards the object in general (Taborsky, 1982, p 340). Seen in the historical context, most societies are 'concept-centred' and the individual object has a very limited significance, such as fetishes and totems that have a functional role. In these societies transmission of cultural traditions is mainly oral. 'Oral traditions comprise all the various types of witnesses of a people's past which have been handed down by word of mouth' (Konare, 1986, p 6). Another vehicle of oral traditions are traditional crafts connected with the ritual chants: rhythmic words and gestures of the artisan that are linked with making things and create a kind of language.

Objects connected with traditional occupations and technologies as well as oral traditions should be recorded and preserved. Through collections of various material elements, provision of facilities can be made for education, and for perpetuation of the oral heritage (Konare, 1986, pp 5-8).

The minority of societies are 'object-centred'. The object in these societies is instrumental in the transmission of cultural traditions. This approach to object is more relevant to western societies than to many other societies (Cannon-Brookes, 1984, p 115).

This distinction between the two kinds of attitudes to 'the object' elucidates important characteristics in the nature of collecting and treating objects in different societies. It draws our attention to the cultural characteristics as well as to the understanding of how the appearance and growth of museums are related to them in certain societies more than in others.

CHAPTER SIX: THE CONTEMPORARY MUSEUM

Museums have been compared to the Roman God Janus, always facing
two directions attempting to focus on initial museological
functions and faced with responsibilities towards the public
(Able, 1988, p 112).

Common characteristics have been discerned in museum development.
In each period the museum was moulded differently by its founders
and by the contemporary spirit of the relevant period.   The
process of change of museums has not lost its momentum till
today.

Public museums were formed towards the end of the eighteenth and
nineteenth centuries.   They had two aspects to them: Public
authority to control them and a gradual public availability which
was   influenced   by   prevailing   social   and   philosophical
considerations (Lewis, 1984, p 11).   In Europe the famous ones
are: The British Museum (1759), that was the first secular public
museum in the world writes Wilson, (1985, p 1); Miller, (1973);
Caygill, (1985) Reeve, (1988); The 'Louvre   (1793) that was the
National Museum of France (Gauthier, 1962; Bazin, 1967, 1969).

There began an ever growing number of museums organized in the
public interest (Bazin, 1967, p 194).   Questions were raised such
as how does the authority decide what is in the interest of the
public and how the public's right of entering and visiting the
museum freely is respected in Britain.   Parliament acts
concerning museums' roles were enacted in 1845.

Museums are an international growth industry, in Britain, France, West Germany and Spain (Lumley 1988; Singleton, 1981, p 111). In the United States in spite of energy and cost problems in the 1970s, museums received more visitors, had more students in their education programs and a constant rising demand for the use of other cultural activities, such as concerts and meetings (Able, 1988, p 12; Ambach, 1980, p 13; Fradier, 1978, pp 78-87).

In order to offer relevant programmes museums must carry out research programmes, to find out what are the needs of the multifaceted society (Hooper-Greenhill, 1988, pp 228-230).

It is difficult to discuss here all the implications of the phenomenon of the growth in numbers and in forms of museums, instead we shall concentrate on some of the characteristics of the museum. We shall mention just a few museums and discuss one form, the ecomuseum which appears to be one of 'the museums of influence which are quickest to identify the new social institution' (Hudson, 1987, p 10).

Among the forms of new museums of the 1970s, which encompass exhibitions as well as study and research centres are the Yale Center for British Art, New Haven (1977); a new museum and study centre. Its structure is the most valuable asset apart from the collection. The structure integrates the dual function of a study centre and gallery (Pillsbury, 1987, pp 88-93); Kila Monastery in Bulgaria which serves as a museum, organizes different exhibitions in addition to being a centre for the

research and study of sociology and museology (Tonev, 1978, pp 109-115).

The other museums to be mentioned is the integrated Vladimir-Suzdal museum cities in the Vladimir region, which is the centre of the former Russia. The heritage of the pre-revolution times is protected by the government. It is important to notice that since the earliest days of the October Revolution, the Government of the Soviet Union has concerned itself with the preservation of the historical monuments and with their transformation into national property and as a means of educating the people (Aksenova, 1978, pp 116-121; Ivanov, 1989, pp 34-40).

6.1 The Contemporary Museum: The Museum as Part of a Cultural Apparatus

A distinct characteristic of the contemporary museum is its being part of the cultural apparatus, and it being active with the role in increasing the visibility of cultural resources (Bloom, 1984, p 93).

What is the cultural apparatus that the museum is part of? Cultural apparatus is the means which society has established 'that every man is increasingly dependent upon, such as observation posts, interpretation centres, and presentation depots' (Mills, 1963, p 406). The apparatus is composed of all organizations, institutions and agencies in which artistic,

intellectual and scientific work goes on, and by which such work is made available, and is distributed to circles, publics and the masses. Cultural institutions are more alike than different, they all share similar concerns (Ambach, 1980, p 13).

Among all these elaborate sets of organizations such as schools, theatres, studios, newspapers, and radio networks, there are the museums, to interpret and report the world to man. The apparatus is the lens of mankind through which men see the world. This is the medium by which they interpret and report what they see. Nowadays, in modern society, the individual has lost his independent judgment of what he sees. Because of the abundance of means of communication and information, museums must explore new avenues of cooperation with cultural institutions in their communities, for the individual who becomes more dependent on the agencies of communication (Bugard, 1983, p 20).

Any establishment of culture, means the establishment of reality, value, taste. All these are subjected to official management, either political or commercial.

The combination of culture and politics is seen in under-developed countries where the leading group of 'intellectuals' takes active part in the creation of a national state. Consequently that state's cultural apparatus is filled with political vision and demand (Mills, 1963, pp 413-414).

What is characteristic of the cultural establishment of west European countries is the historic duration of patterns of culture, somewhat independent from national authorities, but still retaining traces of patronage. Their cultural apparatus is established out of a pre-capitalist stage, where the authority of tradition and the prestige of culture were intricately joined.

In European countries, different groups of intellectuals serve as speakers for the 'public conscience', such as men of letters in France, or the professoriate in Germany. Both groups are close to, or in the governmental apparatus, but act rather autonomously within it.

In England, as viewed historically, there developed a triangle of the old universities in the centre, flanked by the higher civil service, the monarchy and the social class of county families and landed gentry (Mills, 1963, p 415).

The four major blocks of culture, the U.S.S.R., the United States, Europe and the under-developed countries, although different from each other, are all experiencing big changes. All are subject to both inside and outside factors: inner socio-economic and political factors and outside influences resulting from the constant flow of media and mass communication that forms public opinion, and renders our world, in McLuhan's phrase, to one 'global village'.

Gilman, in his article 'The Museum as an Instrument of Cultural Innovation', (1978) suggests far-reaching concepts of the museum's role in the cultural life of modern society. His attitude and outlook is inclusive, embracing different cultural institutions: museums as well as other cultural centres such as houses of culture in Europe, or community centres in the U.S.A., institutions that have developed especially in the last few decades. While the houses of culture are a new kind of socio-cultural institution and look to correspond to contemporary society's needs, traditional cultural facilities, such as museums have been neglected and regarded as symbols of 'musty past', as a 'cultural necropolis', as 'salon for the bourgeois elite', states Gilman (1978, (p 1).

The museum which is part of the whole cultural apparatus, is urged to remodel its traditional functions, which were conceived centuries ago and were built around the collection which has been preserved, enriched and exhibited. Priority should be given to the public of a given region. The public has to become an active factor to be considered and referred to in the planning of the museum's cultural enterprises (Gilman, 1978, p iii).

6.2 The Museum and Education: Interdisciplinarity and Interaction

Two of the most conspicuous features of the contemporary museum are its interdisciplinarity and its interaction with the outside world of international bodies, governmental and non-governmental, and in the inner life of the museum.

The leading spokesman for interdisciplinarity and its dissemination in museum work was G.H. Riviere, the French museologist. In his foreword to Hudson's book 'Museums of the 80s', which he ranks as the 'definitive treatise on modern museology', Riviere accentuates and reminds us that interdisiplinary and collective work are called for and must inevitably be undertaken as a basic concept in museology, for the sake of the museums' advancement (Hudson, 1977). Interdisciplinarity designates cooperation among various disciplines. It leads to actual interaction and exchanges resulting in mutual enrichment. Interdisiplinary work may be favoured for the sake of education in the museum setting.(1)

6.2.1 The International Scene

ICOM, the International Council of Museums, was formed in 1946, as a professional non-governmental organization, that provides professional aid to UNESCO. ICOM in its triennial conferences brings together museums' personnel of different disciplines. The quarterly journal 'museum' published by Unesco serves as a channel for exchange of ideas and information among museum personnel. ICOM, an affiliated body of UNESCO, UNESCO itself and the Council of Europe, were created for the sake of accelerating that contact between countries, an objective that

---

1. Two projects that have originated from the concept of interdisciplinarity were developed at the Haifa Museum Education Centre. See Chapter Twelve.

proved its validity seeing cultural action on the scale now among museums.

Interdisciplinarity and interaction bring exchange of ideas and knowledge to be shared by those who have the information with those who lack it, by the developed countries with the countries of the Third World.

Internal committees operated by ICOM provide an arena for exchange of professional ideas among experts concerning aspects of their special work in the museum. The discussion in such forums 'assist in formulating international policies' (Lewis, 1984, p 18), and advance the integration of museums as active institutions in society.

The changing philosophy towards museums in the second half of the twentieth century has been by no means exclusively of European origin. The trend in programming museum policy, for instance in South America, is to integrate the museum with the community, for the benefit of society. The museum was called upon to function as part of a society's cultural apparatus, namely to respond to the educational needs of each country, as was declared in a meeting of curators and specialists from South American countries in Santiago in 1972. Our attention is called to the fact that 'the cultural policies in these countries, where the museums were supposed to take an active part' are as diverse as the cultures themselves, and the political as well as their socio-economic systems (Arjona et al, 1982, pp 72-82).

The round table that met in Santiago was entitled 'The Role of Museums in Today's Latin America'. It marked a turning point for the museology of the region.

The encounter at Santiago was a guided interdisciplinary approach, which appears to be the only adequate approach to museum in the contemporary reality of South America. Namely, bringing together specialists of social and applied science disciplines to discuss these problems. In the last decade it seems that museums have taken on the challenge of making heritage relevant to contemporary developments in the region (Arjona, et al, 1982, p 74).

Definitions such as 'integral museum' emerged in the discussions at the conference and became valid to require for the transformation of the museum's role in society from a detached institution to an active one (Arjona, et al, 1982, pp 73-74). First it was pronounced in 1983 in the general conference that had been held in London, and later in Quebec in 1984, at the first international workshop on 'Ecomuseums and the New Museology'. The idea which was voiced in ICOM's International Committee for Museology (ICOFOM) developed rapidly into a movement.

The ICOFOM decided to devote its annual conference in Finland (1984) to the study of the museum from the new, broader theoretical perspective, not only for the sake of the development of museology as a scientific discipline, but also as a contribution to the further development of the museum field.

The philosophy that began to develop is expressed in the 'Declaration of Quebec' and achieved a general concensus on its basic principles (Mayrand, 1985, p 201). In this declaration were brought up once more the ideas of the Santiago round table that had been neglected for more than a decade. The declaration re-affirms the social mission of the museums as a new point of departure, as well as its primacy over the museum's traditional functions: conservation, building and preservation of objects.

From the Santiago meeting in 1972 to the Lisbon conference in 1985, there has been a transition from Conservative museology to a dynamic museology, with growing social and political awareness (Mayrand, 1985, p 202).

ICOM has stressed from its beginning the educational role of museums and it formed the CECA, a Committee of Education and Cultural Action. 'Education' in the museum context relates to people of all ages. It includes the broad meaning of education as well as instruction (Harrison, 1956, p 5).

ICOM's policy on education was first expressed in publications such as 'Museums and Young People' in 1952, and in 'Museums and Teachers' in 1956. In these two publications experiments were described in museum education with young people from several European countries, as well as museums in America. A third publication, which appeared more than a decade later in 1968, dealt with adult education. Further publications on the subject

included bibliographies for national working parties (Bassett, 1984, pp 448-459).

ICOM dealt with the subject of museum education in international conventions, on the role of museums in educational and cultural section in Bath in 1959 and in Moscow and Leningrad in 1968.

The CECA committee that meets annually, allocated one of its working groups to discuss interdisciplinarity and complemantarity since 1984: These concepts are central for developing new kinds of projects, of a comprehensive nature. (Vestergaard, 1984; Antzoulatou-Retsila, 1989).

The choice of the subject by international bodies signifies the importance of the subject of interdisciplinarity as a counterpoise to the fragmentation of knowledge and in the structure of the work of the museum, including education.(2)

6.2.2 The inner and outer museum scene

The other facet of interdisciplinarity is part of the museum's concepts of modes of its functioning and operating. The two modes and their interplay create the weave of the dynamic museum of our times, a complex organization with a wide range of responsibilities to its collections and to the public.

---

2. Interdisciplinarity and knowledge are discussed in chapter ten.

'Every museum programme and every museum project have their own norms, worked out in relation to the institution's own specific disciplines: to the organization of its public (Riviere, 1980, p 2; Stokstad and Humphrey, 1982, pp 7-9).

Each institution's discipline is based on the nature of the collection and its ways of interpretation, that dictates the character of the programmes it projects and develops. In addition, objective conditions such as a structure suitable for presentation of the specific collections and funds are needed in order to convey the museum's message to its public.

The first mode of the museum's work, is of functioning in the inner museum work. It is connected with the work of experts, because 'museums are still in the business of 'keeping and sorting the products of Man and Nature'. The second mode is of operation...' in promoting understanding of their significance' (Impey, 1985, p 1). While the mode of functioning relates to the inner life of the museum, the outer museum activities include all the transitional devices that make the knowledge created in the inner museum available to the public (Stokstad and Humphrey, 1982, p 9).

Thus interdisciplinary work in the museum is of bringing different factors together. We shall turn to the intricate inter-professional and interdiscplinary work inside the museum and elaborate on two factors: (1)the conservation and restoration

that secure the object's properties, and (2) the standing of the educator in the museum's network.

Conservation is important beyond caring for the physical state of the object. Conservation guards works of art and crafts, while preservation keeps the treasure not only for the people of the present time, but for future generations. The function of preservation perpetuates the idealistic nature of art, since it claims that art could be eternal. This idea dominated the nineteenth century, when public museums were created approximately as they are still known today (Buren, 1973, p 216).

There can be traced two aspects of conservation that refers to the whole subject of care and treatment of valuable artefacts: The control of the environment to minimize the decay of artefacts and their treatment to arrest decay against further deterioration.

Restoration is the continuation of the latter process, when conservation treatment is thought to be insufficient. Namely, that the treatment should normally be such that the artefact can be returned to its pre-treatment condition.

'During the past thirty years there has been a noticeable shift in priorities, as a consequence of a growing realization that mere acquisition...when collections are falling apart and are not usable and not available to those who are expected to use it, such as students and the general public. Heritage has to

be helped to survive to 'stimulate the imagination and shape the thinking of future generations.' It has to be preserved to build bridges between past and present members of national and international communities. 'Viewed in this way conservatism is both a prime duty and a highly creative activity. Within recent years a wide range of technical discoveries has placed it on a far more solid and scientific basis (Thompson, 1978, pp 88-93).

Research relating to all aspects of objects will generate new knowledge and will enable the educators to provide the students with access and insight of the objects and their physical state (Stokstad and Humphrey, 1982, p 14). Conservation can be integrated in projects devised by the museum as part of subjects in archaeology, by giving students shreds of ceramics for restoration.

Our attention is drawn to Riviere's words on the subject: 'The world is becoming increasingly aware of the scientific nature of museums'. There must be much more cooperation and coordination between specialists and countries, 'noble subjects are worthy of veneration and sacrifice.' Riviere hoped that ICOM, being firmly dedicated to museums' advancement, would further the interdisciplinary aspect in the experts' work (Hudson, 1977, pp 37, 57).

The traditional method of exhibition development proceed linearly from department to department. The process begins with the curator, who conceptualizes the exhibition, proceeds to the

designer, who creates the physical plan, and ends with the educator, who builds activities around the resulting exhibition.

The traditional mode of preparing an exhibition involves in each stage a different expert, and often frustrations and occasionally contradictory opinions are about to take place. This linear process can prove unsuccessful for the museum's public as well, for museum audiences are too frequently left with the overly esoteric, inappropriately designed, or poorly interpreted result (Graiber, 1984, p 20). Event at museums cannot be 'imposed' by the curator on the public (Gilman, 1978, iii).

The team approach is based on the assumption that the contribution of each one of the team complements the others share of ideas, along the different phases of the construction of the exhibition. From the phase of conceptualization, information that is gathered by the educator in everyday work, about the audiences, can help the curator to know for whom the exhibition is intended, to the designer to understand better the different objects and their importance, to convey the message of the exhibition, and make the layout plan accordingly. By becoming aware of the educator's target for a specific audience, in relation to age and cultural background, the curator and designer are able to build a more relevant exhibition for the different publics and their experience of the world (Schouten, 1987, p 242).

As a result there is a commit ment of the participants to the

common enterprise, as well as a system of checks and balances

which is developed along the evolution of the exhibition so that

'few' surprises can occur (Graiber, 1984, p 21).

With the development of specialization in the sciences and

technology, the museums recognise the potentialities inherent

in them, such as sophisticated technical ways for documentation

and audio-visual aids for interpretation; the need is now for

new kinds of coordinated approaches of interdisciplinary work

that is different from the traditional ones (Deneke, 1987, p 35).

6.3 The Standing of Education and the Educator: The Professional
Aspect

The growth and the increasing sophistication of the museum has

required the development of specialized skills; such as

administration and education, which are suspected to erode the

comprehensiveness of the curators' function. Where educative

staff have been introduced, the educational role of the curator

is likely to diminish. Therefore, only a mode of mutual work

at the museum is required to provide the resources for the proper

museum educational work (Locke, 1984, pp 482-483).(2)

---

2. For control and financing of museum education services refer

to Bateman, 1984, pp 51-55.

The standing of museum education and educator was defined in a charter in Paris (1964). It was stated that the educational staff should be included in the scientific staff with qualifications and responsibilities being equalled (Boylan, 1987, p 226).

A later resolution concerns the heads of the museums who orchestrate the museum work. 'It was felt that future needs of museums must receive a complete training, museological as well as museographical'. In order to resolve the dichotomy between the curator or museologist, and all the other categories of employees which serve as a source of difficulties at the museum work (Boylan, 1987, pp 226-227). Though the equal status of the educator among colleagues in the museum was defined already in 1964, a different situation in the U.S.A. museums was reported by two scholars. Eisner and Dobbs submitted a comprehensive report in 1984 on the current state of the arts of museum education in U.S.A. that can teach us about the situation of museum education in other developed countries(3) (Waller, 1985). The report included a description of the situation in art museum education as perceived by directors and educators.

----

3. There was not found by the writer any other source as elaborate as Eisner's and Dobb's study concerning the standing of the educators and education in museums.

It was found that there is a lack of consensus among professionals regarding the basic aims of museum education and education in general (Eisner and Dobbs, 1986, p 10).

This incoherence about the museum education stems from the lack of understanding of education as a positive process which has consequences to people.

The idea held by curators that works of art speak for themselves is both unfortunate and naive. The objects displayed at the exhibition hall do not necessarily make the visit an educational event. It depends on the educator who has the skill to enhance the visitor's experience with the works of art, the knowledge of which is prerequisite to the act of interpretation. If someone goes to the museum and is not affected, no education has occurred (Eisner and Dobbs, 1986, p 11).

The misunderstanding concerning the role of education stems from the lack of a system of accrediting museum educators, though there is a consensus about the centrality of art history in the museum education training in U.S.A. But, it is relatively rare that psychology, or sociology are mentioned as relevant to the educational functions of the museum (Eisner and Dobbs, 1986, pp 11-12). The preferences of art history over the social studies which are needed for museum education can be explained by the museums' directors basic concern with the knowledge relating to the object and not with the knowledge related to the public.

The educators work at the museum is of an interdisciplinary nature, of combining the knowledge of the museum's collection as well as the knowledge in the other fields of psychology and sociology concerning the audience. Without the knowledge of these complementary sciences, museum education will lack proficiency and will not gain an equal status among the museum experts. Though Eisner and Dobb's analysed only one group of museums in the U.S.A., it can stand as an eloquent call for reform in other museums. Because in many museums the standing of museum educator as an equal expert in his own right among the other experts has not yet been achieved (Boylan, 1987, p 226).

An equally important aspect to the problem of the standing of education and of the educator in the museum, is who are museum educators themselves?

The literature tells us very little about the characteristics of the people who plan the programmes and employ the educational techniques. But a certain amount of data was gathered in 1981 and 1983, in 40 American art museums, and later the data expanded to 87 randomly selected art museums in the U.S.A. (Zeller, 1985, p 54), namely material that refers to only one group of artmuseum educators.

The questionnaire that was used in this survey is designed to provide data on (1) demographics, (2) education including the content of the education, (3) professional experience, (4) the scope and nature in education, (5) professional attitudes, (6)

development of circulation and curriculum materials for use of teachers and students (Zeller, 1985, p 55).

Some results of the survey tell about how museum educators perceive themselves and their involvement in the profession. It was found that the majority of forty percent hold membership in art history or museum associations. Forty-four percent report attending one or two professional meetings within the last five years.

Reading literature which is another indicator of professional involvement shows that thirty-two percent cite museum literature, twenty-six percent a combination of museum, art historical and education journals. Many of the art museum educators were not familiar with scholars in the area of art education. Concerning knowledge, the evaluation of the profession education as a discipline, was conducted by a survey at Leicester University among museum educational personnel in Britain. The results show 'that only 15 percent of those saying that are involved with educational work in museums (which does therefore include curators) had a teaching qualification' (Hooper-Greenhill, 1985, p 2).

The goal of finding the ten most important factors in hiring a person to fill a position for art education, was to obtain some data on how art museum educators perceive themselves and the role they play in the museum. The figures show that previous education experience was ranked as the most important by over

forty-five percent of the respondents. An equal figure of forty-six percent put strength on academic course in art history and humanities in either first or second place.

The result of this study shows the need for art educators to define their professional status more clearly (Zeller, 1985, p 59) in order to establish themselves in the merit of their own art that has its specific characteristics of education and the discipline of the museum they work in.

6.4 Museums and Audiences

Museums must be for people, this is perhaps the only yardstick we have to measure what we do and propose to do in the midst of so much uncertainty (Finlay, 1977, p 174). The contemporary is urged to become aware of the responsibility towards the public as a socio-cultural institution.

The word 'museum' automatically conjures up the ideas of antique, rare curios, etc. In order to attract visitors, especially in the U.S.A., museums are engaged in an extremely costly rivalry to acquire unique items at 'any price'. This stems from the concept that objects are regarded as ends in themselves. while the public was authorized to contemplate the objects without understanding them. This order is offered to be reversed and the starting point will be the public and the individual; because museums should be for people (de Varine-Bohan, 1976, p 131).

The new order the museum is expected to shed, is the image of a shrine, a temple of an 'artefact friendly' environment and replace it with the 'people friendly' environment (MacDonald and Cardinal, 1986, p 12). Museums as places of wonder of inspiration as they were in the past will remain this way if people and the museum-visiting movement will be recognized as a fundamental form of human activity.

This claims revised approaches and requires new attitudes on the part of the museum's personnel towards the public. The day of the ivory tower curator is over, well and truly over, as attention turns to marketing initiatives, to business, sponsorships and to pleasing the public (Hooper-Greenhill, 1988, p 175).

With the growth of museums' industry, demands from different directions are sent to museums, such as to develop marketing research which is needed in order to fulfil their functions relevantly, to the aspirations of different audiences, among them a rapidly multiplying audiences of tourists (Clarke, 1988, p 15).

In order to be more specific in defining the objective of fulfilling the public's expectations, research is needed in order to analyze audiences' interests and even potential needs; as well as in measuring the effective power of exhibitions or their success in conveying information. Museums have to find effective ways to evaluate their ability to bring about attitudinal changes. Changes relating aesthetic as well as social values.

In general terms the museum is expected to function as a communicator and educator (M'Bow, 1982, p 71).

There are critical opinions about certain museums such as art museums that still frequently fail to reach various audiences. The great majority of Americans feel deprived in this sphere, locked out from the world in which beauty is intelligible despite the efforts to find the way to the world of art. The reason for it lies in the fact that those who write about art explain the objects and are not attentive, to the difficulty of the audience (including college students), in dealing with unfamiliar technical vocabulary and the subject (Chambers, 1984, p 47). In England figures show that 'art galleries seem to attract the most privileged people' (Hooper-Greenhill, 1988, p 218). A similar result is received in analyzing a study conducted in the Dutch museums by the Ministry of Welfare, Health and Culture. The study examines the relationship between the nature of what a museum offers and the social background of the public. It shows that art museums, especially those exhibiting modern art, enjoy the support of an extremely well-educated people (Gazenboom and Haanstra, 1989, Chapter six).

The danger exists therefore that art, that stepped out of the cathedral and out of the palace may step out of the museum, if its relevance to society is ignored (Smith, 1975, p 85).

A number of studies have been undertaken in order to explore the visiting patterns of the public and to gather information for

further planning of programmes and policies of the museum in
England. 'Though, few sociologists or cultural theorists have
directed their attention to the museum as a site to study'
(Hooper-Greenhill, 1988, p 216).

Three studies are mentioned here, but not ELABORATed because of
the constraints of this research.

Digby and his team studied three of the most popular London
museums: the British Museum, the Science Museum and the National
Maritime Museum in Greenwich (1974). In the survey, different
reasons are given for motivations for visiting the museums such
as: reputation of a museum, passing the time or visiting by
mistake (Digby, 1974, p 48); people come to see a particular
exhibit or gallery, for special interest to the Science and
Maritime museums, and for general interest visitors come to the
British Museum.

Heady's survey (1984) was carried out in three museums: the
Victoria and Albert Museum, the Science Museum and the National
Railway Museum. The research was commissioned by the office of
arts and libraries on behalf of the managements of the three
museums to be studied.

'Visiting the National Portrait Gallery' was a report of a survey
of visitors, prepared by Harvey (1987).

In relation to studying the cultural background, there is no indication given of social background and educational level of any of the interviewees, however, it is noticeable that the majority of museum visitors are from the professional classes (Browne, 1984, p 14). A similar observation is reported saying that 'In overall terms it is very clear that museums at national and local level draw the bulk of customers from more affluent sectors of the British population' (Middleton , 1985, p 19).

Though there is research relating to the visitor as a consumer, still there is a shortage of qualitative studies which analyse the visitor experience using interpretative or ethnomethodological approaches (Hooper-Greenhill, 1988, p 219). Such approaches have to be formed in order to relate to the demands of multicultural educational work in Britain, due to the demographic changes in the British society of today, that becomes a multi-cultural society.

The work with ethnic community groups and their leaders have developed new relevances for the museum. Thus, if changes are included as sources, new policies can bring a regeneration to the museum's functions as an active factor in the socio-cultural phenomena of a multicultural community. Leicester Museum was one of the first museums to undertake a work in collaboration with the city communities (Hopper-Greenhill, 1988, p 228).

Another aspect of museums and audience is how much the visitor knows about the museum. In the U.S.A. the public is the ultimate

key to a new image of museums, but few know the inner work that is invested in an object and in an exhibition. In comparison to people's perception of libraries, it is not nearly so limited as their awareness of the museum. Thus it is recommended that the process of museum work can be shared with the general public (Bloom, 1984, p 105).

Conservation, restoration can be introduced to visitors in orientation rooms which is a popular mode of acquainting the visitor with the subject, the history and the process of an exhibition. In addition is required a deeper probe and a more elaborate process of interpretation and education. The two modes will enliven the public's awareness and will involve him in the active process of acquiring knowledge and pleasure through the provisions made by the museum; consequently it will cultivate public commitment to museums as institutions (Bloom, 1984, p 106).

The main objective of the contemporary museum in relation to the public, is to ensure effective communication to a variegated audience, to different categories of users, each with its specific needs, with its own cultural level and ways of life. Thus, in order to achieve a keener involvement of people in the permanent, spontaneous and free cultural creation at the museum. Consequently museum's function will move from collecting objects for research purposes to utilizing the objects, as it is the way the library is utilized by borrowing books. Only in such a place which is an object bank, knowledge will be dispensed through the

objects, and the museum will grow into a place of interaction where new social relations will become an element in human environment (de Varin-Bohan, 1976, p 143).

6.5 The Ecomuseum

After dealing with the elements that constitute or aspire to constitute a contemporary museum, such as interdisciplinarity in its functioning and operation and its response to audiences, we move to a specific kind of museum, the ecomuseum, that represents a museum of a community, its environment and the interaction between the two.

Dealing with the subject of man, nature and their interrelationships there are former examples to the ecomuseums such as the natural history museum is the Arizona Sonora Desert Museum. A living natural history museum which is encompassing a vast area west to Tuscon (opened in 1952). The museum has provided an opportunity for man to encounter plants, animals and geology of the desert in a natural setting.

In all matters regarding the natural environment, the Goulandris Museum of Natural History at Kifissa (completed in 1983) is unique in its position in the world of museums. It serves as a national conscience, as a powerhouse for generating an interest in natural history throughout the country, and it also serves to safeguard nature against the forces that threaten the environment in Greece (Hudson, 1987, p 85).

Though these two museums deal with man and nature, the ecomuseum places stress on ecology (Riviere, 1973, p 28) and on a specific community which is involved in the creation of work in the inner and outer museum in its modes of functioning and operating.

The idea of an ecomuseum is rooted in the state of man in his environment. The environment which is 'the sum total of prevailing energy, physical and biological conditions and the concrete milieu constructed by man. 'As the science of environment, ecology exhibits this duality' (Riviere, 1973, p 26).

The ecomuseum is an evolutive definition, a growing entity that brings together the optimum number of aspects, the expression of man and nature, and the relationship between the two. It portrays nature in its wildness, but it is also adapted and is created by society in its own image. Society which is the public authorities and the population operate jointly in building the ecomuseum. Public authority's involvement is through experts, and in facilities resources it provides; the local population's involvement depends on its aspirations, knowledge and individual approach (Riviere, 1985, p 182).

The ecomuseum is an expression of time; it portrays time from before the appearance of man along his history from prehistoic times till today. Museums of this kind do not pretend to decide, but to inform and critically analyse and interpret.

The ecomuseum is described as a <u>laboratory</u> that contributes to the study of man and environment of the past, in cooperation with outside research bodies. 'It is a <u>conservation centre,</u> insofar as it helps to preserve and develop the natural and cultural heritage of the population.' It is a <u>school</u> because 'it involved the population in its work of study and protection, and encourages it to have a clearer grasp of the future.' (Riviere, 1985, p 183).

All these three, the laboratory, the conservation centre and the school enjoy the same degree of importance for their knowledgeable contribution to the creation of the ecomuseum.

A variety of considerations such as the importance of historical and aesthetic factors, the potential interest for the tourist industry and education, have brought a plan for the protection of the habitat and rural architecture in the Landes, where the ecomuseum of Marqueze, Sabres was built as part of the regional natural part of the Landes de Gascogne, France.

The predecessor of the ecomuseum in the matter of nature and community is the Scandinavian open-air museums of the last half a century. They have provided an example to be adapted, of an interdisciplinary work among the developers who brought to the creation of a project: demonstrating man's relationship with the natural environment in a defined region (Moniot, 1973, p 79).

The Camargue ecomuseum, Mas du Pont de Rousty, Arles, France
(1978) displays the problems of man and environment. Though the
Camarge local population is small, about 8500 inhabitants as
compared with approximately one million visitors who come to the
museum (Duclos, 1980, p 23), the museum's facilities are able
to make people aware of resources of the fragile nature.
Displaying the human environment with the help of objects, models
as well as audio-visual aids help to teach in more details the
wildlife and the cultural life of Camarague.

The ecomuseums exemplify a new form of museum, suggesting the
involvement of people in a new experience, an opportunity for
city dwellers to open towards the problems which create the
threat of disappearance of a balanced environment. In its way
the museums serve in micro society the problem of the macro
world, the world of today.

The participation of the population is an indispensible
dynamizing element is a principle which is at the heart of the
ecomuseum. This can be seen also in the second generation of
museums such as the Museum of Man and Industry, Le Creusot, in
Central France (Gilman, 1978, pp 12-17).

The 'urban community' which administered the museum is an entity
of a group of sixteen municipalities with convergent interests.
In the heavily industrialized region the ecomuseum is set out
mainly to carry out research of the specific nature of the
region, in order to preserve its heritage to the best advantage;

and to incite the population to rediscover itself and the environment which is created, through the historical and geographical gathered material on the community's territory. Research and training are centered on the history of industrial development, but understood in all its economic, social, cultural, ecological, political and human aspects (Gilman, 1978, pp 12-13; Hudson, 1987, pp 163, 166).

The local population took an active part in its creation. Varine-Bohan describes the experiment in its initial stage, but adds that various opinions about it have already appeared then. He assumes that risks of a political, scientific and psychological nature are involved; and it will be difficult to form a homogeneous and lasting team managing the museum to work. However, he believes that the risk is justified for two reasons: firstly, that the newly devised museum is the best opportunity for unification of the cultural development of the urban community, and the environment; secondly, it is the museum institution itself which may emerge in a new and modernized form (de Varine-Bohan, 1973, pp 242, 249).

The difficulties inherent in the creation of the kind of the ecomuseum or ecological museum were mentioned again a few years later by the same museologist. One of the reasons is that in France the art museum's curator is still accredited as that of the collector. This concept contradicts the work of various experts representing the various disciplines that are to be called permanently in the ecomuseum. The other difficulty

concerns an intellectual problem: how is the selection of the material to be made? The curator, irrespective of his qualities is incapable of solving this problem alone. What is needed is a systematic cooperation organized at all levels (de Varine-Bohan, 1976, p 137), to solve the problems of curatorship at the ecomuseumS.

During the decade from the late 1970s to the late 1980s, a proliferation of new forms of ecomuseums have appeared. The ecomuseum which was supposed to be concerned with collective memory of the community, displays an amazing ability to forget its own history. Every museum has built a theory of its own, trying to make it fit to the 'evolutive definition of ecomuseum' of Riviere (Hubert, 1985, p 186). But when we read Riviere's definition (1985, pp 182-183), we realize that he restricted its length as in earlier publications in order to leave great scope for experiments (1985, 1987, p 186, footnote no. 2).

A great number of little ecomuseums that have opened since 1977 are found to neglect one of the basic concepts of the ecomuseum which is building the museum on the base of groups of district councils as their forerunners did. For this reason it is difficult for them to expand and subsequently to build programmes because they lack of secure and permanent resources (Hubert, 1985, pp 187, 189-190).

The question is do ecomuseums have a future? The originality of the ecomuseums is the astonishing capacity it has shown for

catching up with its own time; for confronting the present in order to offer it a new humanism. It presents an alternative by which each micro society displays its heritage objectively; it means with a community, with a specific public, with its cultural-historical ways of life and memory (Gilman, 1978, p 28).

The case of ecomuseum of Camargue that attracts about a million visitors a year proves that despite its small community, it serves goals of a museum communicating vital message of man in his environment, beyond its region. It is educating people by interpretation through objects and visual aids to become sensitive to the threatened balance of ecology and culture which is apt to be interrupted. Thus to focus our attention to see the dangers that are inherent in a state of rapid change caused by development of industry and technology.

The other important quality of the ecomuseum is its openness and its inclination to change as opposed to the notion of the universal museum fixed in time and in space (Hubert, 1985, p 190). These two characteristics reflect the pace of time.

It seems that the ecomuseums' constant state of interaction with the various factors will introduce a dynamic series of new solutions, new programmes and a new form of social cultural institution of their own time and place. In certain countries such as France, Canada (Rivard, 1985, pp 202-203), and Portugal (Narbais, 1985, pp 221-216), they are already in a state of existence. However, in certain regions such as the Sahel of West

Africa where the ecomuseum is planned but is still in a state
of vision awaiting for its materialization. An ecomuseum which
can serve as a breakthrough in the field of culture and for that
matter for life in general (Konare, 1985, pp 230-236).

The ecomuseum is an instrument of cultural innovation. This kind
of museum portrays the idea of a museum that is an integral part
of a comprehensive cultural policy of town or region (Gilman,
1978), and part of the cultural apparatus. It brings into the
modern cultural apparatus a multi-sided institution, an entity
which is both cultural in its content and social in its
rationale.

With the invention of *ecomuseums*, the French began their first
experiment in the 1960s in very rural area, and further examples
were added in the 1970s. The pattern varied according to the
district.

> All twenty-seven ecomuseums have broken new ground, and taken
> together represent one of the most important developments
> of the past fifty years *(Hudson, 1987, p 163).*

The ecomuseum was selected out of other innovative institutions to
exemplify a unique contemporary museum in its attitudes towards the
community. A museum that its qualities and its social philosophy of
interdisciplinarity and interaction coincide with the socio-cultural
and educational ideologies that were pursued along this research.
'It is a school, in so far as it involves the population in its work
of study and protection and encourages it to have a clearer grasp of
its own future' (Riviere, 1985, p 183).

CHAPTER SEVEN: MUSEUM'S ACTIVE ROLE IN EDUCATION

7.1. The Museum as a Setting for Learning - A Survey

From the early days in ancient Alexandria the museum was a place of learning, its libraries and collections served as sources from which people derived their knowledge. The museums, like the academies (the first was the old Academy in Athens established by Plato in about 485 BC) (Flew, 1979, p 2), served as proclaimed institutions for knowledge, from then till our times. They are institutions that society formed for knowledge to be stored and transmitted. Francis Bacon (1594) praises the virtues of collections as sources for wisdom:

> The collecting of a most perfect and general literary...may be made contributory to your wisdom. Next a wonderful garden...rooms with rare birds...and so you may have in small compass a model of the universal nature made private. The third huge cabinet, wherein whatsoever the hand of man by exquisite art of engine has made rare in form, in stuff, form or motion... shall be sorted and included...as may be a palace fit for a philosopher's store.

In the late sixteenth century Bacon characterized the nature of the museum, to encapsulate 'the universal nature' (Impey and MacGregor, 1985, p 1). A collection is not a museum any more than a library is a university. The museum can be legitimized only by its function as an institution for teaching and learning (Porter, 1983, p 82). Therefore museums are expected to offer and prepare their resourses for the task of education which is a cardinal work of the museum's central feature as a communicator.

In the last fifty years we have moved from the Victorian concept of a museum. The emphasis is now more on activity and on relating the collection of the museum to the world outside (Hudson, 1980, p X).

7.2 Categories of Museum Education

The organization of museum education varies from one country to another and one can discern different patterns of education in each of them. It varies according to the special state in a given reality of education as part of socio-cultural conditions. New frames of museum education have developed in countries with a long tradition of educational systems, as well as in countries of the third world with new educational ones.

It is important to remember that as a result of efforts on behalf of international agencies such as UNESCO, ICOM and CECA, a dialogue has developed among the members of these organizations. The aim of the dialogue has been to consolidate mutual understanding among members about the standing of museums in the general policies of education and culture in their countries, as well as the development of educational programmes.

Museum educational activities for young children and adolescents can be divided into two main categories: Educational activities in the general museum framework for the young adults; and in autonomous separate frameworks.

Each category bears characteristics of its own, concerning the role of the museum educator and the child. The educator in the general museum is restricted, in most cases, to a given scheduled plans of the museum and accordingly he has to build the educational programme. A collaboration with the educational system has helped to define the self identification by establishing the educator s sole interpretors for the museum (Wilkinson, 1978, p 186). In the children's museum the curator, who is the educator, is the initiator and is free to build educational programmes, according to the needs of the child.

From this basic difference of the curator's status have evolved two divergent streams of museum education. In the category of childrens' and school museums, the criterion is the young person, his interests and his needs and museum reality is created round his needs. In the second category, where the educational services are part of a larger institution, the youngster's interests and needs are fulfilled in accordance to an already given programmes. In this case the museum reality has to be manipulated for the sake of educational objectives. Consequently the status of the museum educator is more restricted as well as the occasions to plan educational programmes in the musuem network.

The place of education in the museum's framework is a complicated one. In each museum the role of the educator depends on the management and their policies, concerning allocation of space, where to conduct the educational activities, as well as for funds and time suitable for the various audiences of youngsters. Difficulties and misunderstandings are bound to happen especially in museums that are

located in unsuitable buildings that lack areas for educational services, where space is scarce and in due time it limits the expansion of educational activities. Consequently museum education staff will find its objectives take second place to those basic functions of museums.

Despite the objective constraints of museum framework, educationists are freer than school teachers to create new programmes; either in relation to school curriculum or other programmes for the youngster's leisure time.

Museum educational activities for the young, from pre-school to high school students, offer a variety of programmes. The syllabuses of the programmes depend on the museum's resources of collections.

Museum education departments such as at the Haifa Museum Education Centre offer Museum Learning Modules (M.L.M.) which include study tours, guides, and workshops.(1) Museum Learning Modules are structured units, integrated with the school curriculum in the humanities. Therefore they are conducted in the mornings, when the class is accompanied by the teacher, and the teaching in museums is conducted by the museum educators.

Loan exhibitions and materials related to school subjects are supplied to schools, as well as to other institutions. This kind of loan exhibition can be considered as an outreach educational

---

1. The subject of M.L.M. will be elaborated in Chapter Eleven.

programme. They serve as an inschool programme enhancing the material that was taught as an enrichment to the school curriculum (Pitman-Gelles, 1981, pp 179-186).

In this short survey of museums as places of learning, we shall attend only to several significant examples in the field of museum education: Museum educational services as part of the museum's general framework in Britain; Community school museums in the U.S.S.R. and long life learning in Latin American museums. The three examples in different continents indicate the limitless possibilities for education that are inherent in the museum.

7.2.1 Museum education services in Britain

In the last hundred years, museum educational work in England was sporadic and often undocumented (Adams, 1984, pp 57-61; Millar, 1987, p 6). The conspicuous development of education of today was started in Britain about thirty years ago (Strong, 1983, p 80).

The role of education in Britain as one of the aspects of museums is shown earlier by the invitation of Dr. Allan, the Director of the Royal Scottish Museum in Edinburgh, to give a lecture, one of a series of lectures about museums. There he declared that 'museums are education'. (Allan, 1949, pp 960-980). The act of including a lecture about education as one of the different aspects of the museum was significant for the assurance of the status of education in the framework of museums in Britain. This meant that measures have been

taken towards establishing a general policy of building educational services after the end of the second world war.

But we have evidence of cases before 1949 of museum education that made sure that educational work was performed by special teachers. Between 1901 and 1940 Leeds Museum introduced a schools service, and in 1902 Manchester employed a special teacher for children. The Horniman Museum appointed a guide/lecturer in 1904 for part-time work, and introduced two new ideas to museum education: the first was to preserve lectures for teachers and the second was to introduce worksheets for the students.

A further development took place in Leicester Museum when Ruth Weston was appointed Schools Museum Officer in 1931. This was the first full time education appointment, to be followed later by other museums, such as in Derbyshire and in museums of the City of London (Winstanley, 1967; Carter, 1984, p 435).

A systematic use of museums for learning began with the Glasgow experiment and exemplified a pattern of museum education. It was during the early years of the war, when schools were closed and the non evacuated children accepted the museum to be their school. The art gallery and education committees decided to begin teaching as an experiment. This experiment, though, reported only seven years later, is meaningful if analysed from the socio-cultural aspect, proving that the community's evaluation of the museum as an institution that can substitute for school. This case, although a singular one in those times, proves the vitality as well as the

possibilities inherent in the museum as a dynamic institution, that adjusts itself to new situations. In Glasgow, an education department was established within the museum, equipped with classrooms and programmes based on the museums collections (Thompson, 1948, pp 1-4).

The growth of educational services continued steadily in the post-war years, simultaneously with the growth of the awareness of museums' important role in society as communicators to the various audiences. We shall mention here several dates that signify some special steps that were taken to further and to enrich museum education in Britain from early experiments in the war time, 1941 to the GCSE (General Certificate of Secondary Education) in 1986 and in the ERA (Education Reform Act (1989).

1948-1963 - Museum Education and its Developments (Winstanley, 1980, pp 6 - 9.

1963 - The Group for Educational Services (GESM) in Museums was formed and acted as the National Committee (later to become Gem).

1963 - Recommendations were endorsed by the Standing Commissions on Museums and Galleries, Sixth Report called the Rosse Report which proposed that school museum services should be established throughout the country with loan services, supplied especially in the rural areas (Bateman, 1984, p 50).

The report stimulated museum education services, such as in Nottinghamshire, Essex and Yorkshire.

- The Rosse Report was: 'An approval of importance to future generations of teaching children the use and

significance of museum objects..to encourage a loan service.

1967   - A survey by GESM showing a growth in the number of services

from 34 in 1963 to 48 in 1967.

- Museum Association Museum School Services

At the end of the 1960's and the beginning of the 1970's

there was a period of growth in educational support

services, such as teachers' centres, and in the number

of publications, papers and reports related to museum

as well as in special courses and conferences.

1970   - Museum Association Report: Museums in Education No. 1

(Hooper-Greenhill, 1980, p 2.(1)

1973   - The Wright Report claimed that there is no doubt that

education services should be run by the museums, although

local education authorities ought to play a great part in

the planning process.

1974   - Local government reorganization which brought changes to

museums' conditions. Whereas formerly they had been

in a department of libraries, or part of the education

department they found themselves in leisure departments.

Thus education was removed from the local education

authorities' control (Bateman, 1984, p 51).

1975   - GESM organized an international conference in London on the

the theme of 'Museums as an Influence on the Quality of Life'.

- Regional discussion groups were formed in the U.K. and panels

were established by some Area Councils 'to discuss policy, run

1. For detailed chronology see History of Museum Education In England
(Hooper-Greenhill, 1989, pp 1-2).

courses, provide advice and carry out development projects'

(Carter, 1984, p 437).

1980   - Group for Education in Museums (Gem).

1986   - The GCSE (General Certificate Secondary Examination).

1989   - The ERA (Education Reform Act) completed its passage

          through Parliament in July 1988 (Editorial, The Independent,

          5.9.1989).

The GCSE is used for external examinations. The syllabuses and examinations will have greater emphasis on the understanding and application of knowledge and fewer marks allocated by straight recall.

The GCSE offers a unique change in the services to redress the imbalance in concentration on museum visits by younger people and challenges the museums to make adequate education provisions (Millar, 1987, p 26), for new audiences, especially of the higher classes, of secondary education.

The CSE (a former certificate of secondary education) and GCSE have combined together to provide four examining groups in England, one in Wales and one in Northern Ireland. The GCSE examination started in 1988 and replaced GCE O level in the United Kingdom.

Museum education is going through a considerable change as a result of the change in criteria in the English GCSE. Though the GCSE is being introduced to make interpretation of grades easier for employers and others as all candidates will be graded on a single

scale, the main benefits are educational rather than administrative (Anon, What is GCSE?, 1987).

The change is in the emphasis on the process of knowing rather than the accumulation of knowledge (Hooper-Greenhill, 1987, p 43). It indicates that there is a re-assessment process of resources of learning, and museums as well as historic parks are included in the planning of the syllabuses of the new examinations. This meant a jump in schools' demands on museums and galleries.

In the museum, the learner is exposed to new ways of learning that demand development of skills in handling the museums' main resource of knowledge that is embodied in their collections.(2) An adequate way of learning when teachers should no longer use 'chalk and talk' methods, but become more pupil-centered, encouraging the children to learn for themselves (Hooper-Greenhill, 1986, pp 161-162).

Some museums are already accustomed to visits by secondary school pupils, perhaps from involvement formerly with the Schools Council history project, participating in CSE museum studies. 'However many museums have been used mostly by primary school children rather than any other group Thus the expected upsurge of visits by secondary schools creates both a challenge and an opportunity to museum curators and education staff'. (Fassnidge, 1987, p 7). The challenge of the GCSE involves museum education departments, local education

2. 'Learning through objects' will be discussed in Chapter Nine. The range of programmes offered by museums is great and varies from one institution to another, and it is difficult to give a comprehensive coverage, within the constraints of this work,

authorities and encourages collaboration in building new programmes for the different subjects of school curricula based on museums' collections. This can be seen in the wide range of museum-school projects that are described by teachers in museums and the curriculum (Moffat, 1988, p 2).

The education service department, British Museum, was involved in the CSE era in producing museum-based examination papers on Greek and Roman life. For background material a museum gallery took on a character of a set book and students could be expected to know about theater masks, gladiators, etc. Resources packs related to permanent exhibitions in the British museum such as: Roman crafts, inscriptions and Roman religion were prepared. Other resources for other areas of the museum include, Vikings and Anglo-Saxons, a trail for 'Ceramic of the Italian Renaissance and Suleyman the Magnificent'. The same education service is open to new ways of communications such as having produced a video on 'Archaelogy in Britain'.

Roman Britain is a topic for which there is most demand. Teachers have successfully incorporated museums resources of the subject in the curricula of primary and secondary schools (Reeve, 1987, p 18). Learning outside the museum, examining the subject of a Roman city in situ is offered also by other museums. The Grosvenor Museum, Chester, prepared a unit on the Romans aimed to pupils to see the need for conclusions to be drawn from evidence (Synge, 1988, p 9); working in close cooperation with archaeologists, with Letchworth Museum, Verulamium Museum, Chiltern Open Museum, organized together with a school in Baldock, a special program for school children who took part

in a 'dig' with the participation of their parents (Elliott, 1988, p 3).(3)

With the new opportunity for museum education for the new exam system, courses and study will be expanded, and more structured programmes will be developed. The GCSE brings into the museum demands from outside the museum and the GCSE education will involve the different collections, and will demand more collaboration on how they are presented, as well as better publicity and publication from museums. There are dilemmas in museums of having to cope with research and general needs, and to respond to the new needs of GCSE audiences. New demands will be made in the future when the Era Education Reform Act (1989) will in a few years affect museums as well as the whole education scene (Divall, 1989, p 21).

However, the challenge on behalf of museum's personnel is to make the museum relevant to more young people of today, the future consumers of museums' culture. There is a good perspective that museum and school will represent one entity of service rendered by museums and addressed to young people (Wittlin, 1970, p 235). The integration of the museum in the schools examinations show both the acceptance of the museum' as a place in education and that museums are moving towards a sense of social responsibility. A responsibility that has been found in literature at the beginning of the century, but was buried since then (Millar, 1987, p 23). While discussing the

3. For GCSE 1988 approved syllabuses, see publication of London and East Anglia group for GCSE, London Region Examining Board, London.

perspectives of museum education in the future we may stress the fact that there is a reservoir of experience in museum education that could now be of great use to the education world in general (Hooper-Greenhill, 1987, p 44).

