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The cultural learning process : diffusion versus evolution.

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THE CULTURAL LEARNING PROCESS: DIFFUSION VERSUS EVOLUTION

A Dissertation Presented

By

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ABSTRACT

The Cultural Learning Process: Diffusion Versus Evolution

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Purpose of the Study

This study attempts to shed light on the problem of cultural learning by examining two cases of cultural transformations: Pre-Columbian Olmec and post-revolution China. It aims to investigate the following questions: How is culture learned, modified, and changed? What (content) is presented? To whom (cultural recipient)? By whom (cultural donor)? What is learned (adapted)? Through what agent (cultural carrier)? By what method (enculturation or acculturation)? What activates the cultural learning process? What is the motivation for cultural transformation.

The first case of this study deals with cultural transformations of the Mesoamerican Indians. The second case is concerned with the impacts of Western cultures on Chinese education in general and on the educational policies of the People's Republic of China in particular.

Methodology

The investigation of Olmec cultural learning was conducted in three phases. The first phase involved on-site survey and recording of motif

data. The second phase was devoted to ordering and integration of materials observed. Data collected was classified and seriated according to 1) similarity of type, style, form and content, 2) degree of simplicity and complexity, and 3) frequency of occurrence. Phase three was dedicated to spatial and temporal synthesis of the two cultures under study: correlation of micro-macro area distributions, cultural horizons and traditions of the Olmec and Shang-Chou Chinese cultures. In structuring the diachronic and synchronic matrix of the Olmec-Chinese correlations, care was taken to avoid resemblances of cultural traits which could be easily attributed to resulting from congruences in human perceptual behaviors and their actualization under similar environmental stimuli. Also avoided were motifs which had been developed primarily as a result of functional and structural constraints. Emphasis, instead, was placed on the correlations of complicated and highly stylized trait-complexes, unique to Olmec and China, with distinctly arbitrary motifs and motif-schematizations in spatial and temporal contexts. In contrast, method employed in the study of Chinese cultural mutation was primarily descriptive in nature, drawn directly from publications in Mainland China.

Findings and Conclusions

Analogous, evolutionary and frequency seriations revealed significant diachronic and synchronic correlations between cultural motifs of the Olmec (900 B.C.-300 B.C.) and Shang (1766 B.C.-1122 B.C.), Chou (1122 B.C.-256 B.C.) Dynasty China. Results from micro and macro area synthesis manifest a related pattern of geographic distribution of cultural traits on the two sides of the Pacific: eastern China and western Mexico

and Guatemala. Diffusion rather than indigenous evolution was the process through which the first culture in the Americas developed. Diffusion is also the process by which both ancient and modern China advances her culture. Three factors are found to be crucial in successful transmission of culture: 1) the presence of superior cultural elements, 2) the existence of need, 3) motivation and momentum for cultural learning.

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CHAPTER I

INTRODUCTION

Against a background of intensifying racial and cultural conflicts, both domestically and internationally, American educators are realizing in recent years, as never before, the need for cross-cultural understanding of human behavior and knowledge, and the processes by which they were, and are being learned. This need becomes even more acute when the heterogeneous and the rapidly changing nature of the American society is considered.

George Spindler, a professor, jointly appointed by the Department of Anthropology and the School of Education at Stanford University and a proponent of education-anthropology cross-fertilization summerized some of these needs in an article titled "Anthropology and Education: An Overview":

> When the educative process is the focus, and particularly in our own society, the anthropological frame of reference is not sufficient by itself. But it is essential. The core of the contribution is in the attention to culture as an influence on behavior, as a perception-mediating set of patterns and in the attention to the variable forms these patterns take. Cultural awareness is one vital aim of each course, but not merely generalized cultural awareness; the aim is to create in the teacher an awareness of how his students' cultures influence what they do, and how to think about, observe, and analyze these influences. Cultural awareness as one goal in professional preparation with which the anthropologist can help is also particularly important for the administrator, since he manipulates the setting in which the teacher interacts with students and parents. He must not only display cultural awareness but must also understand the mechanics of cultural change... Education as a professional field is not only concerned with teacher training, teaching, curriculum design, and administration of schools; it has a research base. Probably no social or behavioral science has a great a backlog of research nor encompasses such a high degree of variability of quality of research...