7.2.2. Community School Museums in the U.S.S.R.

In the Soviet Union a single system of museums has developed that includes 2000 state and 12,000 public museums (Ivanov, 1989, p 37). School museums, approximately 8,500 in number, form the bulk of community museums in U.S.S.R. This group of museums forms only one group out of the three groups of community museums (Khokhlow, 1985, p 47). The activity of many school museums is associated with crucial historical events in the history of the U.S.S.R., such as the revolution and the second world war.

Subjects to be studied at school museums are related to history such as: 'But the Muses Were Not Silent' which is aimed at understanding the spirit of Leningrad fighters under the long siege of their city under the Germans in the second world war. It shows how art helped the population to withstand and win the war. The description of this project reads as follows:

> Lists of names of about 2,000 of the dead and 15,000 surviving workers in culture and art are accompanied by a detailed account of the cultural life of Leningrad under siege, day by day and even hour by hour (Khokhlow, 1985, p 47).

The exhibition 'But the Muses Were Not Silent' was prepared by school No. 235 in Leningrad. The youngsters succeeded in building a

comprehensive and complete exhibition that was highly praised for its academic authenticity and serves, thanks to its merits, as a reference source for art historians, writers and journalists (Khokhlow, 1985, p 48). The subject of the exhibition of the school in Leningrad is only one of many exhibitions that exemplify a trend of interesting museums of a different kind supervised by teachers.

The highly active process in which the youngsters were involved, motivated them to enquire, to learn and to expose their findings in a new way, by an exhibition. This way they share with the community what they have accomplished, with the assistance they received from the members of the community. This kind of learning experience seems to contribute to the socialization of the youngsters and to the establishment of their identity as members of society.

Museums in schools became part of a movement of museums in factories and in collectives. They involve laymen, citizens, both young people in schools, as well as adults in factories and communes, and symbolize a special group of museums. They are museums in progress, because of their close contacts with the community, which have broken the convention of museums and indicate that there are new ways for museums to develop: museums that are shaped by people, for people, in their own society. This kind of museum is a similar conceptually based museum like the ecomuseums because of the aspect of close contact between museum and community.

7.2.3 Life Long Learning in Latin American Museums(4)

Latin America makes up a vast cultural mosaic of autochonous cultures. The cultural identity is still evolving and the people of the region are aware of the specific values and creative potential of their various heritages (Arjona, 1982, p 72).

While in the developed countries basic museum education is organized and functions as part of the education system, in newly-developed countries life long education means helping man to adapt to new worlds. Museums in developing countries look for ways and methods to serve as a catalyst for general education, in extinguishing illiteracy.

The phenomenon of illiteracy is a result of a socio-cultural situation which grew on a special political background of colonization of countries in Africa, South America and Asia. Since socio-economic changes seemed unlikely to come to an end, the only way to arrive at a balance between work and education for work was to introduce a lifelong system of education (Millas, 1973, pp 161-162).

Education appeared as one of the most promising political strategies. An idea that began to gain ground that education was not confined to the school, and in the front of the new educational institutions were museums. During the 1960s and 1970s cultural sensitive people and

---

4. Life long education in relation to the museum in industrialized countries such as in U.S.A. has specific characteristics of its own (Ambach, 1980, p 13; Collins, 1981, pp 95-143).

museum professionals had the firm conviction that museums could play a considerable role in the cultural renaissance of their countries (Makagiansar, 1984, p 3), and museums have begun to serve 'education which is not conveyed solely by written word, but by other media of education, such as direct contact with things, ...' The museum, by selecting and displaying objects, provides a clear example of inventiveness and creativity (Millas, 1973, p 163).

Systematic education is not to be ignored but it is required to bear with new ideas and techniques suitable for teaching large numbers of people; ideas that stem from a keen concern about the education and learning of youngsters, consider the socio-economic and cultural changes that have taken place in countries of the Third World.

Primary and secondary schools provide future workers with little opportunity of learning to acquire the elements of judgment to anticipate the challenges they will meet when they enter the world of labour (Jelinek, 1975). Millas believes that new education for social participation in work cannot be attained in systematic schools of lifelong education, unless the whole society becomes an educational society. He calls not only for a different system to reinforce the present formal system of education, but for an overall collaboration among educational institutions, and trade unions.' His plan is to give rise to continual longterm experiments in learning managed by museums in effective ways in the tasks of adult education (Millas, 1973, pp 163-167).

The new approaches to culture and education concerning the role of museums in Latin America stemmed from the round table meeting (1972). The round table entitled 'the role of museums in today's Latin America' was organized at Santiago de Chile, and marked a turning point for the museology of the region. Out of the meeting between museum people and specialists of different disciplines, emerged a new concept of an interdisciplinary nature of the social mission for museums of Latin America.

The call was for museums to become centres of education and diversion, equipped to supplement the education and cultural training of the people (Arjona, 1982, pp 72, 73, 76).

The few examples of museum's active role in education in three different parts of the world have drawn our attention to significant trends and development of museum educational work. 'Without appropriate education, people will not know how to use the discoveries and technical achievements which the modern science is putting at their disposal. As a consequence the methods and techniques of education must keep up with the requirements of this day and age' (Jelinek, 1975, p 52).

7.3. The Museum as Communicator and Educator

The contemporary museum takes an active role in education through communication. If the museum is to communicate it must be a master of media within the terms of the twentieth century (Porter, 1983, p 82).

'When all the pressure all the time is on mass communication, it requires great imagination and skill to meet this demand and at the same time not erode excellence' (Strong, 1983, p 81).

Press and information services are of cardinal importance to a museum and they are an integral part of the whole institution. So are the museum and gallery shops which are features of the last few years. All these venues communicate museum collections by means of publications, posters, booklets, reproductions as well as video, cinemafilms, and television.

'A museum display is an exercise in one branch of mass communication namely the nature of mass media, requiring a special kind of understanding the process of communication' (Hodge and D'Souza, 1979, p 252).

'A museum is above all a collection and conservation of objects. How it presents those objects to the public is its single most important communication' (Strong, 1983, pp 78-79). And the public is supposed to be reached to as living individuals and not as an abstract audience which may take or leave what is offered to it (Hudson, 1977, p 97).

Exhibitions in this day, above all epitomize the museum as communicator. Their role is to combine learning at its best with the ability to communicate its results broadly to the mass of the people, they are the museums tongues . They can change attitudes of people by opening the eyes of the viewers. They make people sensitive to problems such as ecological ones, as they were represented in the

ecomuseums, exhibition which are metaphors to the relationship of man and environment. 'There is nothing wrong in exhibitions which glorify the past but there is everything wrong with it if that is the only sort of exhibition which a museum does' (strong, 1983, p 78).

One thing unites the designer and curator, both are interdependent aspects of the museum as communicator (Strong, 1983, p 79). Every curatorial decision has interpretive consequences. Every design concept has an interpretive message (Ambach, 1986), and museum educators are responsible for finalizing this entire museum effort (Sola, 1987, p 6). They must use their specific academic disciplines as a basis for multidisciplinary research leading to the final aim of communicating its messages.

'Museums exist primarily for learning, a claim boistered by the Oxford English Dictionary. The earliest, although now admittedly obscure meaning of ' museum' was 'scholars' library' or 'study for learning' writes Schlereth. He assumes that museum visitors ought to have the opportunity to learn more about objects, and that the museums ought to help foster an object knowledge. He suggests, after observing museums such as the American History Museum, that the average visitor should be provided with the stimulus to become his own interpreter. It is achieved in the museum, he observed, because the whole museum and its services have been planned to suit the visitor-interpreter.

This dynamic approach requires that the museum staff be constantly alert to the needs of the visitor. The objects on exhibition have to be displayed in a meaningful way. However, the curator's research

does not end with the design and display of the objects in the exhibition. He is required to provide material beyond the standard audio-visual programme, which he may have already prepared, to accompany the exhibition. Additional material such as labels, audio-visual resources, and self-guiding brochures are legitimate aids for the enhancement of the visitor's understanding of the exhibition. The auxiliary aids must not, of course, overshadow the object itself, which is the central source that transmits the museum's messages. Schlereth's objective is that museums should develop a multi-interpretive scheme, applicable to many objects, to show how a single object can be a source of knowledge. He also advocates a way which might label the museum-as-object, the entire museum site as an intriguing assemblage of material culture evidence, worthy of interpretation (Schlereth, 1984, p 108).

7.3.1 The Process of Communication

The primary formula of communication includes a transmitter, medium and receiver that serve any channel of communication including the mode of operation of the museum of communicating with its public. Before examining museum communication, we will sketch a short description of the two main schools in the field of communication: the process and semiotics schools. The origins of these two schools are in Shannon and Weaver's 'Mathematical Theory of Communication' (1949).(5)

---

5. For the term 'communications' see G. Miller in A. Kuper and J. Kuper (eds.), (1985), The Social Science Encyclopedia, pp 132-133.

The process is even more complex, when we think about communication as one of those human activities that everyone recognizes and is of an endless number. Can we properly apply the term 'a subject of study' to something as diverse and multifaceted as human communication actually is? (Fiske, 1982, p 1). This question needs a wider discussion and can be addressed more.

The definition which is common to the different schools is that communication is a social interaction through messages. However, each school interprets the definition in its own way. The difference between the two schools exists in the understanding of what constitutes a message.

The process school defines the social interaction as the process by which one person relates himself to the others, while the semiotic school defines social interaction as that which constitutes the individual as a member of his culture and society. Consequently, the individual expresses his commonality with other members of his culture (Fiske, 1982, p 3).

The process school sees the message as a content which is transmitted by the communication media, and what constitutes it is a crucial factor. The message is what the sender puts into it, by whatever he means.

For the semiotic school, the message is a construction of signs which, through interacting with the receivers, produce meanings. The transmitter declines in importance, and the emphasis shifts to the

text and how it is 'read'. Readers of different social experience, or from different cultures, may find different meanings in the same text. The message is then an element in a structured relationship, whose other elements include external reality and the producer/reader (Fiske, 1982, pp 3-4).

When objects become exhibits by being taken out of their natural context, reclassified and exhibited, they necessarily take on new meanings. They are transformed.

In presenting the objects, museums assure visitors that the objects are valid and illustrative of larger frames of meaning. The selected object gains legitimacy of a symbol, defined by the Concise Oxford Dictionary: 'as a thing regarded by general consent as naturally typifying, or representing or recalling something by possession of analogous qualities, or by association in fact and thought' (Annis, 1986, p 168).

The exhibit, having a symbolic meaning, is not always an object of beauty, or a valuable one, it can have have a symbolizing meaning. For example, signifying a status, such as the yellow star of David that Jews had to carry on their sleeves to differentiate them from others imposed by the Germans in the Second World War, the star of David was made of simple material; while in other examples of symbols signifying status such as of the nobility, emblems are embroidered or cast in fine materials or metal.

To carry on the same idea of the objective value of exhibits, we may say that objects are selected for their suitability, as illustrations of what the curators wanted to communicate.

In Beth Hatefutsoth in Tel Aviv, Israel, the two and three dimensional objects are not originals, they are replicas that were prepared specially for the exhibition in the museum halls. They were created for the sake of communicating the spirit of the Jewish communities in the Diaspora throughout history till the foundation of the state of Israel in 1948. Despite this fact, that contradicts the axiomatic assumption of real and original objects in museums, Hudson has included Beth Hatefutsoth in the list of museums of influence, which have broken new ground in such an original or striking way that other museums have felt disposed, or compelled, to follow this example' (1987, pp vii, 140).

Cameron in his article, examines the system of communication that the museum provides, a system which is dependent on the artefact. He accepts, in principle, the primary communications system in terms of a simple flow diagram.

transmitter (or source) ———➤ medium ————➤ receiver

the exhibitor ————➤ the real things —➤the museum visitor

He considers museum communication sytems, often with a variety of transmitters, many media and many widely differing types of receivers (1968, pp 33-40). 'Unlike all others, the museum depends on "real things" as the media of communication. The images of things that are the language of the media... These images must be considered as

adjectives that qualify and make more meaningful the nouns of the museum language... the real things themselves' (Cameron, 1968, p 34). However, Knez takes issue with Cameron, about leaving the visitor to understand 'the non-verbal language of the real things', writing that 'Cameron seems to imply that language is inherent in museum objects themselves' (1970, p 205). According to Knez, the distinction must be made between the priority museums lay on verbal symbols as primary or secondary to the exhibits themselves (1970, p 205).

Brawne discusses this problem thus: 'To say that museums are primarily devoted to non-verbal communication is to state a truism' (1982, p 127). We come to museums to see and not to read, therefore words are subservient to the image on display. However, visual innocence is impossible, even if it is desirable. Information is necessary in order to place the object in the right context of time, in the case of an archaeological specimen; and in the right school, in the case of a work of art of an artist who is not as famous as Picasso. Therefore communication technologies must become an integral part of planning exhibitions.

7.3.2 Audio-Visual Aids in the Museum

Allocated places for audio-visual auxiliary aids and audio-visual means of communication (Alt, 1981, p 25) have to be found at the museum for the individual visitor, a group of people, or a class, to concentrate on the relevant material presented to them. For example, in Baltimore Art Museum a room has been allocated for an orientation

room, where an introduction, accompanied by a short film, is conducted, to prepare the visitor.(6)

Television can assist the interpretive function in many ways: solving language difficulties, creating an atmosphere, providing historical background, introducing a subject, demonstrating a process. Ideally fixed shows should run fully automatically at the touch of a button of the individual visitor thus responding to his own process of communicating with an exhibition (Simpson, 1987, pp 72, 74).

In the last decade there has been an upsurge of interest in the use of museum collections in conjunction with educational broadcasts. Equally, there is a growing number of art programmes documentaries using museums and collections, which is an evidence of museum's potentiabilities as communicators in the field of general education (Coulter, 1987, p 2).

There is a growing interest in television operation in museums. In 1988 a European conference 'Tele-Museum' convened in Lille, France. The stated aim of the conference was 'to create a permanent link between professionals of audiovisual creation of museums'. The prime goal of the symposium was to make contact between museum and television people. As the working sessions progressed, the need to define aims became of primary importance. Issues such as whether museums' own audio-visual productions should or should not be treated separately from television creations; because though they are planned

---

6. Personal impressions of a visit to the museum in 1982

in collaboration with the museum they are intended for television. Despite having common objectives of transmitting information and knowledge, each medium has its own special structure, modes of operation and modes of reaching and evaluating their publics.

To summarize the effectiveness of the conference we may say that it became clear that the subject is of the utmost importance for museum communication (Blazy, 1988, pp 4-5; Perot, 1988, p 5). Therefore, museums are challenged to remember that despite controversies in programming they should be places of discovery and debate for many people of varied interests and television can help to reach this goal (Leclair, 1988, p 6).

CONCLUSION - PART II

Socio-cultural development in the world after the second world war in different parts of the world, including countries who gained independence in the 1960s and 1970s, have made new demands on museums sciences (Makagiansar, 1984, p 4). Museums are inevitably conditioned by the country in which they find themselves (Hudson, 1987, p 83), and are also conditioned by changes in the accelerated pace of our technological society.

New ideas have emerged about museums roles. New approaches have emerged from either a specific relation of mankind to reality (the human-object relationship) or from the preservation and the heritage as social activities (the functional orientation) (Van Mensch, 1988, p 5) that found their embodiment in new forms of contemporary museums, such as the ecomuseum.

In the ecomuseums there are three constituents that form it; which are the laboratory, conservation and school. The three are based on common principles. This triad is not self enclosed, it receives and it gives (Riviere, 1985, pp 182-183). Thus the ecomuseum established a new direction in the philosophy of museum, an evolutive definition of a socio-cultural institution that is not only responsive to society's needs, but involves the specific community itself. The inclusion of school as an equal factor in the making of the museum, points to the important role of education in one of the most conspicuous forms of a contemporary museum.

This concept may effect a transformation of the policy of the museum. It considers a given population first, to find out what it wants and finally it makes selections of the artefacts to be displayed. It does not see 'on one side the works of art and a heritage and one side the public', but sees the two factors and their relationship for the sake of creating a new museum (Gilman, 1978, p 28).

Along with other institutions, museums acknowledged their relationship to society and accepted a fuller sense of accountability for their actions (Bloom, 1984, p 19). One of the biggest audiences in museums consists of young people from early age of primary schools to university students, as well as adults on life long learning programmes. For thísﬆdefined audienceﬆwith learning objectives the museum is a setting for new learning. Mention had been made of the latest educational projects, the GCSE exams (1986); the National Curriculum, 1989 in England and the 'Culture Basket' programme in Israel, 1989. In order to satisfy learning audience's needs, the different museums begin to change their priorities and adjust conditions to accommodate learners physically in allocating suitable learning environments and skilled workers for the art of transforming the message to the receiver (Johnstone, 1980, p 74). It requires a proficient mediator-educator who can create the relationship between the audience and the objects which are the raison d'etre of the museums. In this way the museum educator participates in transferring the museum from an 'object-oriented' environment to a 'learner-oriented' venue.

Communication processes by museum educators and through auxiliary aids can be enhanced only when the institution's management and staff come to realize that communication is the only mode of conveying the message of the museum.

With the realization of the importance of the transmission of the museums' heritage, not only to elite groups of scientists but to the versatile public, the active role of museums in the cultural life of the society will be secured. Museums of today will depend on their relevance to the late twentieth century. The museum will depend on the interaction of its personnel with those to whom museum can be of use and of educational value (Hooper-Greenhill, 1988, p 219).

The concepts of museums of our times are in a process of change from their long traditional notion of a museum as a place of knowledge into an institution with the objectives of creating a state of sensitivity, of consciousness of our whole heritage. Museums have the potentialities not only as information data based institutions; they can play a role of one of the most important mechanisms of environmental harmony (Sola, 1987, p 49).

PART III:

THEORY OF NEW LEARNING IN THE MUSEUM

INTRODUCTION - PART III

Scanning the different structures of knowledge and education, the museum appears as a setting that bears potential. for effective new learning. This work is intended to validate an hypothesis of the Museum as a setting for new learning.

Museum education has been developed in industrially developed countries and in the third world after the second world war, and especially in the last two-three decades though it has existed beforehand in Europe and U.S.A. Museums serve as centers of learning in many different ways, the museum offers permanent and temporary exhibitions; written materials including documents; essays on specific display props; visuals including posters reproduction, films and television programs; classes and public lectures given by museum staff and visiting specialists; explainers and school and community outreach programs. (Oppenheimer, 1983)

In examining this hypothesis the following elements will be analyzed: the _learner_, the _object_, the _museum_ as a constructed environment and the interaction among them through the mediation of the _museum educator_.

This work attempts to construct a theory that will lead to an effective practice in museum education; a practice that will engage and sustain the interests of students of school age (Chapters ten and eleven). To transmit knowledge processes through learning and teaching frameworks, it is for 'the learner to take advantage of past

learning in attempting to deal with a master new problems before them now'. (Bruner, 1977, p 558).

The work adopts the theoretical stance that was suggested by Bruner, to underpin museum education theory, 'who more than any other developmental psychologist of our time - has been interested in education'. (Gardner, 1983, p 328).

The theory is eclectic in its nature 'appreciative of the variety that makes the practice of education something more than a scripted exercise in cultural rigidity'. (Bruner, 1985, p 8).

In view of the dynamic system of changes in life of contemporary society, a special role is played by the educator. He is supposed to be well oriented with developments that take place outside the borders of the profession. (Hodge, 1986; Horne, 1984, 1986).

Social contexts are essential for understanding the youngster as well as psychological ones. They are important to understand the processes of learning. The teacher has to be familiar with these contexts to be able to cope with the challenge of an effective museum learning. It was pointed out that

> ·'the mark of the educated mind lies in being able to disentangle complex problems, and being able to recognize different kinds of questions for what they are. The uneducated mind oversimplified and confuses logically distinct issues'. (Barrow, 1976, p 35).

Museum education programmes have to be formulated with properties of the audience in mind. This is a basic theoretical stance that is true

in any kind of communication, a process which involves the sender, the message and the receiver. The receiver influences the form of the message created for him.

Therefore we have examined the museum learner (the receiver) who portrays the special traits of the youngster of today, a consumer of an industrial age. There are socio-cultural properties that shape the youngster habits and attitudes (Hodge, 1986). The other properties are related to learning itself, namely the process of the museum messages which is based on psychological and instructional theories.

The knowledge of models of the learner (Bruner, 1985), his modality of learning in relation to a structured environment (Getzels, 1977; Kaplan and Kaplan, 1982) and processes of learning (Norman, 1969; Gleitman, 1983; Holt, 1983; Bruner, 1985) are prerequisites to planning and constructing an effective museum education programme (Caston, 1979; Hooper-Greenhill, 1983, 1987).

A research in Anthropology explores the object's history, provenance and usage. It unfolds the object's significance and brings out its relevance to its time and culture. (Wittlin, 1970; Adams, 1984; Pearce, 1986-87; Hooper-Greenhill, 1987).

The question that is asked about art if it is ornamental in education (Eisner, 1987, p 10), can be asked about museum education. The answer will be the same that, we cannot believe 'access to the wealth of our culture of the cultivation of sensibilities: human imagination and

judgement as peripheral educational aims'. In this respect the museum, by offering a first hand learning experience of cultures through objects introduces a new venue of education, that cannot be replaced by any other educational institution.

The students' encounter with a new teacher, the museum educator, and with a new source of learning, the objects, arouse his curiosity, as things of novelty always do. His learning 'the exploitation of objects, events and ideas and feelings do not occur in an environment that does not encourage or provide opportunities for exploration' (Chase, 1975, 37).

The environment of the museum and its space, layout and organization suggest a new framework for communication with the object; a territory to be explored not a list of facts to be learned (Holt, 1983, p 214; Goldberg, 1987, p 43). The museum programme which is free of examination pressure, focuses its interest on the learner.

The exhibits as learning resources are within the reach of the learner. He is free to move from one object to another, skip an object, and compare objects, he can relate to whichever objects attract his eye and attention, according to his choice and pace, because spans of time are manipulated differently at the museum than at school.

Museum educators face the responsibility of not only defining the educational goal, but maintaining the unique qualities of the museums where the educational programmes occur. The model of any museum

programme is based on the museum object. The object and not the word is the reason for the museum's existence (Caston, 1979, p 51).

The object that is made by man, the artefact, is the expression and manifestation of a culture (Benedict, 1934). Objects supply a picture of life of the past and elevate the awareness of their people (Pott, 1963, p 166). Objects are reminders of the visual world to be enjoyed for its own sale (Eisner, 1988, p 10). They are the major educational tools in the museum experience which provide valuable sources for learning (Cameron, 1968; Wittlin, 1970; Fines, 1984; Hooper-Greenhill, 1983, 1986; Pearce, 1987).

Just seeing an object is not sufficient for the understanding of the message that the object communicates. The utilization of the object for learning purposes has to be relevant to the individual and to the qualities of the museum collections in the arts, anthropology or sciences.

The object lends itself to an abundance of ways and techniques to be enhanced by the learner; by being conceptualized by perception through the senses. A process that evokes curiosity, attains attention and furnishes the memory with forms, colours, signs. (Arenheim, 1969; Wittkower, 1977; Gombrich, 1982; Hooper-Greenhill, 1987).

In order to interpret the object a mediator is required to guide a fruitful dialogue between the viewer and the object for its pictorial encoding. This role rests on the shoulders of the museum educators

who are responsible for finalizing the museum's effort for communicating the exhibition's messages (Sola, 1987; Ambach, 1986).

The dialogue is the powerful tool of language to bear on the stream of thought. 'It presupposes that each person can see his partner, their facial expressions and gestures, and hear the tone of their voices' (Vygotsky, 1962, pp 142-143).

The whole process of learning at the museum through objects integrates the cognitive (perception memory, thought and judgement) and the affective emotional domains of the learner (Lavy, 1984, p 419).

The object is first perceived by the eye (Berger, 1972; Seymour, 1979) than by the other senses. For instance the tactile sense that is participating in handling the object for recreating later on. The recreative process exercises the mind and the eye (Holt, 1983, p 211). This process is essential to the mental growth of the youngster (Lowenfeld and Britain, 1964; Eisner, 1972). Creative products indicate visual imagery and ability to observe (Arenheim, 1969, p 67). They reflect impressions of the objects at the museums and can at the same time depict images that have been retrieved being triggered by the museum objects.

The programmes that occur in the museum have a special quality of a constant renewal: they change with every group that comes to learn at the museum. It is up to the museum educators' qualities to create on every occasion a new, a unique experience of learning for each group of learners (Fines, 1984, p 54) by focusing on techniques or

expressive concerns, similar to the ways art teachers work (Hagaman, 1988, p 18).

The education purpose is spelled out in the form of unambiguous objective.. The objective provides the basis of museum learning through the objects that communicate the museum message. Each collection will suggest different messages according to its discipline of knowledge (Chapter ten). Such as: identifying the learner, his social background, his abilities and realizing special problems of levels of learning and of behaviour; arranging the material in a structured process of learning at the museum, the museum modular curriculum (chapter eleven); making provisions for participation, leaving freedom to choose the way of response.

The interaction of the elements such as the learner, the object, the exhibition, the museum as an organized environment, and the mediation of the museum educator forms a new learning model of an interdisciplinary nature of the inner museum work. Interdisciplinarity as a concept stems from the correlation of social and humanities studies that are reflected in the following educational programmes in this work.

A museum modular curriculum of teaching cultures consists of museum learning modules (M.L.M.); an interdisciplinary project of the 'Early Man in his natural environment', in collaboration with the biological institute and nature preservation society (1984-1989) and a programme of the New Museum for Art and Science will be discussed. The three

expressive concerns, similar to the ways art teachers work (Hagaman, 1988, p 18).

The education purpose is spelled out in the form of unambiguous objectives. The objective provides the basis of museum learning through the objects that communicate the museum message. Each collection will suggest different messages according to its discipline of knowledge (Chapter ten). Such as: identifying the learner, his social background, his abilities and realizing special problems of levels of learning and of behaviour; arranging the material in a structured process of learning at the museum, the museum modular curriculum (chapter eleven); making provisions for participation, leaving freedom to choose the way of response.

The interaction of the elements such as the _learner,_ the _object,_ the _exhibition,_ the _museum_ as an organized environment, and the mediation of the _museum educator_ forms a new learning model of an interdisciplinary nature of the inner museum work. Interdisciplinarity as a concept stems from the correlation of social and humanities studies that are reflected in the following educational programmes in this work.

A museum modular curriculum of teaching cultures consists of museum learning modules (M.L.M.); an interdisciplinary project of the 'Early Man in his natural environment', in collaboration with the biological institute and nature preservation society (1984-1989) and a programme of the New Museum for Art and Science will be discussed. The three

projects signify the vast field of potentialities of the museum as

an initiator of educational and cultural activities.(1)

The projects that finalize the work come to validate the main

hypothesis of this research which is the 'museum as a setting for new

learning' and as a generator for new concepts and ideas. An

hypothesis which was examined theoretically and was realized in

practice at the Museum Education Centre in Haifa (chapter eleven).

Figure No. 2: The interacting elements of the process of learning at

the museum

---
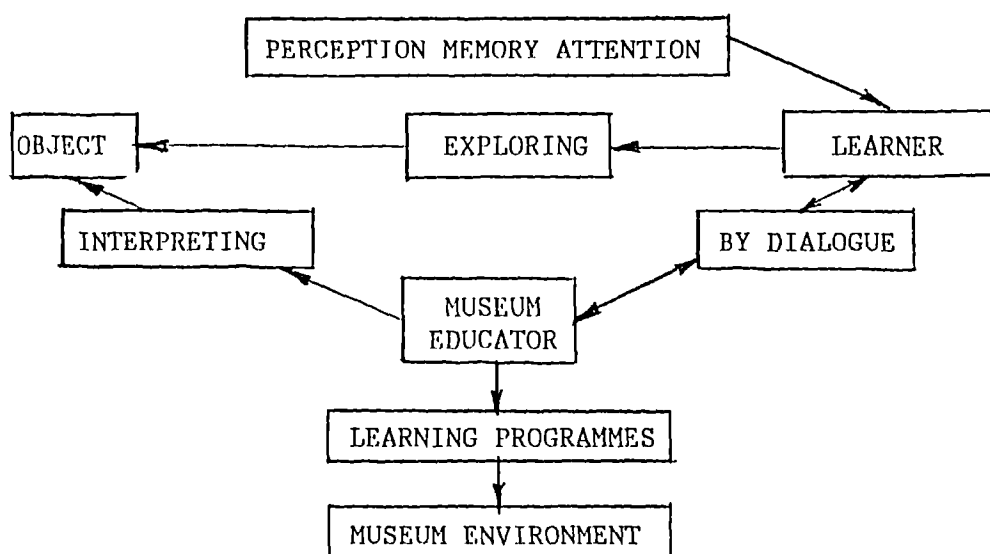
1. The three projects will be discussed in chapters eleven and twelve.

CHAPTER EIGHT: A WALK IN THE RIGHT DIRECTION - MUSEUM LEARNING THEORY

8.1 Identifying the Museum's Young Learning Audiences

From the time that the museum became a public institution, the public

and each group in the community has the right to enjoy the museum's

resources. With the growing number of visitors flocking to museum,

there is a revolution of rising expectations that create challenges

to museums.

Who is the museum's learning audiences? The audiences tend to change

because of difference factors, such as: demographic changes, due to

immigration of large numbers of people, a phenomenon that took place

after the second world war. Consequently there is a growth in the

multi-cultural public that visit museums. Economic changes that

compel people to move from one district to another, thus changing the

nature of local communities and their cultural trends. Consequently

communities lose their homogeneity; Frequent coverage by the media

enhances the museums' potentialities as places for enjoyment and

learning. Consequently, people with clear goals expect the museum

to satisfy their expectations (Pott, 1963); The growth in tourism.

Consequently a wider range of people coming to museums with their

youngsters (Pott, 1963; Horne, 1986, Clarke, 1988).

Museum audiences obviously differ on the basis of class, age,

ethnicity, educational level and degree of travel, as well as in

respect to more subtle measures, such as taste, hobbies, interests

and significant friendships (Graburn, 1984, p 177).

The museum for its part is interested in exploring new ways of reaching a wide range of audiences, who are not familiar with the museum as a socio-cultural institution, and in including them amongst the regular visitors. In order to establish communication with an audience, it is necessary to identify the types of audience and their special needs.

Considering the diversity of learning groups visiting the museum, the museum has to develop strategies and 'effective procedures for the delivery of cultural services' (Sebolt George, 1984, p 77), because 'a striking correlation was revealed between childhood exposure to the arts and frequent attendance at cultural events in adult life'. It was found out in a New York study (1972) that 62% of the art museum visitors attribute their interest to having visited the museum when they were young not necessarily as pupils coming with their classes (Browne, 1984, p 16).

In this work the focus is on learners' audiences. The largest coherent audience in the many museums are school children at all levels.(1) They are estimated to exceed 40% of the total amount of group visitors, which also include other publics in a group situation, such as senior citizens, tourists and unemployed (ICOM/CECA Conference, Paris, 1987). Another research shows that in the USA only 10% or less of all students visiting museums are high school students (O'Connell, 1984, p 96).

---

1. School museum partnership is discussed in chapter ten.

The handicapped audiences at Haifa museums are part of the general learners' public. School classes of handicapped children are included as an integral part of the schools' visits. Handicapped adults join weekly museum workshops individually, and work in separate groups in order to be attended to their special needs. (2)

School pupils and students come to the museum either accompanied by the school teachers in the morning, or alone in their leisure time. In order to meet the needs of this vast and diversified groups of youngsters the museum in Haifa initiated a partnership with the schools, which finds its expression in a growth of mutually planned educational programmes. One of the most structured is a museum modular curriculum. The curriculum includes the subject matter of cultures which is taught at several museums. The subject follows the humanities approach which includes teaching art and history. The learning theory, which is specific to the museum, is based on the museum's objects and the personal experience of the learners. Similar programmes, such as integrated humanities and multi-cultural education,(3) are developed in British schools and museums, and are mentioned in this research. In order to provide relevant programmes, the museum has to move from the general to the more specific which is a prerequisite for building adequate programmes.

In order to plan a relevant museum education programme, basic questions have to be asked concerning the individual learner: What

2. The Haifa Education Centre is discussed in chapter eleven.

3. Multi-cultural education is discussed in chapter eleven.

are the characteristics of the youngsters who come to learn at the
museum?   How does a child learn?   What and how do we teach at the
museum, as compared to former experiences of learning.

In order to answer these questions we have to understand the youngster
to whom we are speaking.   The youngster of today lives in a fast
changing world.   He comes to the museum already equipped with
information of the world, because he is exposed to an aggressive
media, especially the television.   He travels more because tourism
is an activity of leisure time of the family, especially in developed
countries; consequently he is richer in personal experience than his
peer of a few decades ago.

Museum education is expected to be aware of the psychological,
biological as well as the sociological factors that are interrelated
in the process of the youngster's development (Moorish, 1970; Lavy,
1984).   Accordingly, the museum educator is expected to construct
learning programmes and build an educationally appropriate situation
relevant for the young visitor of the different target groups.
Identifying the modality of learning of the student requires an
analysis based on research, to meet the challenges that stand before
the museum educator in order not to fail the individual learner in
all levels of learning (Wepman, 1977, p 163).   Such as: idenitifying
the learning level;   identifying the learner's preparedness to study
outside his class, in a new way through the object as opposed to the
book; realizing the amount of knowledge of the subject that can be
taught in the museum and the method to mediate it; realizing that

certain problems can be expected in the museum, a new learning environment (O'Connell, 1984, pp 96-100).

Learning will be examined in this work from the point at which the student arrives to begin his career as a learner at the museum (Bruner, 1977, p ix), but we will consider also former learning experiences from different channels of communication.

In order to understand the process of learning, attention, memory and perception in museum contexts will be examined, such as in relation to objects, which constitute the core of the museum and its special language (Norman, 1969; Gleitman, 1983; Hooper-Greenhill, 1987).

8.2. The Learner of Today - a Consumer of an Industrial Age

The young person, the learner who is the centre of this research is the customer of an industrial commodity. He watches television as part of his social existence and he travels much more than his fellow man of a few decades ago. These two activities form social habits of spending leisure time, as well as social attitudes. Coming to the museum, already the learner is equipped with rich visual information and impressions of what he has seen and experienced.

8.2.1 The youngster and television

The topic of children and television poses a dilemma for many people in western society. Children are dedicated consumers of television, and spend about twenty to twenty-five hours, and the heavy viewer manages forty hours, per week in front of the television set (Hodge, 1986, p 1).

Though the state of the arts of the media is not the same in all countries, even in underdeveloped countries children are exposed to communication media, such as radio and television. In the suburbs of large cities of developing countries and in rundown neighbourhoods, the forest of television antennae protrude to the skies. This phenomenon is almost universal and indicates the magic power that the television radiates and the role it plays in people's lives rendering the world to a global village. The visual experience is not restricted to the television sets. Huge posters and leaflets that are sent to people's homes are graphically designed to arrest the eye and evoke interest in the information they provide.

Parents and teachers alike are concerned about the influence of television watching by children, spending about twenty per cent of their waking hours is a fact which cannot be ignored.

Research work in the field of television and children shows that we actually know little about this problem, namely how does television affect children's emotions and attitudes.

A television show is not a single stimulus, it is a meaning - potential complex, an interrelated set of verbal and visual meanings (Hodge, 1986, p 7). It affects behaviour via meanings, beliefs and values. Children-television relationship needs further investigation to provide us with an insight into how the youngsters process the visual signals that the television communicates. The complexity of the operations that take place out of view, inside the mind partly out of consciousness, have not been addressed. When it will occur, then the understanding of the correlation between the viewer and the television will begin. For the complex structure of the meaning in television especially for children, what is needed is a suitably complex account of the structure and processes of the mind that can create meaning of what one sees (Hodge 1986, pp 4-5). Hodge offers a theory that is based heavily on the need for an interdisciplinary approach to children and television. A theory that seems appropriate for museum education in relation to communication through objects which are signs, and their meaning, that are transmitted to the viewer. (Vygotsky, 1962, Barthes, 1977, Seymour, 1979).

The subject of television in the culture of young people of today is too wide a field to include all its aspects in this research. We shall describe only a few research projects that will give us some information in order to orient ourselves as museum educators.

Television violence and children. There is a long running debate on
the nature of the relationship between violence in television in its
effects on society. Sociologists have been trying to determine the
degree of violent media effect within society. Television
programming with its heavy emphasis on impersonal violence has been
assigned a role both in inciting aggression and teaching viewers
specific techniques of aggressive behaviour. Psychologists possess
much information concerning the determinants of aggression but little
stemming from naturalistic sources.

Among the results of a large scale study of aggressive behaviour in
third grades and thirteen school children, it was found that children
at an early age, who preferred violent television programmes were more
aggressive in school than their peers who preferred less violent
programmes. But it is not claimed that the television violence is
the only cause of aggressive behaviour, and that there are other
factors such as social status, I.Q., mobility aspirations, family
disharmony which could conceivably have had an influence over the ten
years covered by the research. However, it was found that the
television effect is relatively independent of other factors (Eron,
1977, pp 370-389).

Results of another study which was enquiring about desensitizating
children to television violence through measures of physical
automatic response. These suggest that some children who are heavy
television watchers (and see more violence) may be habituated or
desensitized to violence generally (Cline, 1977, pp 390-399).

Figures and grounds on television consuming habits by Ames' survey attempts to bring recent trends in media consumption. The sample included 400 boys and 485 girls in five Scottish secondary schools, of 12-15 year olds. The study was carried out in the spring of 1985. Other media surveyed were radio, books, magazines or comics, newspapers, favored musicians, radio, t.v., video and cinema. Habits of listening to radio and to records as well as reading habits were examined to be compared with television viewing habits.

The hope of Ames was that the survey would contribute to the needs of contemporary and future society. The survey is concerned with the first years of secondary school, which are the years of late childhood and early adolescence, a period when family life is displaced by growing involvement with peers, with the world outside, with some realisation of the significance of events in the larger community - local, national and international.

Two features appeared clear: the dominant appeal across the age groups as a whole of television and video. Once literacy has been achieved, it is not valued highly and is not a significant contribution to the quality of the personal life of the average young person. Television is esteemed by both sexes and there is a cross-over of appeal between records and videos: boys begin by preferring videos and share also an interest with girls in records.

Implications of the survey: School fails to notice the culture of the important years of adolescence. It is clear that thousands of pupils are failing to make the best of school. Four out of ten fifth formers reported that no work was set for them (Exeter University report to 'New Society', The Sunday Times, 4.12.1988).

It is essential that education appreciates that media of all kinds are largely controlled purveyors of covert information about life styles, ways of thinking and things to think about. They are organizers of experience, promoters of ideas whose most important ideologies are expressed through their structures and their implicit content. The failure of the educational process to deal with them systematically is potentially dangerous, of a disjunction between school and the new culture.

In an age of spectatorship, motives for learning must be kept from going passive, they must be based upon arousal of interest in what is to be learned and be kept as broad and diverse in expression (Bruner, 1977, p 72).

The museum as communicator of human cultural heritage is 'the media' and as well a repository of the greatest aids for scholarship (Densley, 1981, p 218). It can supply curiosity in culture to the youngster who lives in an hyper-sophisticated society who is seeking more media. The young visitor expects to find at the museum a kind of an experience, an experience that is in accordance with his spectatorship habits.

Thus museums are expected to be innovative in their educational programmes, and make them relevant to their audiences.

8.2.2 The youngster as a traveller

In a society where time spent at work is decreasing and leisure time is increasing, people look for ways to balance between 'survival' activities and the pleasure of entertainment. The result is a growing trend of new habits, ways, norms and expectations that can be called the leisure culture. By now the idea of leisure had been created with sports, television, special clubs and places of entertainment (Horne, 1986, p 29).

Despite the general growth in affluence highlighted by the growth in consumer spending in the mid 1980s, there is an ever increasing discrepancy between the 'haves' and the 'have nots' (Tyrrell, 1988, p 207). What is apparent, when examining social economic trends is that those with low incomes may have free time at their disposal more than those with high incomes. Thus modern life is breaking the demarcation lines of old distinction between leisure class and working class of ways of spending leisure time (Graburn, 1984, p 178).

Within the framework of leisure time, there is an abundance of possibilities for tourism. Tours inland and abroad are offered at cut prices, and in long term payments, like any other consumer commodity. There are occasions when families can afford to visit places and make dreams come true. Thus the young members, the children, become travellers at a young age, joining the family

travelling experience. They are attracted by advertisements such as by a company of 'Art in Europe', that promises to fill the gap between study tours of academic study and expensive tours guided by famous names (The Sunday Times, 4.12.1988). Because of the multiplication of needs of entertainment, tourism builds its own objectives and the museums become an integral part of the cultural apparatus.

Touring new places does not mean always going to other countries, touring can mean visiting museums in one's own district. In the 1970s two thousand museums have been built and only twenty four percent of the tourists were outsiders, which means that the local population is visiting museums (Clarke, 1988, p 12).

The question is: do people really realize their dreams in these tours or are they running after sights they do not attain? Touring seems to fulfill some spiritual need and knowledge is required in order to attain this need. How does the museum assist to get an an insight of what one sees? In order to open a deeper dialogue between the viewer and the manifestations of cultures one sees in his travels, the museum has to provide the key to that culture. The keys are the collections, artefacts that are to be enhanced intellectually and emotionally. Sightseeing is one of the ways in which we can speculate on these theories of 'reality making', that without it we cannot live. (Clarke, 1988, p 12).

'In speaking of the intellectual work of tourism, I assume that all humans are intellectuals'. To what degree can one relate to an object, depends on his ability to contemplate, to give his own meaning

to what he sees and the other meaning is the way to sharpen intellectual sharpness (Horne, 1986, pp 250, 251).

People can use all the centres of arts and culture, because they are open to the wide public and museums which were once accepted as 'high art', a commodity of the aristocracy, are now a commodity which can be achieved by every man.

Considerable educational resources are now deployed to overcome alienation from high culture, such as in the German Democratic Republic (Horne, 1986, p 251).

Museum education   offers a wide range of activities in which the museum seeks to respond to the variety of audiences. It becomes an influential factor in demystification of the cultural assets of society.   Through lectures and workshops one can acquire the tools to understand the meaning of the collection and thus they gain access to cultures, already as a young person and enjoy them later as a literate adult, a prerogative of a citizen in a democratic society.

The other kind of a <u>child-traveller</u> is the one who joins a family in constant mobility (Cotterill, 1988, p 21) in contrast to most children who spend short periods in travelling and who then return to live a steady life in one place.

The new adult traveller takes to the roads for many reasons.   Some positively choose to make a new community for themselves away from a materialistic society, some move out alientated and depressed, some

are attracted to leave the ordinary life for a period and return to a more settled existence and some fall within the traditions of entertainers, moving from one center to another (King, 1987, pp 1-7).

Numerous individuals and groups who are triggered by many reasons to a constantly changeable way of life, often involve their children in an unsettled frame of life and this brings up the problem of education, a problem that cannot be easily solved (Kiddle, 1988, p 22).

The reasons for moving are numerous and will require a special study which will enrich our knowledge with patterns of life of our versatile society, but it is outside the scope of this work.

In 1975 the Traveller Education Journal was published to claim for the need in education that parents want to secure for their children while travelling. The school bus project that was put into action only in 1987 signifies a dream of a collective vision of a mobile space for the children, to use especially during the cold winter months. Museum educational facilities such as travelling exhibitions which include kits with museum replicas can join the children on their trail and contribute to their education.

Psychologists point at the significance of not only art, science but of adventure. Of more common activities such as travelling to strange places, reading mysterious books or exploring the unfamiliar, all of which provide pleasure not by reducing some drive, but by raising the level of excitement. The learner, like the normal person needs

sensory stimulation for his well being (Getzels, 1977, p 14). Therefore the youngsters' former experience that have been gained by television watching and through travelling, are not to be discarded, because they are first hand experiences, assets which can be used in museum educational works (Graburn, 1984, p 177; Ambach, 1986). Museum education when introduced at an early age as another visual channel of communication which is favoured by the young, can be of a benefit to his mental growth. It can supplement a different set of habits, of a more active spectatorship that involves both mind and emotions. The museum learning modules have the potentialities to develop critical attitudes by giving the youngster working techniques to build the contact with the museum's signs, the objects and the exhibition.

8.3 On the Learner and on Learning

8.3.1 The learner

While in the former pages certain characteristics of the youngster of today as a consumer of the industrial age were described, he will be referred to in these pages as an individual learner, his nature and his involvement in a process of learning. A process that demands attention, memory, perception and social inclination for interaction with others (Bruner, 1985, p 6).

Learners who come to the museum are from a variety of social and cultural backgrounds, different from each other as far as their own capacities, former learning experiences and social attitudes are

concerned. Through the course of their mental growth the learners have many opportunities to acquire both information and habits, and are experienced in social interaction. The few stations in the process of growth are the home, where children learn to talk, to listen to stories and at times to learn to read, as well as to relate socially to the closer circle of the family members. Other stations, such as the park or playground, give the child opportunities to expand the circle of relationships with peers and older children. In these social settings, which are free from any organized instruction, the children develop their language, which is an early form of socialization and is required for communication (Eisner, 1987, p 6).

In the preschool years, the learning environment grows steadily by momentum, without the aid of scholastic instruction (Dewey, 1938, p 74; Holt, 1983).

It is a social process which requires communication and again interaction for an exchange of ideas, feelings and skills (Wittrock, 1977, p 1). In formal educational frameworks the central matter is a value judgement about how the mind should be cultivated and to what end. This question is posed in order to settle institutional questions of education, without making political decisions on the nature of learning and learner (Bruner, 1985, p 5).

What interests us in the discussion of models of the learner is how to get a value judgement for the sake of being better equipped as educators with theories related to the pupil. The generation of hypothesis concerning the learner and learning takes us beyond

information, and always with risk which requires courage in applying a theory of a certain model to a certain mode of education. It is necessary for the museum education system especially that lacks a long history of educational philosophies to apply to those educational philosophies and to draw from them knowledge and inspiration.

Different schools of thought dealt with these questions. The first and the most ancient theory is based on the Aristotelian notion of mimesis, proposing imagery as the basis of memory, order and association of the basis of recollection (Wittrock, 1977, p 1), this is the Tabula Rasa model. John Locke (1632-1704) a major proponent of the empiricist position, wrote that all knowledge comes through the senses. There are no innate ideas at birth, the human mind is a blank tablet, tabula rasa, upon which experience leaves it marks. Nothing gets into the mind save through the senses (Gleitman, 1983, pp 109-110). The empiricists claim that much of perception is built upon associations. Their formula for success in empiricism is to have experience (Bruner, 1985, p 6).

The second model is of the school of Nativism. This view has been challenged by the philosopher Immannual Kant (1724-1804). His school often called Nativism, argued that sensory input is organized according to a number of built-in categories, pre-existing and built as priori into our mind: the nativists claimed that various aspects of our perception are natively given, in contrast to the empiricist who argued for an enormous role of learning (Gleitman, 1983, p 112).

The third model is of the learner as <u>hypothesis operator.</u> It represents a reaction against the passive view of the empiricist, tabula rasa concepts. The theorists backing this notion argue that the learner selects the experience that he enters, rather than being a creature of experience. 'What exactly generates hypotheses or programmes is the filter, which selects and organizes what gets through the senses into the mind, varied widely and was always seriously underdefined' (Bruner, 1985, p 6).

John Dewey, for instance, assumed that experience is shaped by hypotheses, rather than by the world, but he did not specify how hypotheses came into being, though he gave special emphasis to the role of language as hypothesis generator. The school was regarded as the ideal home, serving as a model for an ideal school. Each one in this living community was involved in a variety of pursuits, according to his own interests, but he had to contribute something to the success of the whole.

The limitations of such a method were that only a small part of the macrocosm can be imported to the microcosm, the school. The other limitation that was admitted by Dewey himself was that not every experience is necessarily educative. It depends upon the sort or experience and ability of the experiencer to apprehend his experience (Morrish, 1967, p 118).

The fourth model is <u>the constructive model</u> of the learner based on the theory that learning is bound within the limits of rules of a system. Piaget's theory was based on the notion that development

consists of stages in succession. 'The learning dynamics of the system at any stage is provided by an unstable equilibrium or dialectic between assimilating experiences to the rules and accommodating the rules to experience' (Bruner, 1985, p 6; Wadsworth, 1979).

The fifth model is the new view of the learner as novice to expert. It has recently emerged and is hard yet to characterize. It is in some respects anti-theoretical, though it is practical. It looks for the direct contact between finding about learning that stems from what is to be learned. Finding the right expert and looking for the ways the new learner can get there. This approach is built on the contact between the expert, the computer programmers and the learner. Learning through a computer system, can be called a programmed learning. The formula is to be specific and explicit, in order to make the learner an expert, even to subordinate the learner to the steps he must take to attain expertise (Bruner, 1985, p 6).

The short presentation of the different models of learners does not mean that a new model of a learner is needed for every task, or environment. The learner who enters a setting of learning has to be approached as a whole human being, and as a member of a given society. His sensory system allows him to experience the qualities of the world into which he is born. As he grows up he uses the senses to develop and learns to compare and to distinguish the subtleties of the world (Piaget, 1970, p 45; Fried, 1984, pp 39-43; Bruner, 1985, p 6).

What it amounts to is treating all models of the learners as stipulative and then inquiring the conditions under which they might be effective, or useful or comforting (Bruner, 1985, p 8).

The museum educational objective is to establish its attitude toward the learner first, as a whole human being and then mediate between him what the specific provisions of the museum because the museum can catch the mind as well as engage emotions (Caston, 1979, p 50).

8.3.2 The process of learning

In the process of learning, cognitive perception, memory and thinking merge into each other and there are no exact boundaries between them. When we describe perception,(4) that is connected with thinking, we cross the border of memory. The process of learning involves memory and attention; human beings, given their peculiar human competence, are capable of adapting their approach to the demands of different conditions (Bruner, 1985, p 6).

We cannot remember without thinking, we can hardly proceed without referring to the storehouse of generic, general memory. Memory plays an active role in the process of processing the incoming signals and interpreting them on the basis of our past experiences. It provides information about the past necessary for proper understanding of the present. The capacity to deal with all information is built on

4. The process of learning at the museum including perception will be expanded in chapter nine.

signals that are selected for further processing, what we call attention.

Attention 'is the taking possession by the mind, in a clear and vivid form, of one out of what seems several simultaneously possible objects or trains of thought. Focalization, concentration and consciousness are of its essence. It implies withdrawal from some things in order to deal effectively with others' (James, in Norman, 1969, p 6).

The question is how many ideas or things can we attend at once in case they are disconnected. We can attend at once to a limited number of things, as each one will occupy our perception. We literally choose by ways of attending to things. The immediate effects of attending to things make us perceive, conceive, distinguish and remember. Attention is a central concept in human behaviour, an aspect of human cognition that it intimately connected with self awareness and consciousness. Thus conscious attention to activities is a critically important aspect of the human mind (Norman, 1976, p 71).

Museum educators have long recognized that attention is a critical factor in visitor learning from museum exhibits. Therefore the M.L.M. is constructed in such a way as to allow each individual to attend to things according to his own pace, both cognitively and affectionally, by balancing learning and experimenting with materials. In order for an exhibit to be educationally effective, it must attract the viewer's attention, maintain that attention and provide useful information (Koran, 1984, p 205).

In museum exhibitions a certain number of exhibits are displayed. The visitor will pay attention to some aspects, while ignoring others. The decision to pay attention to a certain object is a complex one, and is a combination of different elements. It can be an unconscious decision, or a conscious one, that is motivated by some recollection, a retrieval from an abundance of former experiences stored in the memory.

The choice means to decide upon what to concentrate, and what are the preferred objects that interest the visitor and ignoring the others. It seems that people can cope more easily with competing messages when they are visual rather than auditory, which distract the visitor's attention (Alt and Griggs, 1984, p 391).

Another factor in enhancing attention is organized information at the exhibition. It will be appreciated by the visitor especially the layman and the non-frequent visitor who are not familiar with the museums' exhibitions.

The elements that enhance attention are the object, organized information and the conditions which are instrumental to the theory of learning of the museum. The museum is expected to provide them to the visitor for the process of learning.

The words 'memory' and 'retrieval' describe their functions. They explain the distinction between storage and retrieval from long term memory. They aim to say what is now brought up and was not available before. The recollection is assisted by cues that suddenly bring back

what we forgot, a cue that may trigger memories we thought were utterly forgotten. We use various retrieval strategies that may affect the completeness and accuracy of memory.

Memory is not just a storing, but rather a reconstructing process. A metaphor to the distinction between the memory and retrieval has already been recognized in the writings of St. Augustine, around 400 AD. In the roomy chambers of the memory, he wrote, there are things that immediately appear, and others that require to be longer sought after (St. Augustine, 397 AD, p 174 in Gleitman, 1983, p 183).

We often organize items we intend to remember by pigeonholding them under several appropriate rubrics. Sometimes the categories are essentially readymade, like in a store, which facilitates our remembering. The organization of what we store is subjective, and it has a powerful effect on recalling or retrieval from our memory.

Tests of memory and memorial organization in the scope of language in relation to learning, show superiority of the intentional learner over the incidental one. The intentional learner is the one who is asked to memorize and is expected to be tested, while the incidential learner is the one who is not expected to be tested. The superiority of the intentional over the incidental learner indicates that the intention to remember leads to a better organization of memory, namely that subjective attitudes influence the results.

Psychologists have lately begun to reconsider a very practical endeavour whose roots go back to Greece and Rome, the development of

devices for improving one's memories, often called mnemonics, a
theory that is built on the active organization of the material by
the learner. The ancients were aware that it is easier to remember
verbal material if it is organized by a phonological organization of
successive words, a verse or a rhyme. Without such devices
preliterate societies might never have transmitted their traditions
(Gleitman, 1983, pp 182, 187-188).

A second technique is the method of loci, which requires from the
learner to visualize items to be remembered in a different spatial
location (locus). In the process of recalling, each location is
mentally inspected and the items placed there is retrieved. If the
item is an abstract concept, it can be translated or embodied in a
form or object that can be visualized instead. 'What we do' says
Cicero 'is to use places as wax and images as letters' (quoted from
Institution Oratoria by Quintillian, in Yates, 1966, p 23, Gleitman,
1983, p 188; Yates, 'The Art of Memory', Norman, 1969, pp 136-143).
'The art of memory is like an inner writing, with the arrangement and
disposition of the images like the script' (Hooper-Greenhill, 1987,
p 3 taken from Yates).

A third way of remembering became known as the peg method. The first
step is the creation of mental pegs to which the items to be memorized
could be attached. In order to learn serial lists of items the
student has to form different compound images that connect each item
with a cue word. When asked to name the item he has to retrieve the
appropriate cue word.

Both methods of the loci and of the peg are similar in providing a scheme which allows an orderly retrieval. Why does imagery help? Subjects that are shown related are more likely to associate the word, than when they are next to each other and do not interact. The role of imagery in aiding to recall is a manifestation of the general phenomenon of memorial organization. 'By creating a mental image that unified a set of intentionally unrelated items, the subject imposes organization of a chunk. When part of the chunk and (the imagined locus or peg word) is presented, the entire chunk is retrieved' (Gleitman, 1983, p 189). The recalling by means of a memory of an image of an object that is not present is represented by mental imagery, inasmuch as it was known in the past (Piaget, 1970, p 40).

Any learner has strategies at his command. The question is how to go about learning at the museum. The art of memory can be used in a way in the museum to interpret objects and real places (Hooper-Greenhill, 1987, p 2). In the museum the objects that are contextually displayed in a situational condition, the exhibition hall, are the relevant elements that underpin the process of learning, occupying the human skills of attention, memory retrieval. Because there is a contextual dependency of the memory that refers to better memory performance when there are situational conditions (Adams, 1985, p 284). With sufficient structure to the contexts to the objects, knowledge is likely not to be forgotten (Seymour, 1979, p 217). It means to equip the learner with the opportunity and experience - to understand and to enjoy the important cultural resources that we inherit as human beings and as members of a culture (Eisner, 1988, p 7); and to provide him with the procedure that would

188

make it possibile to use sensibilities that would make it possible

to use these resources intelligently (Bruner, 1985, p 8).

CHAPTER NINE: ON LEARNING AT THE MUSEUM

9.1 The Museum Environment

When we come to discuss the museum's environment we have to refer to G.H. Riviere in whose philosophy concerning museum the term was made articulated and distinct. 'An environment is the concrete milieu constructed by man' (George, Dictionnaire de la Geographies, PUF, 1970, p 155, Paris). 'Environment is the sum total of prevailing energy, physical and biological conditions obtaining in the immediate vicinity of living organisms' (Riviere, 1973, p 26).

Environment is both an idea and a concrete place. It is apparent that the 'museum is not only a building', but still the physical factors of its structure are decisive in the creation of its environment and in its influence on the visitor.

What are the constraints of museum design? (1) the collections, their preservation and presentation, in a certain locale, environment; (2) they are related to the visitors' environment. It is not sufficient for the people who design, build and run public museums to be scholarly in architectural history of fine arts; they have to be aware of the public, or human properties, and to build accordingly.

The phrase 'a museum is not a building' is a provocative formulation for a museum, for a well established term associated from early age with a sanctuary of works of art with the cultural heritage. Buildings of museums that were erected to raise awe and reverence to the sanctuary storing the publicly-owned relics (Finlay, 1977, p 38). But does the building symbolize the museum? The museum is not a

building, but an idea, or it may be a complex of ideas. The exhibits, even the building, are part of the process of materialization of the idea (Finlay, p 42). Finlay treats the traditional museum building criticially. He blames the awesome impression that the museum lays on its visitors. Museum's buildings may deter those who don't know classical art; most of the buildings are designed for the object they imprison rather than for the public that visits them (Hooper-Greenhill, 1988, p 226).

Finlay calls for creating a spirit of anticipation, other than penetration to a solemn neo-classic barrier set between the museum and the workaday world, in an age of functionalism. However, he warns about the dangers that are inherent in such a tendency, since Le Corbusier, who defined a house was a machine for living.

The concept of museum architecture is changing only if new aspects of the needs of modern society are to be included in designing the contemporary museum.

Society's right to include the museum in its cultural apparatus has challenged museum builders. New audiences, in addition to conservative museum goers, anticipate space allocated for their cultural activities and recreation in the growing leisure time. Lectures and films are growing in importance for animation and interpretation of museum exhibitions. Amenities like lighting and heating influence the ability to concentrate and relax in the museum. The GeorgesPompidou Centre (inaugurated in January 1977) is a unique and original attempt to combine the aspect of modern architecture and

the socio-cultural needs of society. Thus making them accessible in one and the same time (Lassalle, 1987, p 60).

The educational function of the museum has added new demands on museum builders in addition to those of the general public, for provisions of specific conditions for learning purposes, such as: classrooms, demonstration halls, libraries, laboratories and workshops and study rooms for advanced level study and research. Thus in addition to the space area that is needed for the public such as an orientation room for a preparatory introduction to the visit at the museums' exhibition halls, as well as services such as a cafeteria, cloakroom, books and gift shops.

The client-architect relationship worked well in the eighteenth century, when financial resources were abundant and the rich proprietor of the collections shared the same concept of what a building should look like (Finlay, 1977, pp 44-45).

The construction of new museums does not always consider the public. New museums fail to create the right ambiance for the visitor (Hudson, 1987, p 2); one has to register with sadness that the eyes only approach to gallery design harmonies with an absurdly over intellectualised attitude to art.

> The lesson I draw from the Turner exhibition, is
> that it is not sufficient for the people who design,
> build and run public museums to be scholarly in
> architectural history or fine art (or whatever their
> academic discipline). They need also to be
> scholarly, and well-informed about museums as public
> institutions (Miles, 1987, p 85).

While train stations or airport terminals are an outgrowth of modern technological development, serving functional needs, the architecture of the modern museum has to reflect its nature as a socio-cultural institution, but not losing its own characteristics, making a cultural statement that goes beyond its own place in history (Levin, 1983, p 13).

Museums are associated usually with buildings, rarely with a particular space organization, but with objects that exist in various kinds of buildings, partly pre-designed to house them, others are houses in already built structures that were originally built for other purposes.

As mentioned before, a museum is not a building, it is an idea or a complex of ideas and the exhibits even more than the building itself, are part of the process of materialization of these ideas (Annis, 1986, p 168). Objects after being collected and sorted and exhibited take a new meaning of being transformed from objects to exhibits. Once they are exhibits and are associated with museums, they create a special relationship with their setting that accentuates their own traits. Thus their setting is part of the organized space in the museum.

The notion that through the setting and placing within a particular context, the object gets a special meaning, was recognized in different cultures. It is seen in the selecting of objects of everyday life to be put in burial places to accompany the deceased, thus coming under the spell of death the same objects become revered

ones. Therefore, the place and singular setting of an object is a source of information and knowledge for anthropologists to learn about cultures' characteristics, through objects.

Not only the selecting and placing of an object implies reverence, but also the framing of a work of art meant a basic device to redefine an object. The role of the frame, as well as its ommission are significant. The ommission of the frame in contemporary museums, can be taken as an act of de-sanctification of the objects on display (Brawne, 1982, p 19).

Thus, the technical device of framing, or its ommission, gets a new meaning, which takes into account social reasons beyond those related only to the object, Namely, makes the object approachable and acceptable. The methods of presentation of exhibits is part of the message, envisaged and communicated meaningfully by the curator and encoded by the spectator.

The process of enhancing an exhibition is an operation carried out by the visitor in an attempt to take in his surroundings. Rather than passive perception, it is a dynamic process in which the elements are compared both to each other and to others which are not present except in the memory of the observer. We may say that this experience takes place in particular ways. In observing the behaviour of visitors at the exhibition hall of the National Museum of Modern Art in Paris, we find that the factors of vision and movement are determining the cognitive apprehension of spaces of the museum's environment (Hammad, 1987, pp 56-57). The organized space according to the scientific

rules and to aesthetics, will on one hand preserve the objects and at the same time create the right ambiance for the visitor to encounter the object' (Brawne, 1982, p 9).

9.1.2 Museum learning environment

Learning is inclined to take place in an environment that stimulates curiosity and enquiry into something of real interest to the learner.

Museum learning environment is tightly connected with the policy of museums towards the public in general. We may assume that if the museum is mainly 'people oriented' it will provide exhibition space organization, accessibility to objects, also to those in the storage room, and usage of audio-visual means. It will supply what is necessary for teaching, appropriate to the audiences' needs. 'The designer of an effective learning environment must therefore know a good deal about the past history of those who will be using the new environment' (Chase, 1975, p 38).

The role of the exhibits and the exhibitions concerning the learner is incorporate diversity of choice with opportunity for concentrating attention (Chase, 1975, p 39). They are the resource for learning, therefore it is required that they are displayed in a way to be managed (in science centres) or be approachable (in art and ethnology museums). If the element of accessibility is ignored the wonder and the emotional energy that the exhibit evokes is replaced by a feeling of frustration; of not being able to cope with physical obstacles of the object presented.

To a museum we come to see and not to read. But museums still have some element of glass-case display: Glass cases and contextual displays can complement each other successfully (e.g. the Museum of London) only when they are not overloaded with explanations. At its worst glass cases seek to encapsulate knowledge as a body of undeniable truth and thus it makes closed statements rather than asking questions. This way of presentation does not create the appropriate ambiance for learning.

In museums where glass-cases are virtually a concept of display, museum trustees and curators show that they have not yet accepted education as an essential factor to be considered while planning exhibitions (Hale, 1968). 'The glass-case museum is still not just a phenomenon, it also is a series of attitudes, public and curatorial' (Reeve, 1981, p 6).

Users of learning environment are seeking information. Today's technology provides first class means for reaching first hand information. Learning environments have to be designed to accommodate the new technologies that enable the use of video, computer-stored information by the individual learner, such as in Bet Hatfutsoth Museum, Tel Aviv. In the museum there are booths equipped with computer-terminals, in which one could ask for detailed information about particular subjects, the information being available as print-out, in the language of one's choice' (Hudson, 1987, pp 142-143).

Considering the elements that constitute the learning two sets of factors construct the appropriate learning environment, the first is the museum's spaces, objects and display and the other the needs of the learner. Only when they will be integrated in the design of the museum, the museum's position will be defined as: an interaction between sociological self representation and self realization (Lehmbruck, 1974, p 157).

9.2 The Exhibition as Communicator

It has long been recognized that 'a major role of the museum to facilitate an encounter between objects and observers is when this experience occurs for the majority of visitors, mainly through the exhibition' (Belcher, 1984, p 403). 'An exhibition, however, is not a museum, although a museum may well contain exhibitions. The difference is one of duration: a museum goes on year after year, but an exhibition is usually a temporary affair' (Hudson, 1980, p 17).

'Television, radio, paperbacks and magazines bombard us with miscellaneous information, to an extent that makes the ancient Kunst and Wunder Kammern look like a specialize course. It seems, he continues, that the exhibition, holds so much more attraction to the public than the museum' (Gombich, 1979, p 107).

Each museum has to have an exhibition policy, to be considered on three levels: first the practical level of organization of staff and the financial resources; second the formulation of the design; third

the formulation of the communication strategy, considering visitor's

expectations (Chambers, 1984, p 54; Belcher, 1984, p 407).

The exhibition is the product of the interdisciplinary nature of the

scientists' and experts' work of the museum, the curator, the designer

and scholar.   In designing and planning the exhibition, they embody

an idea which is to be transmitted to the public, namely communicating

its message.

The exhibition influences the visitor by stimulating him to form

ideas, opinions and attitudes related to the exhibits, which serve

as the resources for knowledge and aesthetic values and of enjoyment.

The public sees museums as institutions of authority and social

responsibility.   'Thus the museum's role as a conveyor of messages

is worth careful attention' (Bloom, 1984, p 55).

Exhibitions, without exception, are composed of three structural

elements: the objects displayed, the space used and artistic layout

or 'design' of the exhibits (Drak, 1985, p 163).

This comprehensive view is composed of various individual objects and

their inter-relationship is created by the way they are presented.

The impression that one gets at the museum's halls is of the same

nature of appearances as of landscapes or cityscapes all are entities

perceived by the viewer.

Gombrich refers to this comprehensiveness as relationships matter in art not only within a given painting, but between paintings as they hang, or as they are seen (Browne, 1982, p 10).

Exhibitions involve a great deal more than the mere display of objects (Bloom, 1984, p 55). Therefore a method has to be followed which properly will serve the objectives of the museum, the exhibition's message and what it communicates to the public, the receiver.

In addition an extended communication media outside the museum, is recommended such as television programmes on the subject of exhibitions. They have an important function in supplying the understanding of the ideas and contents, and preparing the visitor for the act of seeing the exhibition. 'What we seem to demand is that our understanding of the intellectual aspects precede our sensory perception' (Browne, 1982, p 130).

In the museum context, the two functions of communication and education are interrelated. The scope and quality of educational processes depend on successful communication. As we appeal to people to use museums as learning sources, the force of the exhibition must be acknowledged, and its power to convey a message is worth careful attention (Bloom, 1984, p 63).

The effective communication of the exhibition, its formulation and its implementation, requires proficiency and expertise of education people 'They are to provide advice on aspects of educational technology and psychology, and if an editor is absent they will assist

in writing, editing the exhibition text' (Blecher, 1984, p 407). They

are the ones who finalize the process of communication (Strong, 1983;

Sola, 1987, p 178).

9.3 Learning at the Museum: Through Objects, by the Senses

9.3.1 The object and perception

The object originally was the ob-jectum - that is a thing thrown

before the mind, the thing one encounters...anything presented to the

eye, the senses, the mind - anything which is objective, and not

merely subjective (Schachtel, 1959, p 266).

The core of the museum is the objects. The museum preserves its

collections, its content, in order that when shown to the eye they

may be grasped by the mind, the idea that was pronounced at the turn

of the century by Ben Gilman (1984, pp. 142-162).

The primary concern of the museum education is the object, its

relationship to other objects and the experience that the combination

creates for the human being (Pitman-Gelles, 1981, p 44). The

relationship among the objects is created when they become exhibits.

'The exhibits are eloquent and incontestable visual data for their

period and civilization. The aesthetic interest is what strikes the

imagination, working through what is tangible and known to produce

new enjoyment and fresh creative impulses.' (Narcouse, 1961, p 31).

The object is a thing having its own entity, it has a concrete material existence, and an independence one of the human individual. However, when it is in its own setting out of reach of our senses it is immaterial and its tangibleness is intangible and stays in the nature of abstraction. An object assumes its reality only as it comes in the reach of one of our senses. An object becomes an object if on or towards which an action is taken, when the human being takes notice of it, perceives it. Only then it becomes an objective of our interest, attention and perception and the object is as real as we make it (Sahasrabudhe, 1968, p 51). It is difficult to separate the object from the senses, therefore from now on the object and the senses will be discussed in relation to each other.

The eye sees,(1) but does the person understand what he is looking at? Looking at things does not naturally lead to understanding the object. The object which is like a vessel containing information offered in a different way than the written information the perceiver is used to. We explain the world with words, but 'words never quite fit the sight' (Berger, 1972, p 7).

> The eye is an active instrument, which serves the mind. It is in constant search for something, discerning, comparing and interpreting. Consequently we cannot learn to see the abstract.

---

1. There exists a wide literature concerning the eye and vision, which is instrumental for further studies in the field of psychology of perception and pictorial representation that requires a special study (Gombrich, 1959; Gregory, R.L., 1966; Arenheim, 1974; Brothwell, 1976; Cole, 1978; Hein, 1987).

Perception is a skill that will always involve the
whole person and the whole mind (Gombrich, 1979, p
199)

A theory of perception supposes 'that objects in the external world
stimulate us to having sense data'. Sense data is what is given
immediately to us through sight, touch, hearing, smelling and testing
(Flew, 1979, pp 264, 325).

During the process of growing, the child learns to identify and name
these impressions, visual or audial. 'Learning to interpret what one
sees is the first step in all mental training' (Marcouse, 1961, p 1).

'Visual perception is a cognitive activity' writes Arenheim, 'and
without information on what is going on in time and space, the brain
cannot work.' There is a collaboration of perceiving and thinking
in cognition, and they are inseparable.

This definition relates to the process of learning, not including the
visually handicapped person, whose other senses will be employed as
replacement of the sight deficiency. Therefore perceptual thinking
needs to be considered. Nevertheless, Arenheim limits his
discussion, despite its vastness, to the sense of sight, the sense
which he thinks is the most efficient organ of human cognition;
'cognition' includes such processes as memory (remembering,
recalling), knowledge, thinking, problem solving and creating
(Arenheim, 1969, p 3).

According to Wittkower:

All perception is interpretation...without
interpretation the objects that surround us, as well
as pictures on the wall, would appear as
unintelligible shapes and colour patches. But the
work of art itself is a compound of ideas, concepts,
sense messages ordered, adjusted and digested in the
artist's mind. We are called upon to share in the
visual manifestation of somebody's interpreting
activity (1977, p 174)

With respect to the meanings which can be transmitted through visual
symbols or visual art, Wittkower has distinguished four different
levels.

The first level is that of the literal representational meaning. On
this level Wittkower says that we have to find out what is represented
- a man, a cow, a tree, and so forth, 'objects or events shown by the
artist belong to the general human experience of the percipient'.
The latter must also be familiar with conventional ways of its
depicting.

The second level is that of the literal thematic meaning. One can
only fully understand thematic meaning if one knows the theme, the
story behind the image. In Western art, these thematic meanings are
often derived from the Bible or classical mythology.

The third level is of multiple meaning. Multiple meaning exists when
a work of art carries 'an intended superimposed figurative meaning,
either of an objective or a subjective nature'. Michaelangelo, for
instance, made drawings of classical mythological subjects for his
young friend, Tomaso Cavalieri. These drawings depict Ganymede and
Tityus. In both cases, a nude man is represented, held in a powerful

grip by a mighty eagle. Besides their mythological meaning, drawings might very well carry a more personal, subjective meaning and they can be seen as allegories of Platonic love.

Fourth is the expressive meaning. This kind of meaning is closely connected to how a work of art is executed. It resides in the expressive and aesthetic qualities of line, form and colour. A single work of art can, of course, carry all these four levels of meaning (Wittkower, 1977, pp 177-182).

Understanding the message in visual art therefore asks for different cognitive activities from the spectator. Understanding literal representational meaning asks for perceiving the resemblance between a picture and a pictured object or scene. Unravelling thematic or multiple meaning requires knowledge of the picture's theme, and of the symbols which are used in a culture. Understanding expressive meaning asks for sensitivity to the expressive, aesthetic qualities of the abstract elements in a work of art (van Meel-Jansen, 1987, p 6). Thus, through looking at works of arts and crafts, a special experience takes place.

Our views of the world around us are determined to a large extent by the images surrounding us every day. Such images are a source of insight into intricate realities. Through images we get information about situation, condition and events, because our culture is increasingly represented and perceived in visual terms.

Our environment is in constant change. The desire for beauty still is sustained in small places, in villages, that can be seen in the decoration of the windows and doors of the houses. In the past, the word 'scape' was associated with nature and outdoors landscape. Nowadays there is the cityscape. People, and especially in the rundown areas in cities, express their aesthetic dissatisfaction by painting grafitti and murals on public buildings and railway stations. This act explains a sociological state of alienation between the person and his surroundings and his need to protest.

The main questions are how productive can sources of visual impression be for the growing youngster? The sensualist philosophers have reminded us forcefully that that nothing is in the intellect which was not previously in the senses. However, even they considered the gathering of perpetual data to be unskilled labour, indispensable, but inferior to the business of creating concepts. Accumulating knowledge, connecting separating...and inferring was reserved to the 'higher' cognitive functions of the mind, which could work only by withdrawing from all perceivable particulars. This stems from the idea that supposedly perception lacks the distinctness that comes only from the superior faculty of reasoning. This theory has influenced the status of the arts, which have traditionally been excluded from liberal arts, which included the arts of words, grammar, dialectic and rhetoric and those arts based on mathematics: music, arithmetic, geometry and astonomy (Arenheim, 1969, p 2).

Arenheim believes that this prejudicial discrimination between perception and thinking influences our entire educational system,

which is still based on words and numbers. It is a misconception that influences the status of the different subjects of the educational system and denies the basic importance of visual perception.

Through looking at works of art, a special experience takes place that is both cognitive and affective, rational and emotional. An aesthetic experience pleases the eye and evokes sensation and curiosity. It is an experience that transforms seeing to beholding. 'Aesthetic experience is a process emerging out of the act itself. Unlike so many other human activities, the experience that constitutes art does not end when the inquiry is over, it is the journey itself. Through an experience in the arts one's nerve endings become more acute and responsive. The arts thereby enable us to make sense out of the world' (Eisner, 1972, p 280).

9.3.2 Teaching through objects at the museum

'Seeing is believing, seeing the Magna Carta in the British Museum, we can more easily believe in the existence of King John'. Namely, we establish the validity of the object through the visual (Harrison, 1967, p 1).

It is difficult to believe that certain specimens natural or artifical exist, but when one sees and handles them, one is convinced of their existence. Moreover, they represent a reality beyond the mere fact of the existence of the object. For instance, an embroidered hood of a Yemenite Jewish bride in the Museum of Ethnology preserves the style, colour, form, habits and evidence of a vanishing culture.

However, can we see the covert meaning in the object without it being interpreted?

Visual education by visual media is a common concept in educational circles, but the museum is not yet generally accepted as an integral part of visual education. This misconception is rooted in the conventional image of the museum as a secluded institution, serving a lofty subject such as the arts. However, in the new planning for the British GCSE the last two years, museums are included as sources for knowledge for the curriculum (Museums Journal, 1987). The new programmes that are envisaged for secondary schools prove that educators begin to be aware of the abundance of possibilities of teaching in the museum that communicate its message by the visual - the objects (2)

The museums' prime assets are in the direct appeal to the eye and to the sense of touch', namely to basic education necessary for the youngster's growth. This direct appeal offers an immediate encounter with authenticity of the object, be it any two or three dimensional work of art or craft (Wittlin, 1970, p 2).

Learning to see by handling lovely shapes, by creating shapes out of materials, is too often limited to the kindergarten and is not part of learning at school, where there are special lessons for working with material. This situation calls for ways to overcome such

_____

2. GCSE was discussed in chapter seven; 'culture basket' programmes at museums in Israel, appendix V.

prevailing misconceptions that deprive the older youngster of visual education. The Haifa Museum Education Centre took this challenge and integrated at the same limit of learning, the M.L.M., the theoretical and the work with materials.

The student will repeat facts in history, adding dates to relate wars or other kinds of contact of cultures. However, an object such as an ancient Greek urn, found in an Etruscan graveyard, will be much better evidence of an encounter of two cultures. Another example of motifs and styles in architecture, and of objects of art, will prove the encounter of cultures. For instance, one can note the similarity of the floral motifs on a column in the mosque of the Dome of the Rock in Jerusalem (7th century AD) and the same motifs on a column in Hayia Sophia in Constantinople (6th century AD). This similarity gives evidence of beyond the aesthetic and artistic value of the columns, of the inter-relationship between Byzantine and Islamic cultures, proving that the mosque was built by Byzantine workers; an historical event that had been reported first by the eye and later was underpinned with historical information.

The visual element in museum education discussed in this work refers to arts and crafts objects, . artefacts that are related to culture in the scope of humanities; but it is also applicable to objects in museums of science and technology. In the science museum, the nature of the object allows vast possibilities of visual and self experiencing with manipulating instruments to enhance processes and rules, whereas in the contact with the arts and crafts through forms, the experience is mainly through the visual senses and the cultivation

of the impressions. 'If I was asked to explain to students what I mean by 'sense of form' I would start with the impressions at the Cycladic room of the British Museum.' (Moore, 1981, p 13).

However, in both main groups of subjects, the humanities and the sciences, visual perception and the object are basic in the process of museum learning. The process of the development of the visual sense, or visual perception, is conditioned by the encounter with visual values. The impressions of this encounter enrich the imagination, enlarge the scope of associations, and furnish future memories, as sources to refer to in working experiences.

Visual information has become indispensable in our society, and visual education has come to play an important role in life. The visual experience in viewing an object, as it is, in its original dimensions, alone or part of an exhibition, is open to the individual's choice in time and in place. He can approach any object he pleases, and return to it later. He can see it from any angle from which he chooses to examine it. This freedom of choice does not exist in other visual experiences. An object or exhibition shown on television, for instance, appears in a preplanned, linear sequence, to be viewed from angles chosen by the photographer. Despite the constraints of the exhibition, the 'live' museum experience is unique and cannot be replaced by other visual media, but information and knowledge can be used as complementary education facilities.

The challenge that exists in this state of the arts is to set standards for visual values by museums that can meet this challenge

because of what they have to offer, and their responsibility to the

visitor. The experience derived from an original work of art cannot

be replaced by any other visual experience.

> because we feel the need to rediscover the
> particular perfection of the irreplaceable texture
> of flesh, the real imagined soul, that belongs only
> to the original; because the dialogue between the
> Avignon Pieta and Titian's Nymph and Shepherd is not
> entirely the same as the dialogue between their
> reproduction. If not the museum, what then will be
> the sanctuary for the works of art? (Malraux, 1965,
> p 232).

The phenomenon of the child's encounter with the world by the object

deserves an elaborate discussion, because the object is a factor in

the process of his growth (Sahasrbudhe, 1968, p 51). 'The initial

slight alarm of the infant at the visual appearance of something new

is followed by active exploration of the new thing' (Schachtel, 1959,

p 154). 'The child actively turns to objects and the wish to expand

the boundaries of his world in the encounter with an increasing number

of objects is stronger in the healthy child than the wish to remain

in the narrow confined of the familiar' (Schachtel, 1959, p 157).

According to the behaviourist doctrine all learning occurs by hit and

miss or trial and error method. The stimulus and response effect will

'stamp in' the response (Skinner, 1988, pp 106, 163). We cannot enter

the further discussion of the stimulus-response link, but what we have

to consider is the importance of the response in contingency states

of learning in relation to objects.

The child's growing capacity to dissociate the identity of the object

is correlated with his development. The capacity to see and relate

to the world as an independently existing entity, to see the environment as a configuration of independently existing objects is reached only along the process of mental growth (Schachtel, 1959, p 265).

The relationship of man with the objective world is the capacity for objectification, the phenomena of man's encounter with the world of objects and the emergence of a certain relationship between him and the world.

Creative perception, the fullest experience of the object, which is characterised by a profound interest in the objects has an enriching effect on the perceiver. It brings to the scene of perception an element of play, of guessing, of feeling, of association and paying attention, elements which evoke curiosity, and bring the deciphering of the object.

Engaging in art criticism is part of the discipline of object based museum education because we provide children with the opportunity to learn to see and describe the visual world in another way: As a result of looking for visual information, we satisfy a need to identify, categorize, which helps to locate oneself in space. Usually attention to visual forms, an object at the museum or in our environment, extends in time long enough to accomplish practical tasks (Eisner, 1988, p 17). An individual object can have a general significance, shedding light on the whole and giving us an idea of relationship that would otherwise be difficult to perceive. It is

perhaps due to the fact that everyone has an inbuilt capacity to perceive an object in the larger context.

By building a personal collection one builds his own identity and learns of ones own self by experience through material objects (Hansen, 1984, p 178). By collecting and preserving objects, researching and exhibiting, the curator develops his interests in relation to objects: he develops his own knowledge and affinities while building an exhibition, in his involvement there are times that the building of the exhibition becomes the ultimate goal.

Objects are tangible, real presentation of the essence of entities, an embodiment and as foci of cultures. They are intepreted by historians, art historians, behaviouralists and functionalists (Pearce, 1987, pp 1-3).

Each object has a past, its history, of its own as well as permanent value that gets new interpretation by the viewer. The more research is conducted, the more information about the material, technique, usage and meaning will be unveiled and the object will thus gain additional dimensions. The viewer who is in a higher stage of learning is able to dissociate himself from the object. As Piaget believes that learning through objects is only up to a certain age of about eleven to twelve, of the period of concrete operation (Wadsworth, 1979, pp 96-108). However, even the older student who, though intellectually he is divorced from the object and less involved emotionally is stimulated by the object. He is curious to know more

to reach the meaning of the object, by handling and manipulating it as we see mainly in science centres.

Piaget is criticized that though he mentions the importance of emotional factors in the youngster's development he has not dealt with this aspect as much as he dealt with the formation of the logical thinking; namely not giving equal attention to the domains that constitute a human being as a whole (Lavy, 1984, p 63).

The object is the referential point for learning at the museum. It has been selected because of its shape, colour, material and meaning. Through the experience of 'looking at objects, we see them', but looking at is an act of choice. As a result of this act, what we see is brought within reach not necessarily in arm's reach (Berger, 1972, p 8). The extension of the visual experience is the tactile one, which is a limited form of sight. The two senses help us to define better the relations between things and ourselves.

When we say that we see a thing: an image that is a sight has been recreated or reproduced. It is an appearance, or a set of appearances, which has been detached from the place and time in which it first made its appearance, and preserved for a few moments, or a few centuries. People report that they can form mental images of an object that resembles the object's actual appearance, this often produces visual sensation that seem quite realistic. Looking at a work of art, we no longer look at it as an objective appearance, but through criteria that are 'a whole series of learned assumption about

art - assumptions concerning: beauty, truth, civilization, form, status, taste, etc.' (Berger, 1972, pp 8-9).

9.3.3 How do we learn from objects - methodology

After examining the object in the perceptual context, we begin building a systematic way of teaching culture through objects, following a proposed model for artefact studies (Pearce, 1986, p 200).

The interweaving references to this model and descriptions of its application in teaching culture through objects are included in the framework of the proposed Museum Modular Curriculum.(3) Accordingly can be found answers to questions of the kind how, what, when, where, by whom and why in subjects such as art, history and geography.

The artefact's properties are divided into four areas: material, history, environment and significance.

Material
Raw material, design, construction and technology.

---

3. Museum Modular Curriculum at Haifa Museum is discussed in chapter eleven.

History

The descriptive account of its function and use.

Environment

The spatial relationships, or provenance.

Significance

The emotional and psychological messages of the object. The sum of understanding of these properties may assist to interpret the aretfact's significance. Related methods of teaching in the museum will assist the learner to understand the significance of the object in its own framework and its importance to people. The steps of learning about the objects are:

(1) Material. The first encounter between the observer and the object that is suggested at the museum is to look and observe the physical body of the object and the materials it is made of. (2) Further enquiry resulting from elaborate research at the museum's laboratories will provide information on the techniques involved in the construction of the artefact as well as the materials it is made of - calling for chemistry. (3) The place or provenance will encourage the usage of a map, to know the object's origin, calling for knowledge of geography. (4) The technique involved in the production of an object can be better understood by working in the museum workshop with materials and techniques as similar as possible to those of which the object is made, calling for studies in arts and crafts (Pearce, 1986, p 200).

Another kind of acquaintance is suggested, the tactile one by working
and developing a special affinity to certain materials, or more the
acquaintance with a variety of natural materials, wood and clay that
provoke the imagination and creativity. 'The inspiration for this
sculpture developed from the peculiar growth of the log' (Johnstone
Barbican, 1987). The student is offered to pursue activities after
the museum visit, work with natural materials at the workshop. It
is an enriching experience in our times, though sometimes natural
materials are replaced by artificial ones.

(2) History. Pearce divides the history of an artefact into two: the
artefacts' 'own' history, that is in details...of its maker and
manufacture, and its use in its own time and place; and its subsequent
history of the collection, publication and exhibition. The
importance of an object in this phase is beginning to grow beyond its
own identical borders. It exists in a locational relationship to
other artefacts and to the landscape...and these factors are
important to the understanding of the role of the object (Pearce,
1986, p 199).

(3) Environment. The place where the object was discovered. Knowing
this helps us to understand the object's function in its natural
original provenance, as well as the history of the site itself.
Documentation is important for objects from archaeological
excavations when topological maps are drawn indicating the exact
point at the sites where finds were unearthed; because sites change
very fast. City expansion requires new land, older and ancient sites
disappear and landscapes rapidly become cityscapes. The picture of

our habitat changes and along with it and topographical memories are bound to vanish.

To understand these changes, we have to develop a sense for documenting. The student may observe the changes, but understanding can only be achieved through comparisons and differentiation. This can be expected when the student is able to report and document what he sees and to compare the present with the past. Cartography is a practical way of learning geography through drawing. It is a method through which the youngster can sharpen his observation to the constant changes in his surroundings. He thus becomes conscious of his role as recorder and possibly future preserver of his own habitat. The example that is presented here illustrates a plan that stems from the object and leads to a series of subjects. The object, according to his plan can serve as a pivot for different directions and venues of multidisciplines that sums up in the significance which is interdisciplinary.

(4) The significance of an object is not universal. 'The choice of subject and the expression of its insights which is it clothed with will differ from one society to another' (Pearce, 1986, p 200).

In order to understand the meaning of the specific object made of a certain material, found in a certain site which has its own history, interpretation is required. Interpretation that brings together the information and the insight that have been gathered to explain the meaning of the object in its society (Pearce, 1986, pp 198-201). The object as multi-contexted (Hooper-Greenhill, 1988, Diagram 4), serves

a clear structure of teaching through the object, such as the following study of a chair.

A chair is an artefact of aesthetic value and a commodity. Old chairs demonstrate a high level of craftsmanship. The time spent in the examination of the cabinet maker's work of one chair, can lead to examining other objects in the same collection and to appreciation of the work and imagination that were invested by the artisan, the craftsman.

Related material can direct the student to further material and enhance a critical view of the crafts of today, as well as stimulate ideas to follow in future studies, in arts and crafts, history of material culture or lead to learn wood crafting.

Objects can illustrate a phenomenon of events that is relevant to issues of our time that intrigue and involve the viewer as well as promote his interest in history. An object that is approached from different aspects can be a source of knowledge on many topics and it can develop in the learner the ability to transfer knowledge by using it in new contexts and to open new ways in dealing with new subjects in an interdisciplinary way.

Figure No. 3: The object and interdisciplinary studies
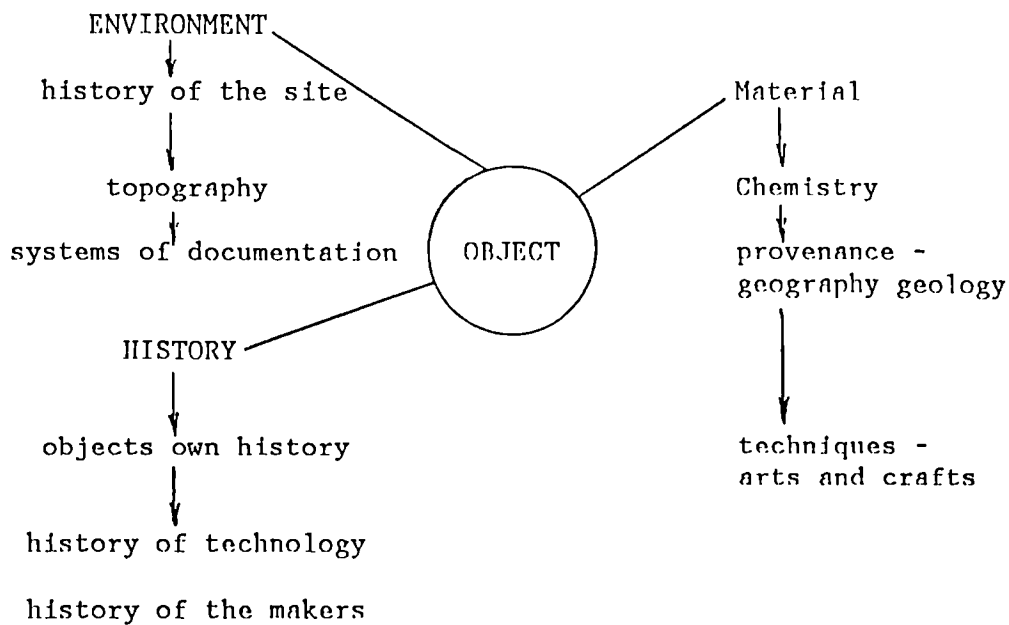
Through objects in the museum, pictorial memory can become a venue of learning which is both informative and imaginative, and relevant to the youngster who is a consumer of visual pictorial media, television rather than the book.

Against the background of the traditional image of the museum as a dull learning place, these ways of new learning seem to aim to meet the expectation of the learner, and offer an active process of learning, involving him in an intellectual and emotional experience of learning.

9.3.4 Concept building through objects

The significance of the object in culture is its importance for its own time and place, and for ourselves. The same object will get new significance when it is moved to another place, in another time, to another environment.

There exists a psychological aspect to the understanding of an artefact's significance. People discover in and assign to artifacts meanings at different levels, practical as well as abstract, such as symbols.

A symbol may be a 'thing' which means that it may have any kind of physical form, otherwise it could not have entered our experience. Its meaning, however, is in no instance, derived from its properties intrinsic in its physical form. The symbol gets its meaning from and is determined by those who use it (Coser, 1982, p 33). In this way it gains a new meaning of an abstract quality. As symbols museum objects can be studied from different disciplinary positions and social conditions. The study of objects as signs and symbols is developed by semiologists and psychologists (Pearce, 1987, p 1).

The museum suggests these references which are the objects, the artefacts. These concrete references stand in contrast to concepts that are translated by language and run the risk of losing sight of concreteness.

There exists much discussion about the impact of spoken and written symbols (the McLuhan school), versus symbols received by our sight. This discussion is not in the centre of our research, we shall follow the assumption of the second group, whose opinion

> is based on evidence that favours the view that object concepts are coded in a central system which is more rapidly assessed by pictures than by words (Seymour, 1979, p 184)

> seeing comes before words, the child looks and recognizes before it can speak (Berger, 1972, p 7).

We shall, however, mention briefly the attitudes of McLuhan, as presented by Jonathan Miller (1971), which seem to be in accord with the line that we have chosen to pursue. Miller accepts certain concepts of McLuhan, for example that the human experience is both plural and voluminous, and that in the very act of being conscious of ourselves we are in receipt of a rich manifold simultaneous sensation. Namely, in any phase of conscious time we are aware of all our senses at once. The capacity of the given medium to perform in this way depends upon the number of sensory channels it calls into action when working properly. The larger the number of senses involved, the better the chance of transmitting a reliable copy of the sender's mental state.

> We are a word and concept oriented society and yet the word can never take the place of the object of the activity that it designates (Sahasrabudhe, 1968, p 51).

In every language are to be found different verbs to define the process of the contact of eye and object. In a familiar English Thesaurus we find the following verbs: to see, look at, view, eye, survey, scan, inspect, glance, cast a glance, watch, stare, etc.

(Concise Oxford Dictionary, 1982, p 951). They have semantic values

of the quality of the visual relationship of the eye and object. For

instance, drawings or photographs which are two-dimensional are

frequently perceived as possessing extension in depth. The semantic

coding of an object permits the examination and segregation of its

attributes (Seymour, 1979, p 285).

> Discussion of the object with the observer will give
> him a chance to work along visual terms, thus
> developing systems of differentiated perception; not
> staying just at the level of differentiation but
> stimulating him to integrate contexts and
> relationships of prior and thus fostering related
> future visual experiences. (Screven, 1974, p 10).

The beginning of concept building can be traced in young children's

paintings. Their first representation of a person shows their first

step in establishing a relationship with the external world by

recording what is meaningful for them. The stage of first

representational symbol of a man is typically drawn by preschool

children depicting human head and limbs, sketchy and unproportioned.

The concept of a man will get richer and the child will continuously

search for new concepts, and his representational symbols will change

constantly. The drawing depends upon the knowledge that the child

has already gathered and is based on what he can prove by naming the

various parts of the body.

> The concept the child draws depends on his mental
> understanding of the past experiences with some
> object or stimulus. What he knows he translates,
> this translation we call concept (Lowenfeld, 1964,
> pp 117-118).

The sum of the study of the artefact is the source providing the

material for its interpretation and teaching in different levels to

young children and to older students according to their phases of development. It takes time and practice to relate to an object and to learn about it, to hear an object 'speak'. Learning through seeing is not simple. It requires a well developed capacity to observe, the time to experience, the words to formulate what you see and face, and the confidence to express your ideas (Jones and Madeley, 1983, p 1).

The approach to the significance of an object elucidates a gradual process of accumulating information, and its analysis in relation to time, to place and to society.

Museum education can set standards of knowledge and cultural awareness by its unique teaching methods. Through exhibits, we can learn about the people who have made and used objects, as well as about their quality and design, in different times and in various parts of the world, because past societies leave three kinds of evidence, structures, artefacts and documents. (Pearce, 1987, p 1).

The understanding of 'a culture' through its artefacts provides concrete references, as well as sources for abstract concepts and directs us to the study of cultures,(4) as the basis of multicultural education.

We may conclude the discussion by defining the theory of museum education as object-based but concept-oriented teaching. The student

---

4. Culture as a core subject in the Haifa Museum Education Centre is discussed in chapter ten.

learns a culture through its artefacts which are its manifestations.

The method of learning through objects and senses tries to overcome

the verbal superficiality in the process of acquiring knowledge.

> The object is the hinge between concept and thought
> on the one hand and the museum that uses the object
> to communicate intangible concepts to the visiting
> public on the other hand (Deetz, 1981, p 22).

9.3.5 Learning through handling and interacting with objects

Handling objects is a natural process of relationship between person

and items that surround him, objects made by nature and objects made

by man. The world of objects has to be refound for the children in

order to begin to relate to their environment, to be capable on their

own terms, deriving their own meanings and free to remould and change

if required (Shachtel, 1959; Sahasrabudhe, 1968, p 53).

The traditional mode of learning is inclined to a mechanical way of

learning, which was a result of a concept that treated the child as

being passive, the Tabula Rasa notion, as aforementioned. Criticism

of this system had been already pronounced three hundred years ago

by Comenius and it did not cease until today (Lavy, 1984, p 286).

'Mind is influenced by continuous regulating function of experience.

The images of things our mind accepted from experience can be called

terms ideas and images' writes Comenius (Floss, 1982, p 103).

Piaget's system for conceptualizing cognitive development was that

it is a coherent process of successive qualitative changes of

cognitive structures (schemata). New schemata incorporates the

former one, resulting in qualitative changes. In his book 'The

Psychology of Intelligence' (1963) Piaget summarizes the four periods or stages of cognitive development.(5) For the sake of this research we focus our interests on the third and fourth phases, which are: the periods of concrete operations (7 - 11 years) and the period of formal operations (11-15 years), because most of the youngsters who participate in the Haifa museum educational activities are of these age groups.(6)

There is a gradual development of the human child, of his innate cognitive capacity of differentiation and interrelation, via his manipulation of objects and development of first iconic (or picture) and finally symbolic communicative orders (Flavell, 1963; Piaget and Inhelder, 1969; Field, 1974, pp 3-4).

The phase of abstract thinking is conditioned by a former phase of concrete and direct manipulation and self experiencing with objects. This theory seems to be in accordance with the notion that children have a natural inclination to learn and research their environment. Therefore school is expected to provide conditions for the child to follow and to develop his abilities, as a preparatory stage for the next to come.

Piaget's theory was not completely a new one. Dewey had already emphasized the importance in direct and self experimenting, as

---

5. The number of stages one divides development into is somewhat arbitrary. (Wadsworth, 1979, p 28 of 3).

6. See chapter eleven - Museum Curriculum; appendix No. I.

opposed to the verbal learning system of his period. Though Dewey's ideas were for self experimenting kinds of activity, he emphasized the importance of a clever activity, above the activity as such that is just a response to the child's desires (Dewey, 1938). Bruner brings up the question of how to be assisted with the self experimenting and experiences for a higher degree of abstraction (1970).

There is a long list of artefacts that each museum can put aside for the youngsters to experiment with . Touching specimens must not be an end in itself, but rather a means to utilize by their senses, to think creatively and to integrate their experiences into a broader scheme (Pitman-Gelles, 1981, p 60).

Touching helps young children to learn more easily from three dimensional objects than from the written or spoken word. The handling of objects is especially important for visually impaired handicapped learners who have an innate ability to understand through the touch (Hartley, 1983). Handling objects by sighted learners helps to experience material size, weight, texture and smell. Touching different specimens can enhance the feeling of them and later retrieve the information and recreate forms in new material thus enriching their learning experience ('Please Touch', Pearson, 1983). (7)

---

7. Works of visually impaired and handicapped learners at The Centre's workshops, appendix No. VIII.

Handling specimens is a way to get a certain interaction through the senses at history, anthropology and art museums.(8) However, museums of science and industry provide a wider range of experiences in involvement of the senses while learning through the museum's exhibits; exhibits that are in most cases replacable, and therefore can be physically manipulated.

What is an interactive exhibit? It is an object or construction that can be varied by the visitor; the interactive exhibit usually allows variable inputs and consequently variable outcomes (Feber, 1987, p 86).

Interactive exhibitions that develop different types of participatory exhibits are concept rather than object based.

Interactive exhibitions have to be carefully prepared in a 'designed environment that links the various component parts together. Then it will allow all types of learning experiences, and make both children and adults feel comfortable' (Pitman-Gelles, 1981, p 45). Here we find that experience and the learning from experience are a motivating element for advancement of museum exhibitions.

Older children show a strong motivation in learning through manipulation of objects. These facts make it difficult to accept

8.   At The Centre there is a special collection of original prehistoric and archaeological artefacts for handling at the workshops.

Piaget's theory of handling objects only up to a certain phase of child development, the phase of operation age 7-11 years old(Wadsworth, 1979, pp 96-109).

Although new approaches to science are just beginning to appear in England,(9) the Bri stol Exploratory, which is a 'Hands-On' Science Centre, (Hackmann, 1987) owe their impetus to experiments carried out in North America for the last twenty years (Feber, 1987, p 85). In Israel a scientific park on the campus of the Weitzman Institute at Rehovot, is one of the centres that were established to encourage the familiarization of scientific knowledge through self experimenting with objects (Rosenfeld, 1985, p 20).

The pioneering work of Openheimer at the exploratorium in San Francisco, a setting for interactive learning, serves as an example of an exhibit-based teaching institution on learning from manipulation or hand-on exhibits and with provided information. It suggests interactive roles of attention and curiosity in learning from different types of exhibits, that could be handled. Thus, the object that both disturbs and attracts, arouses curiosity and attention. Learning from an exhibit in every phase of development is an emotional and intellectual pursuit out of the desire to discover, to get information and to understand an idea (Hein, 1987, p 38).

---

9. Boston, The Guardian, 3.12.1986.

Learning through handling objects and learning through manipulating exhibits are valuable essential elements in accelerating the process of learning, its cognitive and affective domains alike.

9.3.6 Objects as sources of ideas for teaching at the museum

About handling objects as stimulating sources for sculpting, Henry Moore emphasizes the looking at, the handling of objects and the tactile sensation. They suggest the ideas that stem from them and generate successive phases of techniques such as moulding in clay, and plaster up till the last outcome of the sculpture itself (Compton, Catalogue, 1988, Figures 19, 178). The sculptor talks in the langauge of shapes, spaces, bigness and smallness, roughness and hardness, and the way you look at them, through them or walk around them.

Henry Moore and his relationship to found objects is an interesting viewpoint for ideas for teaching at the museum. Specimens such as driftwood, pebbles and bones come to underpin the gratifying work at the workshops. 'They start one off with a reality one alters and changes, for me now is a better start than drawing'. A completely different viewpoint about the preparatory stage for sculpting that he had expressed years earlier. ('The Sculptor Speaks', The Listener, 8.8.1937).

Knowledge is accumulated through tangible specimens and the information that relates to their appearance, form, shape and colour and when the pupil defines texture another sense enters into the process of appreciation, the tactile sense (Johnstone, 1988). 'It

is natural to man to reach the intelligibilia through the sensibilia because all our knowledge has its beginnings in the senses' (Hooper-Greenhill, quoting Aquinas (Yates), p 13, footnote 12).