> There are many areas of potential application of anthropologically based concepts and methods in educational research in our own society to which more attention should be directed...
>
> The anthropoligist need not work within the framework of immediate education interests in his research. He may confine himself to his own cross-cultural field, chasing down questions on educative process in non-Western societies, as John Whiting has done in his Laboratory of Human Development in the graduate school of education at Harvard University. Possibly the most significant contributions of anthropology to education through research channels actually lie here. (Spindler 1973:103-105, 111)

A. Problem

Despite growing interest and awareness. Little research has been conducted on cultural learning in general and cultural learning between China and the rest of the world in particular. Many crucial questions dealing with cultural learning remain unanswered. Following are a few of these questions:

1. How does a particular culture orginate - does it evolve indigenously or is it the result of diffusion?
2. How is culture perpetuated?
3. How is culture learned, modified, and changed?
4. What (content) is presented? To whom (cultural recipient)? By whom (cultural donor)?
5. What is learned (adapted)? Through what agent (cultural carrier)? And by what method (enculturation or acculturation)?
6. What activates the cultural learning process? What is the motivation for cultural contact?
7. How do we apply the lesson from the history of cultural learning to modern education?

B. Purposes and Delimitations

This study attempts to shed light on the enigmatic problem of cultural learning by investigation of two cases of cultural diffusion. Case One of this study aims to explore the problem concerning the origin of pre-Columbian American culture. Specifically, it addresses the following questions:

1. Is Olmec, the earliest known Indian culture, the "Mother Culture of all ancient American civilizations?
2. Did the culture of the Olmec evolve indigenously, or was it the result of cultural diffusion from China?
3. What tangible evidence is there in support of the hypothesis of trans- or circum-Pacific cultural learning?
4. What motivated the East Asian to undertake the formidable voyages?
5. How and through what process were cultural learning achieved?

Since Olmec archaeology and anthropology has not been definitively established until two decades ago, data collected in this study although substantive and representative of a fairly comprehensive cross section of the Olmec culture known thus far, by no means encompass the total configuration of Olmec civilization. Much further explorations and comparative researches need to be conducted before the true nature of Olmec cultural learning can be discovered. It is the purpose of this paper to utilize my unique background: first-hand direct exposure to both cultures under study, to provide an alternative perspective for the problem of cultural learning in ancient America.

Case Two of this study described the impact of Western culture on Chinese education in general and on the educational policy of the People's Republic of China in particular. Largely based on major political movements in mainland China, Case Two of this paper is divided into seven

periods:

1. The Pre-Revolution Period.
2. The Period of Rehabilitation and Consolidation (1949-1953).
3. The Period of "Affirmation of Socialist Educational Policy" (1953-1957).
4. The Period of "Great Educational Revolution and Development" (1958-1960).
5. The Period of Struggle Between the Moderates' and Mao's Educational Thoughts (1961-1965).
6. The Period of Cultural Revolution (1966-1976).
7. The Post-Cultural Revolution Period (1977 to present).

Data contained in Case Two of this study were compiled almost exclusive from publications in mainland China. It is recognized that most of the views and ideologies expressed in these publications are one-sided in most instances, depending on which faction was in power at a given point in time - The "Moderates" or the "Radicals." Despite this, one can derive a reasonably clear picture of significant movements in Chinese education between charges and counter-charges. The purpose of Case Two is to buttress the hypothesis inferred from Case One: that acculturation (diffusion) is the dominant mode of cultural learning which is responsible for the existence of all major advanced cultural centers in the world regardless of time.

C. Methodology and Plan

Case One. Cultural Learning, Chinese-Olmec:

Phase I. Field Survey

On-site collection of motiff data is conducted. Relevent trait-complexes is photographed and recorded. Further collection of data at

major museums and archives all over the world with emphasis on institutions in China and America (North and Central) is carried out.

Phase II. Classification and Integration of Data

1. General data scanning
2. Categorization of individual traits
3. Categorization of trait-complexes
4. Seriation of traits and trait complexes
    a. Analogous seriation: ordering according to similarity of type, style, form, and content
    b. Evolutionary seriation: ordering according to degree of simplicity and complexity
    c. Frequency seriation: ordering according to number of occurences

Phase III. Correlation of Motifs

1. Area synthesis
    a. Micro
    b. Macro
2. Temporal synthesis
    a. Horizon
    b. Tradition
3. Spatial and temporal continuum
4. Conclusion

Case Two. Cultural Learning, West-Chinese:

Method employed in Case Two is basically descriptive in nature. Where possible, first-hand sources published in mainland China are utilized.

D. Sources of Data

Data for Case One are collected from major Olmec sites: La Venta, San Lorenzo, Tres Zapotes, Laguna de los Cerros, Cerro de las Mesas; Olmec related sites: Ocos (La Victoria), Salinas La Blanca Padre Piedra, San Miguel Amuco, Juxtlahuaca, Oxtotitlan, Tonala, Sin Cabezas, Pijijiapan, Izapa, El Jobo, Abaj Takalik, El Porton, El Baul, Monte Alto, Kaminaljuyu, Tazumal. Chinese motif data are collected archives of Chung-yang Yen-Chiu-yuan (Institute of History and Philology, Academia Sinica) and National Palace Museum, Taipei, Taiwan (Republic of China); Archives of the Fogg Art Museum and Harvard-Yenching Institute, Cambridge, Massachusetts; Archive of the Freer Gallery, Smithsonian Institution, Washington D.C.; Archive of the Metropolitan Museum, New York City; Archive of the British Museum and Victoria and Albert Museum, London; Archive of the Museum Cernuchi and Museum Guimet, Paris.

Data for Case Two are mainly from literature published in the People's Republic of China, notably the periodicals: Hung-Chi, Peking Review, and China Reconstructs. An important monograph titled Chiao-yu Ko-mig (Educational Revolution, 1967, Peking) furnished a comprehensive outline of educational movements from 1949 through 1967. The weekly publication of the American Consulate General in Hong Kong, entitled China News Analysis also provides valuable information.

C H A P T E R I I.

EDUCATION AND ANTHROPOLOGY: REVIEW OF LITERATURE

Anthropology, as a discipline was not established until mid-nineteenth century. Some of the founders of anthropology advanced the theory of unilinear evolution, asserting that cultural growth could be understood as a single line of development from the simple to the complex. The tendency of these early cultural evolutionists to draw bits and pieces of desired behavior from all over the world and to twist time sequences to fit predetermined categories was methodologically unsound and, yet, the "stage" theory of progress has left its marks in the socialist pattern of Friedrich Engel's and Karl Marx's philosophical thought.

Anthropological theorists today interested in factors which change culture or hold it constant, look to innovation, invention, and cultural contact to understand the growth of civilization. Some scholars take the stand that the more advanced cultures (labeled "donors") in most cases initiate change. This change, other factors being equal, is easier with forms of behavior than with complete cultural meanings (contents). Cultures tend to remain stable - "a homogenous society faced by no new circumstances sufficiently drastic to disturb its balance transmits its culture generation after generation" (Benedict 1943:723).

The learning process occurs and the learned traits become a part of an individual's behavior "only if it is presented to him and if he in turn learns it... If any cultural mode of life is continued, each society must establish some means for the transmission of its customs, beliefs, and knowledge, i.e., education" (Nicholson 1968:22). Education is not just going to the red brick building on the corner each morning -

behavioral necessities are taught often times by kin members and peers.

As we continue to examine just how culture is transmitted, the interrelationships between the fields of anthropology and education become apparent. Language, as well as other symbolic communication mediums, makes culture possible. Culture can be demonstrated as a learned phenomena in that "Any normal child, regardless of race, can be trained to any other culture if put from the start into the appropriate learning situation" (Nicholson 1968:18). Forms of cultural behavior are usually passed form one person to another, as well as from one tribe or nation to another. Nicholson further states, "No culture presents esoteric mysteries beyond the power of outsiders to comprehend, for what one human being can learn another can learn..." (Nicholson 1968:24).

Let us again keep in mind that anthropology can be stated simply as "the study of ourselves." The anthropologist analyzes how the process of individual learning and transmitting of behavior "shapes and molds the learner, the process of education" (Nicholson 1968:1). Education can thus be related to anthropology as "the process by which 'selves' are shaped" (Nicholson 1968:1). The whole realm of "the study of ourselves" to the anthropologist includes a focus on man, his works, and his cultural behavior. Anthropologists, with their holistic attitude, are concerned with all of man's behavior, but Nicholson sees the cultural anthropologist as associated most closely with the field of education, when education is viewed in its broadest sense as "the transmission of both implicit and explicit cultural behavior to members of a society" (Nicholson 1968:73). This includes "skills, knowledge, attitudes, and values, as well as a specific behavioral patterns" (Spindler 1955:98).