In the first stage, the person sees, this is the physical act of the eye, later he scrutinizes and chooses what appeals to his taste. His eyes prefer to look with former reminiscences, recalling past things. In this phase insight, emotion and curiosity interplay and he wonders and beholds. The coming stage is of perceiving, which is a psychological state. The individual is susceptible to learn, to gather knowledge. It is the stage of understanding the messages that the object communicates. He understands cognitively the significance of the object to which he relates emotionally. 'Once the child appreciates the permanence of objects he can think and refer to them even in their absence' (Gardner, 1983, p 129).

The object is a stimulus to curiosity and attention. Curiosity is defined as a response to a novel, complex and incongruous stimulus. In museums, the novel or complex stimulus is the object in the exhibition where it is presented in a new environment that creates a new event for the learner. Curiosity in turn functions to encourage the learner to use his senses to attend to the stimulus and learn about it. Koran in collaboration with other colleagues focused their research (Koran and Longino, 1981, 1982; Koran and Lehman, 1981) on attention and curiosity and say that they feel that these factors are closely related to learning in all types of exhibits' settings.

The directing of the learner's attention can be made by different ways, by the museum educator, by movement, by verbal direction (Koran, 1984, p 210) such as a question, a suggestion to discuss verbally, to dramatize what one perceives, to lead is to a multilevel personal involvement, an involvement which is instrumental in the process of learning and will leave its imprints for experiences in the future. It helps to store in the memory what has been attained in the encounter with the exhibit. The specific experiences of learning differ according to age, to cultural background and to the levels of sophistication of the individual. However, the traditional frameworks and environments of learning fail to provide enough freedom for the exercise of individual talents and expectations (Glazer, 1977, p 324). It is no doubt valuable to create an environment in which a person acquires effective behaviour rapidly and continues to behave effectively (Skinner, 1988, p 89).

'The process of acquiring knowledge, through the object at the museum seems appropriate to the process of learning. Because the object once attended to, will remain in the memory (James, 1969, p 77; Piaget, 1970, p 40). The knowledge of the three dimensional world of objects is a distinct area of competence, the pictorial memory (Seymour, 1979, p 217). Learning through objects at the museums is an important experience of material reality and it is essential for formulating reasoning processes in teaching the mind to form concepts (Hooper-Greenhill, 1987, pp 6-8).

There are stages in learning the artefact: describing - taking the inventory, analyzing - perceptual stage - the idea, form. Techniques:

interpreting - saying what the viewer thinks about; funding - providing additional knowledge, adding it to what the viewer accumulated, disclosing - unfolding the full meaning of the artefact. In case of an art exhibition, meeting the artist (Ott, 1987, pvi).

Many studies in the experimental method, which is one of the two approaches to the study of cognitive processes (the other is the descriptive method), have helped to validate the existence of mental functions concerned with encoding, retrieval and comparison of mental codes, which represent stimuli in terms of visual, auditory and semantic attributes (Seymour, 1979, p 306).

If we look at the way people shaped their environment, we may discern certain considerations that can be applied to the museum activity that is centred around the object; the object that is displayed for perusal and concern. The object is part of all forms of expressive culture shared by group and are concerned with humanities (Public Law 4-201), establishing the American Folklife Center (Deetz, 1981, p 31). Objects like other forms of expressions such as customs, belief, language, art handicraft (Tylor, 1958, p 1) set humans apart from the rest of the world (Deetz, 1981, p 21) and the field of humanities basically considers human condition.

This comes close to a definition of culture, as formalized by anthropologists, about what is carried in the mind of collective groups of people, such as a set of concepts and ideas, that is shared by individuals of that group (Benedict, 1934; Ottaway, 1962, p 21).

The meaning of the object as an expressive form of a certain group, a society, directs us to the subject matter of cultures as they are taught in museums, as well as organizated in a curriculum such as: teaching cultures in the museums at Haifa and multicultural education programmes and integrated humanities that are taught in England.

The main subject in the museum curriculum spells out an educational purpose that provides the basis of acquisition of objective knowledge about today's society through learning about other cultures in succession. The material is based on the collections in the different museums and is structured in Museum Learning Modules (M.L.M.). The M.L.M. makes provision for cognitive and affective learning, as enhanced in the exhibition hall and in the workshop. These are the environments, spaces that affect the learner (Getzels, 1977, pp 7-18) and the process of learning, 'as the human mind and its capacity for thought and action arose in the context of certain environments' (Kaplan, 1982, p ix).

9.4 On the Museum Educator as a Mediator

The process of learning at the museum is mediated by an educator, the museum educator.

New forms of understanding and experiencing are accomplished in a particular institutional setting and through socially accepted forms of a constructed process of interaction (Cosin, 1971, p 1) of teacher and pupil; an interaction that is instrumental for building a common

set of intentions of the two parties to pursue the teaching-learning process.

The relationship between museum educator and learner is constructed by conversation. An open and free conversation will facilitate and accommodate the learner to the new venue of learning at the museum. Through the conversation at the beginning of the museum's learning day, the educator will be able to understand better the learner's background, ways of behaviour, language and expectations, in order to choose the appropriate method of teaching. The pupil on his part will feel more confident being acquainted with the new environment and the new ways of learning. Consequently museum experience will become a pleasant learning event that will eventually motivate the youngster to return to the museum for more visits.

Though the conversation will be instrumental in the museum process of learning, it is an attempt to verbalize, an attempt to explain how, either metaphorically or literally, 'you see things' and an attempt to discover how 'he sees things'. But we have to bear in mind that the way we see things is affected by what we know (Berger, 1972, pp 9-8) and at the museum we expand our knowledge.

The museum provides a system of communication that by objects, that is served and complemented by the language as one of the first essential means.

What is of interest to us is to consider the process of a thought and language. The teaching theory can be reduced to a formula; the

relation of thought to word is not a thing but a process, a continual movement back and forth from thought to word and from word to thought (Vygotsky, 1962, pp 142, 125, 126).

About learning general language skills, there is rather widely accepted claim that linguistic mastery involves special processes of acquisition (Gardner, 1983, p 8). The conversation that is to develop for interaction is built on the acknowledgement of the teachers of the pupils vocabulary. Then 'the conversation will give form contours to items apprehended in a fleeing and unclear manner' (Berger and Luckmann, 1966, p 172).

To maintain the spirit of dialogue and refrain from the monologue in teaching one has to try and develop it in a dialectical method, supposedly employed by Socrates. The crux, the decisive point of the method is that the teacher should be questioning and leading the pupils systematically to recognize some true conclusions, without the teacher telling the pupil that the conclusion is true (Flew, 1979, p 330). Though this method teaching was usually limited to one pupil such as Theaetetus (Plato, 1951), the museum educator can follow Socrates' method by encorporating the open, democratic and patient approach of the dialogue as a basic element in his teaching. An element that is rooted in a philosophy of open education and underpinned by stances from psychology and sociology, by considering the pupil as a partner. Because everyone is socially participant in its knowledge in one way or another.

There is the central element, as source of knowledge at the museum which is a set of alternative meanings. Alternatives mean more information but also more ambiguity. Accordingly are arrangements, contrast and contexts which clarify meanings, thereby reducing the alternative features is to be the one to which the viewer must attend. This is the ability to use information efficiently in arriving at the correct meaning of the object (Di Vesta, 1974, pp 88-89).(10) The museum educator role along the whole session of learning is to maintain a relaxed atmosphere assisting the pupil to differentiate among alternatives and reach to the right one.

The museum educator cannot plan ahead a strict structure of a conversation with the pupil, because he finds himself every day in a new different kind of situation of teaching new people with new expectations. The constant exposure to changing audiences keeps the museum educator in a continuous process of accumulating new experiences and drawing conclusions.

Another kind of conversation develops at the museum, the conversation between viewer and objects. This is a personal matter of a person alone trying to tie together the new experience at the museum with former experience, recalling forms, colours, forms and things of his past. Conversation with the museum educator in such a case has to develop only if it is asked for. Otherwise the person has to be left to respond to what he sees. The museum educator will share his

---

10. An analogy was applied. The words 'word' and 'listener' were replaced by 'object' and 'viewer'.

understanding with the visitor through the conversation only if he is called to assist the viewer (Wieland, 1984, p 39). Thus making the conversation as an instrumental vehicle in the process of teaching at the museum as well as in enhancing the meanings of the exhibits and of the exhibition as a whole.

The constant meetings of the museum's educator with fresh audiences makes him sensitive, aware and able to discern the special needs of individuals and groups, more than any other specialist in the museum. The benefit of this special accumulating experience of the museum educator of knowing the audiences is for himself in becoming a proficient interpreter of the musem's cultural heritage; as well as for the museums that can use this experience with the visitors in order to build relevant programmes to them and not for them. Thus, museum educators are active assistants in building the museum's roles of a communicator and an educator.

CONCLUSION -PART III

The museum offers new sources for learning: the objects that are enhanced by the senses, the novelty of environment and the new social relationship that is established between the museum educator and learners. All these elements bear the potentiality of arousing curiosity, strengthening initiative and setting up new attitudes by the learner in every experience is a moving force (Dewey, 1938, p 38).

The educational rationale for taking children to learn in a museum may be defined as exposing them to a new kind of learning experience at a new venue, where the visual learning through objects is its main feature (Reeve, 1981, p 3).

Museum learning sessions are often linked to school curriculum, but the benefits of such a *learning experience is beyond the enrichment* of a subject in the school curriculum.

There are two environments at the museum, a passive at a certain stage and a constantly renewed one, but both are constructed by man (Riviere, 1973, p26). The two are interrelated and the one without the other loses its significanfce and relevance.

The first environment is the physical environment of the building, the space organization in relation to the objects, the exhibition and the space for the comfort of the public.

The second environment is a dynamic one which is constantly changing. This is of a human kind, a learning environment. that is gradually constructed by the museum educator, and the audiences. To a certain degree every visitor is a learner, taking in impressions, internalizing them and cultivating them according to one's own previous experiences. The museum educator offers a wide range of possibilities to learn and to enhance impression to learning audiences: pupils, students, teachers and any one who wants to pursue a learning experience.

The museums have something for everyone; they can inform and educate, amuse and entertain, make you forget the world outside or help you to understand it. Museums have the objects, the collections that provide the the sources to satisfy a curiosity if they will deliver the message, not only in building new departments and museums which number about 2000 in the U.K. in the 1970s (Singleton, 1981, p 113).

Exhibitions suggest reconstruction of cultural entities of far away times and sites. They have the power, if the needs of the visitors are considered, to transport them to new states of mind, to stimulate curiosity and to grant gratification (Graburn, 1984, pp 180-181, Annis, 1986, pp 168-171).

Graburn has identified three human needs that the museum can fulfill: Reverential, designated the personal need for something that will detach him from everyday life and grant him a new kind of spiritual experience. Museums may provide a place of peace and fantasy. A place for meditation and contemplation, where the experience is

personal and thoughts, reflections and imagination are in a dialogue with the exhibits; Associational - the museum is an occasion for sharing experience with others. This need is more of a social need and in this case the museum is analogous to other tourist sights, theme parks, zoos, historic houses, occasions for spending the time for the sake of its social context; Educational - people expect to understand through the museum something about the world and make sense of it. To be enlightened by learning at the museum. 'Each of us may be, in different times and moods, any of these types of museum visitors' (Bloom, 1984, p 59).

At the museum the objects, the knowledge generated through them, the unique setting of the constructed environment create an optimal setting for new learning and serves the art of museum teaching. Having to deal with a daily new audiences a qualified educator is required, to mediate museums' knowledge and to enrich the learning experience. Otherwise the museums will remain an unexplored treasure house of curiosities, a shrine to worship but not understand and enjoyed; a closed garden whose fruits are not eaten.

The museum educator's experience in interpreting and thus transmitting the museum's knowledge is a new experience of teaching in the field of education.

Museum education provides new tools of learning through its provisions, the objects to discern, criticize and relate to visual information as a source for the understanding of the world.

Museums offer the versatility and a wide range of provisions, objects, methods techniques and the variety of audiences that participate at the museum's activities and their demands from the museum is in constant growth.

Provisions are to be prepared by the museum educator to encourage participation (Ottaway, 1962, pp 201-205), through verbal expression which is instrumental to the development through social interaction (Vygotsky, 1962), a conversation between the educator and the learner and among the learners in the group (Barrington and Irving, 1975; Benjamin, 1979). 'Guidance is effective only to the extent that control is exerted, though it is hard to detect how much and how well the learner has apprehended the material (Skinner, 1988, p 88).

If we admire individuals' performance we must design an effective condition under which individuals are provided with opportunities relevant to them to perform at their best and in their way (Glazer, 1977, p 324). It has been proved that the museum is becoming a part of so-called consumer society and it is desirable that education in museums will be free and client oriented. The museum as an object bank, dispensing knowledge through the object should be a place for creation of new cultural forms, new solutions to most down to earth problems (de Varine-Bohan, 1976, pp 131-143).

PART IV

THE MUSEUM AS A SETTING FOR NEW LEARNING: THE HAIFA MUSEUM EDUCATION

CENTRE - A CASE STUDY

INTRODUCTION - PART IV

In this work two main objectives were described as the basis for museum education. The social objective - the socialization process of the individual in society (Chapter three). The educational objective - building new 'frames of educational knowledge' of the subject of cultures. Because 'education cannot leave out the preference of material of educational programmes' at the Haifa Museum Education Centre 'The Centre' (Figure No. 4) we deal with cultural transmission of the material that is based on the treasures of the museums.

The two objectives find their realization in museum education, which develops because the conditions of the museum as an environment and knowledge it generates and supplies the provisions for learning (Chapter ten).

In this part of this research we present the realization of a concept in practice of new learning at the museums of Haifa. With the building of the museum framework and curriculum, we resume closing circles of investigation that have been opened at the beginning of this research in Part I.

Figure No. 4: The Centre's Structure

Morning activities			Afternoon activities
The museum modular curriculum - Pupils, students - Teachers' college student teachers	The Centre at the Haifa Museum Building		Workshops - Youngsters 8-15 - Children and parents - Retarded adults

Haifa Museum
  Ancient Art
  Modern Art
Music and ethnology
  departments
  (museums)
	Offices
	
	Teachers' Library
			Gallery discussions
			- Art teachers
			- Museum of Ancient Art
			- Museum of Modern Art
			- The University galleries

The National Maritime	Circulating exhibitions department		Centre's workshops
The Museum of Prehistory			The National Maritime workshop
The University Museum of Archaeology	Storage room		
Japanese Art Museum	Workshops		

We have begun then to pursue the sociology of knowledge theories discussed by British scholars in the early seventies (Young, Bernstein, 1971). These scholars who have provided new approaches for examining subjects of knowledge, that are transmitted at educational institutions, and are related to social conditions and changes in society.

Transmission of knowledge is processed through learning and teaching. When we deal with education in museums, we are concerned with teaching 'the learner to take advantage of past learning in attempting to deal with and master new problems before them now' (Bruner, 1977, p 558). We aim our plans and practices to the individual who is seen as actively creating his world (Field , 1974, p 1).

When teaching in a museum we pursue selected theories of teaching and learning. From the vast field of knowledge the subject of culture as a trend in museum education has evolved in a fertile land of socio-cultural problems in Israel in the fifties, three decades ago, a subject that proves its validity till today. A subject that bears humanistic values for youngsters upbringing in multicultural societies such as in Israel and Britain.

The leading theory was teaching a culture through its manifestations in the arts and crafts, as provided by the museums' collections. The trend of teaching peoples' cultures began in the Museum of Ethnology and Folklore Archives (1957), and continued later with ancient cultures at the Museum of Ancient Art (1965). The same approach was implied in new museums which opened their doors to education: the Japanese Art Museum (1961), the Museum of Prehistory (1963), the National Maritime Museum (1972), and the university museum of archaeology (1985).

The objectives for the selection of the subject of culture were: knowledge acquirement; the comprehensive nature of the subject; its importance for education in our multicultural societies.

All these objectives have been materialized because the variety of museums in Haifa provided the collections to develop an interdisciplinary museum modular curriculum. 'Exploring the same theme in several kinds of museums present an entirely new set of challenges' (Stillman, 1983, p 48).

Culture is a subject that has encompassed bodies of knowledge based on the disciplines of social and humanities studies of anthropology, art and history. The subject has evolved and developed from a long term, once a week, afternoon course,(1) to a structured Museum Learning Modules (M.L.M.), linked to the school curriculum in the different classes from the third to the twelfth grade (appendix no. I).

In order to attain these objectives of museum education practical measures are required. Building a partnership with school educators, a collaboration in which both parties, museum and school, participate for the common goal of museum; constructing a curriculum, divided into Museum Learning Modules (M.L.M.), an integrated modality of learning to be compatible with the youngster's phase of development; A modality of theoretical and practical learning.

In the museum, we are in pursuit of an all-embracing experience of the individual learner, the acquirement of knowledge through the visual senses at the encounter with the exhibit, objet d'art, in the exhibition.

While in Part III we analysed and formulated museum learning theories, in part IV we will describe museum education in practice. The following two chapters which are included in this part, analyse and

---

1. The afternoon courses continue till today in the same pattern and strong affiliation to the exhibitions as they were at the first age of the Centre's development (See chapter four).

describe interaction of museum and schools, the museum curriculum, concepts and methods that build the new learning. These will be underpinned by practical examples taken mainly from the case study of the Centre and quoting educational programmes in England.

A conspicuous feature of the Centre is that of introducing the needs of the young audiences and thus it accelerated the awareness of the museums' and personnel of its responsibilities towards its audiences. In order to meet the challenges of the versatile public, the Centre has developed an array of educational programmes of a variegated nature for the audiences of youngsters of school age from primary to university students.

For the sake of museum education objectives collaboration with schools has been initiated, a collaboration that leads to an understanding and mutual agreement of concepts and norms by both parties, museums and schools.

The Centre that initiated the first structured educational work at museums in Israel has not left out over the years any of the principles that were laid at its foundation: of child centrality in the process of teaching and the object-based concept-oriented theory of learning (Deetz, 1981, p 220, chapter nine). As well as the subjects that matter of the curriculum of peoples' cultures that is taught in the humanities approach till today.

From the Centre's concepts and modes of learning have evolved an institution that diffuses its ideas, proving that museum education

is an innovator in the field of general education. The three projects (chapters eleven and twelve) exemplify the element of novelty in materializing the idea interdisciplinarity of Riviere (1985, pp 182-183). A philosophy of the contemporary museum that finds its form in the ecomuseums (chapter six).

The three projects have been evolved from the intrinsic nature of the museum's environment, involve active partners from the fields outside the museum. The partners as well as the Centre's teachers perceive the benefit of interdisciplinary work as a fertilizing, enriching factor for the advancement of the learner, meeting the challenge of education in our times and responding to needs of society today.

CHAPTER TEN: A WALK IN THE RIGHT DIRECTION: PRACTICE OF MUSEUM
EDUCATION

10.1 <u>Building Museum School Partnership</u>

Museum education in the last two decades has emerged from generalizations to the more specific. This tendency finds its expression in lectures and publications in Britain as well as in international meetings of CECA and ICOM (CECA publications). The tendency to the more specific in museum education stems from the accepted agreement that museums are educational institutions that provide learning experiences for their school audiences. For this goal museums and school need collaboration (Sebolt, 1981, p 13).

Museums and schools are educational institutions which have been established by society to transmit human heritage and knowledge. However, the two institutions have different structures and modes of functioning, as related to learning. Museums are settings of informal education, while schools are settings of formal education. While schools teach primarily from books, the study in the museum is from first hand objects. Museums are free to build their programmes, which develop on the basis of the museum's framework, collections and exhibitions. While most schools are set for learning in classrooms, to serve the whole school year, the museum learning places change with the different exhibitions. Thus, the museum is an open learning environment, while the school's learning environment in general is a preplanned and steady one, but for certain subjects that are taught in rooms other than the regular classroom.

All these differences that are inherent in the nature of the two institutions have kept them apart, a situation that delayed the

acceptance of the museum by schools as a setting of learning with a distinctive character of its own. Now schools and museums realize the need for a structured collaboration by negotiating long term relationships instead of one off visits (Rogers, 1987, p 16). A partnership that strives to reach mutual understanding, concerning the main objectives of education in general and of learning objectives specifically (Moffat, 1985, pp 20-23).

There are different viewpoints at the museum itself concerning the relationship of museums and schools, and concerning the kinds of programmes that the museum has to develop for schools. One point of view suggests a free planning of museum programmes, regardless of the schools' needs. The other point of view advocates programmes directly related to the school curriculum, regarding schools as part of the community that deserves museum's attention to its needs.

In this work, the second viewpoint regarding the museum as a socio-cultural institution that has the responsibility to serve the community's needs has been adopted. This approach is in accordance with the basic sociological theories presented by this research (Chapter three) that the museum is able to form a venue for the socialization of the youngster through learning and integrate him in society.

At the Haifa Centre it was suggested that the museum educators initiate the dialogue because the museum's intentions, attitudes and modes of functioning are not always clear to the schools' management and teachers. While museum educators know the curriculum in general,

having been students in the past, they have some experience working in the classroom with the curriculum. But the school teachers are not always acquainted with the educational activities of the museum.

There are cases where the assistance of a third partner is needed to facilitate the collaboration between the two parties, such as the Cultural Education Collaboratives in Boston and in New York, that are two service organizations to bridge the gap between museums and schools (Pitman-Gelles, 1981, p 80). However, if collaboration means a promise of time spent in learning about each other, it is suggested to begin with face to face contact between the two groups of educators, of school teachers and of museum educators. The encounter is supposed to develop as a dialogue, which is a direct kind of conversation that aspires to build positive attitudes, discussing the mutual goals of the two parties, museums and schools.

Building a dialogue between two communities, museums and schools has to take place at different levels of management and personnel of the institutions. While the managerial bodies will discuss policies, educators of the two communities have to define mutual objectives, to learn to know each others' frameworks as well as the potentialities of each institution for the sake of the mutual educational work, however, the goals are not always the same.

The lesson at the museum takes place in relation to the subjects taught at school, but not in relation to the issues of the curriculum specifically (Pitman-Gelles, 1981, p 80). While the school teacher is mainly concerned with curriculum priorities, and expects the

museum to respond to these issues, enhancing the students studies. The museum educator is more interested in the interpretation of the objects and in the involvement of the students in the museum experience. On account of the differences which are inherent in each educational institution, an agreement has to be reached concerning the content and the organization of the joint projects.

Until the state when more student teachers will receive museum training, new strategies have to be conceived, such as 'designed workshops that will introduce teachers to museums as a learning resource and enhance their ability to plan museum-related experiences for their students' (Bloom, 1984, p 68, quoted by Plaine, 1985, pp 15-19; Heath, 1985, pp 28-31; West, 1985, pp 41-44).

At the Haifa Centre an assigned member of the school staff, cordinates a yearly programme with the museum educator. The coordinator is the person who builds the bridge for the every-day work of learning of the school at the museum and to ensure a continuity of visits to the museum at the museum.

The collaboration between museums and schools can grow to an intradisciplinary experience, being assessed continuously for the advancement of the process of learning. The idea of the interdisciplinary experience is in the spirit of Dewey's theory, 'that there is an intimate and necessary relation between the processes of actual experience and education, which is found in the fundamental unity of the newer philosophy. The new philosophy which

is committed to some kind of empirical and experimental philosophy'
(Dewey, 1938, p 25).

.

A continuous dialogue between the institutions brings a constant
feedback, which creates an experimental continuum, that is a vital
factor in progressive education 'which is tacitly assumed...as a plan
of learning by experience and is placed in sharp opposition of the
old' (Dewey, 1938, p 26).

Museum school partnership in the future is expected to continue their
dialogue that aspires to build a collaboration when each side will
preserve its characteristics and autonomy, and refrain from becoming
an adjunct to the other. When each one of the two parties is expected
to become aware of the other partner's intentions and to be able to
evaluate them, and reassess its own plan for the ultimate goal of
education of the young person.

10.2 Constructing a Museum Education Curriculum

Building a curriculum is embarking on a new way in an institution.
The curriculum is the organization which defines what counts as valid
knowledge (Bernstein, 1971, p 47). This knowledge is transmitted by
the Museum Modular Curriculum units, Museum Learning Modules
(M.L.M.). Accordingly it treats an organized sequence of modules of
learning in opposite to sporadic study day tours at the museum. 'Like
any theory the curriculum must be framed with reference to what is
to be done and how it is to be done (Dewey, 1938, p 8).

Two elements are necessary for the curriculum: The subject matter, linked with the exhibition or collection. Curriculum development always occurs in a certain appropriate context (Allison, 1988, p 175). Its programming must consider the point where the audience and the museum objectives meet and explore alternative methods of interpretation to adjust to each individual, and to make it appropriate to situation, to content and to the expectations of the learner (Brenner, 1981, p 20).

10.2.1 Knowledge at the service of museum curriculum

Knowledge signifies the whole complex of the intellectual heritage that is designated to be transmitted by education to future generations (Scheffler, 1986, p 10). The Concise Oxford Dictionary defines knowledge as the sum of what is known. Even though both museum exhibits and educational curricula potentially represent all the integers of this sum, it is not the subject range of what can be known that concerns us but the nature of knowledge and its acquirement.

Knowledge as a subject has a variety of traditions of philosophical explanation. Its discussion involves an array of ideas and concepts in the philosophical realm. Its linkage to changing ideals of culture, technologies and scientific models bring changing evaluations, which need elaborate research, that is not included in this work. We shall restrict the discussion to knowledge in the museum context, with reference to education. Even with this restriction, and without venturing into the formal theory of

knowledge (epistemology), we shall nevertheless begin with some general observations on the nature, acquirement and progress of knowledge. These observations are meaningful in both the museum and the school contexts.

Knowledge is strongly connected with the understanding of nature, with its domination for the sake of human survival and advancement of culture. It is acquired in many ways, including acquaintance with things, places people and subjects. These are not less important than mathematics and metaphysics.

Old notions are replaced by new and sensitivity must be kept, to understand and discern between fashions and real new ideas that can lead to discoveries. In direct encounters with problems, we have to employ our senses, which are important to be mentioned as one of the principal values of museum education objective.

'Through understanding how knowledge has progressed and what it tells us of ourselves, we may better know how it should be used to advance man's welfare' (Ripley, 1966, pp 8-9). The progress of knowledge depends upon a profound interplay among the structure of theory, the accumulation of evidence, intuition and social concerns.

Knowledge in museum context: Museums serve as a catalyst, introducing people to a new phenomenon of the acquirement of knowledge, that is generated by the exhibits that are the core and the language of museums. The unique circumstances, where the exhibits are sources of knowledge, constitute a setting different from any other places

of learning. The exhibits or exhibitions provoke the eye and the mind, and create an impetus in motivating people to seek further knowledge.

Although we have stated that our interest is not in the potential range of subjects but in the nature of the knowing or learning experience, it is well to remember the all-inclusive nature of museums. This is exemplified by the series of lectures by world-famous scientists, commemorating in 1965 the 200th anniversary of the birth of James Smithson. James Smithson's ideal was 'to increase and diffuse knowledge among man' and for this noble purpose the Smithsonian Institution was founded. The institution has become not only the greatest repository of art and scientific knowledge in the United States, but a centre of original research and experimentation for the whole world.

For sociological analysis, we may refer to Bourdieu who relates the intellectual field to social forces. These forces are in part defined by an authority, more or less forceful and far-reaching, which represents to some extent the empire of the competition for intellectual consecretation and legitimacy. Specific institutions, such as educational institutions and academics, by their authority and their teaching consecrate a kind of work, or a certain type of cultivated man (1971, p 174).

It seems that the museum in general enjoys the same standing to acquire legitimacy for its different disciplines. According to a table of the hierarchy of legitimation suggested by Bourdieu, museums

of art already enjoy a place in the sphere of legitimacy claiming
universality, while photography, which is an integral department in
certain museums is in the process of achieving legitimation. Interior
decoration, dress design, furnishing, and other aesthetic subjects,
however, are still in the sphere of the arbitrary as regards to
legitimacy (1971, p. 174). They are defined as applied arts
constituting departments, such as in the Museum of Modern Art in New
York; in the Israel Museum, Jerusalem, and in the Victoria and Albert
Museum, London.

Knowledge and interdisciplinarity in relation to museums Riviere
points out an important question relating to the division of museums
according to the various disciplines. He asks, 'Are not museums
themselves responsible to break the concept of interdisciplinarity?',
a concept which is rooted in the museion of classical antiquity, an
institution which united philosophical thinking and the disciplines
of man, nature and the universe; and was also apparent in the curio
cabinets of humanities of the European Renaissance' (1980, p 2).

From the ancient times of Greek culture, we find general human
knowledge being classified and divided into different compartments,
according to various disciplines, each discipline personified as a
muse, one of the nine daughters born to Zeus and Mnemosyne, as seen
in Mantegna's painting of Parnassus through dancing together. In the
reality of the life of museums, the concept of interdisciplinarity
has never been completely abandoned. It finds its expression in the
encyclopedic or integrated museum, such as the British and the
Metropolitan museums. An idea which gives impetus to build new

museums, such as the ecomuseum, that were envisaged and planned in the spirit of interdisciplinarity, that were described below (Chapter seven).

Knowledge and aesthetics: The process of acquiring knowledge has to be combined with aesthetics' says Frank Oppenheimer, founder of the Exploratorium in San Francisco, 'and is a comprehensive experience, where knowledge and aesthetics are integrated.' (Duckman, 1986, pp 120-122).

The term 'aesthetics' is used here in a wider sense. It is justified by the etymology of the word with its meaning in Greek designating to it the 'faculty of feeling', derived from the adjective aisthetas which means 'perceptible to the senses'. Therefore, the term 'aesthetic' does not apply simply to the beautiful and associated with the arts, but to the term 'aesthetics' as a faculty of feeling, which is applicable also to Frank Oppenheimer's opinion about the process of acquirement of knowledge through the senses.

Aesthetics involves both the notion of cultivating taste and that of building up tension and then providing a release for it. It is incorporated in the experience of young children, and it becomes an integral part of their thinking. Aesthetics has to be part of upbringing, and consequently it will be embedded in the way youngsters think and when they grow up they will not look for art and aesthetics as a commodity (Duckman, 1986, pp 120-121).

Education systems have to incorporate aesthetics as an integral part of their programme and not to teach aesthetics as a separate subject which is taken out of context of learning. It has to become part of every theme that we teach (such as geometry), or train (such as gymnastics), or in the arrangement of playgrounds for children to play in.

> Aesthetics has to become part of life, cultivated through an interactive way of teaching. The Exploratorium introduces people to science by examining how they see, hear and feel. Perception is the basis for what each of us finds about the world, and how we interpret it - whether we do so directly with our eyes, or develop tools (such as microscopes), art, poetry, or literature to help us (Duckman, 1986, p 120).

In the Exploratorium, the arrangement of material is in interactive study centres that offer to the individual conditions and materials to be taken and learn from them. Such a process of learning is both adequate, appropriate and undisturbed, leaving the intellect and the senses to interact in harmony.

Frank Oppenheimer's opinion about aesthetics is a philosophy of a mode of living that is not limited to learning, but becomes integral in the way of life. Museum education is the agency that has the potentiality to diffuse and disseminate this mode, through its educational activities.

Knowledge   in   relation   to   museum   curriculum: Knowledge   is

conceptually integral to education, since whatever else is involved

in the process of education must be some form of engagement with

knowledge (Kelly, 1986, p xiii). In the context of education,

knowledge signifies two series of concepts: the information and the

'know how' for the sake of technological domination.

Formal educational knowledge is realized through three message

systems: curriculum, pedagogy and evaluation. Curriculum is defined

as what counts as valid knowledge (Bernstein, 1971, p 47). Valid

knowledge is an organized body of knowledge that is to be found in

the different departments of comprehensive museums, or in specialist

museums, each with its own discipline based on research, of a branch

of knowledge. Pedagogy, the second element of curriculum which

defines what counts as a valid way of transmission of knowledge in

museums was discussed below (chapter nine). Moreover, in

collaborative programmes between museums and schools, the evaluative

function falls more naturally within the school's involvement with

the students.

We describe the process of acquiring knowledge as a complex process

that involves observation of other people acting and, experiencing

consequences of   their actions upon themselves and others. The

traditional convention of teaching is through the written word,

contained in books and in the classroom, but most human learning and

acquirement of knowledge takes place outside classrooms. This is a

concept that is not accepted by teachers (Jeffrey, 1974, p 131). The

museum is one of these important places of acquirement of knowledge,

in a newly acquainted environment and with new modes of learning. The museum has its own rationale in the organization of curriculum. Due to what the museum offers, the individual learner has all the possibilities to learn.

Along the developmental stages of the curriculum, the planner may find that a constant feedback is helpful for the assessment of the programmes which can be achieved by the cooperation on the part of the school. The feedback leads to assessment to be done by the classroom teachers and museum educators, whose collaboration is the clue for future successful programming.(2) As museum education is education first and foremost, it has to judge its own objectives and programmes in close acquaintance with the whole field of education (Harrison, 1967, p IX; chapters eight and nine).

10.2.2 The curriculum at the Haifa Museum Education Centre

What kind of curriculum is offered by The Centre? The curriculum stems in general from the specific collections and the knowledge they generate. The curriculum that is offered is based on the collections at Haifa Museums that deal with the subject of 'culture'. A subject in the field of humanities draws its resources from the disciplines of knowledge in museums of prehistory, archaeology, ancient art, anthropology, ethnology and folklore archives; museums that provide us with a tangible record of human achievement of material culture

---

2. Questionnaires for the M.L.M. participants, Appendix No. III.

collections that represent abstract ideas made concrete and thus understandable (Stokstad, 1982, p 1).

In order to understand what a 'culture' is, one has to refer to cultures' manifestations of art as related to history. These are two subjects incorporated in teaching at the museum, and are also included in the school curriculum. Consequently, there is a consent among educators about the knowledge enrichment by the additional sources, as designed and proposed by the museums. 'These fields, whether taken together or individually, help us to evaluate human knowledge, experience and values, by continually presenting the intellectual and cultural heritage of human civilization to the public...they educate and enhance man's understanding of himself' (Nye, 1984, pp 5-7).

The uniqueness of the museum is that it preserves and researches the repositories of human heritage. The artefacts which are produced by a society are its cultures manifestations, they bear the culture's messages that wait to be decoded. The educational function of the museum is to interpret and to unfold their meanings, specific to each culture in a certain period of time, to the learner.

The curriculum constructors bear in mind the framework of the institution. The curriculum planners at school have an already established a framework that enjoys long traditions, favoured or ignored, it serves as a source of reference. While the museum curriculum planners have no general framework of the museum, which is not always oriented specifically to learning, and therefore it poses different problems to deal with. Under these circumstances,

forming a new museum curriculum is a new experience in breaking new grounds in the museum as well as in the field of education.

The type of museum curriculum It seems to be appropriate to define the museum educational objective formulated in the curriculum planning, as an expressive objective. The expressive objective is an educational encounter in which the educator and the student are invited to explore an issue of particular interest (Eisner, 1975, pp 352-354). The expressive objective is intended to serve as a theme, around which the skills and understanding of the student can be expounded. The statements of expressive objectives are: To interpret; to examine and appraise; to create; to discuss. It is an evocative objective, rather than prescriptive or laying down rules as in the instructional objective.

'The instructional objectives are used in a predictive model in which objectives are formulated and activities selected which are predicted to be useful in enabling the learners to attain a specific behaviour embodied in the objective' (Eisner, 1975, p 351).

In certain subject areas, curriculum specialists tend to emphasize one objective rather than another. Such as in mathematics greater attention is given to the instructional objective, than in the visual arts, where the emphasis has been on the expressive objective. Museum education is closer to the visual arts in their nature, and that being the case we suggest defining the museum educational objective in the curriculum as of the expressive objective type.

The educational objective in this kind of curriculum is of the empiricist perspective. It cannot accept the idea that some knowledge comes a priori from the rational mind, independently of the experience of the senses, but it does not reject the rationality, of man's power to reason (Kell y, 1986, p 7). This approach is an open one leading itself more readily to adaptation and development on the one hand, namely on the planners' behalf and on the other hand on the behalf of the learner.

CHAPTER ELEVEN: THE HAIFA MUSEUM EDUCATION CENTRE - A CASE STUDY

11.1 Introducing the Haifa Museum Education Centre - Present Phase 1965-1989

The presentation of the museum education centre draws together sources and experiences during the years 1957-1989. In this chapter we deal only with a the present state of development of the educational work, 1965-1989. As the first phase (1957-1965) was discussed already in the first part of this work (Chapter four).

The present state of The Centre's work is of a corpus of organized educational programmes. The Centre encompasses a city-wide system of museum education, in seven museums that are located in five structures; each museum with its own specific traits, its disciplines of knowledge and structured environment. The Centre's educators teach in the different museums according to their academic background corresponding to the museums' disciplines.

We must briefly establish basic elements of museum theory and practice for approaching the educational work at the Haifa Museum Education Centre. For education is essentially concerned with knowledge with truth and values (Kell y, 1986, p 5) that are aimed to the youngster's understanding of society.

Knowledge and values direct the planner at the museum education centre who has built the curriculum based on the principles of child centrality in education; a theory that inspired Dewey's followers, the founders of the 'Houses of Worker's Children' in Israel. A

principle that guided the planner museum educational programmes from the beginning in the late fifties and early sixties (Chapter four).

The other principles is of the integration of art in its historical background, that are the elements that structure the subject of cultures; and of integrating theoretical learning at the exhibition halls and experimenting with materials at the workshops. A practice that is apparent in almost all the museum learning modules, that constitute the Museum Modular Curriculum.

We can not elaborate in the constraints of this work our description of The Centre's relationships with the educational authorities, however they will be briefly mentioned.

In 1963 an official kind of relationship of The Centre and the district's department of the ministry of education and culture was established. From that year on The Centre's director was invited officially at the beginning of every school year to present its programmes and plans, before the supervisors. The supervisors used to visit the museums observing schools at work in the museums, but refrained from intervening in the work itself. They initiated meetings of teachers, headmasters with The Centre's personnel, in order to acquaint the teachers with the museums and make them aware of the potentialities of the museum as a setting for learning, outside school.

We may count 1965 as the first year of regular school study visits to the museums, though sporadic visits took place before. It is

important to note that the rationale for the schools museum learning modules has been formed and structured at the afternoon elective yearly courses (chapter four) that continue till today in addition to the morning museum study tours of the school classes.

The first groups who came to learn in the morning hours were classes of elementary schools of regular and special education, including visually impaired children. Second came the junior high school classes. Third came university and teachers college students mainly to observe an alternative framework of teaching. Over the years teachers have come either as spectators or as learners. Last are the hundreds of parents who accompany the classes to the museums who often declare that participating as spectators at the museum learning of their children was their first meaningful experience at the museums, though they had visited them before.(1)

Each learning audience is different in its attitudes and in its expectations of the museum visit and is provided with a learning programme structured to its needs in order to gain the utmost benefit of the museum experience. In the following discussion we will adhere to learners of school age, and elaborate our discussion of the structured educational programme of The Centre's modular museum curriculum, of teaching cultures to youngsters aged 8-13, third to ninth grade.

---

1. Table of growth in numbers of classes participating in The Centre's programmes in the last ten years, 1979-1989, Appendix No. IV.

11.2 The diffusion of The Centre's ideas and concepts

The term of curriculum diffusion in general is the spread of materials, ideas, values, attitudes and behaviour related to the school curriculum from one location to another (Kelly, 1978, p 19). It is the process by which an innovation is communicated through certain channels over time among members of social systems. It is a process by which an innovation, is communicated through certain channels, over time, among the members of a social system to diffuse a new idea is first to remove prejudices or well established attitudes and convince them that their interest will be promoted by the proposed new plans (Rogers, 1983).

Diffusion follows the phase of implementation of an innovation, the dissemination. The aims of diffusion and dissemination are intended to educational or cultural institutions, that are responsive to ideas and modes of education in various ways: to adopt an innovation and implement it.

In this work diffusion is related to ideas and modes that have been originated from the basic philosophy of concepts of interdisciplinarity and interaction that have evolved at the Haifa Museum Education Centre.

The planners of Museum Modular Curriculum at Haifa claim a comprehensive structure of art and history in a humanities framework. This concept argues against any curriculum approach that classifies art in terms of art history in terms of periods (Mason, 1987, p 70).

It sees a culture as an entity manifested by all sorts of objects such as: tools in the prehistory museum, architecture in the old city of Haifa, storage jars in ancient sea trade (Zemer, 1977) at the National Maritime Museum; as conveyors of transmission of culture equal to paintings and sculptures at the Ancient and Modern Art museums.

The consent among the members of the same social system namely school teachers, to come for learning at the museum was a sign of the diffusion of the museum's objectives. Because in Israel of the early sixties 'the school' was considered to be the only cultural institution to fulfil the functions connected with the youngsters' education. Therefore, when schools began to visit museums for learning it meant a change in their attitudes towards an institution outside school.

Museum educators on their part had a challenge to integrate a new institution and incorporate it in the *main stream of the education* system. In the late seventies and in the eighties, the tendency to expose pupils from an early age to other cultural activities, theatres or concerts was augmented.

Consequences are the changes that occur to an individual as a result of the adoption or rejection of an innovation (Rogers, 1983). The consequence of the introduction of the innovation of the museum as a setting for learning signifies the change.

The channels of communicating the ideas at The Centre were through the interaction with fellow teachers. First with neighbouring school

teachers and later through the official channels of the district supervision, who advised and recommended the museum as a setting for learning, though no budget was allocated for this purpose.

The information exchange about a new idea occurs through a process involving interpersonal networks. The diffusion of innovation, thus, is essentially a social process in which subjectively perceived information about a new idea is communicated (Rogers, 1983). Information exchange has taken place continuously and were more easily organized because of the concentration of the educational activity of seven museums by one office, of The Centre. Thus it is possible to trace constantly information about the educational activities and their effects, in monthly meetings of The Centres' teachers, and by the daily data that shows up to date information which served to assess the programmes. (2)

In the reality of schools at Haifa, the implementation of museum education theory and practice is to be found by the integration of museum educational programmes in the school curriculum, by lending loan exhibitions for display in the classrooms and in schools' halls and corridors. This evidence of the accountability of museum as a learning venue is apparent in the growing demand to come to the museums year after year.

---

2. Forms of information, Appendix No. III.

The diffusion of museum education ideas and the dissemination of its methods can be seen in addition to schools in the courses for teachers: (1) at the Haifa University extension courses of integrated arts in museums, (2) at the Haifa school for teachers, the district department of education and culture, the Haifa district. A higher degree of dissemination of museum education theory and practice is apparent in monthly meetings and in special short courses for art teachers since 1985. The aim is to expose the art schools teachers to the process of discovery of the possibilities that are inherent in the objects as subjects for cross-curricular teaching. Thus we train them theoretically and practically to disseminate the interdisciplinary concept in the teaching of curriculum subjects at their schools.

The most conspicuous case of the integration of the museum's idea as a venue of learning, is by the official act taken by the educational authorities in Israel in incorporating the museums as major resources for general education in the arts providing the 'culture basket' programme in Israel (1988).(3)

Assuming that museum ideas, concepts and methods are already diffused in the school systems, we may agree that there are educational advantages in terms of conceptual growth and accumulation of knowledge of the museum education framework (West, 1985, p 41), to the benefit of general education.

---

3. The 'culture basket' programme's general outlines, Appendix No. V.

11.3 <u>Culture - A Comprehensive Subject in the Field of Humanities</u>

Culture is the leading theme at the Haifa Museum Education Centre; a theme that encompasses history and art, that are included in the field of humanities (Nye, 1984, pp 5-6). A subject in the museum curriculum that integrates a specific mode of learning, both theoretically and practically.

The 'humanities' are difficult to define (Collins, 1984, p 3). There are two points of view that help to clarify the term 'humanities'. The first is 'the intellectual movement that characterized the culture of Renaissance Europe. Renaissance students of the literature of classical Greece and Rome, especially Greek, were called humanists. Such students were optimistic about human possibilities, attended to human achievements, and eschewed refined enquiries into theological niceties' (Flew, 1984, p 153). The second point is related to the subjects of humanities. According to the act established by the national endowment, we find in its guidelines the following definition. 'The humanities include the following fields: history, history of criticism of the arts, archaeology, comparative religion, languages, linguistics, ethics and those aspects of the social sciences employing a historical or philosophical approaches to problems. '...The definition of humanities comes to help us evaluate human knowledge, experience and values' (Nye, 1984, pp 5-6).

Do humanities give us solutions to questions inherent in the human condition? Humanities can only direct us in search of them, and grant us some kind of human perspective, through learning. For instance

the discipline of anthropology enables researchers to claim gaining an insight to non European art philosophies, processes and forms. The integrated humanities studies in the museum, namely teaching subjects of this field provides a wider spectrum of knowledge of the human being and a deeper understanding about oneself and one's surroundings.

By learning in the museum we assume that the young person is better equipped with resources to construct his own approaches and attitudes towards the challenges in the future. Therefore, the museum's role is essentially humanistic, namely to educate the person through communication and interpretation of the collections, to become alert to human beings to interact with others, and with the environment (Nye, 1984, p 6). 'Through exhibits that quicken the sensibilities of the viewer, one can make connections with moral issues that require actions' (Collins, 1984, p 4).

We are surrounded by artefacts, socially constructed objects which have meanings, practical for everyday use, emotional for spiritual, religious and other purposes. The true 'humanities' approach to things, reflects 'human nature' in its proper sense, namely building a subjective attitude, and not to be content only with the information about them. Thus it brings a wider knowledge and a deeper understanding about ourselves and the world around us.

We may assume that the museum is 'not only useful to the learning of 'humanities' but indispensable in the quest for a way of enhancing our understanding of ourselves, our environment and the relationship

between the two' (Nye, 1984, p 31). Art and anthropology museums provide us with a tangible record of human achievement. The painting or a manuscript can bring reality to the studies of humantiies, which can be enhanced at the museum. Before analysing the specific integrated humanities studies at The Centre and at other museum institutions, we shall describe the core subject, which is culture.

What is culture?

Culture was analysed previously as a socially structured subject (Chapter three). In this chapter it will be examined from another viewpoint, that of cultural anthropology, that culture deals with through its manifestations of the arts and crafts related to history.

The first definition of culture was given by Sir Edward Burnett Tylor in his work on primitive culture, entitled 'The Science of Culture' (1871). From the usage of anthropologists, exemplified by E.B. Tylor, the word 'culture' has spread to other social sciences (Gombrich, 1979, p 25).

In the historical development of the concept and the term 'culture' we discern three meanings: The first is a way of distinguishing human behaviour from the behaviour of other animals; the second refers to cause and effect of human physical evolution; the third sees cultural behaviour as an accumulation of ideas and objects through the ages. In the eighteenth century, when the words 'culture' and 'civilization' appeared they were used as opposite to barbarism. The concern of the eighteenth century in the age of enlightenment evoked

an increasing interest in in the cultural conditions of the past. In the late eighteenth century, especially in English and German, 'culture' became a noun of enlightenment or generalization of the 'spirit' meaning the 'whole way of life' of distinct people. 'In the nineteenth century the term was important for the development of comparative anthropology, designating a whole and distinct way of life' (Williams, 1981, pp 10-11).

Dealing with the term 'culture' we realize constant changes in its meaning, because of the development of social studies such as sociology and anthropology. These sciences developed as a result of objective observation and recording of the laws of social organization (Williams, 1981, p 16).

A culture is the configuration of learned behaviour, whose components are shared by the members of a particular society'. It is also presented by material objects, the creations of man, books, machines, architecture and works of art. All those presentations are included under the results of behaviour in the definition of culture by Linton (1947; Ottaway, 1962, p 21).

The term 'culture pattern' has come into common use in the years since it was first formed by Benedict in her book 'Patterns of Culture' in 1935. A culture's pattern can be a religious practice, or a way of bringing up children, as related to a permanent need in society (Ottaway, 1962, p 21).

Cultures must be studied without ranking them in order of value, but seeing each as an entity in its own right (Gombrich, 1979, p 26). This concept is the basis for cultural awareness, which is the social main objective in teaching of cultures in Haifa Museums; teaching that intends to understand people of various cultural backgrounds in our multicultural society.

The manifestations of culture, art, craft and mythology

'Culture as a whole' writes Benedict 'is not merely the sum of its parts, but the results of a unique arrangement and interrelation of the parts that has brought about a new entity. We can satisfy ourselves only by relating the particular symbol to the total configuration of culture (1934, pp 42, 45).

The importance at this point of departure of the whole rather than of its parts, has been formulated by the Gestalt psychologists. They have outlined that the whole determines its parts, and their very nature. In order to better understand 'a culture' as a whole, we have to recognize its history and its hydra manifestations (Benedict, 1956, p 47). Each one of the culture's manifestations must be understood in its individual characteristics as part of cultural history. The manifestations of culture, or its expressions in the visual, plastic arts and crafts, as well as in mythology, help us to reconstruct the culture as an entity.

The simple word 'art', correctly speaking, includes the visual arts as well as the arts of literature and music. In our notes we shall

deal with the plastic, visual arts that express themselves by representation of the visible world (Read, 1958, pp 16-17), such as the artefacts at the museum.

Art is not necessarily beauty. 'Art is the expression of any ideal which the artist can realise in form.' The expression that is an embodied form is really intuitive in origin. Read does not think 'I can say that Primitive art is a lower form of beauty than Greek art; although it may represent a lower kind of civilization (1958, p 19). 'If art is embedded in culture, we must accept that different cultures produce different arts...' (Gombrich, 1979, p 28).

The reasons that lead an artist to express himself are obscure. This is the primitive and uneducated stirring of an instinct that makes the artist arrange his motifs in patterns. The arrangements are achieved not only by the individual artist but also by the group, which approves the selection of materials, techniques and forms, and their arrangement is a pattern (Read, 1958, p 26).

Artistic creativity has been man's heritage. What we intend is to explore man's culture and its history, through its artistic heritage. 'Without art man and mankind would not be what they are. So why art? Asking such a question may be like asking ourselves: Why man?' (Anati, 1981, p 210).

Art is fundamental and is bound with the elementary needs of a civilization that finds its expression in a tangible medium such as

earth in architecture (De Thier, 1982).(4) This coincides with the idea that through such selection a culture finds its way in material techniques and creates its own cultural traits, serving its materialistic needs.

Pottery which is made of the earth, is at once the simplest and most difficult of all arts. Historically it is among the first of the arts (Read, 1958, p 33). Vessels were shaped by hand and dried by the sun. Due to technical inventions such as the potter's wheel and the kiln, man could create both for his use as well as for pleasure.

Oral traditions may be changed by transmission the artefacts of the same people or societies exist independently. They are the truest echoes bringing down to us not only evidence of a society's physical existence, but also reflections of its spiritual life. Beyond the evidence of social existence, art is as well the expression of the individual (D'Arcy, 1961, p 13).

How do cultures express and build individual traits? Every culture makes use of certain selected material and techniques. Selection is the first requirement, and without selection no culture could achieve intelligibility (Benedict, 1934, p 219).

---

4. Exhibition 'Des Architectures de Terre' 1981-1982, Centre Georges Pompidou, Paris.

Cultures are classified by their expressive activities. Despite having the same mores and the same work habits, if their art is different, they are different.

Man's life in early periods is documented through paintings on the walls and ceiling of caves. This evidence tells us in a visual way a clear story about prehistoric culture. From the dawn of history, one of the distinguishing features of human spirit has been the need to record personal and group experience (D'Arcy, 1961, p 13).

Art historians can identify a culture and age by examining works of art that are found, either whole or in fragments. These artefacts are in many cases the only evidence about a culture.

Early man's keen observation is revealed in the depiction of three dimensional animals, such as game. Did man paint them in order to overcome his fear, or as an act of self-convincing in his success. Whatever the reason, he documented situations as well as feelings. We may assume that the need for communication with his fellow men was the motivation for the paintings, signs to be understood by the group. Only in societies in the stages of disintegration, does art lose its social character and becomes more individualistic (Clark, 1964, p 224). 'The work of art stands as summary and chronicle of human experience. Moreover, the work of art embodies man's capacity to communicate by symbol making, such as prehistoric man, described through painting and hunting scenes (D'Arcy, 1961, p 13) in the Lascaux Cave Sanctuaries of Prehistory (Laming, 1959).

'Art is partly historical, partly religious and partly atmosphereic'
(Read, 1958, p 25).

We need to combine knowledge in reconstructing a culture various
elements brought together from the different disciplines of
humanities and social studies. Therefore the teaching of culture must
be an interdisciplinary activity. In our research we limit the
teaching of cultures to those sources of knowledge of art and history
that are communicated to us through objects which are the museum's
core and language. (See figure No. 5).

Figure No. 5: Culture definitions aggregate
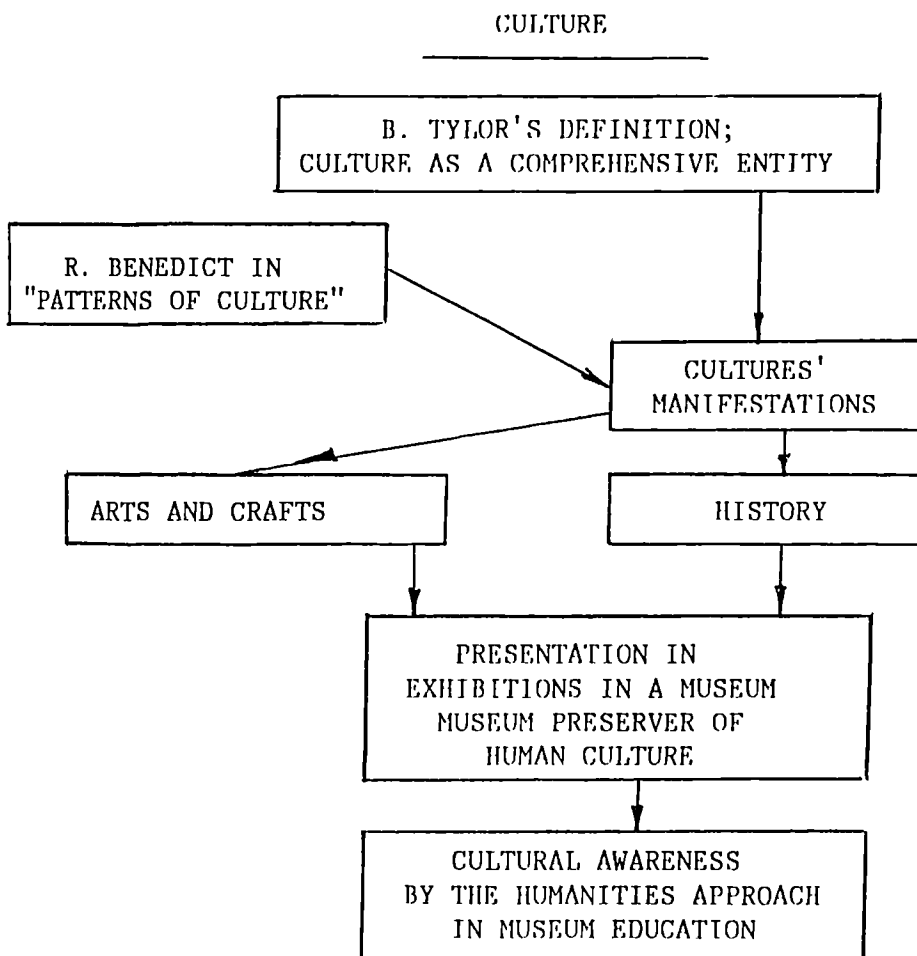
CULTURE

11.3.1 Teaching cultures through the humanities approach

The philosophy of integrated studies in humanities, where 'culture' is its core subject, is considered an approach that gives 'coherence' to the humanities area of curriculum, that might otherwise be lacking.

The unity recognizes a field of knowledge that is focused on the central concerns - the human condition. (Neighbour, 1986, pp 20-24). 'Simply to study' something does not lead to the sort of comprehension which a good humanities teacher aims at. You can understand things without comprehending them in the way 'implied' by humanistic learning. In such a context what is important is to develop the skill of empathy. Without this skill no information is of avail (Holly, 1986, pp 5-6). This is a humanistic way of learnig, a way of involving the learner both intellectually and emotionally in acquiring knowledge and developing an emotional way of involvement in the studied subject matter.

In her book 'Changing Museums', Harrison (1967) identifies a trend in all forward-looking educational theory of today, it is a loosening of subject boundaries. Indeed no definitive line can easily be drawn between aims of art, history and social anthropology (Mcleod and Mack, 1985, p 6). Social studies replace geography; drama and movement replace PE. Many subjects coalesce and become civics, and English tends to spread everywhere. So, too, a concern for appearance, for seemliness and quality in our environment must not be departmentalized, but should permeate every part of school life (Harrison, 1967, p 14).

Integrated humanities should be playing an essential key role in this challenge' (Robson, 1986, pp 83, 92).

Multi-cultural education has to equip youngsters to deal in a muti-racial society. Therefore it is important to expose children to cultural practices of their parents' culture outside their own home, in order to share then with their peers.

The first project is teaching different cultures, arts and crafts, 'Art and Design in Multi-Cultural Society', has taken place in the Leicester school system (Allison, 1985, pp 217-223). Later Birmingham museum organized a 'vision of Africa' summer holiday programme in response to the requests of the local Afro-Caribbean community (Simpson, 1987, p 1).

Multi-cultural educational work has also been one of the priorities of the British Museum Education Service in the 1980s. Its aim has been to 'develop a greater interest in the non-European world among the "general public", schools and colleges, and teachers in training' (Reeve, 1987, p 27). A step was taken by the British Museum to promote the multi-cultural work of the Oriental collections in the British Museum and in the Museum of Mankind, which is the ethnographic department of the museum. Another kind of initiative to develop programmes on faraway cultures has taken place in the Museum of Mankind where a special display was mounted as a response to the impact of two BBC schools television series of North American Indians' life and culture. This way of combining efforts of two channels of communication is the only way for museums to flourish in the next

decade (Burgard, 1983, p 20). An idea that corresponds to the approach that conceives the museum as part of a cultural apparatus (Chapter six).

The decision to teach cultures through the visual arts, both at schools and in museums, signifies recognition of the importance of this educational approach in our present multi-cultural society. It is interesting to note the criteria in teaching several of the GCSE subjects in humanities. It is to seek the possible contemporaneous perspectives that should be incorporated within each syllabus (Haslam, 1986, p 13). Museum programmes in humanities show the same concept of complementary perspectives in their curriculum in subjects such as craft, design and technology (Sorell, 1987, p 20) in classical civilization (Synge, 1988, p 9) and at the Haifa Centre in teaching peoples cultures integrating the arts and history.

Humanities as an approach came into being because of the need to juxtapose subjects often divided in school curricula. This approach may be described as a horizontal method of apprehending a complex subject.

In most museums we cannot illuminate all the elements that should be included in the humanities approach, such as philosophy, music and literature, for most museums at Haifa are each built around one discipline. However, in museums of a comprehensive interdisciplinary nature, this approach can be more widely expanded.

Considering the objective conditions we introduce at The Centre an approach of teaching works of art and crafts set alongside one another, related to history at the Haifa Museums. The significance of this relationship is that 'history is a study of what goes into the make-up of an age: humanities is a study of what goes out of it' (Satin, 1969, p 6).

11.3.2 Teaching Art in the Museum

Read in his book 'Education Through Art' (1958) discerns three main activities in art education. First, the activity of self expression that strives to communicate thoughts and feelings to other people. This activity cannot be taught, but students can be inspired. Second, the activity of observation that is the individual's desire to clarify conceptual knowledge and to build his memory. This activity is almost entirely an acquired skill, and can be taught. Third, the activity of appreciation that is a response to other people's modes of expression. This activity can be developed by teaching (Read, 1958, pp 208-209).

Both Read and Eisner believe that art should be the basis of education, because of its special qualities. Scholars have played with this thesis since the time of Plato, but they never saw its feasibility. In 'The Laws' Plato suggested that a work of art has three aspects that require consideration: its charm and propensity for giving pleasure, its technical merit and its propensity for producing good or bad effects' (Barrow, 1976, p 57).

Read offers a classification for the accumulated observation and facts that are important to the processes of perception and imagination involved in art and education alike. The technique of aesthetic education has distinct aspects involving the senses, each one corresponds to a different branch of arts and crafts. The visual arts are connected to the visual and tactile senses that play an important role in the process of learning through handling objects. It is difficult to separate visual and plastic experiences, as they are both involved in any unified apprehension of the external world of space (Read, 1958, p 9).

In his book 'Educating Artistic Vision' (1972) Eisner suggests two justifications for the teaching of art: The contextualist justification and the essentialist justification.

The contextual justification has to take students and the larger needs of society in its frame of reference. 'It might give new conceptions of modes of artistic behaviour, new ideas of what might constitute the curricula of the class... and give its share in the process of exploring social relationships' (Eisner, 1972, p 212).

The second type, the essentialist justification, emphasizes the kind of contributions to human experience and understanding that only art can provide (Eisner, 1972, p 213). The visual arts deal with an aspect of human consciousness: the aesthetic contemplation of visual forms that are to be found. In order to understand art, we have to refer to the works of art themselves in the context of each separate subject that we teach.

Another point of view is represented by Field who enumerates certain requirements for the sake of the youngster's mental development. Among these requirements is the assimilation of art, connected with history. This requirement assumes that art is an active factor of self development, and 'each pupil should have begun to see the situation in art in a historical content' (1970, pp 79-80).

Making art essential in education: Eisner criticizes the prevailing attitudes to art, that is defined as a rational. Attitudes that stem from the theory that reason is a condition of rationality. Reasoning is believed to require logical treatment of words, operations of the mind while the arts do not employ logic therefore they are placed on the margins of a rationality (Eisner, INSEA Conference, 1982, p 21). This point of view grants art a low status in the school curriculum and accordingly art does not enjoy sufficient attention in teaching. Eisner does not agree with placing art in the margins of a rationality and consults the dictionary of psychology in defining cognition: 'Cognition is the process through which the organism becomes aware of the environment'. In such a process the function of the senses is crucial, because they supply information biologically. This process brings to the consciousness the aspect of the qualitative world (Eisner, 1982, p 23). In order to acquire the qualities of the world, abilities are necessary to 'pick up' information. Art education cultivates sensitive perception, develops insight, fosters imagination and places a premium on well crafted form. These objectives serve as basic goals that guide the planning of museum education programmes. Abilities to think, feel and create are nourished by direct encounter with objects of diverse forms, whose

patterns appeal and evoke the senses. Time and environment provided by the museum allow each student to see and to develop insight and imagination, according to his own ability and his own pace. Because 'the kind of concepts which we are able to form is determined by the skill and intelligence with which we can use our senses, and the qualities to which we have access' (Weitz, quoted by Eisner, 1982, p 24).

11.3.3 Teaching history in the museum

At the root of all our judgments there are a certain number of essential ideas which dominate and play a role in our intellectual life. They are what philosophers since Aristotle have called categories of understanding: ideas of time, and space, class, number, cause and personality etc (Durkheim, 1971, p 206). We cannot conceive of time, without distinguishing its different moments. We cannot represent what the notion of time is, without measuring it or expressing it without objective signs. 'Time is like a chart, where all duration is spread out before the mind, and upon which possible events take place.' Time is thought of similarly by everyone in a single civilization, and its organization is collective. It is conceived in relation to all things that are taken from social life that are temporarily located (Durkheim, 1971, p 207).

There exists a distinction between two approaches to history:

> Whereas the historian envisaged by many methodologists of history seems primarily concerned to explain actions or events...we are typically concerned to explain certain material and visible

deposits left behind by earlier peoples' activity.
The historian is primarily interested in actions
that are documented, not in the documents themselves
(Baxandall, 1985, p 13).

'The past is ever subject to interpretation, and we will never be able

to recreate it completely with all of its subtelties and texture or

to know the past as participants in it might have done.' (Deetz, 1980,

p 40).

By restoring the continuity between objects and people, the objective

of acquaintance with the past in learning history has to be achieved

in learning methods that will furnish the youngster with tools of

appreciation of the living present (Dewey, 1934).

The contributions of history to general education is for acquisition

of knowledge and social awareness. History is taught to stimulate

interest in the study of the past; to teach the principle of

continuity and change, as conditioned by the nature of cause and

consequence; to motivate learning about one's own people's past, in

order to know how to judge situations in the present; to learn social

and cultural values in different periods of history, of different

cultures; to develop study skills such as to locate and extract

information from primary and secondary sources; to analyse and

organise information and construct a logical argument.

Museum exhibits and the way they are displayed assist one to recreate

a more meaningful picture of the culture as an entity and learn about

people who made and used the objects; objects that were made to

satisfy a practical or an abstract need. The museum serves as a

conglomerate of tangible primary sources to serve these goals. At the museum the student's encounter with the exhibits should set in motion a process of reflection about them, lead him to build a communication with the past. The encounter with tangible material is not supposed to be limited to museums, but should include castles, churches, battlefields, bridges and any other surviving elements from the fabric of each country's past.

Excavations of whole sites furnish us with the ability to reconstruct whole scenes of life in the past, such as the museum which was built in situ in Cologne and displaying the exacavated findings, in the Romische-Germanisches Museum (Cachia, 1987, pp 8-14).

An example of active learning in historical sites is at Bontoro near Pavlikeni, Bulgaria. The choice to safeguard the finds was for on-site .preservation and display, which signifies a departure from the standard procedure of moving small ceramics kilns into exhibition halls. The reconstruction of ancient technological processes was made possible because of defective pottery that was found together with potter's tools and consequently, an equipped workshop was restored.

It is important to mention that the site has been saved by the local community. The members provided the resources to render the place as part of their cultural environment. The site, which is in harmony with its social and natural environment now serves as a summer school for young specialists who have gained an opportunity for putting the

theoretical knowledge acquired at university into practice in the workshops in situ (Sultov, 1985, pp 136-139).

An elaboration on the problem of adequate interpretation of cultural changes in the reality of a society at a given period, is discussed by Deetz (1980, pp 40-45). He points out the lack of attention to presenting changes through displays in museums. Though there is the element of continuity, which is usually presented in museums that is important in understanding longer traditions of a culture, the crucial task is to interpret differences in the functions of objects, that reflect cultural changes; this aspect is not adequately dealt with in museums. Museums can interpret cultural changes if prior research is utilized to point out such changes and through displaying the objects in their proper relation to place and time. An entire house which is located for this purpose, can provide an ideal opportunity to explore these changes. Houses are containers of types of social groupings, of one nuclear family or of an extended one. Houses also portray the way of life typical to their period, and the same house can change functions in another period.

The most ambitious of America's historic houses are the full scale community recreations, like colonial Williamsburg. Such complexes are creating new dimensions for interpretation, for instance, the relation between structures suggests one of these dimensions. In this way, there is the possibility of recreating the spirit of 'a whole slice of a world'. Through simulation of activities, the museum personnel become interpreters, and the more they live the life of such a community recreation, they bring to their activities a sense of

reality. Thus an ambiance is created in which visitors can immerse themselves and gain a deeper understanding of a period and its characteristic traits, different from their own. Deetz considers a community recreation as a single exhibit and must be treated as such and only then can it convey a sense of cultural change. Such an exhibit, like colonial Williamsburg presents the most appropriate way of placing the visitor in another time, and giving him a sense of the changes that marked the progress of American culture (Deetz, 1980, pp 40-45).

Deetz has enriched the scope of interpretation in two ways: first, by extending the meaning of 'object' from a portable thing in the conservative meaning, to an entire community recreation. Second by evoking our sensitivity to the need of displaying changes that take place in society's life, but are rarely presented in museums. Planning complex entities of display need the collaboration of experts to work in the spirit of interdisciplinarity, an idea of Riviere, whose concepts have brought about the establishment of ecomuseums (Images of Ecomuseums, Chapter six).

Arbitors of humanistic and social sciences provide us with an insight into artefacts as sources of learning history, as they have discussed the subject in a colloquium (1981). Six different categories of using artefacts in significant ways were offered in this colloquium, by museologists from different types of museums. Their departure point was Schlereth's assumption that 'teaching history from material culture is worthwhile'. The possibilities suggested in the colloquium have an interdisciplinary nature that can fertilize

multi-faceted education programmes, both in the sciences and in the humanities; such as: Chemistry - dealing with an object's consistency; Ethno/Geography - relating to the place where it was found to its usage and the technique by which it was made; Art - analyzing the form, the design and style of the object, in the realm of art history, or expressing one's impression of the object in a workshop setting (Fertig, 1982, pp 57-61).

All these disciplines contribute to the knowledge of and empathy with a culture and its spirit in a given period and thus accordingly it is possible to restore the continuity with the past through objects (Dewey, 1934, p 10).

11.4 Museum Modular Curriculum

The modular curriculum for teaching cultures in the museums of Haifa, is integrated in schools curricula and it exemplifies the fruits of interaction between the museum and the schools. It also displays an interdisciplinary approach to the programme, which has been tried out and tested since 1965 with both primary and secondary school classes.

The term 'modular' is derived from the way in which such units, modules, are used in the curriculum. The module is a short unit of learning, linked together in a scheme of such units. When each unit has its own targets but may as well have general aims, methods and assessment objectives. The central aim of the module must be made clear and can be broken into the following objectives: Concepts: the key ideas and basic themes. In the museum the objective is the

understanding of a culture taught in an integrated method of mental and physical competencies learnt through practice: It is the performance of knowledge of the subject matter, through creative work with materials at the workshop and development of behaviours: 'personal and interpersonal actions, traits or dispositions that need to be encouraged' (Warwick, 1987, p 115). Within the museum there is a unique environment, and new kinds of relationships evolve between museum educators and learners and among the learners themselves. This serves the ultimate goal which is to construct a balanced programme that includes the development of perception, skills and social behaviour patterns and habits.

An acceptable terminology of modular planning of individual units are regarded as relating one to the other in three kinds of ways: Complementary - in which modules may be taken at any time and the performance of one is unrelated to performance in another; Sequential - when modules are interrelated, but sequence may be varied. The outcome of one cannot be independent of the outcome of another; Articulated - when there is a hierarchy that must be sequenced in time, so that the completion of the first module is a prerequisite for the study of the second (Warwick, 1987, p 83).

There exist objective factors that modify the planning, factors that must be considered when building the yearly museum modular curriculum, factors that make the modules in most cases complementary ones. The increasing demand for the museums' learning modules, make it difficult for the museum to teach a requested subject at a suitable time for the school.

These factors have urged The Centre's educators to look for further
solutions in response to the growing demand. Solutions that are in
accordance with the basic concepts of museum education thinking, such
as the planning of interdisciplinary projects (Chapter twelve),(5)
Programmes of the sequential kind, of two or three units that take
place two or three days in succession. Such programmes when accepted
signify that there is a diffusion and dissemination of the museum's
education ideas and concepts in the daily educational work of the
schools.

The museum educational approach to the planning is the thematic
appoach (Warwick, 1987, p 14). The thematic approach has several
points, the last two of which are as follows: different subjects
contribute inputs to single integrated modules; subject boundaries
disappear with thematic subjects. The thematic approach (Figure No.
3) gave lead to the interdisiplinary concept by integrating the
subjects more closely that are dissolved into large ones.

In the case of the subject of 'a culture' the thematic module lends
itself to endless possibilities of integrating subjects in humanities
such as art, history and geography (see Figure No. 6); the integration
of disciplines of humanities and and natural studies in the
interdisciplinary project of prehistoric man (chapter twelve).

---

5. The interdisciplinary projects, Appendices Nos. VI-VII.

Figure No. 6: The Thematic Approach and Its Possibilities in Teaching

Art (1) ————————▶ Culture ◀——————— Geography (3)
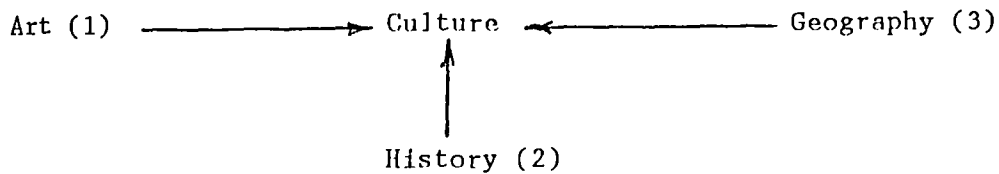
History (2)

(1) Art is taught in relation with culture

Art is taught independently for aesthetic education

The language of art

Art is taught as a vehicle for self expression through techniques

(2) History is taught in relation to culture at the museum

History is taught at school for the understanding of the

background of a culture to be taught at the museum

(3) Geography is taught at school for the understanding of the

geographical factors in relation to a culture to be taught at the

museum.

The Haifa museum education curriculum offers the subject of cultures

which is taught from the contextual point of view in one unit, the

M.L.M, when each culture will require as many M.L.M.'s as needed.

In the process of learning a 'culture' in the museum, the student is

exposed to two main kinds of learning, theoretical and practical, both

kinds of learning are encompassed in one M.L.M. (Figure No. 7). While

the theoretical part takes place in the exhibition hall, the practical

part takes place in the workshop, where the learner tries to express

his impressions, experimenting with materials. In the workshop the

learner is free to build shapes, forms and work in techniques he was acquainted with theoretically the exhibition hall or to create something new out of his own imagination (see images from Greek).(6) Both methods of enhancing the subject matter can be defined as recreation which is a psychological process of internalizing the impressions that the perceiver experienced. The work with materials has a fundamental importance, assuming that by 'doing' we understand the subject better; the combination of the two can be formulated as 'knowing is doing' (Bruner, 1977, p 29).

Figure No. 7: A museum learning module (M.L.M.) - structure

A museum learning module (M.L.M.)

Preparatatory work
in the classroom

Introductory session
in the museum

Theoretical part in the exhibition hall
(learning through objects)

Creative part:
in the exhibition hall
at the workshop
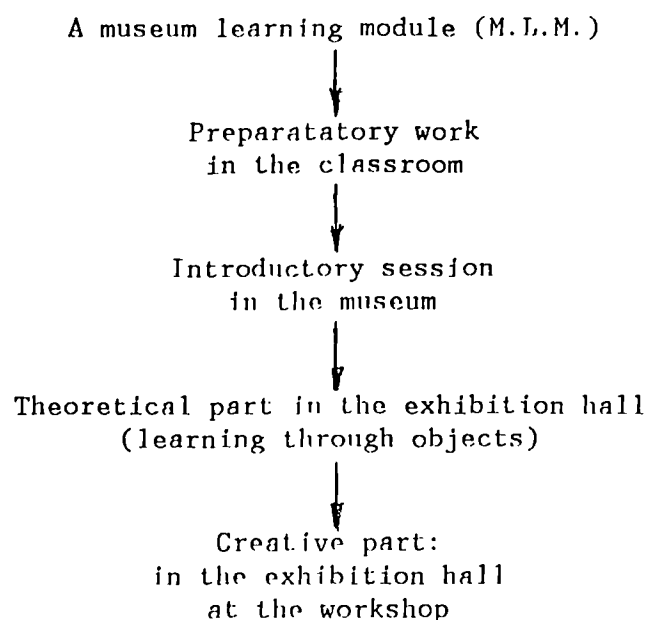
The mode of learning at the museum is by enquiry, discovery, by discussing and creating. At the exhibition halls it is by relating to objects (Jones and Madeley, 1983) and at the workshops from experimenting with materials. At this part the M.L.M. the learner draws impressions by writing or painting or reporting to the class

6. Students' works, appendix No. VIII.

about what one thinks, feels and learns.(7) The same two modes of both theoretical and practical work are exercised at the afternoon courses.

It is important to stress that the continuous collaboration with the schools' community in the last three decades has paved the way to a mutual understanding and to regular meetings to confer and pursue to what extent both theory and practice have been inevitably been often assessed and consequently have been sharpened up (Holly, 1986, p 1). We may assume that the positive interaction have made the way for the diffusion and dissemination of the museum educational concepts, by integrating the museums' M.L.M. in the school curriculum.

It is almost impossible to survey all the pertinent material, but the main points that were discussed elucidate the educational way The Centre chose to pursue.

11.5 The Museum Experience

The centre of our interest as museum educators is the totality of the experience gained by the learner, the perceiver at the museum; an experience that is made up of different strands of knowledge and aesthetics woven together to one entity. (Duckman, 1986, pp 120-121).

The museum experience is a multi-faceted subject that encompasses interrelationships, such as those between the objective and the

---

7. Questionnaires for participants in the M.L.M., Appendix No. III

subjective. 'The linguistic philosophers would tell us that the artefacts are objective in relationship with the man, the subject' (Pearce, 1986, p 198). The interaction between the two produces the basis of museum experience.

> The relationship between human beings and objects,
> be they of everyday use or coollector's items, is
> not a simple one-track process. People concurrently
> live in three environments, the one that is, or
> could be accessible to their senses, another in
> their memory, which houses their past and inherited
> traditions and another still in their imagination.
> Both memory and imagination may endow objects with
> spellbinding force with which actual experiences
> cannot always compete (Wittlin, 1970, p 2).

The objective facets that influence the perceiver are inherent in the museum's nature. The museum provides the environment and the collections that generate knowledge and aesthetic sensual pleasure. They constitute the objective basis and the source of the encounter of object and subject. The subjective factor is the perceiver, in our case the youngster, a school pupil or student who comes to the museum to see, to absorb, to learn, and to experience.

In order to understand what kind of experience he lives through, we have analysed various aspects of the process of learning (chapters eight and nine), and we are about to sum it up. The museum experience takes place in an environment which is the most remote environment for youngsters, the most unknown; Therefore it retains secrets and surprises, it appeals to the imagination and creates anticipation. The objects and their environment are different from the books, maps and other aids used in the classroom. The objects in the exhibition,

and the exhibition as a whole, create a new reality that lends itself to a rich and fertile flare of the imagination.

When objects become exhibits they necessarily take on new meanings, they are transformed. The objects become symbols when they are displayed, as they embody an idea and to deliver a message which affect the spectator. 'The museums are approachable from many directions and in an almost infinite number of sequences and combinations. The meaning of a visitor's experience depends on the choice of movement among stationery symbols' (Annis, 1986, p 168).

The museum structured environment can be compared to a theatre. In a theatrical performance the director decides about the place and movement of the actors and the message is in the hands of the actors. In the museum, the curator visualizes and the designer plans the display of objects in the exhibition hall, and the objects are expected to deliver the message. The placement of individual actors or exhibits as well as their interrelationship in the overal ensemble, has a positive or negative result, which will either invite the eye or will reject it and this it will deter curiosity or enjoyment of the sight.(8) Concerning the element of movement in this interaction, while in the theatre the actors move, in the exhibition hall the eye of the visitor moves and reaches the message. Each visitor ties

----

8. See 3 pictures of an arrangement of paintaings that ignore the capacities of the human eye and brain (Wittlin, 1970, Figures 31a, 31b, 31c).

together his own associations with the meaning of the message that he receives through the object. (Wittlin, 1970, p 2).

Actually, the exhibition and the stage performance serve the perceiver as an intriguing structured stage for his own play. The exhibits as individual entities or parts of a whole exhibition, can have a suggestive and intriguing effect on the beholder, and therefore we cannot underestimate the role of the curator (or stage director) in designing their performances.

Museums have to provide a continuity of interrelationships as the perceiver moves from one object to another. This is important for an experience that will not stay just in the superficial encounter with the object, but will allow the individual interaction, communication, decision making and explanation, through a self directed approach.

It is an element that instills in the individual confidence in his own abilities and motivates further enquiry (Housen, 1987, pp 41-49).

Our examination of museum experience will be enriched if we refer to the theory of experience in education in general. Experience can be examined from the point of view, of the quality of any experience because any experience has an immediate aspect of agreeableness or disagreeableness that influence later experiences.

The effect of an experience sets a challenge to the museum educator. It is his role to arrange for the kind of activities which will engage

the student in a rewarding way, since they promote the possibility of having desirable future experiences (Dewey, 1938, p 27).

The museum experience is an experience of reason and feeling. The reason is the cognitive part of learning through the visual. Without seeing we cannot experience the appearance of an object, but through the act of seeing we are enriched with new forms, colours, textures, lines and other elements that create the appearance of an object of art or craft in the eye of the beholder.

There are scholars who believe that there must be a demarcation line between reason and feeling, and 'wherever the frontiers are violated and the head and heart are upset, intellectual disaster ensues' Gombrich refers here to the rational study of art, that is right for any rational study of art to dispose of 'popular misconceptions and thus it clears the the way towards an improved understanding. He distinguishes, for example, between the discovery of Van Gogh, which is a matter of the heart, from knowing of his existence which is a matter of the head. Gombrich discusses the visual memory, an element that accompanies the beholder later in life, and 'is rooted in our recollection of places and things'. He assumes that there is plenty of evidence that our topographical memory contributes to our capacity to recall of an exhibit that left its imprint that may sometimes serve as a key for retrieval of a whole experience (1979, pp 204-208).

What is the right disposition of the youngster in a discovery museum visit? This is the youngster who looks at the exhibit, becomes illuminated from within, reads the labels, looks again, reads further

and proceeds to other exhibits, being convinced that they will teach
him as the former did. This youngster went through a process of
intellectual learning that added to his knowledge and to his
confidence in his own ability.

Understanding the learner will provide us with guidelines for how to
teach in the museum in the right way, in backing the learner through
an 'agreeable experience' (Dewey, 1938, p 27) and that the encounter
with the objects will intrigue the youngster's curiosity and
encourage him to visit the museum again to look for further
excitement, both emotional and intellectual (Butler, 1968, p 337).

> In experiencing a work of art aesthetically, we
> perform two different acts which merge into one
> experience. We build up our aesthetic object, both
> by recreating a work of art according to the
> intention of the maker, and freely creating a set
> of aesthetic values comparable to those which we
> endow in a sunset (Panofsky, 1955, p 38); as in
> Wordsworth's poem 'My heart leaps up'
>
> My heart leaps up when I behold
> a rainbow in the sky:
> So was it when my life began;
> So is it now I am a man;
> So be it when I shall grow old,
> Or let me die!
> The child is father of the man;
> And I could wish my days to be
> Bound each to each by natural piety
> (Williams, 1971, p 11).

The museum experience builds itself up in a unique way and at a pace
peculiar to the individual visitor. It is a continuous experience
that begins with expectations and curiosity and moulds itself at all
stages of the visit. It is a psychological process of perception,
with a state of the mind, cultural background, faculties and

abilities, to sense emotionally and analyse intellectually impressions that stem from the composite objective reality of the museum. This reality is the museum's structured environment, including the objects, the exhibition and its interpretive scheme.

Every visitor brings a distinct set of experiences, interests and motives. Most visitors get general information. The role of the museum educator is related to museum experience of the visitor though it is limited. The museum educator himself cannot build a landmark experience, but he can provide a great deal of raw data, so that the opportunity exists for the individual to synthesize it for himself (Heinemann-Gurian, 1982, p 19).

The museum experience, as we have seen, is a total experience that is conditioned by a great array of objective and subjective factors, 'which fulfils the spectrum of human needs, and that are not available quite the same way anywhere else' (Bloom, 1984, p 59). 'The totality is thus always complex, and invariably difficult to analyse. Normally, the visitor's first impression is visual throughout his stay in the museum, despite labels or charts' (Brawne, 1984, p 141).

Every experience in general both takes up something from those which have gone before, and modifies in some way the quality of those which come after. At the bottom of this principle of continuity is the habit that is interpreted biologically (Dewey, 1962, p 35). It covers the formation of attitudes, both emotional and intellectual, the way of meeting and responding to all conditions that we encounter in living.

There are two ways in which learning serve the future. One should be called the extension of habits or associations and utility and is limited to skills. The second way in which earlier learning renders later performances what is...more accurately the transfer of principles and attitudes. This type of transfer, 'is at the heart of the educational process, the continual broadening and deepening of knowledge in terms of basic and general use' (Bruner, 1977, p 17).

The museum experience that is a moving force that arouses curiosity, strengthens initiative and promotes the youngster's interest in his surroundings. It bears the potentialities to be woven into the youngster's educational process that will take the youngster beyond the museum walls, to life itself.

CONCLUSION - PART IV

In the last part of this research, we have dealt with validating the
hypothesis of this research which is the museum as a setting for new
learning, by the analysis of a case study, of the Haifa Museum
Education Centre, and its educational work; an institution whose
planners discerned already in the late fifties the possibilities that
are inherent in the museum as an instrumental corpus of educational
potentialities in the process of the socialization of the youngster
in the society of today. An objective that has not lost its impetus
today and was declared as being one of the key roles of museums in
the conference on museums: 'Towards the Millennium' (Editorial, 1989,
p 19).

The last two chapters of this part have closed the circles of an
analysis of The Centre, that were opened in the first part of this
work. While in chapter four the evolvement of the educational work
at The Centre at its first phase during the years 1957-1965 was
described, in this part The Centre's educational work in its second
phase from that year until today was analysed.

The focus of our discussion is on the processes of learning at the
museums of Haifa that suggest a wide range of collections of different
disciplines. These various collections have offered a wide spectrum
of possibilities in building the museums' educational work and in
constructing the museum modular curriculum, which is based mainly on
the subject of cultures; from prehistory to modern art. The subjects
are offered in sequence year after year to school classes (third to

ninth grades) and thus the museum enhanced one's understanding of himself (Nye, 1984, pp 6-7).

Museum education has acquired its prominence in the last few decades. 'In most cases it has become together with looking after cultural heritage, the main justification for the museum's existence in the eyes of the public' (Schouten, 1987, p 240). The potentialities in the teaching of the core subject of cultures through art and history in museums can be observed in the proliferated programmes that constitute in the museum modular curriculum at the Haifa Museum Education Centre, as well as in multicultural education and integrated humanities programmes (Holly, 1986, pp 1-8), in museums in Britain (Jem, 1987, No. 7).

The museum visits by school classes, a few every year, constitute a continuity of experiences that fall within the scope of life experiences (Dewey, 1938, pp 73-88). They suggest a new kind of social experience of learning that is acquired through the specific mode of learning that developed at The Centre. This experience during a full study day is formed by the interaction between learners and the museum educators as well as between the learner and his peers. Thus the individual learners' social learning environment is enriched and expanded.

The Centre has gained its status as a vital educational institution and is included in the mainstream of education because it developed a new kind of programme. Programmes that interpret human heritage collections, through structured units, the museum learning modules,

involve the intellect and the emotions by engaging the cognitive and the affective domains of the learners, both slow and gifted. It offers an accessibility to a new source of learning about the world, which cannot be available at any other venue.

The unique contribution to learning at The Centre, that began with a few afternoon courses and workshops (chapter four) has grown into a recognized institution and its modular curriculum has been integrated into all the primary schools and partly junior high schools in the city. The Haifa Centre of Museum Education proves in micro of what happened in the general scene of education in Israel and in England. It has been drawn to the mainstream of education officially by the Ministry of Education and Culture being included in the museum education programmes of the national curriculum in Britain and of the 'Culture Basket' in Israel, since 1989.

CHAPTER TWELVE: CONCLUSION

The major purpose of this thesis is to evaluate the hypothesis of the museum as a setting for new learning and its implications for the future.

In this research we have examined the museum that proved to generate knowledge and provide an environment which nourished the new ways of teaching and learning. Thus, a new venue of learning which is comprised of social and educational aspects was shaped at the museum.

This research described in which way educational theories and goals were realized in museum education programmes, in informal frames of afternoon courses, and in collaboration with formal education, with the schools system. It showed the way in which theories and practices developed and were designed within museums catering to an increasingly multi-cultural society mainly in Israel (Chapter three) and in Britain (Chapter seven).

Museums and education are two constituents of society that are expected to serve it. To exemplify this statement, the evolvement of the Haifa museum education centre was discussed in detail. The socio-cultural situation in Israel in the fifties and sixties was the catalyst in recognizing the richness of cultural diversity and initiating of courses on people's cultures in the museums of Haifa. The planning for and organization of these courses drew their inspiration from both sociological and educational theories and practice (Chapters two and three).

The museum survey is based on contemporary sources which substantiate and provide the research with a secure framework for analyzing the contemporary museum as part of cultural apparatus. The analysis indicates major changes that museums went through due to socio-cultural and political factors. Economic factors in the process can not be ignored, presenting additional aspects that would require a study, but is outside the scope of this work. The major changes that can be observed are concerned with the public: either with the public's representation in museum management, or the public's involvement with the museums.

Though the museum, from its beginning and in the renaissance period, had claimed that knowledge is one of its major objectives (Impey and MacGregor, 1985) only in the last two or three decades does the museum really meet the challenge of today to recognize the role of heritage interpretation and the need of the museum as a setting for learning.

Through the process of the analysis it became clear that the museum has changed its priorities. It became public-oriented instead of an object-oriented enclosure. The museum changed its image from a high-brow institution to a socio-cultural one, and became an integral part of the cultural apparatus, which includes libraries, theatres, concert halls, etc., institutions that claim the same goals and mission, such as granting culture to society, and creating new ways of enjoyment in the leisure time, which is a social problem that has augmented in the last decades.

What signifies the present state of museums is the fact that the museum realizes the mutual benefit of museum-audiences relationship that stimulates museums' creativity, to build new relevant programmes for the public. By harnessing techniques of communication media, such as video and television, that serve as complementary devices to the visual encounter with the objects and exhibitions, the museum collections become popular and become part of peoples' culture. This is evident from the fact that there is a growing number of museums throughout the world, assisted by the allocation of public funds. This growth brings to the scene new types of museums, that break the traditional pattern. Museums that are community oriented show the active role of the public in conceiving museums. The ecomuseum for example that conveys the ideas (Chapter six) of interdisciplinarity; and Beth Hatefutsoth museum that envisaged new ways of communicating an idea of a nation returning to its homeland, that has no original objects in its exhibitions, only replicas. The two museums according to Hudson, are of influence in our times (1987, p. 40).

In this study, the sociological rationale and historical background were discussed in order to understand the facts and the state that constitute the function of learning in the museum. The analysis focuses on new learning towards a comprehensive method which includes the theme of cultures, that is attained by the humanities approach. Methods of the integrative mode presented, serve the research to show how both theory and practice are realized in museum education frameworks, relevant to the learner, the youngster, the consumer of an industrial age.

An educational perspective can be gained by encouraging subjects in humanities and social studies in a culturally bound way, by establishing a progressive method of interpreting other cultures. A person can use the diversity to eliminate separateness by including the subject of cultures in the curriculum.

The historian will be interested in the individual case which will exemplify any number of such cases (paraphrased after Gombrich, 1979, p 135). The Centre has met the challenge with answers of educational measures to socio-cultural problems in Israel in the late fifties (part I). We witness a similar approach taken by teachers in England having the same educational objective of cultural awareness. Educators have developed integrated humanities studies (Holly, 1986); teaching to understand cultures in museums (Jem 7, 1987).

One of the major goals of The Centre is to contribute to the improvement of learning. To do so The Centre has developed an interdisciplinary approach to the study of integrated humanities. This approach requires that the main theme of peoples' cultures is taught in relation to history and art. Children and youth experience learning at the museums year after year. They engage in activities theoretically and practically to develop knowledge and skills for building a structured approach for looking; understanding other cultures as well as their own; relating art to a certain place and period in history; identifying forms and symbols of a certain culture; enriching the language with new terms and words; making art in different forms of different materials; developing learning habits in new environments; environments that are intended to serve not only

pupils but the general public; hence exposing them to new situations of acquiring knowledge and behaviour standards that cannot be attained in other circumstances.

The theme of peoples' cultures: The subject which was dealt with from an anthropological point of view (Chapter eleven) was chosen as a subject that can transfer knowledge, and social values, as it is a socially structured subject (Chapter three). They are close to theoretical approaches to knowledge that suggest new insight for sociology of knowledge that appeared in the seventies, as we find in the book of M.D. Young 'Knowledge and Control' (1971).

The relevance of humanities for employment has been discussed in seminars run by the Council for National Academic Awards (CNAA), bringing together academics and employers. It was declared that intellectual training is important for the business world. The big thing about humanities is communication skills, which means that people will be able to think something through on their feet and then come up with a reasonable working solution. Creativity is to think laterally, in a breadth of vision and interpretive skills (Wheeler, quoted by Golzen).

The departmentalization into various disciplines (as in academic institutions, where scholarship is the goal) renders the museum difficult to comprehend and thus less meaningful. This artificial subject division is even more incomprehensive for the museum visitor. In order to realise our basic goals of increasing the youngster's understanding of the world and their relationship to their immediate

society, comprehensive and interdisciplinary programmes and projects were developed. 'Through developing new programmes the museum can set standards for new learning through new technologies that will thrust educational programmes and teaching formats in museums and schools into a new era' (Pitman-Gelles, 1981, p 95).

Two projects represented here evolved from the intrinsic nature of the museum and involve active partners from institutions outside the museum. The partners as well as The Centre's teachers perceive the benefit of interdisciplinary work as a fertilizing, enriching factor for the advancement of the learner, meeting the challenge of education in our times and responding to needs of society today (figure no. 7).

Figure No. 8: Interdisciplinarity and Interaction

The Haifa Museum Education Centre			

The Initiator Active Participants	Plan I
	
	Museum
	
	Schools
		Plan II
		*Museum
		*Biological
		  Institute
		*Nature
		  Preservation
		  Society
			Plan III
			*Scientists
			*Artists
			*Students
			*Museologists
			*Museum
			  Educators

Domain of Interaction			
Programmes	Museum Modular Curriculum	Interdisciplinary project of Early Man in his Natural Environment	New Museum of Art and Science
Environment	Museum	Museum Institute Site	A comprehensive museum structure

Increasing interdisciplinarity

The Interdisciplinary Project of Early Man in His Natural Environment

This project is pointing at the new direction of museum education. It has been initiated by the museum education centre, which called on the biological institute and the nature preservation society to collaborate.

The three days programme was accepted positively, and each year since 1984 there has been a growing demand on behalf of schools to participate in it. In order to communicate this idea of interdisciplinarity to broader audiences of education college students, school teachers and museum educators, the three-day project was documented on video tape, a transcript of which is enclosed here.(1)

Stages in Planning: 1. Presentation of the project by its initiator, before the educators of the museum education centre, for the sake of elucidating the project's objectives, aims and methods; 2. Meetings with the directors of the biological institute and the nature preservation society, the two prospective partners in the project; 3. Meetings of educators and the three institutions, to clarify mutual aims and to correlate the work; 4. Presentation of the prepared syllabuses of the subject by the educators of the three institutions; 5. A meeting with the principal of 'Glilot' school and the teachers of the two fourth grade classes that participated in the project, to solve practical problems such as fixing the budget, timing and deciding on the itinerary; 6. A meeting of the film director and the museum educators to meet the two classes that numbered forty children

---

1. Appendix No. VII.

of about nine years of age. At the meeting questions were asked about the three day session that was to be documented in video, which was a new experience for the youngsters.

The whole project is intended to enrich the learner being exposed to various learning environments, that involve the learner in an active process of enhancing knowledge of different disciplines, of natural studies at the biological institute, the study visit at Mount Carmel Caves, and of anthropology at the museum of prehistory.

The second project is a proposal for a new museum of art and science, two disciplines which complement each other in the interpretation of three elements, light, material and movement, and their interrelationships.(2)

Communicating an Idea of Interdisciplinarity of Art and Science: First Programme of a New Museum - A Proposal for the Future: The programme for a new museum of art and science has evolved from the search for a plan that will elucidate basic elements common to the two realms. The suggested museum is based on a concept that they differ only as methods.

I do not distinguish science and art, except as methods, and I believe that the opposition created between them in the past has

2. Appendix No. VIII. This plan has been discussed in circles of teachers, museum educators and museum personnel at the Exploratorium in Sam Francisco, and was published in the CECA publication of the MOI (Barnea, 1983, no. 3, pp. 9-10).

been due to a limited view of both activities. Art is the
representation, science is the explanation of the same reality
(Read 1958, p 11).

Having accepted this primary assumption, we have laid the cornerstone

for a new museum structure that will research the interrelationships

between the two realms and will embody them in a visual way through

integrated exhibitions.

In our modern world, but for a few examples where one can still see

the artisan at work and thus learn about the processes of making

things, technology is hidden from the eye and one gets only the

finished product. How much more interesting and alive art museums

would be, if visitors were shown the process of preparing the colours

and the canvases. The object and its significance can be better

appreciated when its form and the way it was made are elucidated by

the museum curator and designer, and interpreted by the educator.

In the last few decades there has been a rapid growth in the use in

art of many synthetic products, originally developed for the use of

industry (Richardson, 1971, p xiv). The computer generated imagery

(C.G.I.), using drawn and photographic sources, is just another

vehicle for lateral thinking. It is a tool for imagination as much

as lithography or montage. It can be like an access to a vast book

with instant recall (Miles, 1987, p 34). The ability to approach and

scan from different directions the data accumulated in the computer

can be of great help to the researcher in art history.

We will not expound the problem of the historic relationship of science and art; a subject that, according to Richardson, has been treated by only a few authors (1971, p xiv).

The museum designed to interpret the relationship between art and science will accentuate the possible interaction between the two, in order to monitor technological innovations that are liable to overshadow important facets of cultural and spiritual life. In order to fulfill this objective the museum will be designed to keep and portray, through objects of art and science, the knowledge of the past that equips us for the present.

The new museum is an idealised kind of museum, planned to be a museum in constant change for the sake of tracing progress. In the first stage, the nucleus of the new museum will be represented by the interrelationships in art and science of light, material and movement. In further development other basic elements will be introduced. Exhibitions will reflect and feature the constant changes that have taken place in scientific research and their influence on the arts. Such a museum will transform abstract concepts to tangible ones. It will arouse curiosity and the desire to know more about the phenomena of basic elements in reality.

In order to realise such a museum, in practice it is necessary that interprofessional work will be done. This will bring together artists, museum workers and scientists of different disciplines to interact in creative work.

The new museum will profit from the experience that has been accumulated by science museums; because science museums, from the social point of view, are more alert than art museums to their duty to interpret for a wider spectrum of the public what is presently taking place (Finlay, 1977, p 50). It will present each of the two realms of art and science and their interrelationships through basic elements of light, material and movement that are to be found in the two. The elements will be presented and displayed in participatory exhibitions that will require new interpretive techniques. Every experience affects for better or worse the attitudes which help to decide the quality of further experience (Dewey, 1938, p 37). Therefore, a wide interdisciplinary research that involves psychologists, sociologists and educators is required in order to overcome the difficulties that face museum education planning, which is a new venue in the field of theory and practice of education.

Rich th ough the museums' collections may be, they have to be continuously reinterpreted for every generation. Interpretation techniques have to be created to take advantage of the new techniques and communicate the museum's messages through up-to-date devices: This it is necessary for the museum to find the balance between the continuity of adherence to the function related to the collections as the core of the museum and to their preservation, on the one side, and the need to constantly create new ways of using the collections through communication in the era of mass media. All these programmes and plans aspire to accomplish social and new educational ends.

Considering the reality in the field of interpretation in museums, one realizes that competence and experience are to be found in the education department. In the process of interaction among the different groups of scientists, artists and museum personnel, the museum educators role is to contribute to their knowledge about the audiences and about the process of learning and perception to the creating of the exhibitions.

The new museum is the ultimate goal of embodiment of basic concepts of interaction, interdisciplinarity and complementarity, concepts that have been defined by G.H. Riviere, the renowned museologist, and have served as a source of inspiration for building the ecomuseums in France (Chapter six).

The museum of art and science can suggest a new arena that stimulates educators to look for new ways in education.

The contribution of this thesis is first in building a theory of new learning at the museum which is underpinned by experience. Thus the theories that have been introduced do not stay in the realm of thought but they can be applied in daily work at the museums. Consequently, the museum can be conceived as a venue for learning that is included in the mainstream of education, as was lately acknowledged by the educational authorities both in Israel (Culture Basket, 1989), and in England (GCSE, 1987, The ERA, 1989).

By examining on the one hand the nature, attitudes and functions of the museum and on the other hand, the learners, learning and the

specific ways of learning through objects, we found two essential facts: that the unique kind of learning we have discussed could have occurred only at the museums (Chapters eight and nine) and the two constituents, the museum and learning are interdependent; that there is a dependency between socio cultural situations and education.

We have reached this conclusion by examining the various aspects and elements that we had intended to explore (Chapter one): a) the interrelationship between the socio-cultural situations and education of the Israeli society in the late fifties and sixties (Chapters two and three); the educational programme socially structured that were initiated in two multicultural societies in Israel (Chapter four) and in Britain (Chapter seven); b) the nature of the museum, its modes of functioning and operating and the standing of education at the weave of work at the museum (Chapters five and six); c) the learner, his characteristics, attitudes and capacities; the learning process as related to the museum that provides specific provisions for learning that constitutes the unique learning through the objects by the senses (Chapters eight and nine).

The case study of the Museum Education Centre at Haifa exemplifies an institution that integrated social objectives in educational and theoretical rationale. It transformed selected social and educational ideas, and combined them with resources of knowledge of the museums' collections. It developed into a unique educational institution that is constantly responsive, by initiating new projects to the needs of a variegated range of audiences (Chapters four, ten and eleven).

The proliferation of The Centre's programmes and their diffusion indicates the limitless potentialities that are inherent in the museum's environment, collections and their research. All these together secure the future of further planning of educational programmes in general (Chapter twelve).

The education apparatuses that grow in museums is an active participant in assisting the museum in the diffusion of knowledge for an adequate adaptation on the part of the individual. The spreading of culture by museums cannot be efficient without close collaboration with education (Kopeczi, 1989, p 3).

On the threshold of the 21st century the museums as preservers of cultures are required to explore the ways of becoming generators of culture. Museum education validates its significance and its vitality in initiating new interdisciplinary programmes, both inside and outside of the museum, for the advancement of new ideas concerning the museums and education through learning.