Education of a child is a total process of growth and adaptation. Attention centers on the child himself - "adapting to an environment structured by culture, as well as by group size, climate, terrain, ecology, and the personalities of his parents" (Spindler 1955:98). Spindler believes truly comparative education requires a systematic frame of reference "to guide the collection and interpretation of relevant data cross-culturally" so sensible comparisons can be made. In anthropology, he spies a significant portion of this needed frame of reference (Spindler 1955:99). The anthropologist sees education as a cultural process, and, hence, ritualized lines of specialization do not bound it. He is, ideally, similarly not bound by time and, with his objective view of cultural values, seems like the best candidate for bringing educational objectives in line with the values of the particular system being studied (Spindler 1955:110).

Before going further, let us consider whether the interrelationships discussed above actually have many possible applications for modern man. What is the importance, and hence, justification, for having research time and energy channeled into the anthropological/educational field?

First, not too much previous work has been done in the field - we are not even sure of all the possibilities just waiting to be discovered and implemented. Transmission of culture (regarding the development of intellectual and moral faculties), as mentioned earlier, may, on the one hand, be considered the most important role of education, and yet, is also education's most ignored aspect. Sociologists and psychologists have previously monopolized the educational field with the most input as to modern educational methods. There is just a handful of anthropologists

up to this point who have attempted to actually study the educational process in our society (Spindler 1955:95). However, anthropologists are actually the ones with the unique perspective, as partially explained above; "whereas psychologists have stressed the uniqueness of the 'person', cultural anthropologists have drawn attention to common elements or personality traits the 'person' has in common with other members of the cultural community" (Nicholson 1968:59). Anthropology also, unlike experimental psychology, uses a real-life setting as its laboratory, where the anthropologist avoids influencing the activities he records (Kimball 1974:5). This also makes direct application of research to real life settings more direct and less complicated.

This all gives anthropology, more than any other existing discipline, "an integration of so much that is so important concerning man and his behavior" (Spindler 1955:95). Spindler promotes anthropological possibilities in education by stating, "The study of man thus broadly conceived makes it possible... to conceive of both the relativity and universality of human behavior and propositions about it, to project human affairs upon a time plane that stretches far into the past and future, and turns the focus upon the basic round of life and man's relation to nature" (Spindler 1955:95). We could then, hypothetically, from anthropology even learn some of the "whys?" behind the recorded behavior of our ancestors.

Kimball suggests several areas of common concern between anthropology and education. These include "the regularities of behavior and belief that we call culture; the transmission of culture and learning processes; the ways in which individuals group themselves for the accomplishment of

communal purposes (e.g. cliques);... and the processes by which transformations occur in human behavior" (Kimball 1974:editor's intro.). For a concrete example of application for research, cross-cultural studies have shown that informal or clique systems of grouping to meet the needs of individuals could be an untapped social resource for advancing the goals of an educational enterprise (Kimball 1974:4). Thus, a way to influence a high school's athletic clique to encourage one another to scholastic achievement could have much more effect than a harried English teacher repeating, "Now, class, you must learn how to write effectively for college" in front of the room.

All the six major areas that cover the enterprise of education (training of school personnel, organization and proper functioning of schools, the specification of curriculum and preparation of materials, teaching practices, community/school relationships, and philosophy of education) are potential units for anthropological study. The anthropologist's frame of reference seems that most insightful one (Kimball 1974:32) yet available to us. Futhermore, the teaching-learning process itself suggests four areas of applicable theory, which are slowly becoming the concern of anthropologists - learning theory, Culture theory, theory of organization, and theory of change (Kimball 1974:33).

Anthropology can help shed light on human behavior in the classroom and less formal learning situations just as it has on behavior elsewhere (factories, hospitals, primitive societies, etc.) (Spindler 1955:97). As a teacher in professional education, the anthropologist can aim to creat cultural awareness - more important than self-awareness in the

teacher's sphere of activity (Spindler 1955:111). A teacher with a blending of anthropological and educational thought in his background has insight into the nature of culture which can sensitize him to cultural influences on both his own and his students' behavior (Nicholson 1968:2). This would seem especially important with schools having a potpourri of students from various ethnic backgrounds, such as in Hawaiian schools.

To sum up, the anthropologist's concern with the whole "provides an essential perspective to an understanding of the educational process" (Kimball 1974:5). He makes non-judgmental, comparative observations which keep him from focusing on "superficial irrelevancies of the moment" (Kimball 1974:5). In fact, not only its perspective, but the inductive methodology characteristic of anthropology itself can make additional and unanticipated contributions to the educational field (Kimball 1974:39). To be assured, we have a lot more research-worthy interrelationships between anthropology and education to investigate than simply the planning of memorable third grade units on "Our Friends from Other Lands."