List of Figures

List of Appendices

Appendix No. I

a. Guidelines to the Table of the Museum Modular Curriculum, The

Centre, Haifa

The modular curriculum which is presented gives the outlines of an

educational programme that takes place in seven museums, which are

located in five different buildings in the city. Thus it is a

coordinated city-wide system of museum education. Exploring the same

theme in several kinds of museums presents a new set of challenges

to the learner (Stillman, 1983, p 18).

The M.L.M. (the museum learning module) is taught during the visit

to the museum and includes two units: a theoretical unit in the museum

exhibition halls and a practical creative unit in the workshop. The

two units are closely linked, they are taught in succession and in

relation to each other, on the same study day.

The choice of the subject is linked in most cases with school

syllabuses, in these cases each culture is aimed at a specific grade.

Subjects such as 'art' and 'ancient cultures in Israel' are offered

to all classes. Art is taught from an early age is not related to

the school studies and is free of curriculum. The subject of ancient

cultures in Israel are taught from the sixth grade on, because

students have by then already acquired basic knowledge of the Bible.

There are possibilities of choice concerning a few subjects. These

subjects are taught either in one module or in several modules in

succession, and consequently it is an elaborated version of the same subject. For instance, the two following programmes: Early man in his natural environment; Ancient Greek culture through arts and crafts.

Every module of a culture bears the concept of an integration of the core subject and complementary modules such as history and geography. It is either one theoretical unit, or two units, a theoretical and a practical one. Every culture can be better apprehended when interaction and collaboration among museum educators, schools and other institutions is intensive and coherent, building together an interdisciplinary programme.

In order to reach this objective the museum staff prepared three guideline booklets for teachers of the following subjects: Jewish art, the life of early man and an introduction to archaeology. The booklets include outlines of material of the museum learning modules, bibliographies and a list of activities that can be carried out in the classroom or by the students in their free time.

By exposing the learner along the school years to learn in different learning environments the student expands his experience. An experience that may form new habits of acquiring knowledge in addition to those that he is bound to learn at school.

The modular curriculum is designed to enable the learner to follow a continuous course of cultures through visits to the different museums, through arts and crafts. The knowledge that is acquired

through the encounter with objects in the museums and the recreation activity at the museum workshop is complemented by school studies.

The process of the development of human culture is better understood by studying the stages of human culture, from its prehistoric beginnings in a chronological sequence to the Age of Exploration.

The Museum Modular Curriculum is planned that the learning modules, each of four hours, is intended to target groups of learners from eight years of age upwards, with no upper age limit.

b. THE MUSEUM MODULAR CURRICULUM: TEACHING CULTURES IN MUSEUMS

Subject (1)	Museum and Kind of Exhibition (2)	Target Audiences (3)	Teaching Objectives (4)	Previous Knowledge of Subject Area Required (5)	Auxiliary Material or Activity (6)	Number of Units (7)
Introduction to art One module M.L.M.	Ancient Art Museum Permanent exhibitions Modern Art Museum Special exhibitions	Any class that comes for the first time to the museum, pupils, students and teachers	Learning to look at two and three dimensional works of art and craft Learning art vocabulary Ways of interpretation Experimenting with materials at the workshop	None	Worksheets Arts and crafts workshop	2
Art in special exhibitions One M.L.M.	Modern art	Any class that asks for instruction	Style and special techniques used by the artist, in relation to his time	Basic knowledge of art terminoloty Former museum experience	Worksheets Arts and crafts workshop	2
Material culture of sea farers tribes: North American Indians tribes in New Guinea One M.L.M.	The National Maritime Museum Arts and crafts objects of seafarers tribes	Third graders	Learning about the tribe as a sociological unit Comparing tools of similar functions of two tribes	Basic understanding of social studies: structure of an extended family, a clan, a tribe	Worksheets At the workshop: drawing, painting and collage	2

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Shikmona Life in an ancient settlement (6th century BC) One M.L.M.	Ancient Art Museum Archaeological finds of a Tell close to Haifa	Fourth graders	Basic terminology in archaeology first cycle Learning to reconstruct daily life of an ancient village through objects	A visit to the site of Tel-Shikmona near Haifa	Archaeological objects to handle At pottery workshop Moulding in clay objects to leave for future generations	2
Life and work of early man One M.L.M.	The Museum of Prehistory	Fourth and fifth graders	Learning the beginnings of material culture and social organization of the Prehistoric Carmelite man	A visit to the caves of prehistoric man on Mount Carmel	Handling/ sorting flint tools Optional Slides of cave paintings	2

Subject (1)	Museum and Kind of Exhibition (2)	Target Audience (3)	Teaching Objectives (4)	Previous knowledge of Subject Area Required (5)	Auxiliary Material or Activity (6)	Post Project Activities At School (7)
Early man in his natural environment, an interdisciplinary subject. Three M.L.M.,s (1)	The Biological Institute	Fourth and fifth graders	Learning about evolution of man	Basic knowledge of the subject	Worksheets; Handling skulls of animals	Further work in the classroom; An exhibition of the students' work; Projecting the video of the 3 day journey of acquaintance with prehistory; Summary and conversation with all the participants
	The zoo		A simulation session of hunting		Observing animals at nearby zoo; Worksheets	
	The Museum of Prehistory		Material culture; Primary social formations; Phases in the development of the life of prehistoric man		Handling stones and prehistoric tools; Worksheets	
	The site of a prehistoric cave near 'Hamearot Wadi (creek)'. A simulation session by a guide of the nature preservation society		A simulation session learning the art of survival through self experience		Sorting prehistoric flint tools near the original caves; experiencing a short stay in the cave	

(1) The three days project was video-taped (see appendix no. vl).

333

Subject (1)	Museum and Kind of Exhibition (2)	Target Audiences (3)	Teaching Objectives (4)	Previous Knowledge of Subject Area Required (5)	Auxiliary Material or Activity (6)	Number of Units (7)
Magic Sounds - Musical instruments of the Far East	Music and Ethnology Museum	Any Class that asks for instruction	To acquaint the learner of different music of other cultures	Geography	Playing on the instruments worksheets	2
Ancient Egyptian culture One M.L.M.	The National Maritime Museum Permanent archaeological exhibition	Fifth graders	Learning about material culture through objects, ancient ships and old maps The hieroglyphs	Basic knowledge of geographical and historical background of Egypt	Worksheets Hieroglyphs - into Hebrew At the workshop: painting and collage	2
Ancient Greek culture, art and mythology One M.L.M. (2)	Ancient Art Museum	Sixth graders	1st programme: Art and mythology in ancient Greece 3 styles: archaic, classical and hellenistic through sculpture Architecture	Basic knowledge of geography of Greece, and historical background of ancient Greece	Worksheets Video film of the architecture of ancient Greece	2
Ancient Greek culture through its art and crafts Two M.L.M.	Ancient Art Museum	Sixth graders	2nd programme: Art: 3 styles in sculpture Craft and art painted vases	Basic knowledge of geography of Greece and historical background of Greek culture	Architecture of ancient Greece (video) Sculpting at the workshop	4

(2) Appendix no. II.

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ancient cultures in Israel One M.L.M.	The University Museum of Archaeology Permanent collections and changing exhibitions	Seventh to twelfth graders	Learning about cultures through artefacts (2nd cycle)	General historical background of countries in the Near East Related chaptres of the Bible	Worksheets Handling similar objects	1
Greco-Roman culture One M.L.M.	Ancient Art Museum Permanent archaeological exhibition	Seventh graders	Defining traits of Roman sculpture	Geographical and historical background of Rome	Worksheets Slides of Roman architecture in Rome/Roman colonies	1
Japanese art and crafts One M.L.M.	Japanese Art Museum Changing exhibitions	Sixth graders	Learning to understand Japanese culture through its art and crafts	Geography of Japan	Worksheets Slides about Japanese culture	1
The age of exploration The map – People learn about the world	The National Museum Department of old maps and Ship Models	Eighth graders	Exploration age through old maps. To use the map as a source of learning about the world	Historical background of the age of exploration	Worksheets Slides of maps for further discussion	1

Appendix II: Understanding Ancient Greek Culture - A Museum Learning

Module

(for the sixth grade):

a. Introduction

b. Work sheets - Work sheet 1 - Greek Mythology

Work sheet 2 - Styles of Ancient Greek Sculptures

Work sheet 3 - Greek painted vases

a. <u>Introduction</u>

In two exhibition halls at the museum of ancient art, the building
of Haifa Museum, are displayed ancient Greek and Roman works of art:
sculptures, painted vases, sarcophogai and terra cota statuettes.
The exhibits enable the learner to receive an insight of everyday life
of the ancients and to give visual evidence of ancient mediterranean
societies that are connected historically with Israel's ancient
history.

The integrated mode of learning at the exhibition hall of arts and
crafts in the museum combined with the work at the workshop are aimed
to the cognitive and affective domains of the learning process. The
worksheets that are handed out at the exhibition halls and the pupils'
works at the workshop testify the benefits both intellectually and
emotionally that the youngsters derive at the museum learning
experience.

b. Work Sheet 1 - GREEK MYTHOLOGY

1. The Olympic family -

   The father and his wife   The brothers

   _____   _____

   Common offspring   other offspring

   _____   _____

2. Search, (look for) and draw me

   I am the Goddess of Victory

   my name is _____

   what are my attributes?

   what do they symbolize, signify?

3. I am Tiche (Fortuna), the Goddess of Luck and good fortune. On

   my head _____

   Usually I carry in one hand _____

   Often I carry in my other hand _____

4. We, the Greeks have now the famous battle against the

   _____ thanks to _____. We forgot to thank

   Athena and Poseiden for their help and thus we were heavily

   punished and I had to _____. Among the adventures

   that happened while sailing I reached an Island _____

   where they were singing and _____ the sailor to land

   the island and kill him, how was I saved? Look for me in the

   museum, where am I to be found?

5. Choose and draw one of the gods, or more.

b. Work Sheet 2 - STYLES OF ANCIENT GREEK SCULPTURE

Look at the sculptures. Choose ONE sculpture of each style: Archaic, Classic or Hellenistic. Read the labels: make a comparison among the three sculptures.

The Exhibit	Archaic Style	Classic Style	Hellenistic Style
Name			
Material			
Site			
The head			
Eyes			
Nose			
Mouth			
Wrinkles			
Expression			
Hair-do/gear			
Head's position			
Additional details			
The body			
Posture			
Movement			
Description			

Costume

Expression

Draw or Write your impression on the other side of this page

b. Work Sheet 3 -- GREEK PAINTED VASES

1. Look at the vases all around, choose three vases.

A. What is the name of this vase (in Greek) _____

To which period does it belong _____

Where was it found, or excavated _____

Describe and draw its form.

What is the subject of the painting and/or ornament of

the vase

What use has this vase _____

B. What is the name of this vase (in Greek) _____

To which period does it belong _____

Where was it found, or excavated _____

Describe and draw its form.

What is the subject of the painting and/or ornament of

the vase

What use has this vase _____

C. What is the name of this vase (in Greek) _____

To which period does it belong _____

Where was it found, or excavated _____

Describe and draw its form.

What use has this vase _____
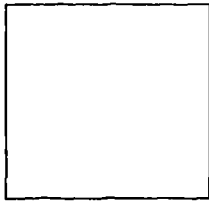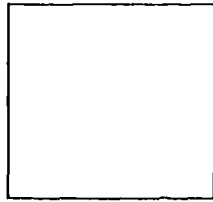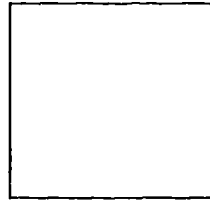
1st vase   2nd vase   3rd vase

2. In the paintings are the following colours, Red, Black and White.

Please return to the vases and look at them all around.

A. Choose 3 vases of Red figures painted on dark background. Read the information written on the label and see in which period they were made.

name of vase	name of period

B. Choose 3 vases of black figures painted on red background.

Read the information written on the label and see in which period they were made.

name of vase	name of period

3. You observe two styles, which style is earlier?

4. Where does the white colour appear?

5. What are the subjects of the painted scenes?

   Can you sort them into groups of subjects

6. Do you observe if there exists any connection between the
   paintings on both sides of the vase?

   _____

   What is the connection? _____

```
┌─────────────────────────────────────────┐
│                                           │
│                                           │
│                                           │
│                                           │
│                                           │
│                                           │
└─────────────────────────────────────────┘
```
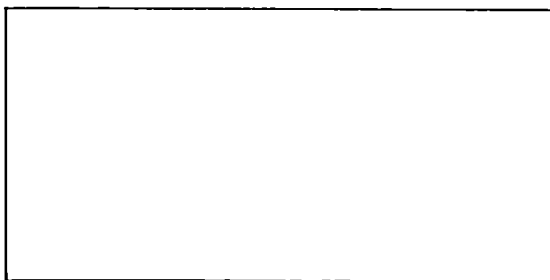
Draw a figure with a decorative motif

7. Is there any connection between the function of the vase and
   the subject of the painting and/or its ornament?

8. Is there any relationship between the painting and its form

   _____

   .

9. Mythological themes are painted on the vases

   Write one example for each group of vases.

10. Now, you are acquainted with the forms, styles and the subjects of the painted vases. What did you learn about the culture of the people of Ancient Greece?

    A. What were their habits, ways of life?

    B. Their vocations, professions

    C. Can you gather how they looked, their appearance: hair-do, hair-gear and costumes

11. Try to draw some pictures, or write a composition of the life of a family in ancient Greece.

Appendix No. III: Information Page and Questionnaires

to participants in the M.L.M.:

(a) Introduction

(b) 1. To the Class Teacher - Pre-visit Information

2. Pupil's Pre-vist Acquaintance Questionnaire

3. (a) Pupil's Post-visit Questionnaire (3rd-5th grade)

(b) Student's Post-visit Questionnaire

4. Teacher's Post-visit Questionnaire

5. Museum-Educator's Questionnaire

(a) Introduction

Appendix No. III includes 5 questionnaires that are given
to all the participants of M.L.M. (study day). The
participants are: The learner (pupil, student), the school
teacher and the museum educator who mediates between the
participants.

These questionnaires provide us with a multi-sided overall
picture which describes both processes and results of the
M.L.M.

The questionnaires are frequently assessed and changed
accordingly.

```
                    ┌─────────────────┐
                    │   M.L.M.        │
                    │  (Study Day)    │
                    └─────────────────┘
           ┌──────────────┼──────────────┐
           ▼                             ▼
┌────────────────────┐        ┌────────────────────┐
│ Learners -         │        │ Class              │
│ Pupils'            │        │ Teacher's          │
│ Students'          │        │                    │
│ Questionnaires     │        │ Questionnaires     │
│ No. 2              │        │ No. 1              │
│ No. 3 (A) (B)      │        │ No. 4              │
└────────────────────┘        └────────────────────┘
                    ▼
          ┌────────────────────┐
          │ Museum             │
          │ Educator's         │
          │ Questionnaire      │
          │ No. 5              │
          └────────────────────┘
```
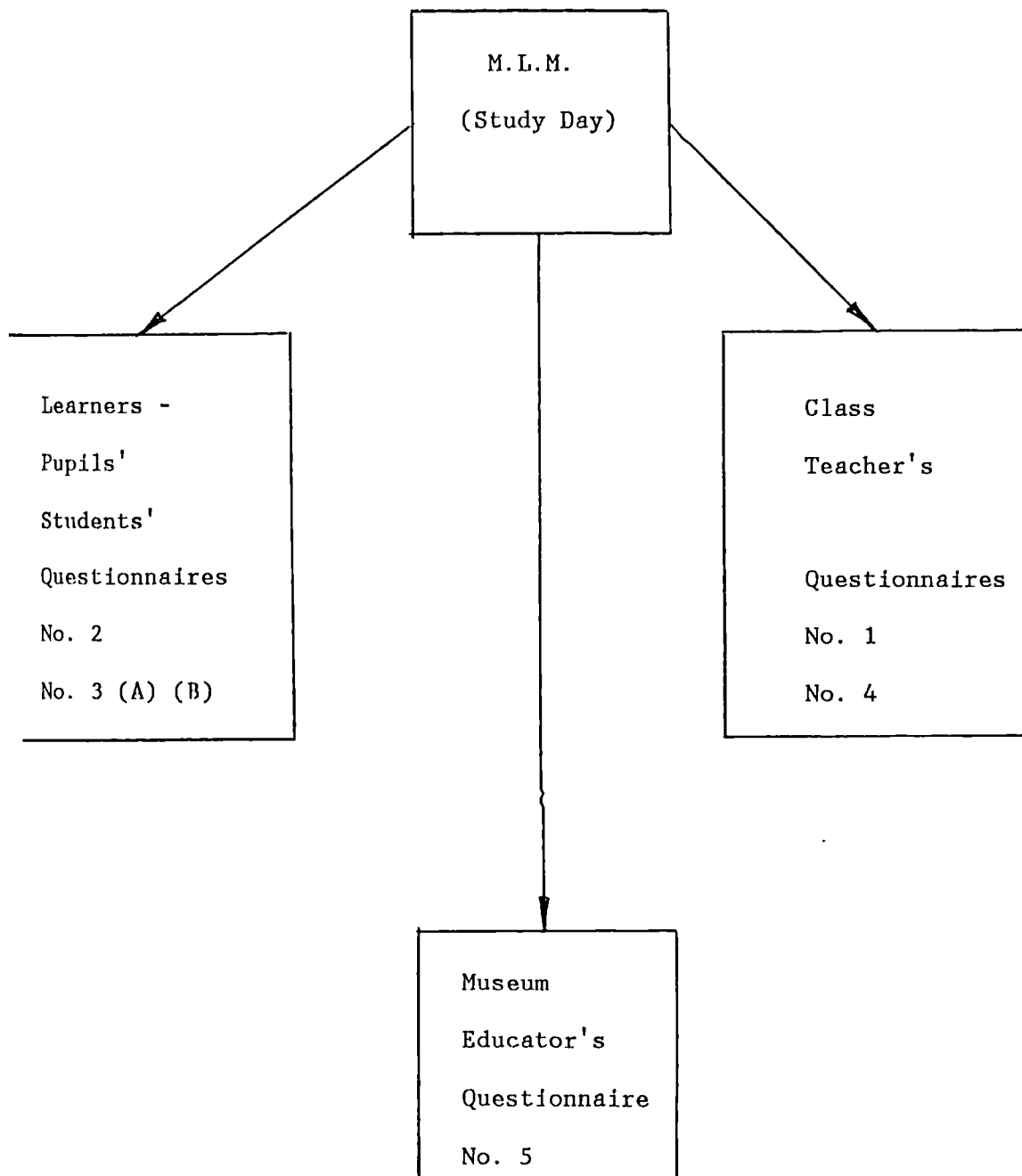
1. TO THE CLASS TEACHER   PRE-VISIT INFORMATION: (1)

Few notes to the antecendent stage of the study day.

As you intend to come with your class for a study day at the museum, you are requested to prepare your class before the visit itself, because the museum is a new learning environment.

The Schedule of the Study Day

The study day is from 9-12 or 1 o'clock.

The theoretical part is conducted at the exhibition hall. The practical part is conducted at the workshops (mainly for 3rd-6th grade).

Our suggestions are as follows:

To conduct a preliminary discussion with the pupils, stressing the following points:

The different relevant aspects of the theme itself (e.g. history and geography; Provide a stimulus by displaying our exhibitions of reproductions or replicas of the relevant theme in the classroom.

This phase is necessary for the study day. Your efforts to prepare the class will secure the predisposition of the pupil to the new learning experience at the museum.

_____

1. At the beginning of each school year the information page is to be distributed to the schools.

Please write your suggestions and recommendations concerning the study day.

Thank you for your cooperation,

Haifa Museum Education Centre

The Organizer

2. PUPILS' PRE-VISIT ACQUAINTANCE QUESTIONNAIRE(2)

(for 3rd to 5th grade)

1. Did you visit this museum before?

   _____

2. What is the name of this museum?

   _____

3. What is the theme of today's study day?

   _____

4. What do you know about this theme?

   _____

5. What do you expect to see at the exhibition?

   _____

Name of pupil: _____

Date of visit: _____

Class: _____

Name of School: _____

---

2. The questionnaire is supposed to give to the museum more detailed information about the children's expectations from the study day. This questionnaire is given to the pupils before the theoretical part.

3(A). PUPILS' POST-VISIT QUESTIONNAIRE(3)

(for 3rd to 5th grade)

1. Name the theme of the study day _____

2. Name the museum you visited today _____

3. Which exhibit did you like the best? _____

4. Why? _____

_____

5. What did you learn in the study day? Summarize your reactions

   in   writing   or/and   in   drawing   _____

   _____

Name of pupil: _____

Date of visit: _____

Class: _____

Name of school: _____

---

3. The questionnaire is supposed to supply us with the

information how pupils expectations and the educational

objectives were fulfilled.

3(B). STUDENT'S POST-VISIT QUESTIONNAIRE(4)

(for 6th to 12th grade)

1. Name the museum you visited today _____

2. Name the theme of the study day _____

3. Did you know the theme of the study day earlier at school?

   _____

4. Do you study the same theme at school? Yes/No _____

5. In the case that the theme is not related to your school curriculum, what did you gain from the study day? _____

   _____

6. Which exhibit did you like the best? _____ Why?

   _____

7. Do you like to work independently at the museum or in a group? Why? _____

   _____

8. Did you work at the workshop? What did you create?

   _____

   _____

4.   The questionnaire is supposed to supply us with the information how the educational objectives of higher classes students were fulfilled.

9. Did the study day contribute to your knowledge of the theme?

   Yes/No _____

10. Did you enjoy your visit to the museum? Yes/No _____

11. What part or activity of the study day did you like the best?

   _____

12. Do you like to come often to the museum for the purpose of

   learning? Yes/No

13. When and where did you fill in this questionnaire?

   _____

14. Did you answer this questionnaire independently? Yes/No

   If No: with your teacher's assistance _____

   OR: with the museum educator's assistance _____

Name of pupil: _____

Date of visit: _____

Class: _____

Name of school: _____

4. TEACHER'S POST-VISIT QUESTIONNAIRE(5)

Dear Teacher,

Will you please fill in the questionnaire and send it back to our office, at the end of the study day?

The theme of the study day _____

Name of the museum teacher _____Date _____

Name of your school _____ Class _____

Number of pupils _____

Level of the class (according to your experience):

High _____ Medium _____ Low _____

1. Is this your first visit with your class, to the museum this year? _____

2. Is the theme of the study day related to the school curriculum? _____

3. In what way did the study day enrich your pupils? _____

   _____

4. Did you prepare your class before the museum visit? _____

   _____

5. The questionnaire is intended to fulfill the following goals: 1. to provide the teacher with new perspectives of evaluating her pupil in a new learning environment. 2. To provide The Centre with information about the teacher's response to preliminary phase of the study day. 3. To learn about the teacher's involvement in the course of the study day.

5. What were your pupils' reactions during the study day? How did they express their reactions? _____

6. Did your pupils enjoy the study day? _____

7. Did you receive any printed material about the study day prior to the visit? _____

8. Did you receive any other material about the study day at the end of the visit? _____

9. Would you like to get any supplementary material? _____
   Please elaborate _____

10. Would you like to get any instruction as part of a course in the museum?   Yes/No

11. Circle the preferred field of interest:

    Art History

    Workshops in Arts and Crafts

    Archaeology

    Anthropology

    Museum Education

12. Do you have any further comments or opinions?

    _____

    _____

Thank you for your cooperation. This information will assist us to assess our present educational programmes.

<div align="center">

Haifa Museum Education Centre

The Organizer

</div>

5. MUSEUM-EDUCATOR'S QUESTIONNAIRE(6)

Date: _____

Name of Museum _____Name of Museum's Educator _____

Name of your school _____

Name of school teacher _____

Class _____

Number of pupils _____

The theme of the M.L.M. (Museum Learning Module):

1.   Structure of the M.L.M. _____

1.1 Theoretical part of the exhibition hall _____

1.2 Practical part of the workshop _____

2.   Pedagogical Critic of the M.L.M. _____

_____

6. This questionnaire is intended to provide the museum educator

with guidelines to analyze the study day from educational and

social aspects.

357

Your impression during the M.L.M. of:

1. Class teacher - pupils' relations _____

2. Pupil - Pupil relations _____

_____

Remarks by the School Teacher: (Summarize teacher's

post-visit questionnaire)

_____

_____

_____

Appendix No. IV

Table of Growth in Numbers of Classes Participating in

The Centre's Programmes (1979-1989)

YEAR	Total Number of classes/groups	Afternoon courses	Other Audiences
1979	450	10 workshops	classes of teachers' colleges and university (Mornings)
1980	473	10 workshops	classes of teachers' colleges and university (Mornings) workshops for classroom teachers (Afternoons)
1981	455	10 workshops	classes of teachers' colleges and university (Mornings)
1982	520	10 workshops	classes of teachers' colleges and university (Mornings)
1983	640	10 workshops	classes of teachers' colleges and university (Mornings) nursery classes: On acquaintance journey with the arts (Mornings)
1984	653	10 workshops	classes of teachers' colleges and university (Mornings) 2 Groups of visually impaired children

			(Mornings)
			Art teachers (Afternoons)
1985	711	10 workshops	classes of teachers' colleges and university (Mornings) 2 groups of visually impaired children (Mornings) 2 groups of retarded adults (Afternoon) Art teachers (Afternoons)
1986	709	10 workshops	classes of teachers' colleges and university (Mornings) 2 groups of visually impaired children (Mornings) 2 groups of retarded adults (Afternoon) Art teachers (Afternoons)
1987	760	11 workshops	classes of teachers colleges and university (Mornings) 2 groups of visually impaired children (Mornings) 2 groups of retarded adults (Afternoon) Art teachers (Afternoons)
1988	800	11 workshops	classes of teachers colleges and university (Mornings)

			2 groups of visually impaired children (Mornings) 2 groups of retarded adults (Afternoon) Art teachers (Afternoons) 4 groups of retarded adults
1989	830	14 workshops	classes of teachers colleges and university (Mornings) 2 groups of visually impaired children (Mornings) 2 groups of retarded adults (Afternoon) Art teachers (Afternoons) 4 groups of retarded adults

Appendix No. V:

'Culture-Basket' : General Outlines

The new educational programme that was launched in 1989, includes the museums among other art institutions such as the theater and the concert hall.

The objective of this project is to acquaint every growing person in the state of Israel with the cultural and artistic heritage of the country.

All cultural institutions are called upon to integrate their programmes in primary and secondary schools' curricula in order to ensure the participation of all pupils and students in the arts programmes.

The Haifa Education Centre is one of seven museums in the country that constitute the first group of museums to take part in the project.

The Centre offers the following learning modules to the following classes in 1989-1990:

Nursery children (aged 5-6): an acquaintance journey to the arts at the museum of Ancient and modern art. The museum visit is planned to incorporate a short drama session.

2nd graders: An acquaintance journey to the art at the museum of modern art and a workshop.

6th graders: 'Understanding Ancient Greek Art', through arts and crafts.

11th graders: 'Two and three dimensions in visual arts' at the ancient and modern art museums.

Appendix No. VI:

The Interdisciplinary Project on Early Man in His Natural

Environment

Video Transcript (1987)

The Commentator: The interdisciplinary project on early man in

his natural environment reflects the overall

approach of the centre for education in museums

in Haifa, Israel.

The interdisciplinary approach stresses the

importance of the integrated method of teaching

through personal experience.

An introduction to the fourth graders of

"Glilot", a primary school, is given by Aviva,

the initiator of the project. She outlines the

three day journey that is intended to get

acquainted with the early inhabitants of Mount

Carmel.

Aviva: Today, on the first day of our journey, we shall

stay at the biological institute. In the

institute we shall learn about the evolution

of man. In the nearby zoo we shall be hunters,

and observe animals for the purpose of hunting.

Tomorrow, on the second day we shall learn about the life of early man, at the museum of prehistory.

On the third day, we shall learn the art of survival of the early man in his natural environment near 'Hamearot' Wadi, on Mount Carmel.

The Place: At the laboratory of the biological institute, skeletons of various animals are ready to handle and inspect.

The Commentator: First day at the biological institute in Haifa the students learn about early times from prehistoric man up to the present day. The skeletons in the institute help to illustrate the uniqueness of homo sapiens.

The Activity: The Children compare the skeletons of the animals with the one of early man, and discern the differences. The teacher demonstrates the size of a human brain box and compares it with the animal skulls.

The Commentator: Compared with other animals man is unique, with his upright posture, the structure of his palm and teeth, and of course the size of his brain.

Etty: The teacher outlines the aims of the second part of the day's programme at the nearby zoo.

The biological institute prepared special working papers for this part of the interdisciplinary project. The students are requested to complete these papers during their visit to the zoo.

The Activity: At the zoo the children roam around, either individually or in couple, and choose an animal to be fit for hunting. They present their findings to their classmates, and in the end they decide to hunt an elephant and suggest several devices to capture it.

The teacher summarizes the day at the biological institute.

The second module takes place a day later at the Museum of Prehistory. It builds on the first day.

The Activity: The children gather around the diorama, which depicts a hunting scene of an elephant. The elephant is seen in a pit surrounded by hunters.

The Commentator: The second day at the Museum of Prehistory, the students are given the opportunity to perceive, through reconstructed models, the life of prehistoric man. *These models were built from remnants found on Mount Carmel in the north of Israel.* This particular model illustrates the importance of fire and its domestic use in the life of early man. These models trigger off an interesting discussion, which now centres around flint tools - different from the other stones that early man made for various functions.

Shulamit   The museum educator presents the assignment: to reconstruct the hunting scene through what they see. They observe, then describe the hunt which was executed by digging the pit with the stones and animal bones on the diorama.(1)

---

1. The Diorama, heir to the Austrian and French Relief Maps, is a particularly appropriate presentation (Cuisenier, 1984, p. 133).

The children use the knowledge gained the day before a the biological institute, and answer accordingly. Namely, that early man had a developed brain, and collaborated with his fellow man in the hunt.

The objective is to learn to discern the tools from other stones. The children are given boxes with flint tools mingled with other stones. They sit in groups and sort out the tools from the stones.

The Commentator: The students learn to identify the prehistoric stone tools by touching and sorting. The aim of the interdisciplinary project is to create as many direct learning experiences for the student as possible.

The last part of this day at the museum - is the burial scene. The objects were excavated at the site of 'Oren Wadi', and were reconstructed at the museum.

The Activity: The children discuss the position in which early man was buried, which reminds them of an embroyo.

The museum educator summarizes the day and outlines the next day's programme, when they will visit a similar site on Mount Carmel.

The Commentator: On the third day, the third stage of the interdisciplinary project, the students visit the original site of early man, 'Hamearot Wadi', on the slopes of Mount Carmel, together with a guide from the nature preservation society. Michael introduces himself and suggests that he and the children behave like hunters.

The assignment is to learn about the conditions, such as the topography, tools and plants that early man used for his survival.

The Activity: The children collect the stone tools and are rewarded by their guide, who praises their excellent findings.

Michael: The guide calls the students' attention to the fact that we are in 1987 on the same site that early man lived. He encourages them to examine the site in order to be convinced that the early man could have survived here. It means that we have to examine the flora and fauna and the topography he summarizes.

The Activity: Michael chooses an edible plant and gives it to the children to taste. They then proceed to the cave.   Michael describes the topography of the dark, deep cave that served early man as an excellent place for self protection.

The Commentator: As the students enter the cave they experience the same fears that our forefathers have felt confronting the unknown. As the last simulation takes place in the natural environment of early man, the students learn about the geographical changes that took place throughout the ages, completing the programme through personal experience.

In order to make the experience more lasting, the museum staff prepared a booklet for teachers on 'The Life of Early Man'.   In the pamphlet there is a short summary of the material that is taught in the Museum Learning Module, and a few suggestions for activities that can be carried on in the class.

To conclude the findings of the project, we wanted to find out what were the children's reactions to the three day experience. Two months later the museum staff came to the school, to project the video to the two classes and to hear the children's reactions.

There was a pleasant surprise waiting for the staff at the school. An exhibition on the subject of mounted and painted scenes in the life of prehistoric man had been prepared by the pupils.

In the conversation that took place in the classroom, the children reviewed what they had learned in each of the three days. After the video had been projected, an alert conversation developed between the museum educators and the children.

Here are a few of the children's reactions to the special learning experience as compared with learning at school: We have studied in a different way - not like at school;   We learned through things that we have seen - not like at school, where we do not see things.   It is difficult to visualize how things look from books;   Learning through objects by the senses: We learned through touching the skulls and sorting the tools;   We have seen the actual site of early man; Through seeing objects, looking at them and touching them, we understand better.   Children expressing ideas concerning the ultimate goal of education: we have understood our origins, and man's origins;   We have broadened our horizons;   We enjoyed studying one subject for three days, one after the other.

The final stage of the meeting of projecting the video, served as a summary session of a new kind. The children could see thmselves and recall different instances of the three day study of early man.   It was a joyful session of laughter and

exclamations, and at the end the children applauded and thanked the organizers of the project.

Appendix No. VII:

A NEW MUSEUM OF ART AND SCIENCE - First programme(1)

Concepts and   A new museum for youth will attempt to provide
Goals   the visitor with a new educational concept
                    through experience. The basic concept is the
                    realization of interrelationships between the
                    sciences and the arts of our modern world. The
                    content of the new museum will be designed
                    according to the dynamic needs and perception
                    of children and youth. The aim is to motivate
                    the youngster to observe and emotionally
                    experience the work of art;   to absorb the
                    scientific   information   and   enrich   his
                    aesthetical appreciation on the assumption that
                    such a process will create motivation in
                    learning and research. It will evoke curiosity
                    towards scientific processes and artistic
                    techniques that will stimulate the individual
                    to create.

Integration of The new structure will benefit from
The Centre   the experience and knowledge accumulated
                    in the field of visual-aesthetic education at
                    The Centre.   The experienced teachers will be
                    invited to participate in the creation of the

_____

1. Barnea, A. (1983) (MOI), Ceca, Stockholm, pp 9-10.

new museum for youth. The regular educational activities in the different museums at the Haifa Museums will be integrated in accordance with the needs of educational activity of the new museum.

The structure will be based on three elements which are inherent in science and in art, and will stress their interrelationship. The three elements are: light, material and movement, each to be displayed in its own hall. Each one of these exhibition halls will be part of a whole. In their midst, in a large round hall will be demonstrated by the contacts between the basic elements.

Each hall will contain two main centres dealing with one of the three elements. One will exhibit scientific games which will help to understand the nature of one of the above mentioned elements. The second complementary centre will include exhibitions which will show works of art that relate to the same element; for example, the light and its effects on painting.

Courtyards containing scientific instruments and equipment will be opened among the sections and for creative work in the arts. This will reduce noise and allow freer movement for a larger number of people. Lecture halls seating 100-150 people will show films connected with aspects of the themes of the museums. A learning centre will consist a library, a music corner, audio-visual equipment and data computers that will be at the disposal of each visitor.

The Administration Wing will contain teachers' and conference rooms, offices, a large storage room for materials, rooms for instruments, storage rooms for children's works, a maintenance workshop and a dining area to be used by visitors who may bring their own meals.

Advisory Bodies: 1. A Steering Committee of five people with diverse backgrounds and skills, e.g. in the fields of administration, art and science. 2. Teams of scientists and artists, experts in the three interest areas of the museum: Light-Optics, Material-Chemistry, Movement-Physics and painters, sculptors, etc. 3. A special group of educators will launch ideas in order to motivate gifted youngsters in high schools, and students of the arts and sciences to design projects that can be displayed in the museums. 4. A liaison team will develop contacts with existing institutions and individuals, the sciences and in the arts such as: music, dance, painting, sculpture, etc. 5. A team will collect knowledge of existing data on institutions in Israel and abroad dealing with the interrelationship between science and art, and its interpretation through education.

In the way of conclusion, we may define the museum as a new creation in the spirit of interdisciplinarity and collaboration among a wide range of people.

Appendix No. VIII:

Youngsters Work at The Centre, Haifa

1. Students learn from exhibits:

   (a) Ancient Art Museum

   (b) University Museum

   (c) Greek mythological images:

2. Moulding in clay at the workshop - a
   sixth grader

3. (a) A Greek painted amphora, 600 BC

   (b) A Greek vase - sixth grader's work

4. Athena: lino-cut print, sixth grader

5. Dionysus: lino-cut print, sixth grader

6. Atlas: lino-cut, sixth grader

7. Poseidon, sculpture in clay, sixth
   grader

8. (a) Medusa; Marble, Roman, AD 100

   (b) Medusa: lino-cut print, sixth
       grader

9. Greek temples in clay, sixth graders

10. A mythological creature in clay, fifth
    grader

11. 'People are equal': Paper-cut, fifth
    grader

12. 'Relationship' - figures in clay, eighth
    grader

13. (a) A stone in clay - a work of a visually impaired child - ten years old.

    (b) Masks in clay - works of visually impaired children - eight to ten years old.