Anthropology has gradually gained, in the recent past, a larger proportion of "converts" with interest in the educational field. I will now trace the progression of thought concerning the integration of these two fields through the perspective of several noteworthy researchers.

One of the earliest promoters of cross-fertilization between education and anthropology is Edgar Hewett. As early as 1904 he declared that:

> Pedagogy must derive a more important mass of its data from the science of man than from any other, particularly from that side which we call culture history. To culture history we must go for the verification of a great body of educational theory; but an examination of a number of much-used text-books on pedagogy, produced in recent years will hardly convince anthropologists that the data of anthropology

> are being correctly stated or correctly applied in pedagogy. (Hewett 1904:574).

He went on to state that:

> It would be a great service to education if the treasures of primitive American arts and industries, archeology, mythology, and folklore were made equally accessible, and by the same profound, critical study made available for the use of students from other fields.

In another article one year later, he summarized his argument as follows:

> 1. Ethnic mind, character, ideals, and motives are developed primarily by definite physiographic conditions of age-long duration. Ethnic traits persist through generations of new influences. This fact is of vital importance to teachers in the management of individual cases.
> 2. The development of a race must be from within. A civilization imposed from without is usually harmful, often destructive, and always undesirable. This fact is the keynote to all that should be attempted by way of educating alien races.
> 3. Normal schools and other institutions for the training of teachers should give a prominent place to anthropological sciences.
> 4. A rational educational policy for the various primitive races now under our care must be based on specific scientific knowledge of racial mind and character. This suggests a wide extension of the functions of the Bureau of American Ethnology and the establishment of ethno-educational experiment stations.
> 5. Our national educational interests have been greatly increased and complicated by the acquisition of new races. The system of distributing these interests among unrelated departments is wasteful and inefficient and calls for the organization of an executive Department of Education (Hewett 1905:16).

Although none of his calls were implemented (resulting from the ethnocentrism of American culture, the conservative nature of American public education, and, particularly, the fact that American anthropologists were too busy tending to "ethnographic and culture history salvage"), George Spindler, a anthropologist-educator, of recent years salutes Hewett by saying "anthropologists have not been able to say much more than what

was said fifty years ago by Hewett... about the general relevance of anthropology to education. "This is primarily because there is not much else to say" (Spindler 1974:107).

Frank Boas, traditionally called "the father of American anthropology," is remembered both for his objective, empirical research in the education field and for the "speculative, normative visions" which he dreamed for United States schools (Nash 1974:5). In his years of research, Boas concerned himself mainly with the areas of intelligence, the relationship between physical and mental growth, and race (Boas 1940, 1941, 1945). He contested the idea that "the form of the human organism... is entirely determined by hereditary causes" with his anthropometric studies of children - his data showed that children short for their age also had an intelligent quotient much below the norm (Boas 1941:339). He saw such empirical data gathering as vital to the educator's understanding that environmental causes primarily form the individuals personality and formal education must, thus, include an adaptive dimension if it is to be successful (Nash 1974:5).

By strictly empirical methods, in General Anthropology, Boas proposed to study culture by investigating the relationships of specific behavioral elements within the total culture of the tribe or society practicing them. This research, as well as research into the geographical distribution of these behavioral elements among neighboring areas, led to the development of a distinctive terminology. Boas suggested independent invention and diffusion "as possible reasons for the appearance of similar traits in different societies (as opposed to the psychic unity concept of the evolutionists)" (Nicholson 1968:9).

In his Anthropology and Modern Life (1928), Boas devoted one of his nine chapters to the interests of anthropology and education. In it he pointed out how anthropology can offer a means of determining normative data for development (so we can know what to expect from children of various ages). This would be of "considerable value" in regulating educational methods (Spindler 1973:107). Boas talked also of the need to take such variables as sex differences, ethnic differences, and differences in environmental conditions into account in teaching situations. He treated some of the problems of cultural transmission and saw conflict in the public schools between democratic ideas of freedom and flexibility, and coercion (Spindler 1973:107). He observed this conflict in such previously - unquestioned behavior as the customary "Pledge of Allegiance" (Boas 1928:185) at the start of each grade schooler's new day. Boas suggested that tradition-based transmission of values and ethnics is particularly strong among intellectuals and that the "masses" respond "more quickly and energentically to the demands of the hour than the educated classes."

The second side of Boas showed itself in fifteen separate essays he wrote concerning education between 1938 and 1943 - these "speculative visions" ranged in subject matter "from intellectual freedom in Nazi Germany to his statements on education as the very foundation of healthy democracy." During this time, Boas began taking a soapbox stand on social issues and he viewed "comparative anthropology" as "an educational aid which could be used in the solution of social problems in the United States" (Nash 1975:6). He spoke out "with passion and eloquence" on issues of the times - a world federation of nations; less emphasis on

tradition; "class" lines being eased; modernization of harsh, unrealistic sexual conventions; student and faculty control of universities; and the elimination of racist and tradition-determined attitudes that teachers carried into their classrooms (Nash 1974:6).

Though later researchers discovered inadequacies as they expanded the work initiated by Boas, (e.g. the erroneous "Age Area") theory by Wissler which proposed that the passage of time would insure the spread of traits from one area to another, his work remains as the foundation for further anthropological/educational study. Boas also contributed indirectly to the field in that several of his students continued researching in his footsteps - namely Edward Sapir, Ruth Benedict, and Margaret Mead.

Edward Sapir's early studies dealt mainly with the field of language, as evidenced by the title of one of his major works - Language (1921). He focused on language as acultural experience and proposed that it was "a major factor in directing the thoughts of the users - that individuals speaking one pattern of symbols had potentials or limitations on their thinking not known to users of other languages" (Nicholson 1968:12). He saw all human behavior as symbolic with shared meanings communicated to group members. Furthermore, Sapir "generalized that the true objective entities were abstracted configurations of idea and action patterns with different experiences in the group formed the meanings" (Nicholson 1968: 12). This interest in the vital relation between culture and the individual set the stage for a new direction of inquiry.

Following up the work of Sapir, Ruth Benedict began the study of three primitive peoples - the Pueblos of New Mexico, Dobu people, and the Indians of the Northwest American Coast (Benedict 1934). Like Sapir,

she treated cultures "as relatively unique and integrated entities," and focused her attention "on symbolic or psychological aspects of the society" - those which would shape social and individual behavior dimensions. Benedict especially noticed the aspects of Pueblo culture where external or extrovertive forms of behavior were emphasized: "ritualistic, conformist, avoiding excesses, and so forth (Nicholson 1968:12). Thus, for the first time, "psychological" terms, which formerly had been applied only to individual descriptions, were used to describe a society.

Benedict concluded her studies of Pueblo culture by stating that "each culture develops a fairly consistent pattern of thought and action, with characteristic purposes and emotional and intellectual configuration which permeate the whole culture. This configuration orients members of the culture to more or less consistent behavior and responses." However, as will be mentioned later, in her article "Continuities and Discontinuities in Cultural Conditioning" (1936), she also conceded that discontinuities in the cultural conditioning and in the life cycle of individuals (e.g. the transition from the role of a son to the physiologically very different role of a father) may contribute to personality maladjustments.

Robert Nash looks at Ruth Benedict's contributions to anthropological/ educational study in a slightly different light. He relates the three categories she saw in American education as: its transmissive role, the transitional role of education, and its transformative role (Nash 1974:6).

Benedict viewed education in the United States as transmissive in the sense that such democratic qualities as initiative, independence, and the concept of justice have been perpetuated through it (Benedict 1943:723).

Based upon her nonliterate culture studies, she came to believe that "education must fit the cooperative arrangements of a child's culture; there must be specific consonance between child training and the kind of character structure which can operate to advantage in the culture" (Nash 1974:6). She viewed each society as using very different methods to meet the problem of bringing up its oncoming generation - "some of these methods are used in tribes of forceful and self-confident individuals and produce adults of this type; some are used in tribes where quarreling, sorcery, and theft, are rampant and produce individuals with great hostility and aggression" (Benedict 1941:122).

Benedict described education as transitional in that it should, by developing a sense of independence and self-understanding, prepare the child for adulthood. She, however, saw this role as more of an ideal than what was actually taking place in American schools. What was actually happening, she believed, was that "both formal and informal education in the United States was reinforcing the rampart discontinuities and conflicts in the culture," for example, by conditioning children to be irresponsible and submissive (Nash 1974:7).