1a

1b

1c

2

3a

3b

4

7

8a

11

13a
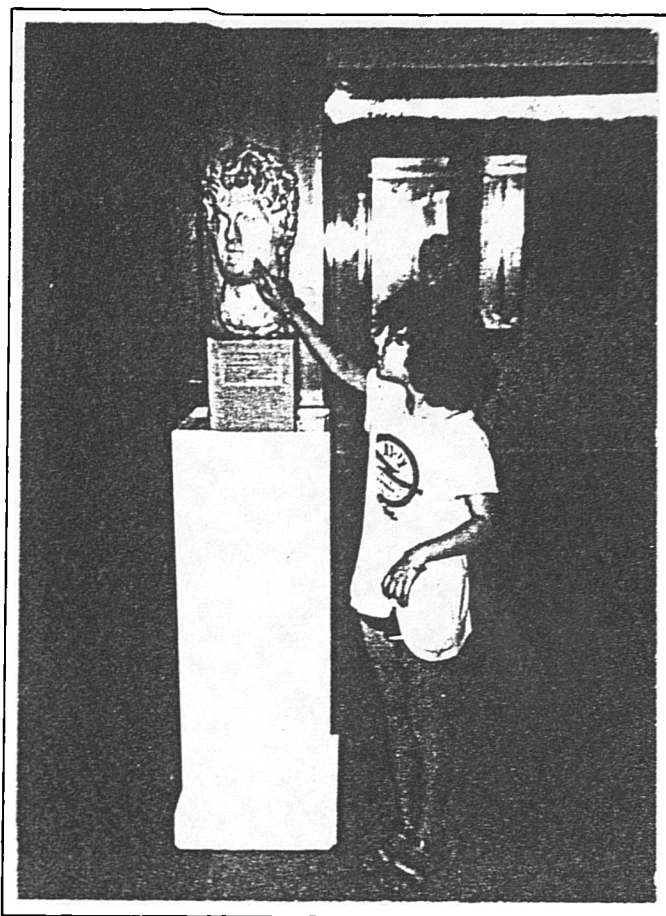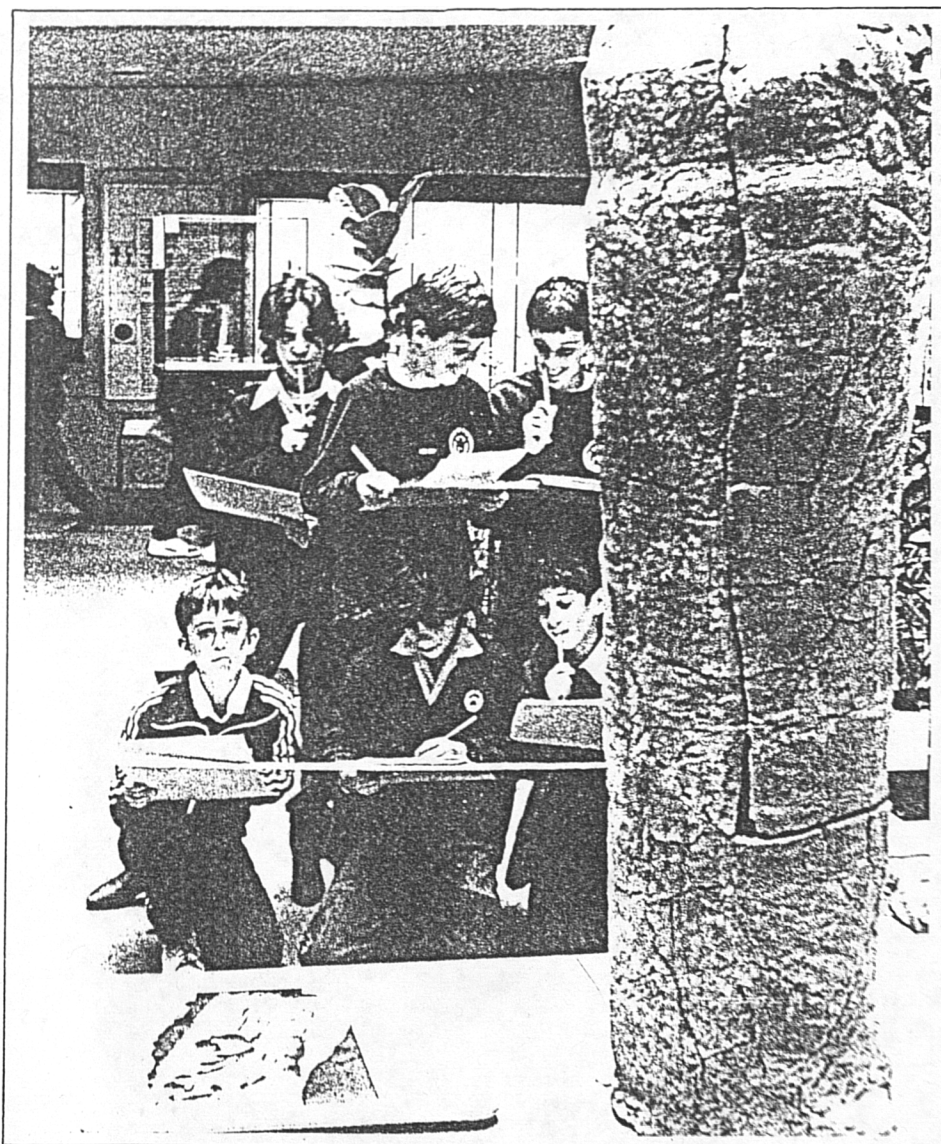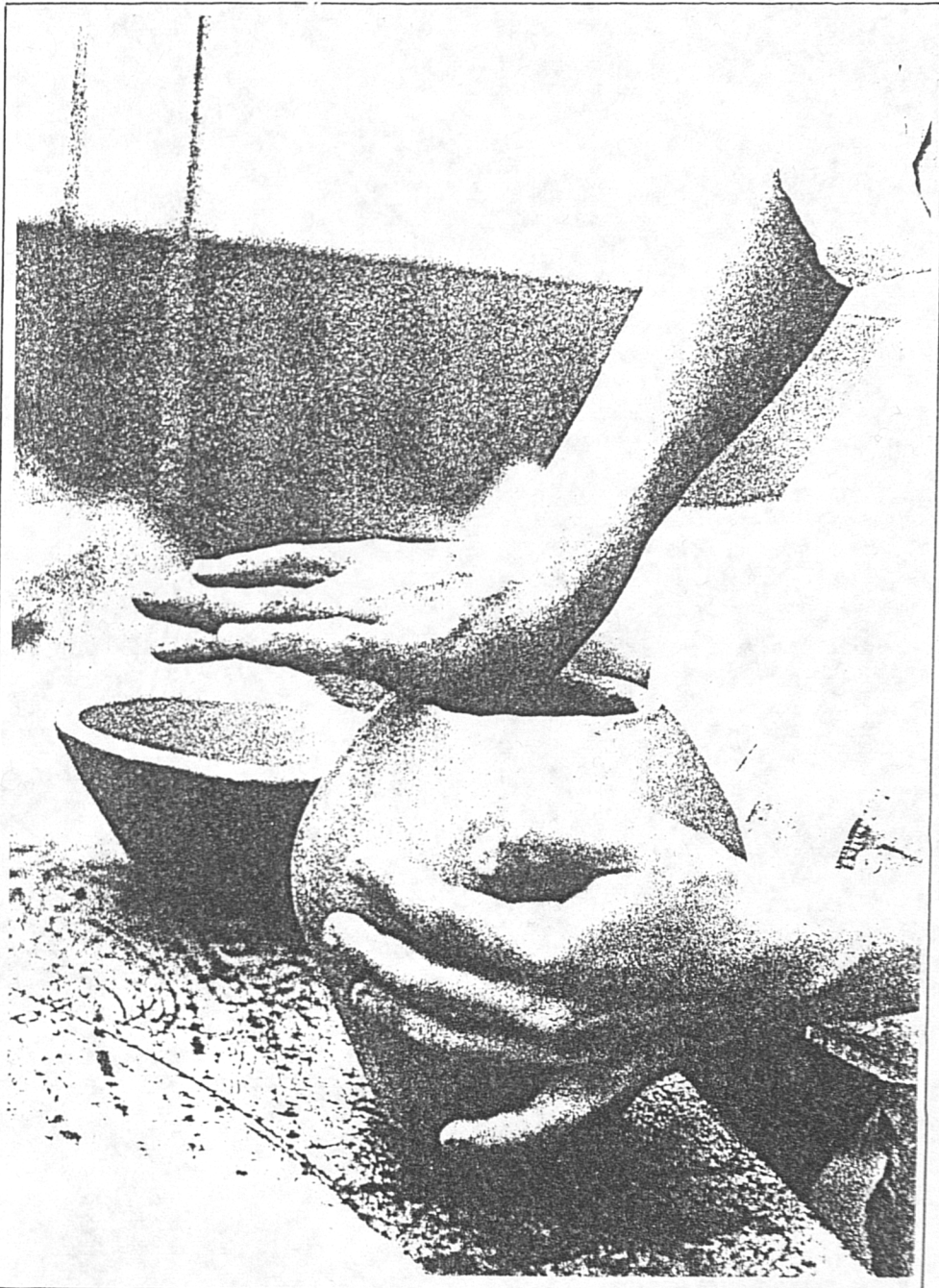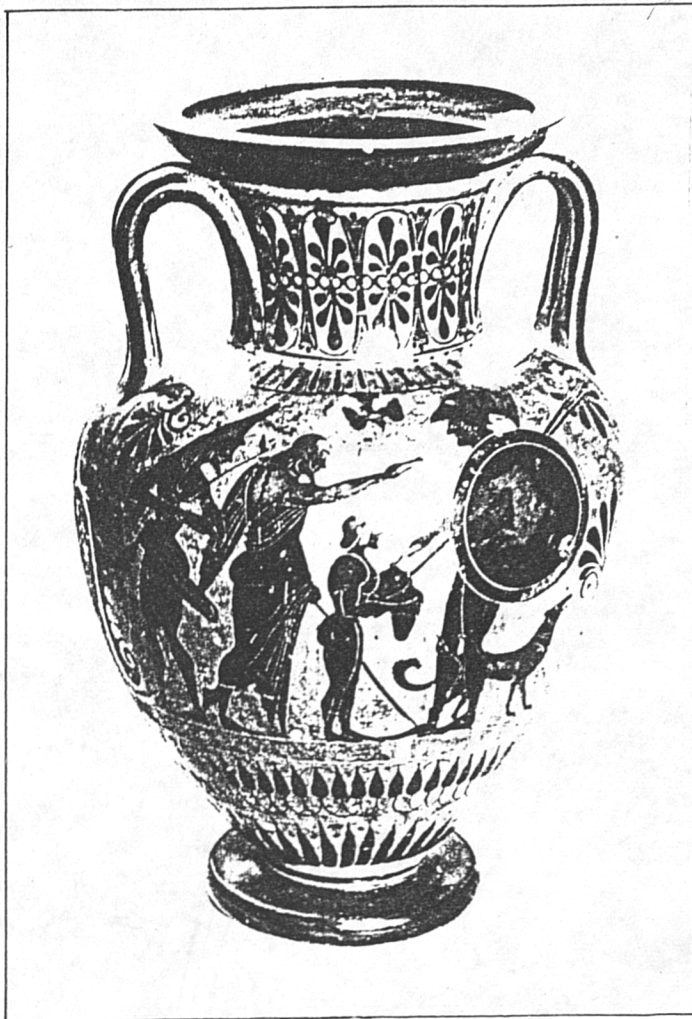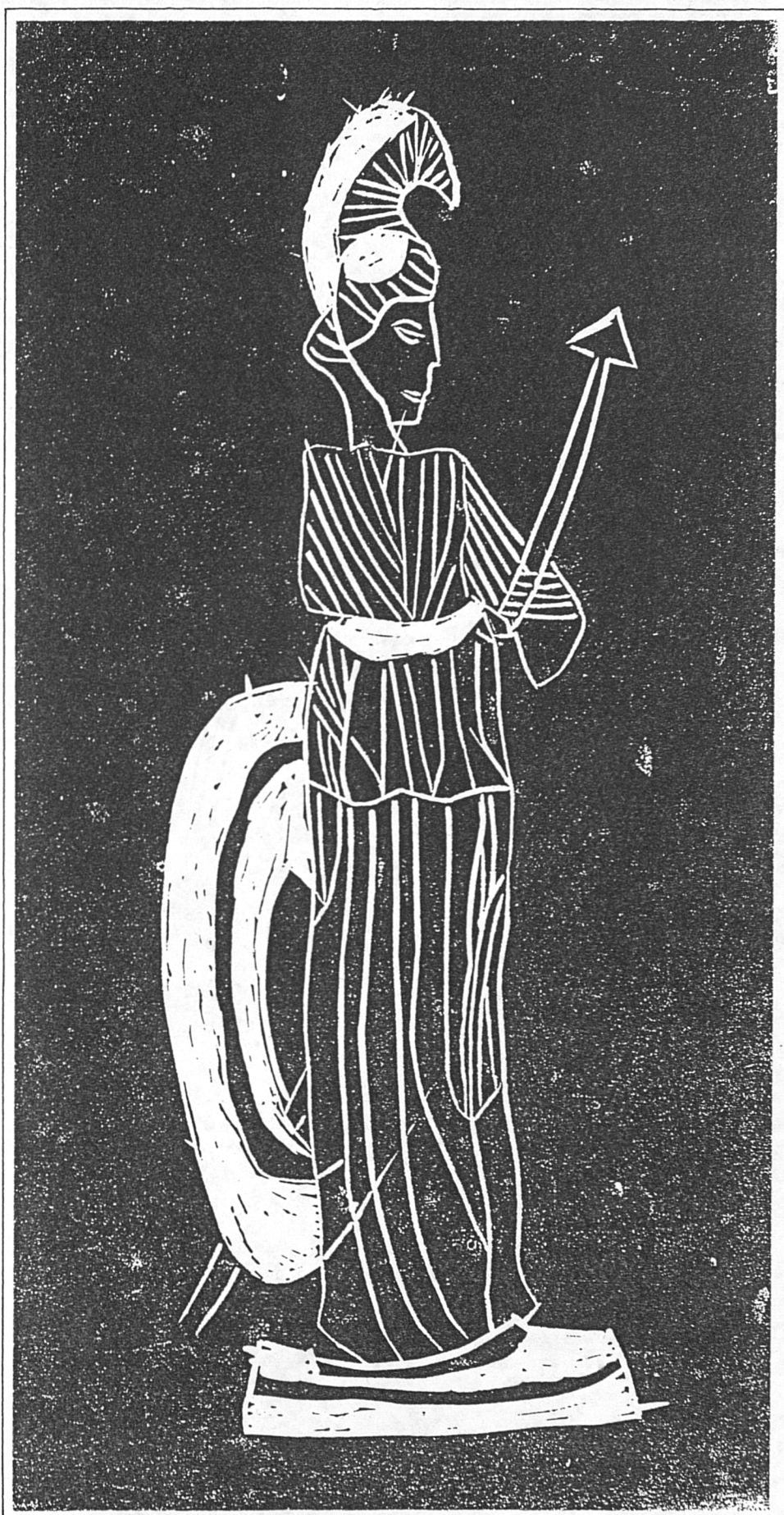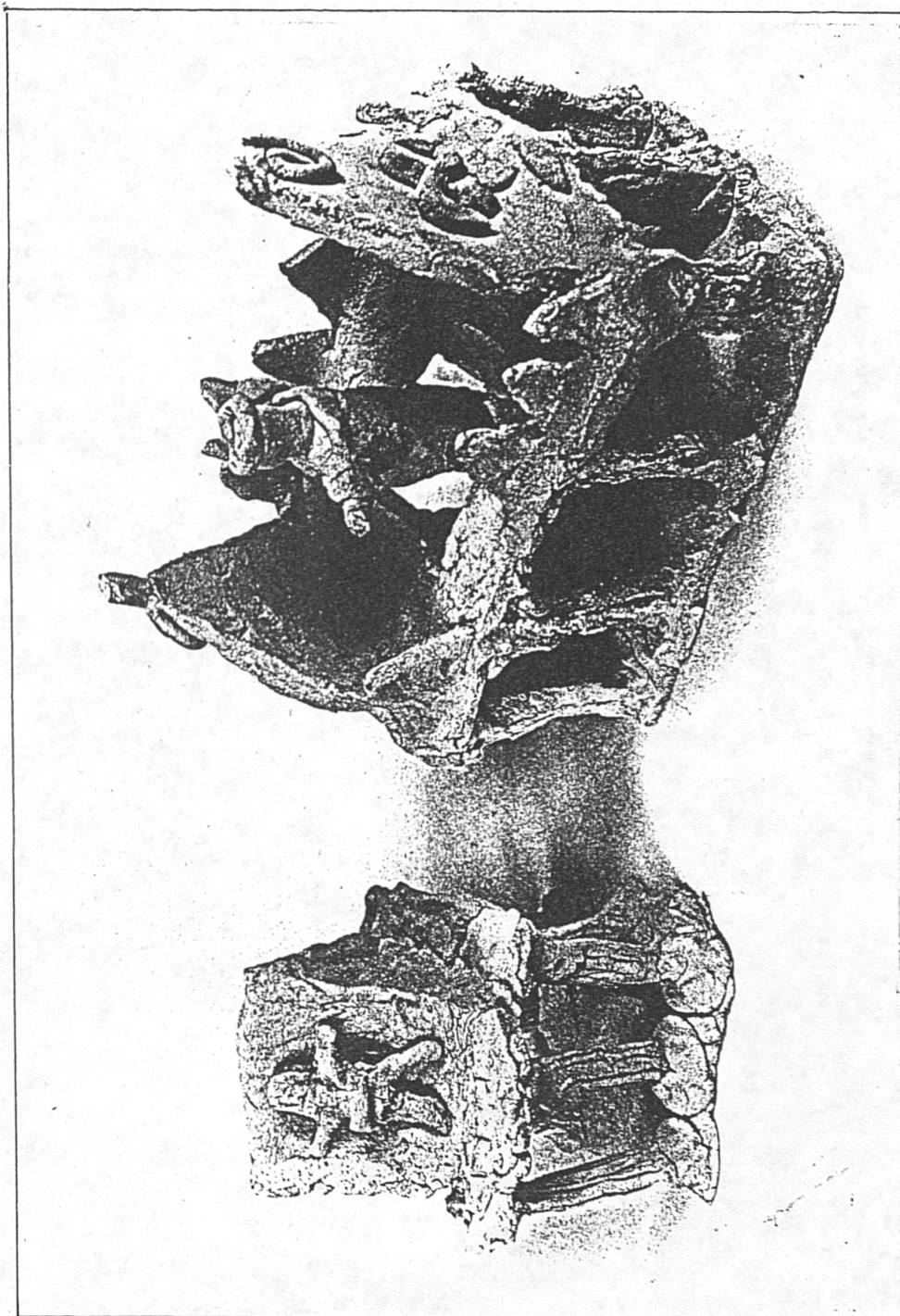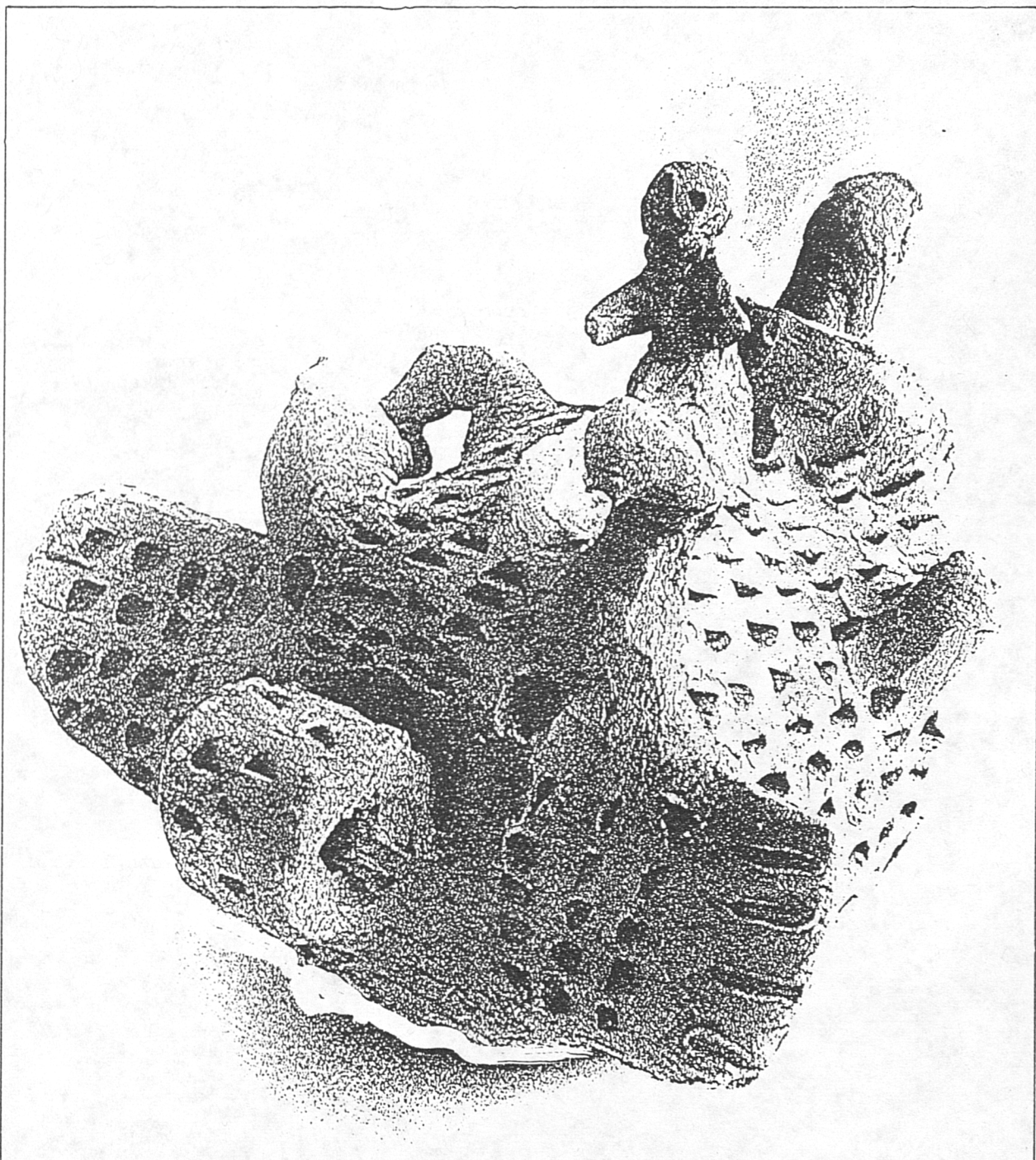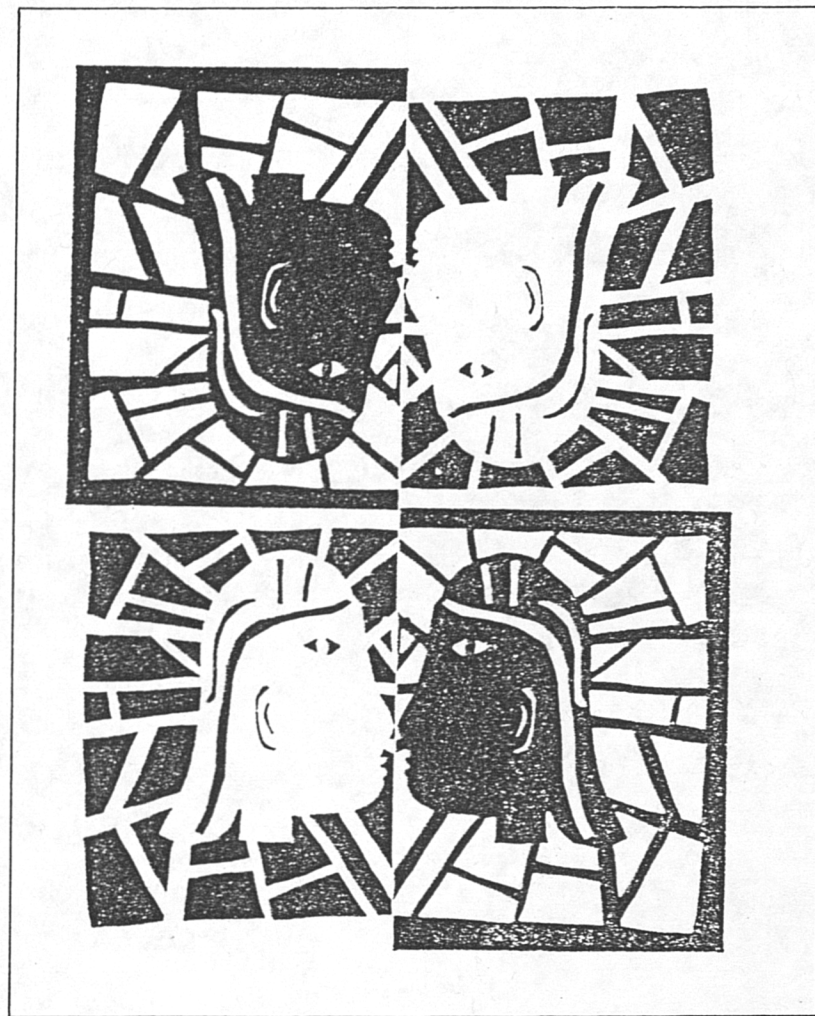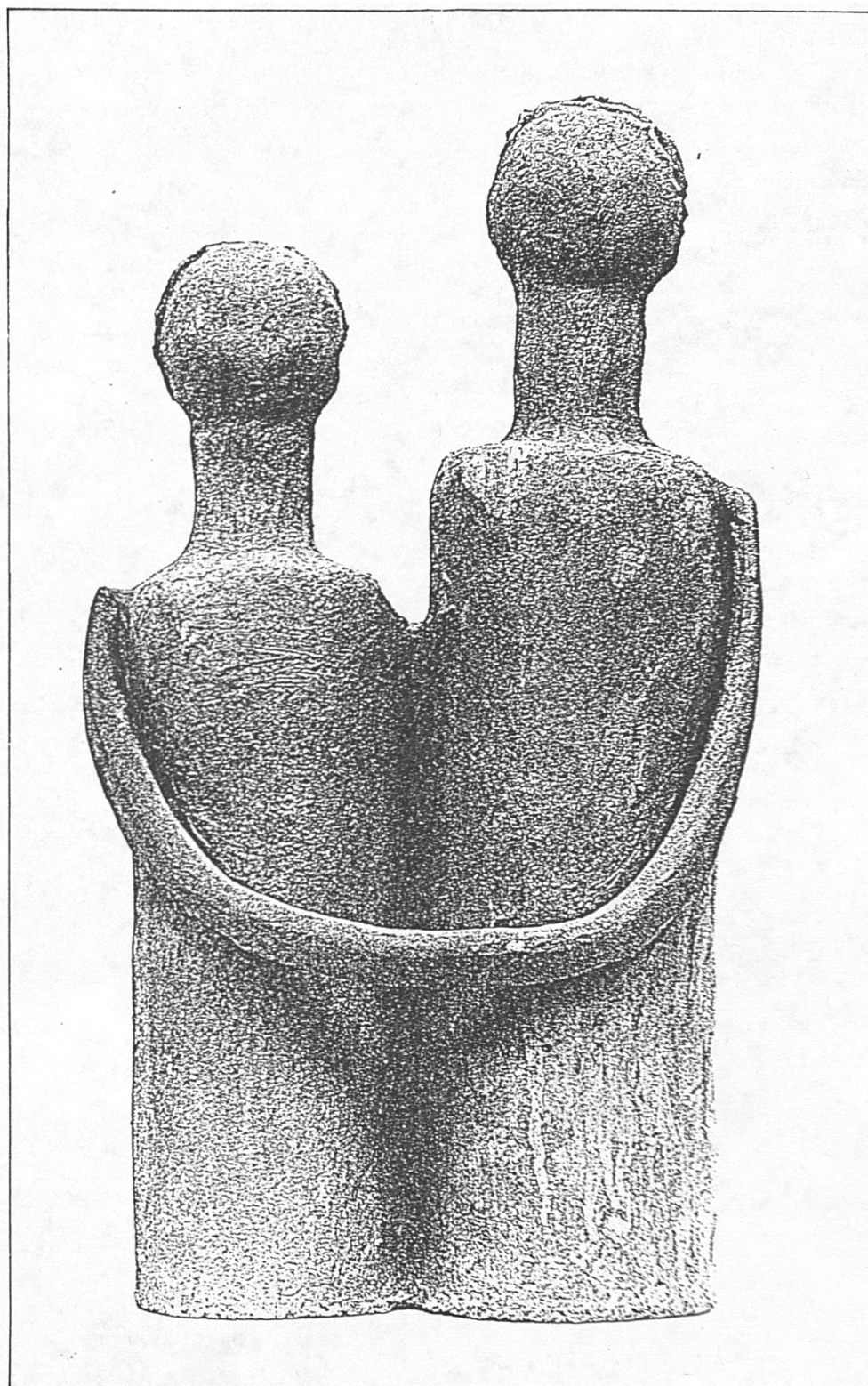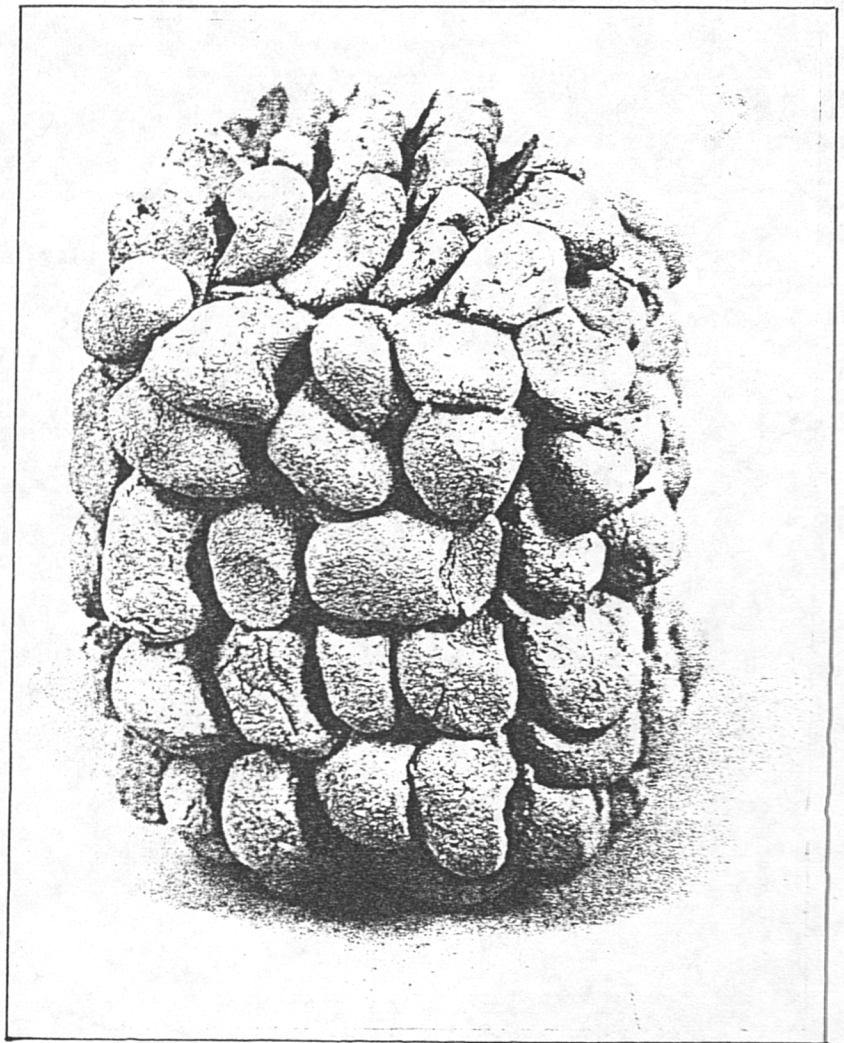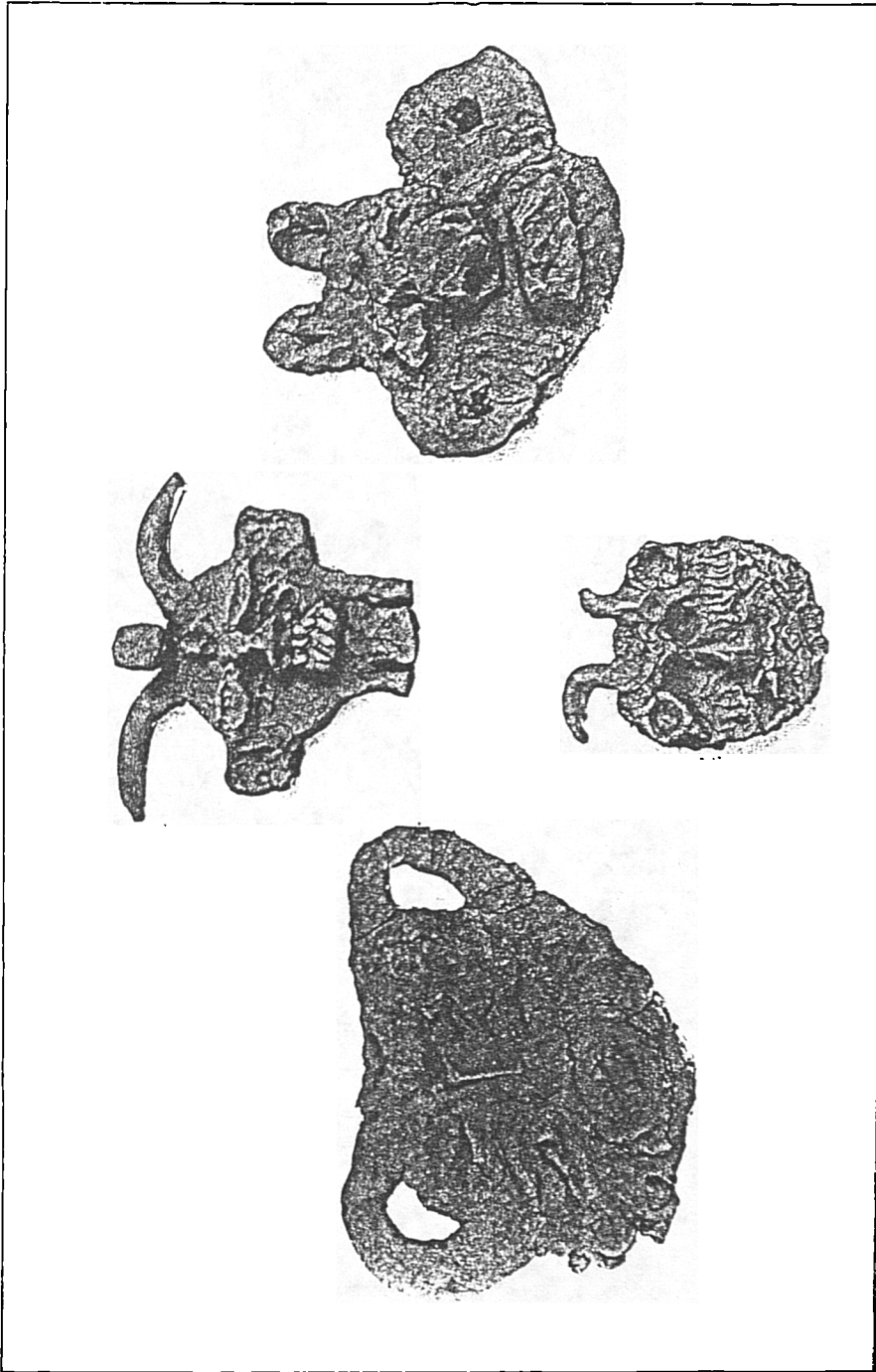
Bibliography

Abbey, D. (1968)   ' Kids, Kultur and Curiosity', <u>Museum</u>
                                  <u>News</u>, 46(7), pp 30-32, American Association
                                  of Museums, Washington, D.C.

Abbey, D.S. (1985)   'Museum Education', in Husen T.,
                                  Postchwaite T.N. (eds) <u>International</u>
                                  <u>Encyclopaedia of Education</u>, part 6, pp
                                  3452-3455, Pergamon Press.

        (1986)   'The exhibit as educator', <u>Museum</u>, 151, pp
                                  172-174, Unesco, Paris.

Able, E.H. Jr. (1988)   'Museums in perspective: The challenging
                                  questions' <u>Museum News</u>, Jan-Feb., p 112,
                                  American Association of Museums,
                                  Washington, D.C.

Adams, G. (1984)   'Museum and school links in London - Past
                                  and future', <u>Museums Journal</u>, 84(2), pp
                                  57-61, The Museums Association, London.

Adams, L.T. (1985)   'Improving memory: Can retrieval strategies
                                  help?', <u>Human Learning</u>, 4(2), pp 281-295.

Adams, M.J. (1984)   'Mediating our knowledge', <u>Museum</u>, 36(3),
                                  pp 14-18, Unesco, Paris.

Adar, L. &
Adler, C.H. (1965)   <u>The Education Towards Values in the Schools</u>
                                  <u>of Immigrants' Children</u>, The School of
                                  Education,

Aksenova, A.I. (1978)   'Vladimir and Suzdal, museum cities',
                                  <u>Museum</u>, 30(2), pp 116-121, Unesco, Paris.

Alexander, E.P. (1979)   <u>Museums in Motion</u>: American Association of
                                  Museums for State and Local History,
                                  Nashville, Tennessee.

Allan, D.A. (1949)   'Museums and education', <u>Journal of the</u>
                                  <u>Royal Society of Arts</u>, XCVII, pp 960-980,
                                  London.

Allan, R.E. (1984)   'Research: Social history' in Thompson, J.M.A. et al (eds) Manual of Curatorship, pp 176-186, Butterworths, London, The Museums Association.

Allison, B. (1972)   Art education and teaching about the art of Asia, Africa and Latin America, VCOAD, London.

(1984)   'Foreward - International perspectives on art education', The Journal of Aesthetic Education, 18(2), pp 15-16, University of Illinois.

(1985)   'Cultural dimensions of art and design', Journal of Art and Design Education, 4(3), pp 217-223.

(1987)   'Dance in the curriculum: A perspective from the visual arts', the 25th anniversary of AIESEP World Conference, Lisbon, Portugal.

(1988)   'Art in context', Journal of Art and Design Education, 7(2), pp 175-184.

Alt, M.B. (1981 a)   'Audio-visual techniques in museum education', Journal of Education in Museums, 2, pp 22-25, GEM.

(1981 b)   A cognitive approach to the understanding of behaviour of museum visitors, Ph.D. Thesis: Institute of Education, University of London.

Alt, M.B.
& Griggs, A.S. (1984)   'Psychology and the museum visitor', in Thompson, J.M.A. et al (eds), Manual of Curatorship, pp 386-393, The Museums Association, London.

Ambach, G.M. (1980)   'Why museums need networks', Museum News, pp 13-17, American Association of Museums, Washington, D.C.

(1986)   'Museums as places of learning', <u>Museum</u>
                <u>News</u>, 65(2), pp 35-41.

Ambrose, T. (ed) (1987a) <u>Education   in   Museums: Museums   in</u>
                <u>Education</u>, HMSO for the Scottish Museums
                Council, Edinburgh.

(ed) (1987b)   <u>New Museums: A Start Up Guide</u>, HMSO for the
                Scottish Museums Council, Edinburgh.

Anati, E. (1981)   'The origins of art', <u>Museum</u>, 33(4), pp
                200-210, Unesco, Paris.

Andren, A. (1984)   'A Swedish paradox', <u>Museum</u>, 37(2), pp
                112-113, Unesco, Paris.

Annis, S. (1986)   'The museum as a staging ground for
                symbolic action', <u>Museum</u>, 38(3), pp
                168-171, Unesco, Paris.

Anon (1937)   'The sculptor speaks', <u>The Listener</u>, 8.8.

Anon (1955)   'Editorial', <u>Hachinuch</u>, Histadrut Hamorim
                Haivrim, Tel Aviv (in Hebrew).

Anon (1962)   Committee Report: 'Desegregation in public
                schools of New York', City Council of New
                York, New York.

Anon (1968)   Editorial, 'Education in museums', <u>Museum</u>,
                21(1), pp 2-4, Unesco, Paris.

Anon (1969)   Report: Reform Programme in Education,
                Conference - Human needs in Israel. <u>Yeutz</u>
                <u>Umekhkar</u>, 16-19.

Anon (1969)   Report: <u>Education in Israel</u>, pp 16-19,
                Jerusalem.

Anon (1974)   Editorial, 'The Museum's Educational
                Cultural Role', 9th general conference of
                ICOM, Paris-Grenoble, Unesco, Paris.

Anon (1976)   Editorial, 'Communicating with the museum
                     visitor - guidelines for planning', Royal
                     Ontario Museum, Toronto, Canada.

Anon (1980)   'The more things change', Museums News, pp
                     54-57, American Association of Museums,
                     Washington, D.C.

Anon (1985)   'Declaration of Quebec: Basic principles
                     for new museology', Museum, 148, p 201,
                     Unesco, Paris.

Anon (1985)   Images of Museums, Museum, 37(4), Unesco,
                     Paris.

Anon (1986/1987)   Editorial, Unesco Inter-Clubs, 1986, No.
                     2, 1987, No. 1, pp 2-3, Unesco, Paris.

Anon (1986)   'Report figures and ground - Ames Survey
                     Group', The Median Education Journal, Ames
                     4, pp 5-17, Edinburgh, Scotland.

Anon (1987)   'What is GCSE?' An information leaflet for
                     parents and employers, Examinations Board,
                     London and East Anglia Group, London.

Anon (1987)   'GCSE and museums', Museums Journal
                     87(1), The Museums Association, London.

Anon (1988)   Exeter University Report, 'New Society',
                     The Sunday Times, London.

Anon (1988)   Report: 'Inter activity: Human and
                     technical means' in ICOM-CECA Report, No.
                     1, p 13.

Anon (1988)   Management of the collections of the
                     English national museums and galleries',
                     National Audit Office (NA), AMSO, London.

Anon (1988)   Editorial, 'New society teenagers find a
                     homework sanctuary in the Green Hut', New
                     Society Educational Forum, The Sunday
                     Times, 4.12.1988, London.

Anon (1989)   Editorial report 'Towards the millennium',
                            Museums Journal, 89(3), pp 17-20, The
                            Museums Association, London

Anon (1989)   Editorial, 'School curriculum shaped amid
                            uneasy compromises', The Independent Home
                            News (4.9.1989).

Antzoulatou Retsila, E.
(ed) (1989)   Working Group in Interdisciplinarity, CECA
                            Conference, 1988, Athens.

Archer, M. (1984)   Social Systems of Educational Systems,
                            (Abridged Edition), Sage, London.

      . (1985)   'On state educational system', in L.
                            Blackledge and B. Hunt Sociological
                            Interpretations of Education, pp 327-335,
                            Croom Helm, London.

Arenheim, R. (1969)   Visual Thinking, University of California
                            Press, Berkeley.

      (1974)   Art and Visual Perception: A Psychology of
                            the Creative Eye, University of California
                            Press, Berkeley.

Arjona, M. et al (1982) 'Museum development and cultural policy:
                            Aims, prospects and challenges', Museum
                            34(2), pp 72-82, Unesco, Paris.

Avery, B. (1984)   'A museum is all about people', Museums
                            Journal, 84(2), pp 197-202, The Museums
                            Association, London.

Bacon, F. (1594)   'Gesta grayorum', in Impey, D. and
                            MacGregor, A. (1985), 'Introduction',
                            Origins of Museums, p 1, Clarendon, Oxford.

Barnea, A. (1956)   Life and Work of the Jewish Community in
                            Yemen, MA Dissertation, New School for
                            Social Research, New York.

      (1967)   'Haifa museums', Museum, 20(1), pp 52-54,
                            Unesco, Paris.

(1971)   'Methods in teaching peoples' cultures in
                     a museum', VII International Congress of
                     Anthropology and Ethnology, XI, pp
                     665-668, Nauk Publication, Moscow.

(1979)   Youth Create at the Haifa Museums, Ayalon,
                     Haifa.

(1983a)   'First programme for a new youth museum of
                     art and sciences', Moi, 30, pp 9-10, Ceca,
                     Stockholm.

(1983b)   'Israel', Journal of Education in Museums,
                     4, pp 15-19, Gem, London.

Barrington, K.
and Irving, R. (1975)   Group Work in Secondary School and in
                        Training of Teachers and Its Methods,
                        Sifriat Poalim, Tel Aviv, (in Hebrew).

Barrow, R. (1976)   Plato and Education: Routledge and Kegan
                     Paul, London.

Barrs, D. (1988)   The modular curriculum threat or
                     opportunity for the humanities, MA
                     dissertation: Curriculum Studies, Institute
                     of Education, University of London.

Barthes, R. (1977)   Image Music Text, Flamingo Edition,
                     Fontana, London.

Basil, G. (1984)   'For a didactic museum of conservation and
                     restoration', Museum, 142, pp 81-84,
                     Unesco, Paris.

Bassett, D.A. (1984)   In Thompson, J.M.A. et al (eds) Manual of
                       Curatorship, pp 448-459, Butterworths, The
                       Museums Association, London.

Bateman, J. (1984)   'The control and financing of museum
                     education services in Britain', Museums
                     Journal, 84(2), pp 51-55, The Museums
                     Association, London.

Baxandall, M. (1985)   Patterns of Intentions, Yale University, New Haven and London.

Bazin, G. (1967)   The Museum Age, Universe Books, New York.

(1979),   The Louvre (new revised edition), Thames and Hudson, London.

Beals, R. (1953)   'Acculturation', In Kroeber, A.L. Anthropology Today, pp 621-641, The University of Chicago Press, Chicago, Illinois.

Bears, P.C.D. (1984)   'Research: Social history sources'. In Thompson, J.M.A. et al (eds), Manual of Curatorship, pp 175-178, Butterworths, The Museums Association, London.

Becherucci, L. (1969)   Uffizi Florence, Newsweek Magazine, Great Museums of the World, Simon and Schuster, New York.

Belcher, M. (1984)   'Communicating through museum exhibitions', In Thompson, J.M.A. et al (eds) Manual of Curatorship, pp 403-411, Butterworths, The Museum Association, London.

Bellow, C. (1986)   'Public service'. in Bellow, C. (ed) Public View, pp 11-16, The International Council of Museums, Paris.

Benedict, R. (1934)   Patterns of Culture, Mentor Books, New York.

Benesch, O. (1965)   The Art of the Renaissance in Northern Europe, Phaidon Press, London.

Ben-David, J. (1986)   'Universities in Israel: Dilemmas of growth, diversification and administration', Studies in Higher Education, 11, pp 105-130.

Bennett, T. (1988)   'Museums and the people', In Lumley, R. (ed) The Museum Time Machine, Routledge and Kegan Paul, London and New York.

Benton, T. (1974)   'Education and politics', In Holly, D. (ed) Education and Domination, pp 9-37, Arrow, London.

Bentwitch, J.S. (1965)   Education in Israel, Routledge and Kegan Paul, London.

Ben-Zvi Mayer, S. (1969) 'Ideas and methods in education for international education' unpublished paper presented at an MA Seminar: The foundation of philosophy in educational policy, Haifa University.

Bernstein, B.
et al (1971)   'Ritual in education', School and Society, pp 160-165, Routledge and Kegan Paul, Open University, London.

Bernstein, B. (1971)   'On the classification and framing of educational knowledge', In Young, M.E.D. (ed), Knowledge and Control, pp 47-69, Collier-Macmillan, London.

Berger, J. (1972)   Ways of Seeing, The British Broadcasting Corporation, London.

(1980)   About Looking, Writers and Reader Publishing Cooperative.

Berger, P.L. and
Luckmann, T. (1966)   The Social Construction of Reality, Penguin, Middlesex, England.

Berger, P.L. (1971)   'Identity as a problem of sociology of knowledge', In Cosin, B.R. et al (eds) School and Society, pp 107-112, Routledge and Kegan Paul, Open University, London.

Berry, N. (1985)   'Special audiences: Diagnosis and treatment', In Bellow, C. Public View, pp 40-48, Icom, Paris.

Bettelheim, B. (1977)   'Food to nuture the mind', In Glidwell, J.C. (ed) The Social Context of Learning and Development, pp 87-100, Gardner Press, New York.

Blackledge, D. and
Hunt, B. (1985)   Sociological Interpretations of Education,
                    Croom Helm, London.

Blazy, S. (1988)   'Museums and television', Icom News 41 (4),
                    pp 4-5, Icom, Paris.

Bloom, B.S. (ed) (1956) Taxonomy of Educational Objectives: The
                    Classification   of   Educational   Goals
                    Handbook I: Cognitive Domain, David McKay
                    Company, New York, London.

Bloom, J.N.,
et al (eds) 1984   'A new imperative for learning', In Bloom,
                    J.N. et al (eds) Museum for a New Century,
                    pp 55-57, American Association of Museums,
                    Washington, D.C.

Borokhov, B. (1953) Volfovsky, M.S. translator, The Economic
                    Development of the Jewish Nation, Hakibbutz
                    Hamuechad, Tel Aviv, (in Hebrew).

Borun, M. (1977)   'Measuring the immeasurable: A pilot study
                    of museum effectiveness', Association of
                    Science-Technology   Centers,   Washington,
                    D.C.

Boulton, W.H. (1932) The Romance of the British Museum, Sampson
                    Low, Marston & Co., London.

Bourdieu, P. (1971) 'Intellectual field and creative project',
                    In Young, M.F.D. (ed), Knowledge and
                    Control, pp 161-188, Collier-Macmillan,
                    London.

Boylan, P.J.
and Dusee, G. (1979) 'The museum and its function in society',
                    Conference: Training of Museum Personnel,
                    Leicester.

Boylan, P.J. (1987) 'Museum training: A central concern of ICOM
                    for forty years', Museum, 39(4), pp
                    225-230, Unesco, Paris.

Brawne, M. (1982)   The Museum Interior: Temporary and Permanent Display Technique, Thames and Hudson, London.

Brenner, M. (1981)   'What will be responsibility attempt', In Nichols, L et al (eds) Museum School Partnerships, p 20, American Association of Museums, Washington, D.C.

Bringuier, J.C. (1988)   Conversations libres avec Jean Piaget, Keter, Jerusalem (in Hebrew).

Brothwell, D.R.
(ed) (1976)   Beyond Aesthetics: Investigations into the nature of visual art, Thames and Hudson, London.

Browne, M.C. (1984)   Those who do and those who dont: An investigation into gallery visiting. MA thesis: Institute of Education, University of London, London.

Bruner, J.S. (1965)   'The perfectibility of intellect', In Knowledge Among Men, pp 13-30, Simon and Schuster, in cooperation with the Smithsonian Institution, Washington, D.C.

(1977 a)   The Process of Education, Harvard University Press, Cambridge, Mass.

(1977 b)   'Learning and thinking', In Wittrock, M.C. (ed) Learning and Instruction, pp 558-562, McCutchan Publishing Corporation, Berkeley, California.

(1985)   'Models of the learner', Educational Researcher, 14(6), pp 5-8.

Buren, A. (1973)   'Function of an exhibition', Studies International, December, p 216.

Burgard, R. (1983)   'Cultural cooperation, the new frontier', Museum News, 61(6), pp 20-29, American Association of Museums, Washington, D.C.

Burton, R.V. (1968)   'Socialization: Psychological aspects', In Sills, O.L. International Encyclopaedia

of Social Studies, 14, pp 534-545, The Macmillan Company and Free Press, London.

Butler, M.V. (1968)   'What are we teaching?', Museum News, 46(7), pp 33-35, American Association of Museums, Washington, D.C.

Bystryn, M. (1978)   'Art galleries as gatekeepers: The case of abstract expressionists', Social Research, 45(2), pp 390-408. Butterworths, The Museums Association, London.

Cachia, F. (1984)   'Communication and the museum: An interview with Dr. Hangerd Hellenkemper', Museum, 36(1), pp 8-13, Unesco, Paris.

(1987),   'The museum as a medium of cross-cultural communication', Museum, 39(1), pp 8-14, Unesco, Paris.

Cameron, D.E. (1968)   'Viewpoint: The museum as a communications system and implications for museum education', Curator, 11(1), pp 33-40, Museum of Natural History, New York.

(1982)   'Museum and public access: The Glenbow approach', The International Journal of Museum Management and Curatorship, pp 177-196, Butterworth, London.

Cannon-Brookes, P. (1980)'Recent trend in foundation museums', Museums Journal, 80(2), pp 78-80, The Museums Association, London.

(1984)'The nature of museums collections', Thompson, J.M.A. et al (eds) Manual of Curatorships pp 115-126, Butterworths, The Museums Association, London.

Carter, P.G. (1984)   'Educational services", Thompson, J.M.A. et al (eds) Manual of Curatorship pp 435-447, Butterworths, The Museums Association, London.

Caston, E. (1979)   'An interdisciplinary approach to education', Museum News, 57(4), pp 50-53,

American Association of Museums, Washington, D.C.

Caygill, M. (1981)   The Story of the British Museum, British Museum Publications, London.

(1985)   Treasures of the British Museum, The British Museum Publications, London.

Chadwick, A.F. (1980)   The Interpreters Handbook: The Role of the Museum and Art Gallery in Communicating Education, University of Nottingham.

Chambers, M. (1984)   'Is anyone out there? Audience and communication', Museum News, pp 47-54, American Association of Museums, Washington,

Chase, R.A. (1975)   'Learning environments',. Museum News, 54(1), pp 37-43, American Association of Museums, Washington, D.C.

Chastel, A. (1966)   The Studies and Styles of the Renaissance, Thames and Hudson, London.

Chatelain, J. (Ed) (1968)   Report: Seminar on Training of Curators and Technicians for Museums, Unesco, Paris.

Clark, K. (1964)   Archaeology and Society, University Paperbacks, Methuen, London.

Clark, K. (1979)   What is a Masterpiece, Thames and Hudson, London.

Clarke, T. (1988)   Working with Museums, HMSO for the Scottish Museums Council.

Cline, V.B., Croft, R.G. and Courrier, S. (1977)   'Desensitization of children to television violence', In Wittrock, M.C. Learning and Instruction, pp 390-399, McCutchan Publishing Corporation, Berkeley, California.

Coen, L.H. and
Wright, A.G. (1975)   'The interpretive function in museum work',
                      Curator, 18(4), pp 281-286, Museum of
                      Natural History, New York.

Cole, K.C. (1978)   Vision: In the Eye of the Beholders,
                      Exploratorium, San Francisco, California.

Collins, Z.W. (1981) Museum Adults and the Humanities: A Guide
                      for Educational Programming American
                      Association of Museums, Washington, D.C.

Compton, S. (1988)   Henry Moore, Catalogue, Royal Academy of
                      Art with Wiedenfeld and Nicholson, London.

Coomans, H.E. (1985) 'Chronology before Linnaeus', In Impey, O.
                      and MacGregor, A. The Origins of Museums,
                      pp 183-192, Clarendon Press, Oxford.

Connolly, J.J. (1985) The Quest for Effective Practice in Art
                      Museum Education, MA thesis, Institute of
                      Education, University of London., London.

Cosin, B.R. (1971)   'Teaching and learning as a construction
                      of reality', In Cosin, B.R. et al (eds)
                      School and Society, pp 1-2, Routledge and
                      Kegan Paul, Open University, London.

Cossons, N. (1981)   'Museum collections: Use or abuse',
                      Supplement to the Museums Journal, 81(3),
                      pp 5-7, The Museums Association, London.

           (1983)   'The new museum movement in the United
                      Kingdom', Museum, 35(2), pp 83-91, Unesco,
                      Paris.

           (1985)   'Making museums market oriented', In
                      Museums Are For People, pp 41-46, HMSO for
                      the Scottish Museum Council, Edinburgh.

Cotteril, R. (1982)   'New Age Travellers', in Binns (ed) 22, pp
                      40-42

           (1988)   'Education for new traveller', Traveller
                      Education, 1988, No. 23, p 21.

Coulter, S. (1987)   'Cables of communication', _Journal of Education in Museums_, 8, pp 2-4, Gem, London.

Cousins, M. (1986)   'Violence and the media', _The Media Education Journal_, 164, pp. 38-42, Ames, Edinburgh, Scotland.

Crusenier, Jean (1984)   'Exhibiting meaningfully the semantics of display in agricultural museums', _Museum_, 36(1), pp 130-137, Unesco, Paris.

Cruttenden, M. (1978)   'Methods of interpretation in the Bradford Art Galleries', _Museums Journal_, 74(4), p 104, The Museums Association, London.

Cummings, M. (1988),   'On learning to look and the function of museums', _Museum Studies Journal_, 3(2), pp 15-18, The Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Curtis, J.E. and
Petras, J.W. (1970)   _The Sociology of Knowledge_, Gerald Duckworth and Praeger Publishers, London.

D'Arcy, H. (1961)   'Art in the life of man', _Courier_, pp 5-24, Unesco, Paris.

Davies, M. (1989)   'Circular arguments', _Museums Journal_, 89(3), pp 25-27, The Museums Association, London.

Davis, D. (1984)   'Interpreting natural history at the Arizona Museum Sonora Desert Museum', _Museum_, 36(4), pp 213-217, Unesco, Paris.

Davis, K.L. and
Gibb, J.G. (1988)   'Unpuzzling the past: Critical thinking in history museums', _Museum Studies Journal_, 3(2), pp 41-45, The Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Deetz, J. (1980)   'A sense of another world: History museums and cultural change', _Museum News_,

May-June, pp 40-45, American Association of Museums, Washington, D.C.

(1981)   'The link from object to person to concept', in Collins, Z.W. (ed), <u>Museums Adults and the Humanities</u>, pp 24-34, American Association of Museums, Washington, D.C.

Deneke, B. (1987),   'The history of interdisciplinarity in museums of the history of civilization and prospects for future', <u>Education</u>, 11, pp 33-35, Icom, Paris.

Densley, M. (1981)   'Museums and the Media: Friend or foe?', <u>Museum Journal</u>, 80(4), p 218, The Museums Association, London.

Dewey, J. (1900)   <u>The School and Society</u>, University of Chicago Press.

(1934)   <u>Art as Experience</u>, Minton Balch and Company, O.P. Putman, New York.

(1938)   <u>Experience and Education</u>, Collier Books, London.

De Thier, J. (1982)   <u>Des Architecture de Terre: L'avenir D'une Tradition Millenaire</u>, Centre Georges Pompidou, Paris.

Digby, P.W. (1974)   <u>Visitors to three London Museums</u>, HMSO, London.

DiMaggio, P.J. (1985)   'When the "Profit" is quality:Cultural institution in the marketplace', <u>Museum News</u>, 63(5), pp 28-35, American Association of Museums, Washington, D.C.

Divall, P. (1989)   'Museum education - a new era?', <u>Museums Journal</u>, 89(2), pp 21-22, The Museums Association, London.

Di Vesta, F. (1974)   <u>Language, Learning and Cognitive Proceses</u>, Cole, Monterey, California.

Doron, N.
and Chen, M. (1977)   'Who needs school's diplôma? The future of
                         school in the Israeli society', Symposium,
                         pp 24-27, Zahal Publications, Israel, (in
                         Hebrew).

Douglas, M. (1979)   Cultural Bias, Royal Anthropological
                         Institute of Great Britain and Ireland,
                         Occasional Paper No. 35, pp 1-54.

Drak, A.M. (1985)   'Our museum is itself a theatre', Museum,
                         147, pp 163-169, Unesco, Paris.

Dreier, F.A. (1985)   'The Kunstkammer of the Hessian Landgrqaves
                         in Kassel', In Impey, O. and MacGregor, A.
                         The Origins of Museums, pp 102-109,

Drew, A. (1981)   'The government and museums', Supplement
                         to the Journal of Museums, 81(3), pp 3-5,
                         The Museums Association, London.

Duckman, L. (1986),   'Invisible aesthetics: a somewhat humorous,
                         slightly profound interview with Frank
                         Oppenheimer', Museum, 150, pp 120-122,
                         Unesco, Paris.

Dulcos, J.C. (1980)   'The Camargue Museum Mas du Pont de Rousty,
                         Arle, France', Museum, 22(1/2), pp 22-33,
                         Unesco, Paris.

Durkheim, E. (1971 a)   'Pedagogy and Sociology', In Cosin, B.R.
                         et al (eds), School and Society, pp 91-96,
                         Routledge and Kegan Paul, The Open
                         University, London.

         (1971 b)   'Elementary forms of religious life', In
                         Cosins, B.R. et al (eds. School and
                         Society, pp 206-211, Routledge and Kegan
                         Paul, The Open University, London.
                         Clarendon, Oxford.

Eggleston, C. (1970/71) Editorial, 'The process of curriculum
                         change', Paedagogica Europoea VI, pp 11-20,
                         Georg Westerman, Verlag, Braunschweig.

Eisenstadt, S.N.(ed)

(1970)   The Social Structure of Israel, Akademon,
                                Jerusalem (in Hebrew).

Eisner, E.W. (1971)   Confronting Curriculum Reform, Little Brown
                                and Company, Boston.

        (1972)   Educating   Artistic   Vision,   Macmillan
                                Publishing, New York.

        (1975)   'Instructional and expressive objectives',
                                In Golby, M., Greenwald, J. et al (eds)
                                Curriculum Design, pp 351-354, Croom Helm,
                                London.

        (1982)   'Representing what you know: The role of
                                the arts in cognition and curriculum', In
                                Insea Articles, pp 21-33, Ministry of
                                Education and Culture, Jerusalem.

        (1984)   The   Educational   Imagination,   Macmillan
                                Publishing Company, New York.

and Dobbs, S.M.
(1986)   'The mission of museum education', Museum
                                Studies Journal, 2(3), pp 10-15, Center for
                                Museum Studies, John F. Kennedy University,
                                Orinda, California.

        (1987)   'The role of discipline-based art education
                                in America's schools: The art and the
                                mission of education, Art Education, 40(5),
                                pp 6-27.
        (1988)   'News and ideas from the North American
                                Region: The idea of aesthetic education',
                                INSEA News, No. 1, pp 4-6.

Elliot, R. (1988)   'Archaeology Romans', Museum and the
                                Curriculum, p 3, Area Museums Service for
                                South Eastern England, London.

Erikson, H. (1950)   Childhood and Society, Penguin Books.

        (1959)   'Identity   and   the   Life   Cycle',
                                Psychological Issues, 1(1), International
                                Universities Press, New York.

(1963)   *Childhood and Society*, Penguin Books, Harmondsworth   Verlag, Braunschweig.

Eron, L.D.,Haesmann, L.R.
Lefkowitz, M.M. and
Walder, (1977)   'Does television violence cause aggression?', In Wittrock, M.C. *Learning and Instruction*, pp 370-399, McCutchan Publishing   Corporation,   Berkeley, California.

Fairley, J. (1977)   *Teaching History through Museums*, Longman Group Limited, London.

Fanell, G. (1986)   *The American Museum Experience: In Search of Excellence*, HMSO for the Scottish Museums, Edinburgh.

Fassnidge, J. (1987)   'History', In GSCE and Museum, *Museum Journal*, 87(1), pp 7-11, The Museums Association, London.

Feber, S. (1987)   'New approaches to science in the museum or out with the museum, In Ambrose, T. (ed) *Education in Museums, Museums in Education*, pp 85-93, HMSO for the Scottish Museums Council, Edinburgh.

Fertig, B.C. (1982)   Historians artifacts learners, *Museum News*, 60(6), pp 57-61, American Association of Museums, Washington, D.C.

Field, D. (1970)   *Change in Art Education*, Routledge and Kegan Paul, London.

Field, D. (1974)   *Social Psychology for Sociologists*, Nelson.

Fines, J. (1984)   'Imagination in teaching - reflection on my fortnight's work', In Nichols, S.K. et al (eds) *Museum Education Anthology, 1973-1983*, pp 54-56, American Association of Museums, Washington, D.C.

Finlay, I. (1977)   *Priceless Heritage*, Faber and Faber, London.

Fiske, J. (1982)   Introduction to Communication Studies, Methuen, New York.

Flavell, J.H. (1963)   The developmental psychology of Jean Piaget, Van Nostrand, Princeton, N.J.

Flew, A. (1979)   A Dictionary of Philosophy, Pan Books in association with the Macmillan Press.

Floss, P. (1982)   'The problems of Comenius Comenius' Sensualism', In Kyralova, M. and Privraiska, J. (eds) Symposium Comenianum, pp 103-105, Uhersky, Brod.

Floyd, C. (1980)   'Education at old economy', History News, (3), pp 12-14.

Fortin, R.A. (1981)   'The challenge of a humanities' approach', In Collins, Z.W. Museum Adults and the Humanities, pp 16-24, American Association of Museums, Washington, D.C.

Foster, R. (1981)   'Standards of performance - the larger provincial museums and galleries', Supplement to the Journal of Museums, 81(3), pp 7-9, The Museums Association, London.