Ruth Benedict saw education as transformative in the sense that it has possibilities for resolving many of the discontinuities engrained in our culture by surveying "some of the major wastages in our civilization and citing ways in which some other cultures have met similar situations" (Benedict 1943:727). She suggested that educators could have a deeper understanding of human behavior if they studied the development of individuals with patterned pressures and expectations from babyhood to adulthood (Nash 1974:7). Sha also advocated extensive cross-cultural

comparison studies by educators to determine "how harmony, integration, and continuity are achieved as children become adults." Lastly, Benedict has a strong concern for the betterment of interracial and intercultural relations in the U.S. (Benedict 1942) and, idealistically, viewed education as transformative because it has the potential to improve the condition of mankind "through the scientific study of race."

Benedict's contributions to the interrelationships between anthropological and educational thought were varied, and yet remain vital in the midst of today's continued research. In fact, she saw the interdependence of educational, political, economic and religious developments itself as one of the major truths anthropologists had begun to "press home" (Benedict 1941:127). She began pointing out to the educator of her day that cultural transmission is a complex process, which "is often complicated by the rapidity of social and cultural change and by discontinuities" (Nash 1974:7). She described the concept of "cultural crises" which result from such discontinuities, (e.g. when the tradition to be transmitted no longer conforms to the practices of everyday life. Similarly, "the concept of discontinuous learning and its secondary effects on personality development" was introduced in 1953 when Benedict discovered early learning was not always directly relevant to what was expected behavior-wise in adulthood (Nicholson 1968:62). She had seen this as "one of the greatest crisis in child life" (Benedict 1941:122). By asking questions about the relationship between cultures and abnormality, her work eventually led to further research aimed at understanding both how mental disease differs from one culture to another and the concept of the "normal personality; she, herself, was concerned

with how "narrow definitions of normal behavior penalize or give preference to certain innate capacities, and of how the widening of cultural definitions might enrich our culture and lighten the load of rejection under which the cultural deviant now labors" (Benedict 1934: Mead's preface). Even later, researchers armed with some of the basic theory she had introduced, began investigating character development - with the distinction then arising between direct and indirect learning processes and between explicit and implicit preparation for any specific cultural membership.

From its first application, the concept of indirect learning has since come to be extremely valuable in the explanation of personality development. For instance, Kardiner states, "There is a limit to the sort of culture content which can be transmitted by direct learning process...; that direct transmission cannot account for the integrative character of the human mind in so far as the emotional relationships of the individual to his environment is concerned" (Nicholson 1968:63). Behavior resulting from indirect learning permeates whatever we do - even actions incorrectly assumed to be instinctive, such as emotions and gestures, oftentimes have a cultural basis. Margaret Mead similarly observed that "... one of the blocks in our ability to transform our present-day culture is our failure to recognize the extent to which different individuals, different occupations, classes and cultures depend on implicit learning from artifacts, on empathetic, imitative and identifactory learning, and on Gestault learning - learning without the intervention of a teacher" (Mead 1964:137).

Margaret Mead's name has almost become synonomous with our modern-day concept of an anthropologist. We marvel at her unwearied spirit as

we follow jaunts which take her first to one tribe and then another, where she is continuously searching for new knowledge about man - about ourselves. However, it is interesting to note that Margaret Mead's research also includes extensive work in the education field - and I will briefly mention some of her contributions here.

Margaret Mead's writings can be summarized in two stages. Her early research, (e.g. the article "the Meaning of Freedom in Education" in 1931), was in response to progressive educators whom she felt, by emphasizing child-centeredness, life-adjustment, and unrestrained freedom in learning, were "paralyzing" initiative and creating maladjusted, neurotic children. She concluded from her South Sea studies that human nature has only limited malleability, and viewed educators as needing to provide acceptable models of behavior in their classrooms. She saw the educational process itself as geared to change - thus creating discontinuities in experience for the child (Spindler 1973:99) and, furthermore, believed if educators encouraged the abandonment of fixed social patterns (as progressive educators were doing), then identity crisis would soon follow (Nash 1974:8).

Mead's later research included "both a critical analysis of education in this country" and a program for the betterment of culture. Her book, The School in American Culture, published in 1951, is a good overview of her thoughts at that time concerning the teacher, both within the school and within society, and how his or her role has been defined and underwritten. Mead also tackled the question, "How are undergraduates going to learn to like learning so they want more?" by arguing against the thinking that university education is terminal (Mead 1966). Her work in adult education "illustrates her understanding that enculturation is a lifelong

process whereby creativity is possible at all points on the learning continuum" (Nash 1974:8).