Fradier, G. (1978)   'The George Pompidou National Centre for Art and Culture Paris', Museum, 30(2), pp 77-87, Unesco, Paris.

Francis, F. (1971)   Treasures of the British Museum, Thames and Hudson, London.

Fried, Y. (1984)   Jean Piaget: Psychology and Method, Ministry of Defence, Israel (in Hebrew).

Furlong, (1976)   Interaction sets in the classroom:Toward a study of pupil knowledge', In Hammersley, M. and Woods, A. (eds), The Process of Learning, pp 160-169, Routledge and Kegan Paul, Open University, London.

Fry, H. (1987)   'Worksheets as museum learning', <u>Museums Journal</u>, 86(4), pp 219-225, The Museums Association, London.

Gabus, J. (1968)   'The role of museums in the community', In Chatelain, J. <u>Seminar on the training of curators and technicians for museums</u>, Algier,pp 6-15. Unesco, Paris.

Gage, J. (1980)   <u>Goethe on Art</u>, Scholar Press, London.

Gagne, R.M. (1965)   <u>The Conditions of Learning</u>, Holt, Rinehart and Winston, London. and New York.

Ganzenbrrom, H. and
Haanstra, F. (1989)   <u>Museums and Public</u>, Ministry of Welfare, Health and Culture, Rijsnijk, Holland.

Gardner, H. (1983)   <u>Frames of Mind</u>, Paladin, London.

Gauthier, M. (1962)   <u>The Louvre Sculptures, Ceranmics, Objects d'Art</u>, Old Bourne Press, London.

Geer (1971)   'Teaching', In Cosin, B.R. et al (eds) <u>School and Society</u>, pp 3-8, Routledge and kegan Paul, Open University, London.

GREGORY, R.L. (1966)   <u>Eye and Brain</u>: The Psychology of Seeing, Wiedenfeld and Nicholson.

Getzels, J.W. (1977)   'Images of the classroom and vision of the learner', In Glidewell, J.C. (ed) <u>The Social Context of Learning and Development</u>, pp 7-18, Gardner Press, New York.

Gilman, B. (1978)   <u>The Museum as an Instrument of Cultural Innovation</u>, Council of Europe, Strasburg.

Gilman, B.J. (1984)   'The museum docent', In Nichols, S.K. <u>Museum Education Anthology, 1973-1983</u>, pp 148-161, American Association of Museums, Washington, D.C.

Gilman, J.M. and
McConnell, A. (1977)   'Models as Media', Museums Journal, 77(2),
                         pp 71-73, The Museums Association, London.

Gilmour, P. (1979)   'How can museums be effective in society?',
                         Museums Journal, 79(3), pp 120-121, The
                         Museums Association, London.

Glaser, R. (1977)   'Individuals and learning: The new
                         aptitudes', In Wittrock, M.C. (ed), Learning
                         and Instruction, pp 309-326, McCutchan
                         Publishing, Berkeley.

Glazer, J. R. (1986a)   'USA Museums in Context' in

        (1986 b)   'The Smithsonian Kellog Project' in The
                         American Museum Experience, pp 85-92,
                         Scottish Museums Council, HMSO, Edinburgh.

        (1987)   'On site workshops from office of museum
                         programmes Smithsonian Institution, IT, pp
                         19-23, ICOM International Committee on the
                         training of personnel (ICOTP).

Gleitman, H. (1983)   Basic Psychology, University of
                         Pennsylvania, W.W. Norton, New York.

Glidewell, J.C.
(ed) (1977)   'On the analysis of learning in a social
                         context', In Glidewell, J.C. (ed), The
                         Social Context of Learning and
                         Development, pp 1-5, Gardner Press, New
                         York.

Godard, A. (1965)   The Art of Iran, Frederick A. Praeger, New
                         York.

Goddard, C. (1989)   'Museum education - a new era', Museums
                         Journal, 89(2), pp 21-22, The Museums
                         Association, London.

Goldenberg, J. (1987)   'Opening eyes and minds', Museum, 39(1),
                         pp 40-44, Unesco, Paris.

Gombrich, E.H. (1959)   Art and Illusion: A study in the psychology
                         of pictorial representation, Phaidon Press,
                         Oxford.

(1979)   Ideas and Idols: Essays on values in history and in art, Phaidon Press, Oxford.

(1982)   The Image and the Eye: Further Studies in the psychology of pictorial representation. Phaidon, Oxford.

(1984)   Tributes: Interpretors of our cultural tradition: Focus on the Arts and Humanities, Phaidon.

Gordon, A.D. (1951)   The Man and the Nature, The Zionist Library, Jerusalem, (in Hebrew).

Gortzak, J. (1981)   The museum, children and the third world', Museum, 33(1), pp 51-56, Unesco, Paris.

Gozlen, G. (1988)   'So just what is a relevant study', The Sunday Times, Section E, Appointments, 11.12.1988, p 1.

Graburn, N. (1984)   'The museum and the visitor experience', In Nichols, S.K. (ed), Museum Education Anthology 1973-1983, pp 177-182, American Association of Museums, Washington, D.C.

(1985)   'The nature of museum experience', in Bloom, J.M. et al (eds), Museums for a New Century, p 49, American Association of Museums, Washington, D.C.

Graiber, M. (1984)   'Cooperation within museum walls: The team approach to exhibition development', Museum Studies Journal, pp 20-22, Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Green, B. (1985)   'Our recent past: The black hole in museum collections', Museums Journal, 85(1), pp 39-45, The Museums Association, London.

Greene, J.P. (1989)   'A cause for professional concern', Museum Journal, 89(1), pp 26-27, The Museums Association, London.

Greenaway, F. (1965)   'Museums in a scientific culture', Museums
                           Journal, 65(2), pp 136-142, The Museums
                           Association, London.

Griggs, S.A. and
Hays-Jackson, K. (1983)   'Visitors'   perceptions   of   cultural
                           institutions', Museums Journal, 83(2/3),
                           pp 121-125, The Museums Association London.

Griggs, S.A. and
Manning, J. (1983)   'Predictive validity of formative', Museum
                           Studies Journal 1(2), pp. 31-41, Center for
                           Museum Studies, John F. Kennedy University,
                           Orinda, California.

Gundestrup, B. (1985)   'From the royal kunstkammer to the modern
                           museums of Copenhagen', In Impey, O. and
                           MacGregor, A.   Origins of Museums, pp
                           128-133, Clarendon, Oxford.

Gurevitch, M.
et al (eds) (1982)   Culture, Society and the Media, Methuen,
                           London and New York.

Hackmann, W.D. (1987)   Scientific Amusement Arcade, Association
                           for the Advancement of Science at Oxford.

Hagaman, S. (1988)   'Philosophical aesthetics in the art class:
                           A   look   toward   implementation', Art
                           Education, 41(3), pp 18-22.

Hale, J. (1968)   'Museum and the teaching of history',
                           Museum, 21(1), pp 67-72, Unesco, Paris.

Hammad, M. (1987)   'Semiotic reading of a museum', Museum,
                           39(2), pp 56-60, Unesco, Paris.

Hansen, H. (1984)   'The museum as educator', Museum, 36(4),
                           pp 176-183, Unesco, Paris.

Harrison, M. (1956)   Museums in Education, Education Abstracts,
                           VIII(2), Unesco, Paris.

          (1967)   Changing Museums, Longmans, Green, London.

(1970)   <u>Learning Out of School</u>, Ward Lock
                        Educational, Frome, London.

(1973)   <u>Museums and Galleries</u>, Routledge and Paul
                        kegan, London.

Harvey, B. (1987)   <u>Visiting the National Portrait Gallery</u>,
                        HMSO, London.

Haslam, J. (1986)   'Why integrate?', In Holly, D., <u>Humanism
                        in Adversary</u>, pp 9-21, The Falmer Press,
                        East Sussex.

Haskell, F. (1976)   <u>Rediscoveries in Art</u>: Some Aspects of
                        Taste, Fashion and Collecting in England
                        and France, Phaidon Press, London.

Heady, P. (1984)   <u>Visiting Museums</u>, HMSO, London.

Heath, A. (1985)   'Training teachers to use historic
                        buildings for education purposes', <u>Journal
                        of Education in Museums</u>, 6, pp 24-27, GEM,
                        London.

Hegarty, S. (1982)   'Integration and the 'comprehensive'
                        school', <u>Educational Review</u>, 34(2), pp
                        99-105.

Hein, G.E. (1982)   'Evaluation of museum programs and
                        exhibits', <u>Museum and Education</u>, pp 21-36,
                        Danish Icom-Ceca, Copenhagen.

Hein, H. (1987)   'The museum as teacher of theory: A case
                        history of the exploratorium vision
                        section', <u>Museum Studies Journal</u>, 2(4), pp
                        30-39, Center for Museum Studies, John F.
                        Kennedy University, Orinda, Ca.

Heine, A. (1979)   'Making glad the heart of children', <u>Museum
                        News</u>, 58(2), pp 23-25.

Heinemann-Gurian, E.
(1982)   'Museums relationship to education', <u>Museum
                        Education</u>, pp 17-26, Danish ICOM-CECA,
                        Copenhagen, Denmark.

Herbert, M. (1982)   'Concept-building through objects', <u>Journal of Education</u>, 7(4), pp 24-25.

Herrmann, F. (1972)   <u>The English Collectors</u>, Chatto and Windus, London.

Hodge, B. and
Tripp, D. (1986)   <u>Children and Television</u>, Polity Press.

Hodge, R. and
D'Souza, W. (1979)   'The museum as a communicator', <u>Museum</u>, 37(4), pp 251-267, Unesco, Paris.

Holly, D. (ed) (1974)   <u>Education and Domination</u>: A critical look at educational problems today, Arrow Books, London.

      (1986)   'General introduction on humanistic learning', In Holly, D. <u>Humanism in Adversary</u>, pp 1-8, The Falmer Press, East Sussex.

Holt, J. (1983)   <u>How Children Learn</u>, Penguin Books, London.

Hooper-Greenhill, E.
(1983)   'Some basic principles and issues relating to museum education', <u>Museums Journal</u>, 83(1/2), pp 127-130, The Museums Association, London.

      (1985)   'Museum training at the University of Leicester', <u>Journal of Education in Museums</u>, No. 6, pp 1-6, GEM, London.

      (1986)   'Looking at museums with Michel Faucoult', A paper prepared for the <u>Symposium Making Exhibitions of Ourselves</u> : The Limits of Objectivity in Representations of Other Cultures, The British Museum.

      (1987 a)   'New opportunity for museum education', <u>Museum Bulletin</u>, 26(8), pp 161-162.

      (1987 b)   'Museums in education: Towards the end of the century'. In Ambrose, T. (ed) <u>Education</u>

in Museums: Museums in Education, pp 39-52, Scottish Museums Council, Edinburgh.

(1987c)   'The art of memory and learning in the museum', Paper, Gem Day Course, 'The Challenge of GSCE', 13.3.1987.

(1988 a)   'Counting visitors or visitors who counts', In Lumley, R. (ed) The Museum Time Machine, pp 213-232, Routledge, London. and New York.

(1988 b)   'Current research in museum studies in Britain and future research needs' conference What is Museology, University of UEMA, pp 1-22

(1988 c)   'A future for museums', Museums Journal, 88(4), p 175. The Museums associations, London.

(1988 d)   'Museum education', Manual of Curatorship, pp 2-86, Department of Museum Studies, Leicester.

(ed)(1989 a)   'Preface in initiatives in Museum education', Department of Museum Studies, Leicester.

(1989 b)   History of Museum Education Services, Chronology, Museum Education Department, Leicester University. Department of Museum Studies, Leicester.

Horne, D. (1984)   The Great Museum, The representation of history, Pluto Press, London.

(1986)   The Public Culture: The triumph of industrialism, Pluto Press, London.

Horowitz, D. and
Lissak, M. (1977)   The Origins of the Israeli Policy, Am Oved, Tel Aviv, (in Hebrew).

House, G.A. (1987)   Public Services: Report to the Trustee Committee on Public Services, British

Museum Education Service, pp 2-5, British Museum Publications.

Housen, A. (1987)   'Three methods of understanding museum audiences', Museum Studies Journal, 2(4), pp   Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Hubert, F. (1985)   'Ecomuseum in France: Contradictions and distortions', Museum, 37(4), pp 186-190, Unesco, Paris.

Hudson, K. (1975)   Social History of Museums What is the visitor taught, Macmillan Press, Great Britain.

            (1977)   Museums for the 1980s A Survey of World Trends, Unesco, Paris, Macmillan, London.

            (1980)   The Shell Guide to Country Museums, Heinemann, London.

            (1985)   'Museums and their customers', Museums Are For People, pp 7-16, Scottish Museums Council, Edinburgh.

            (1987 a)   Museums of Influence, University of Cambridge, Cambridge.

            (1987 b)   Museums of Influence, Museums Bulletin, 27(1), pp 10-11.

            (1987 c)   'Building for art', Art Monthly, May, pp 2-3.

Illich, I. (1971)   Deschooling Society, Penguin Books, London.

Impey, O. and
MacGregor, A. (1985)   'Introduction' in Impey, O., MacGregor, A., Origins of Museums, pp 1-4, Clarendon, Oxford.

Iram, Y. (1980)   'Higher education in transition: The case of Israel - a comprehensive study', <u>Higher Education</u>, 9, pp 81-95.

(1983)   'Vision and fulfillment: The evolution of the Hebrew University, 1901-1950', <u>History of Higher Education Annual</u>, 3, pp 123-143.

(1987)   'Quality and control in higher education in Israel', <u>European Journal of Education, Research, Development and Politics</u>, 22(2), pp 145-159.

Itten, J. (1970)   The elements of color: A treatise based on The Art of Color, ed by Birren, F., Birren, E. and Van Hagen, T.E. Van Nostrand, Reinhold and Company.

Ivanov, N. (1989)   'The tasks of Soviet museums in preserving the cultural heritage', <u>Museums and the future of our heritage</u> Emergency Call, Proceedings of the 14th Gedneral Assembly at the ICOM, pp 34-41, Buenos Aires.

Ivanovna, A. (1978)   'Vladimir and Suzdal, Museum Cities', <u>Museum</u> 30(2), pp 116-121, Unesco, Paris.

Izhar, S. (1982)   <u>About Education and Education of Values</u>, Am Oved, Tel Aviv, (in Hebrew).

Jackson, P.W. (1977)   'The ways teachers think', In Glidewell, J.C. (ed), <u>The Social Context of Learning and Development</u>, pp 19-50, Gardner Press, New York.

Jaffe, E. (1975)   'Working in groups', In Ormeian, H. (ed), <u>Emmanuel Jaffe In Circles of Education</u>, pp 149-154, The Government Publishing House, Jerusalem.

James, W. (1976)   'The phenomena attention', In Norman, D.A., <u>Memory and Attention</u>, pp 7-11, John Wiley and Sons, New York.

Jeffrey, I. (1974)   'Integrating art into society', In Holly, D. (ed), Education or Domination, pp 126-147, Arrow Books, London.

Jelinek, J. (1975)   'The modern living museum', Museum, 27(2), pp 52-58, Unesco, Paris.

Johnstone, C. (1980)   'Art museums in communications age: A summary', Museums Journal, 80(2), pp 72-78, The Museum Association, London.

Johnstone, Ch. (1980)   'Art museums in the communications' age: A summary', Museums Journal 80(2), pp 72-77, The Museums Assoc

Johnstone, D. (1987)   Essential Sculpture: An Exhibition, The Barbican Centre, London.

(1988)   Multi-sensory sculpture exhibitions', Museums Bulletin, 28(7), p 1, London.

Jones, M.F., and Madeley, R.A. (1983) 'Using objects to learn: Visual awareness and language development in the classroom', pp 1-12, Rom, Toronto.

Jones, S. (1985)   The Eighteenth Century: Cambridge Introduction to the History of Art, Cambridge University Press, Cambridge.

Jukes, J.A. (1988)   Imaginative Play Effects of Television, Toys and Gender, MA in child development, Institute of Education, University of London. London.

Kaplan, S. and Kaplan, R. (1982)   Cognition and Environment, Praeger, USA.

Kay, B. (1980)   'Class size? Wrong question', Trends in Education, 80(2), pp 39-45.

Kelly, P.J. (1970/71)   'The process of curriculum innovation', Paedagogica Europaea V1, pp 37-49, Georg Westermann Verlag, Braunschweig.

(1978)   'The diffusion of innovations in science education', Bat Sheba Seminar, pp 19-24, Rehovot.

(1986)   Knowledge and Curriculum Planning, Harper and Row, London.

Kennel, V. (1988)   Testing of the Efficiency of Presenting a Guidance and Explanatory Label in Science Museums, Msc Dissertation, Science Department, Hebrew University, Jerusalem, (in Hebrew).

Kenney, A.P. (1984)   'Compel them to come', In Nichols, S.K. (ed) , Museum Education Anthology, 1973-1983, pp 78-82, Washington, D.C.

Khokhlov, V.V.   'Community museums in USSR', Museum, 145, pp 47-49, Unesco, Paris.

Kiddle, C. (1988)   'A letter', Traveller Education, No. 23, p 22.

King, B. (1987)   'Being a traveller', Traveller Education, No. 22, pp 1-7.

Konare, A.O. (1985)   'Ecomuseum for the Sahel: A programme', Museum, 37(4), pp 230-236, Unesco, Paris.

(1986)   ''Oral traditions and museums', Icom News, 30(2) pp 5-8, Icom News, Paris.

Kopeczi, B. (1989)   'Cooperation for the future', Museums as Generators of Culture, XV General Conference of ICOM, The Hauge, ICOM, Paris.

Koran, J.J. Jr. and Koron, M.L. (1984)   'The roles of attention and curiosity in museum learning', In Nichols, S.K. (ed), Museum Education Anthology 1973-1983, pp 205-213, American Association of Museums, Washington.

Knez, E.I. (1970),   'The museum as a communication system: An assessment of Cameron's viewpoint',

Curator, 13(3), pp 204-212, Museum of Natural History, New York.

Kubler, G. (1963)   The Shape of Time: Remark on the History of Things, Yale University Press, New Haven,

Kurzweil, Z.A. (1964)   'Educational value in the natural sciences curriculum', Hachinuch, pp 74-86, Histadrut Hamorim Haivrim, Tel Aviv, (in Hebrew).

Kvarning, L.A. (1984)   'The Wasa museum and museum exhibit', Museum, 142, pp 75-80, Unesco, Paris.

Lam, Z. (1963)   'Equality and uniformity in education', pp 175-176, Molad, Tel Aviv, (in Hebrew).

    (ed)(1983)   New Trends in Education, Yachdav United Publishers, Tel Aviv, (in Hebrew).

Laming, A. (1959)   Lascaux: Paintings and Engravings, Penguin Books, Middlesex.

Lander-Horwitz, E.
    (1976)   A Child's Garden of Sculpture, Washingtonian Books, Washington.

Lassalle, H. (1987)   'Beaubourg: The old and the new', Museum, 39(2), pp 61-67, Unesco, Paris.

Laurencich-Minelli, L.
    (1985)   'Museography and ethnographical collection in Bologna during the sixteenth and seventeenth centuries', In Impey, O. and MacGregor, A., Origins of Museums, pp 17-23, Clarendon, Oxford.

Lavy, Z. (1984)   Challenges in Education, Sifriat Poalim, Tel Aviv, (in Hebrew).

Leclair, L. (1988)   'Museums and Television', ICOM News, 41(4), p 6.

Lehmbruck, M. (1974) 'Sociology: Social context and place of action", Museum, 26(3/4), pp 157-178, Unesco, Paris.

Levin, M.D. (1983) The Modern Museum, Dvir Publishing House, Jerusalem, Tel Aviv.

Lewis, G.D. (1981) 'Some thoughts on professional development: Presidential address', Proceedings, Museums Association Annual Conference Supplement, London 81(3), pp 1-5.

(1984 a) 'Collections, collectors and museum: A brief world survey', in Thompson, J.M.A. Manual of Curatorship, pp 7-22, Butterworths, The Museums Association, London.

(1984 b) 'Collections, collectors and museum in Britain to 1920', in Thompson, J.M.A., Manual of Curatorship, pp 23-37, Butterworths, The Museums Association, London.

(1984 c) 'Museums in Britain: 1920 to the present day' in Thompson, J.M.A. Manual of Curatorship, pp 38-45, Butterworths, The Museums Association, London.

(1984 d) 'The training of museum personal in the United Kingdom', pp 65-70, in Thompson, J.M.A. Manual of Curatorship, Butterworths, The Museums Association, London.

(1985) Foreward, Public View, p 6, Icom, Paris.

Lewis, N.B. (1980) 'The museum as educational facility', Museums Journal, 80(3), pp 151-155, The Museums Association, London.

Liegle, L. (1983) 'Basic problems and future perspectives of cross-cultural socialization: Theory and research', In Lam, Z. (ed) New Trends in Education, pp 119-151, Yachdav, Tel Aviv, (in Hebrew).

Ligtvoet, J. (1988) 'The education and cultural developments of migrants', The International Conference on International Curriculum, ERIC, July 1988, pp 291, 629.

Linton, R. (1947) The Cultural Background of Personality, Kegan Paul.

Lissak, M. (1970), 'Images of society and social layers in the Israeli society: Pattern of changes in ideology and social structure', In Eisenstadt, S.N. et al (eds) The Social Structure of Israel, pp 179-190, Akademon, Jerusalem, (in Hebrew).

Lissak, M. (1977) The Origins of the Israeli Policy, Am Oved, Tel Aviv (in Hebrew).

Locke, S. (1984) 'Relations between educational, curatorial and administrative staff', In Thompson, J.M.A. Manual of Curatorship, pp 482-488, Butterworths, The Museums Association, London.

Lord, B. and
Lord, G. (1988) 'The museum planning process', Museums Journal, 87(4), pp 175-179, The Museums Association, London.

Lowenfeld, V. and
Brittain, W.L. (1964) Creative and Mental Growth, The Macmillan Co., New York.

Lumley, R. (1988) The Museum Time Machine , Routledge, London and New York.

Luria, A.R. and
Yudovich, F.I.A. (1968) Speech and the Development of Mental Processes in the Child, Staples Press, London.

MacDonald, G.E. (1987) 'The future of museums in the Global Village', Museum, 39(3), pp 209-216, Unesco, Paris.

MacDonald, G. and

Cardinal, D.J. (1986)   'Building Canada's National Museum of Man: An Interprofession of dialogue', Museum, No. 149, pp 9-15, Unesco, Paris.

MacGregor, A. (1985)   'The cabinet of curiosities in seventeenth-century Britain', in Impey, D. and MacGregor, A. The Origins of Museums, pp 147-158, Clarendon, Oxford.

Majewski, J. (1984)   'An afterward 1984', in Nichols, S.K. (ed) Museum Education Anthology, 1973-1983, p 82, American Association of Museums, Washington, D.C.

Makagiansar, M. (1984)   'Museums for today and tomorrow: A cultural and education mission', Museum, 36(1), pp 3-7, Unesco, Paris.

Malraux, A. (1965)   Museum without Walls, Martin Becker and Warburg, London.

Marcouse, R. (1961)   The Listening Eye: Teaching in an Art Museum, HMSO, London.

(1967)   'Personal Response', Museums Journal, 67 (3), pp 239-242, The Museums Association, London.

(1968)   'Educational services and training of museums educators' In Chatelain, J. Seminar on the Training of Curators and Technicians for Museums, Algiers, pp 16-20, Unesco, Paris.

Mason, R.M. (1987)   Multi-cultural education and art and design, Associateship Report, Institute of Education, University of London.

Matsubara, M. (1985)   'The National Museum of Ethnology Osaka', Museum, 145, pp 38-40, Unesco, Paris.

Mayrand, P. (1985)   'The new museology proclaimed', Museum, 37(2), pp 200-202, Unesco, Paris.

M'Bow, A.M. (1982)   Editorial, Museum, 34(1), p 71, Unesco, Paris.

McLeod, M.
and Mack, J. (1985)   Ethnic   Sculpture,   British   Museum
                          Publications, London.

Middleton, V.T. (1985)   'Visitor expectations of museums', in
                          Museums are for People, pp 15-25, The
                          Scottish Museums Council, Edinburgh.

Miles, M. (1978)   'Reclaiming the new technology', Museum
                          Monthly, No. 105, pp 34-35.

Miles, R.S.
(compiled by) (1982)   The Design of Educational Exhibits, George
                          Allen and Unwin, London.

          (1987)   'A museum is not a building', Museums
                          Bulletin, August, p 85.

Millar, S. (1987)   'New opportunities for museums with the new
                          curriculum', Journal of Education in
                          Museums, 8, pp 23-26, GEM, London.

Millas, J.G. (1973)   'Museums and lifelong education', Museum,
                          35(3), pp 157-164, Unesco, Paris.

Miller, E. (1973)   That Noble Cabinet: A History of the
                          British Museum,

Miller, E. and
Weitz, C.A. (1979)   Introduction to Anthropology, Prentice Hall
                          Inc., Englewood Cliffs, New Jersey.

Miller, G. (1985)   'Communications', in Kuper, A. and Kuper,
                          J. (eds) The Social Science Encyclopedia,
                          pp 132-133, Routledge & Kegan Paul, London.
                          Andre Deutch, London.

Miller, J. (1971)   McLuhan, Fontana, Collins, Great Britain.

Mills, C.W. (1963)   'The cultural apparatus', in Horowitz, J.L.
                          (ed) Power, Politics and People, pp
                          405-422, Oxford University Press, U.P.

Moffat, H. (1985) 'A joint enterprise', *Journal of Education in Museums*, 6, pp 20-23, GEM, London.

(1988 a) 'Museums and schools', *Museums Bulletin*, 28(5), pp 97-98, The Museums Association, London.

(1988 b) Forward, *Museums and the Curriculum*, p 2, Area Museums Service for South Eastern England, London.

(1989) 'Museums and the Education Reform Act', *Museums Journal*, 89(2), pp 23-24, The Museums Association, London.

Moniot, F. (1973) 'The ecomuseum of Marqueze, Sabre', *Museum*, 25(1/2), pp 79-84, Unesco, Paris.

Moore, H. (1981) *Henry Moore at the British Museum*, British Museum Publication. 89(2), pp 23-24, The Museum Association, London.

Morris, B. (1988) 'The National Museums and Galleries of the United Kingdom', The Museums and Galleries Commission, HMSO, London.

Morrish, I. (1967) *Disciplines of Education*, George Allen and Unwin, London.

Morrison, J.G.M. (1985) *The role of emotion in education*, MA dissertation, Institute of Education, University of London, London.

Muller-Lancet, A. (1974) *Ethnic Image*, Exhibition of an immigrant group's culture in Israel: Problems and effects, Israel Museum, Jerusalem. (in Hebrew).

Musgrave, P.W. (1970/71) 'Towards a sociology of the curriculum', *Paedagogica Europaea*, VI, pp 37-49, Georg Westerman Verlag, Braunschweig.

Nabais, A. (1985) 'The development of ecomuseums in Portugal', *Museum*, 37(4), pp 211-216, Unesco, Paris.

Neighbour, C.R. (1986)   Integrated humanities: Philosophy, practice and possibilities, MA dissertation, The Institute of Education, University of London.

Neverov, O. (1985)   'His Majesty's Cabinet', in Impey, O. and Macgregor, A., Origins of Museums, pp 54-61, Clarendon, Oxford.

Newson, B.Y. (1977)   'The art museum and the school', American Education 13(10), pp 12-16.

Newson, B.Y. and Silver,
A.Z. (eds) (1978)   The Art Museum as Educator, University of California Press, Berkeley.

Nicholls, A. and
Nicholls, S.H. (1972)   Developing Curriculum, George Allen and Unwin, London.

Nichols, S.K. (ed)
    (1984)   Museum Education Anthology 1973-1983, American Association of Museums, Washington, D.C.

Nichols, T. (1870)   Handy Book of the British Museum for Everyday Readers, Cassell, Potter and Galpin, New York.

Nichols-Lehman, S.
    (ed) (1981)   'Needs assessed and addressed' in Museum School Partnership, Plan and Programs Sourcebook, 4, pp 53-54, American Association of Museums, Washington, D.C.

Niv, Y. (1955)   'With the new curriculum for the first to the fourth grades', in Hachinuch, pp 16-17, Histadrut Hamorim Haivrim, Tel Aviv (in Hebrew).

Norman, D.A. (1969)   Memory and Attention, John Wiley and Sons, New York.

Nye, R.B. (1984)   'The humanities and the museum: Definitions and connections', in Collins, Z., Museums Adults and the Humanities, pp

5-13, American Association of Museums, Washington, D.C.

O'Connell, P. (1984)   'May the force be with you', in Nichols, S.K. et al (eds), Museum Education Anthology 1973-1983, pp 96-100, American Association of Museums, Washington, D.C.

Oehser, P.H. (ed) (1966)   Knowledge Among Men, Simon and Schuster, New York.

Olofson, U.K. (1982)   'Preface', Danish-ICOM/CECA, p 3, Copenhagen, Denmark.

Olson, D.R. (1978)   'On a theory of instruction - why different forms of instruction result in similar knowledge', in Salomon, G. (ed), Communication Media and Education, pp 23-46, School of Education, Hebrew University, Jerusalem, (in Hebrew).

Oppenheimer, D. (1976)   'Growing up in the arts' The National Elementary Principal, 56(1), pp 15-19.

(1977)   'The arts: A decent respect for taste', The National Elementary Principal, 57(1), pp 73-77.

(1981)   Article, Untitled, pp 1-8.

(1983)   'Museums for the love of learning', Museum Studies Journal, 1(1), pp 16-18.

Ormeian, H. (ed) (1979)   Emanuel Jaffe: In Circles of Education, The Government Publishing House, Jerusalem.

Ott, R.W. (1987)   'Object-oriented education and visual literacy: Approaches to art criticism', Lecture, XXVI INSEA World Congress, Hamburg, International Society for Education Through Art.

Ottaway, A.K.C. (1962)   Education and Society, Routledge and Kegan Paul, London.

Otto, J. (1979)

'Learning about "Neat Stuff", one approach of evaluation', Museum News, 52(2), pp 38-45, American Association of Museums, Washington, D.C.

Paine, S. (1985)

'The art museum as classroom in the training of art and design teachers', Journal of Education in Museums, 6, pp 15-19, GEM, London.

Panofsky, E. (1955)

Meanings in the Visual Arts, Penguin Books, U.K.

Paterson, J. (1989)

'Museum education and liaison with local authorities, in Hooper-Greenhill, E.(ED), Initiatives in Museum Education, pp 5-7, Department of Museum Studies, Leicester.

Pearce, S.M. (1986 a)

'Thinking about things', Museum Journal, 86 (1), pp 198-201, The Museum Association, London.

(1986 b)

'Objects high and low', Museums Journal, 86 (2) pp 79-82.

(1986 c)

'Objects as signs and symbols', Museums Journal, 86 (3), pp 131-135.

(1987)

'Objects in structures', Museums Journal, 86 (4), pp 178-181.

Pearson, A. (1983)

Please Touch, The Trustees of the British Museum, 1983.

Peters, R.S. (1972)

Education and Compassion, Routledge and Kegan Paul, London.

Perot, J. (1988)

'Museums and television', ICOM News, 41(4), p 5.

Piaget, J. (1955)

The Language and Thought of the Child, New American Library.

(1970)   <u>Main Trends in Psychology</u>, George Allen &
                          Unwin, London.

Piaget, J. and
Inhelder, B. (1969)   <u>The Psychology of the Child</u>, Routledge and
                          Kegan Paul, London.

Pillsbury, E.P. (1978)   'The Yale Center for British Art', <u>Museum</u>,
                          30(2), pp 88-93, Unesco, Paris.

Pitman-Gelles, B. (1981) <u>Youth Education in Museums, Museums Magic
                          and   Children</u>,   Association   of
                          Science-Technology Centers, Washington,
                          D.C.

Pitt-Rivers, J. (1980)   'Reflection on the concept of museums and
                          interdisciplinarity', <u>Museum</u>, 32(1/2), pp
                          4-7, Unesco, Paris.

Plato (1951)   Simon, A. Translator, Magnes Publication,
                          The Hebrew University, Jerusalem (in
                          Hebrew).

Porter, J. (1983)   'A   rejoinder   to   the   museum   as
                          communicator', <u>Museum</u>, 35(2), p 82, Unesco,
                          Paris.

Pott, P.H. (1963)   'The role of museums of history and
                          folklore in a changing world', <u>Curator</u>,
                          6(2), pp 157-170, Natural History Museum,
                          New York.

Prince, D.R. and
Schadla-Hall, R.T. (1988) 'The image of the museum: A case study of
                          Kingston upon Hull', <u>Museums Journal</u>,
                          85(4), pp 39-45, The Museums Association,
                          London.

Ran-Polani, I (1930)   'The New Education in Israel: Problems',
                          <u>Yesodot</u>, 11-12, Warsaw, (in Hebrew).

Rathjens, C. (1957)   <u>The Jewish Domestic Architecture Sana</u>, The
                          Israel Oriental Society, Jerusalem.

Read, H. (1958)   Education Through Art, Faber and Faber, London.

(1958)   The Meaning of Art, Pelican Books, Harmondsworth, Middlesex.

Reeve, J. (1981)   'Education in glass case museums', Journal of Education in Museums, 2, pp 1-6, GEM, London.

(1987)   'Multi-cultural work at the British Museum', Journal of Education in Museums, 7, pp 27-32, GEM, London.

(1988)   The British Museum and the State', in Stephens, M. (ed), Culture, Education and the State, pp 65-93, Routledge and Kegan Paul, London.

Reshef, S. (1976)   The Labour Movement School System in the Pre-State School, 1921-39, Hakibbutz Hameuchad, Tel Aviv, (in Hebrew).

(1985)   A New Education in Israel, Sifriat Poalim, Tel Aviv, (in Hebrew).

Richardson, J.A. (1971) Modern Art and Scientific Thought, University of Illinois Press, USA.

Richter, G. (1982)   Art and Human Consciousness, Anthroposophic Press, (Translated by Channer, B. and Frohlich, H), Spring Valley, New York, Floris Books, Edinburgh.

Ripley, S.D. (1966)   'Introduction', in P.H. Oehser, (ed), Knowledge Among Men, pp 7-12, Simon and Schuster, in cooperation with the Smithsonian Institution, Washington, D.C.

Rivard, R. (1985)   'Ecomuseums in Quebec', Museum, 37(4), pp 202-205, Unesco, Paris.

Riviere, G.H. (1961) 'Introduction', Museum, 14(4), pp 183-185, Unesco, Paris.

(1973)   'Role of museums of art and of human studies', <u>Museum</u>, 25(1/2) pp 26-44, Unesco, Paris.

(1977 *a*)   'Foreward', in Hudson, K. <u>Museums for the 1980s</u>, A Survey of World Trends, Unesco, Paris.

(1977 *b*)   Editorial, <u>Museum</u>, 29 (2/3), pp 58, Unesco, Paris.

(1980 *a*)   'Concerning the creation of a museum in a historic site, <u>Museum</u>, 32(3), pp 104-106, Unesco, Paris.

(1980 *b*)   Editorial,   'Museums   and interdisciplinarity', <u>Museum</u>, 32(12), p 2, Unesco, Paris.

(1985)   'The ecomuseum - an evolutive definition', <u>Museum</u>, 37(4), pp 182-183, Unesco, Paris.

(1987)   'Preface', in Hudson, K. <u>Museums of Influence</u>, pp vii-viii, Cambridge University Press, Cambridge.

Robson, C. (1986)   'Patriarchy, ethnocentrism and integration', in Holly, D. , <u>Humanism in Adversary</u>, pp 83-93, The Falmer Press, East Sussex.

Rogers, E.M. (1983)   <u>Diffusion of Innovations</u>, Free Press, New York.

Rogers, R. (1987)   'Off the wall, out of the cases', <u>Arts Express</u>, pp 16-17.

Rosenfeld, Sh. B. (1980) <u>Informal Learning in Zoos: Naturalistic Studies of Family Groups</u>, Dissertation in Science/Mathematic Education, University of California, Berkeley.

(1985)   'Please 'hands-on' The revolution in science museums', <u>The Chemical Link</u>, 8(3), pp 20-27.

Sahasrabundhe, P. (1968) 'The object, the child and the museum', Museum, 21(1), pp 51-59, Unesco, Paris.

Satin, J. (1969) The Humanities Handbook, Part One, Holt, Rinehart and Winston, New York.

Schachtel, W.E. (1959) Metamorphosis, Basic Books, New York, Da Capo Press, New York.

Schapiro, M. (1953) 'Style' in Kroeber, L.A. Anthropology Today, pp 287-312, University of Chicago, Chicago.

Schlereth, Th. J. (1984a) 'Contemporary collecting for future recollecting', Museum Studies Journal, 1(3), pp 23-39, The Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

(1984b) 'Object knowledge: every visitor an interpreter', in Nichols, S.K. (ed), Museum Education Anthology: 1978-1983, American Association of Museums, Washington, D.C.

Scheffler, I. (1986) Conditions of Knowledge, The Magnes Press, The Hebrew University, Jerusalem (in Hebrew).

Schouten, F. (1987) 'Museum education - a continuing challenge', Museum, 39(4), pp 240-243, Unesco, Paris.

Screven, C.G. (1974) The Measurement and Facilitation of Learning in the Museum Environment: An experimental analysis, Smithsonian Institution.

Sebolt, A.P. (1981) 'Museums and learning', in Lehman, S.N. and Igoe, K. (eds), Museum School Partnership: Plans and Programs Sourcebook, No. 4, pp 13-16, American Association of Museums, Washington, D.C.

Sebolt, George, A.(1984) 'Identifying client needs', in Nichols, S.K. (ed), Museum Education Anthology,

_1973-1983_, pp 77-78, American Association of Museums, Washington, D.C.

Sekules, V. (1984)   'A small child could he do it? The University of East Anglia collection of abstract art and design', _Museums Journal_, 84(3), pp 124-128, The Museum Association, London.

Sellinger, M. (1970)   'Fundamental and operative ideology: The two principal dimensions of political arguments', _Political Sciences_, 1(1).

Seymour, P.H.K. (1979)   _Human Visual Cognition_: A study in experimental cognitive psychology, Collier Macmillan, London.

Shakhar, B. (1974)   _A Working and Learning Society_, Am Oved Tarbut Vechinuch, Tel Aviv, (in Hebrew).

Shmueli, E. (1964)   'Problems in the field of social intergration in education', _Molad_, 22, pp 195-196, Jerusalem, (in Hebrew).

Siliprandi, K. (1987)   'Playgrounds and museums', _Journal of Education in Museums_, no. 8, pp 13-14, GEM, London.

Sills, D.L. (ed) (1968)   'Socialization', in _International Encyclopedia of the Social Sciences_, vol. 14, pp 534-562, The Macmillan Company and the Free Press, USA.

Simon, E.A. (1964)   'The place of values in the curriculum', in editorial, Educational problems, pp 67-73, _Education_, The Military Academy, Jerusalem.

Simon, J. (1987)   'Vigotsky and Vygotskians', _American Journal of Education_, 95(4), pp 609-613.

Simpson, M.G. (1987)   'Multi-cultural education and the role of the museum', _Journal of Education in Museums_, 7, pp 1-5, The Museums Association, London.

435

Simpson, R.S. (1987)   Effective Audio-Visual: A Users Handbook, Butterworths, Kent, U.K.

Singleton, R. (1981)   'A multitude of museums', Museums Journal, 81(2), pp 111-113, The Museums Association, London.

Skinner, B.F. (1988)   Beyond Freedom and Dignity, Penguin Books, London.

Smith, I.M. (1985)   'The museum as a cultural centre', Museums Are For People, pp 85-87, HMSO for the Scottish Museum Council, Edinburgh.

Sola, T. (1987)   'The concept and nature of museology', Museum, 39(1), pp 45-49, Unesco, Paris.

Sorrell, D. (1985)   'Groups for education in museums presentation', Museums Journal, 85(3), pp 158-161, The Museum Association, London.

          (1987)   'Craft design and technology', Museums Journal, 87(1), p 20, The Museum Association, London.

Spruit, R. (1982)   'Ethnic minorities in a museum', Danish ICOM/CECA, pp 65-68, Copenhagen, Denmark.

Stenhouse, L. (1970/71) 'Some limitations on the use of objects in curriculum research and planning', Paedagogica Europaea, 6, pp 73-83, Georg Westerman Verlag, Braunschweg.

Stillman, D. et al (1983)A Focus for the interdisciplinary curriculum;', Museum News, 61(6), pp 48-51, American Association of Museums, Washington, D.C.

Stokstad, M. and
Humphrey, PH.S. (1982a) 'The Humanist in the museum', in Stokstad, M. et al (eds) Museums, Humanities and the Educated Eye, pp 5-17, The University of Kansas, Lawrence, Kansas.

(1982 b) Museums, Humanities and the Educated Eye, (eds), The University of Kansas, Lawrence, Kansas.

Strong, R. (1983)   'The museum as communicator', Museum, 35(2), pp 75-81, Unesco, Paris.

Sturk, H. (1987)   'Networks: Community and museums', Education, 11, Icom-Ceca, Paris Conference.

Sturyup, B.G. (1982)   'Realization of concepts and goals', Danish - ICOM/CECA, pp 11-16, Copenhagen, Denmark.

Sultov, B. (1985)   'A site museum near Pavliken Bulgaria', Museum, 37(3), pp 136-139, Unesco, Paris.

Susi, F.D. (1988)   'Developing academic games and simulations for art education', Art Education, 41(1), pp 18-24, National Art Association, Reston, Virginia.

Swidler, A. (1979)   Organization Without Authority: Dilemmas of Social Control in Free Schools, Harvard University Press, Cambridge, Mass.

Synge, A. (1988)   'History: Romans', Museums and the Curriculum, p 9, Area Museums Service for South Eastern England, London.

Szekely, G. (1988)   'Planning for the sharing of experiences and observations', Art Education, 41(3), pp 6-13, National Art Association, Reston, Virginia.

Taborsky, E. (1982)   'The Sociostructural role of the museum', The International Journal of Museum Management and Curatorship, 1(4), pp 339-345.

(1983)   'The Syntax and the Museum' Recherches Semiotiques/ Semiotic Inquity, 3(4), pp 363-374, Toronto.

Taylor, J. (1984)   'Primary education and local museums in Cumbria', Museums Journal, 84(3), pp 129-134, The Museums Association, London.

Thompson, G. (1978)   The Museum Environment, Butterworths, London.

Thompson, J. (1972)   'A Bradford project in community involvement', Museums Journal, 71(4), pp 161-163, The Museums Association, London.

Thompson, J.M.A., et al (1984)   Manual of Curatorship: A Guide to Museum Practice, Butterworths, the Museums Association, London.

Thompson, S. (1948)   'Education at the Glasgow Art Gallery and Museum', paper read at the Annual Conference of Museums Association, Cardiff, 15th July, pp 1-4.

Tibble, J.W. (ed) (1966) The Study of Education, Routledge and Kegan Paul, London.

Tonev, L. (1978)   'The Rila Museum', Museum, 30(2), pp 109-115, Unesco, Paris.

Torrance, H. (1986)   'GCSE and control of the secondary curriculum', Curriculum, 7(2), pp 78-83.

Tylor, B.E. (1958)   The Origins of Culture, Harper Torch Books, New York.

Tyrrell, B. (1988)   'The leisure paradox: The pleasure of leisure or the monotony of free time', Museums Journal, 87(4), pp 207-208, The Museums Association, London.

Vanden Bosche, J.O.J. (1987)   'The museum in a new perspective, Museum, 39 (3), pp 137-161.

Van Meel Jansen, A.

438

(1987)   'Understanding the message in visual art',
                          Lecture,   XXVI   Insea   World   Congress,
                          Hamburg.

Van-Mensch, P. (1988)   'Museology and museums', ICOM News, 41 (3),
                          pp 5-10, ICOM, Paris.

Van Wengen, G. (1982)   'Educational   programmes   in   museums',
                          Museums and Education, pp 27-30, Danish
                          ICOM-CECA, Copenhagen, Denmark.

Varine-Boham,H. de(1973) 'A 'fragmented' museums: The museum of man
                          and   industry: Le   Creusot   Montceau   -
                          les-mines', Museum, 25(4), pp 242-249,
                          Unesco, Paris.

            (1976) 'The   modern   museum: Requirements   and
                          problems of a new approach', Museum, 28(3),
                          pp 131-143, Unesco, Paris.

            (1985) 'The world and beyond', Museum, 37(4), p
                          185.

Vestergaard, P. (1984)   'Educational   activities   with   an
                          interdisciplinary approach', an unpublished
                          article.

Vukelich, R. (1984)   'Time language for interpreting history
                          collection to children', Museum Studies
                          Journal, pp 43-50, Center for Museum
                          Studies, John F. Kennedy University,
                          Orinda, Ca.

Vygotsky, L.S. (1962)   Thought and Language, The MIT Press,
                          Cambridge, Mass.

Wadsworth, B.J. (1979)   Piaget's Theory of Cognitive Development,
                          Longman, New York.

Wakin, E. (1983)   'Barry Howard: Museum Maestro', American
                          Way, January, pp 53-551983.

Waller, B. (1985)   'Summary of responses for art museum
                          directors and educators interviewed for'
                          The Uncertain Profession: Observation on

the State of Museum Education in 20 American Art Museums, J. Paul Getty Museum, Los-Angeles.

Warhust, A. (1984)   'University Museums' in Thompson, J.M.A. et al (eds), Manual of Curatorship, pp 76-83, Butterworths, The Museum Association, London.

Warston, M. et al (1980) 'Children and family groups in science centers', in Science and Children, National Science Teachers Association.

Warwick, D. (1987)   The Modular Curriculum, Basil Blackwell, Oxford.

Wepman, J.M. (1977)   'The modality concept: Including a statement of perceptual and conceptual levels of learning', in Glidewell, J.C. The Social Context of Learning and Development, Gardner Press, New York.

West, J. (1985)   'The evidence in hand', Journal of Education in Museums, 6, pp 41-44, GEM, London.

Whiting, J.W.M. (1968)   'Anthropological aspects', in Sills, A.L., International Encyclopedia of the Social Studies, pp 545-551, The Macmillan Company and the Free Press, USA.

Whyte, L.L. (1968)   'The union of aesthetics and science', Museum, 21(1), 1968, pp 8-15, Unesco, Paris.

Whitting, P.D. (1966)   Coins in the Classroom, Historical Association.

Wieland, T.P. (1984)   'Museum education: monologue or dialogue', in Nichols, S.K. (ed), Museum Education Anthology, 1973-1983, pp 39-43, American Association of Museums, Washington, D.C.

Wilkinson, G. (1978)   'Specialist session on education services, Museums Journal, 74(1), p 186, The Museums Association, London.

William, P.B. (1987)   'Education excellence in art museums: An agenda for reform', <u>Museum Studies Journal</u>, pp 20-28, Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Williams, R. (1981)   <u>Culture</u>, Fontana Paperbacks, Great Britain.

Williams, W.E. (ed)
(1971)   <u>Selection of Wordsworth Poems</u>, Penguin Books, Great Britain.

Wilson, D.S. (1985)   Introduction in Caygrill, M. <u>Treasures of the British Museum</u>, p 1, British Museum
AND CAYGILL, M   Publications, London.

Winstanely, B.R. (1967)   <u>Children and Museums</u>, Basil Blackwell, Oxford.

          (1980)   'Museum Education 1948-1963', <u>Journal of Education in Museums</u>, No. 1, pp 6-9, GEM, London.

Wistrich, R.S. (1982)   <u>Socialism and the Jews</u>, Associated University Press, London.

Wittlin, A.S. (1970)   <u>Museums in Search of a Usable Future</u>, MIT Press, Cambridge, Mass.

          (1971)   'The hazards of communication by exhibits', <u>Curator</u>, 14(2), pp 138-150, Museum of Natural History, New York.

Wittkower, R. (1977)   <u>Allegory and the Migration of Symbols</u>, Thames and Hudson, Great Britain.

Wittrock, M.C. (ed)
(1977)   <u>Learning and Instruction</u>, McCutchan Publishing Corporation, California, Berkeley.

Wollins, I.S. (1983)   'Educating in the museum with television', <u>Museum Studies Journal</u>, 1(2), pp 52-57, Center for Museum Studies, John F. Kennedy University, Orinda, Ca.

Woollacott, J. (1982)   'Message and meanings', in Gurevitch, M. et al (eds) <u>Culture Society and the Media</u>, pp 91-111, Methuen, London and New York.

Wright, D.W. (1983)   'Idealized structures in museums of general technology', <u>Museums Journal</u>, 83(1/2), pp 111-119, The Museums Association, London.

Young, M.F.D. (1971)   'An approach to the study of curricula as socially structured knowledge', in Young, M.F.D. (ed) <u>Knowledge and Control</u>, pp 19-46, Collier-Macmillan, London.

Zak, G. (1981)   <u>In the Light of a Movement</u>, Am Oved, Tarbut VeChinuch, Tel Aviv, (in Hebrew).

Zeller, T. (1985)   'Art museum educators: who are they', <u>Museum News</u>, 63(5), pp 53-59, American Association of Museums, Washington, D.C.

Zemer, A. (1977)   <u>Storage Jars in Ancient Sea Trade</u>, The National Maritime Foundation, Haifa, Israel (in Hebrew).

A B S T R A C T

THE MUSEUM AS A SETTING FOR NEW LEARNING

by

Aviva Barnea

Thesis submitted for the degree of Doctor of Philosophy

at the University of Leicester, Department of Museum Studies

December 1989

This thesis intends to validate the hypothesis that the museum is a setting for new learning. It seeks to place a long experience in education (1957-1989) in a theoretical framework.

Scanning many cultural institutions, that have the ultimate goal of education, the museum was found to be an unexplored source, that is, rich with possibilities to attain this objective: an institution that stimulates new ideas and methods in education. World wide changes have accelerated social processes and the awareness of museums of their responsibilities to society; museums have become accessible to various audiences, including pupils and students.

Part one presents a museum that responded to the socio-cultural needs of a society in transition in Israel, through educational programmes, devised by The Centre of Museum Education in Haifa.

Part two describes the contemporary museum, including the ecomuseum - a kind of a museum that builds its programmes with the community and makes them relevant to them.

Part three presents the theory of learning at the museum, a theory that is underpinned by stances from general education. It combines with the unique provisions of the museum, the collections, and environment.

Part four validates the assumption that the museum is a setting for learning by a case study, based on the Museum Education Centre in Haifa. This Centre has developed programmes relevant to the theme of peoples' culture, which are taught through the humanities approach integrating theory and practice. Such a theme seems particularly appropriate in multi-cultural societies like Israel and England.

The work concludes that the key role of museums, as generators of culture is in developing new programmes and new kinds of museums that point to the future, projects of this kind that involve both museums and other institutions, in the spirit of interdisciplinary and collaborative work for the sake of education and culture through the spreading of knowledge.