The latest contributions of Margaret Mead have taken on a psychological tinge - she has been revealing those practices in American education which are responsible for psychological conflict. Previously, she had borrowed, mainly from psychoanalysis, a theory that helped us understand how an individual's personality is formed in a cultural environment (Kimball 1974:33). She has now investigated how modern educational systems are suited to fit the different temperamental types to the culture's basic form and to what extent the educational system has reflected cultural dislocations. Certainly, Margaret Mead has not yet retired from theory making about ourselves. In fact, she has recently distinguished the following three types of enculturation: 1) postfigurative - children learn primarily from their forbears and change is slow; 2) configurative - both children and adults learn from peers; and 3) prefigurative - adults learn from their children (Mead 1970:1). These terms will most probably become the building blocks on which today's anthropologists/educators will begin future research.

In relating Mead and Benedict, Nash states:

> Mead and Benedict have advocated the comparative study of educational systems. Both have grounded their culture-and-personality studies in the belief that if the type of upbringing a child receives determines, in large part, his adult behavior, then only a dynamic conception of child rearing, geared to the realities of social change, will produce the kind of dynamic adults needed to guide the world through its most frenzied moments (Nash 1974:8-9).

Melville J. Herskovits in Man and His Works (1948) dealt at length with the transmissive dimension of enculturation, a term he had borrowed

from E.A. Haggard, a colleague of his. To Herskovits, enculturation included all "the aspects of the learning experience which mark off man from other creatures..." Herskovits' distinctions between education, enculturation, and schooling soon led to broad theoretical discussions of multiple relationships between school and society which seem "terribly distant from the real world of the classroom" (Ianni 1973:29). However, this enculturation process ("conscious and unconscious, formal and informal, cultural conditioning") became the basis for much of his cross-cultural research on education (Nash 1974:9), for Herskovits believed it was, though complex in theory, the key to understanding the relation of the individual to his culture, to resolving the question "of cultural conservatism and cultural change," and to validating the "philosophical function of cultural change," and to validating the "philosophical function of cultural relativism." In his words: "The enculturation of the individual in the early years of his life is the prime mechanism making for cultural stability, while the process, as it is operative on more mature folk, is highly important in inducing change" (Herskovits 1948:40).

Herskovits believed the enculturation process in every known culture demanded a relativistic point of view (Herskovits 1948:199, Nash 1974:9). He saw humans as puppets of their environments with enculterative factors perpetuating, reconditioning, and occasionally renewing the way of life for a people. This concept leads to the idea that an individual is not ultimately responsible for his actions - a "bad" society becomes the culprit. It should be noted also that this relativistic point of view gives no satisfactory explanation for innovation in an isolated culture or why certain norms are almost universal and certain actions breed guilt

world around where guilt "complexes" have not been learned.

Herskovits was extremely versatile as far as his subject matter went. For example, Nicholson states how he examined, among non-literate peoples, how there is oftentimes a limitation of knowledge of the supernatural to adults (Nicholson 1968:91). Herskovits suggests that "The control of the powers of the universe is conceived as essential to the successful solution of their problems. But children, whose physical power is slight, are rarely conceded any great amount of spiritual power. Therefore, not until they become older are they taught the theological concepts and the ritual concepts of their tribe" (Herskovits 1955:190). This sounds little like Jesus' "I assure you, unless you are converted and become as little children, you will certainly not enter the kingdom of heaven" (Matthew 18: 3, NAS).

To conclude, Herskovits' greatest contribution to the convergence of educational and anthropological thought, in Nash's opinion, was "the degree to which he has pointed out that ethnocentrism is implicit incurricula, in the attitudes of teachers toward members of minority groups, and in the widespread but mistaken assumption that other cultures are somehow inferior to our own because of our technological superiority" (Nash 1974: 10). He supplied one of the few "explicit statements of some relationships between education and cultural change in his "Education and Cultural Dynamics" (Spindler 1973:99). He felt that one of the primary tasks of the anthropologist is to convince educators that truth changes - that it's dynamic (Nash 1974:10). He apparently leaves it up to the educators themselves to determine which truths change the slowest so these can be taught right away before becoming outdated.

Robert Redfield was another researcher in the anthropological/ educational field whose research has become far-ranging. Like a true-blooded anthropologist, he often expressed how education in complex societies like our own can start to be understood through consideration of education in fold societies. Redfield reported in his papers "Human Nature and the Study of Society" (1962), what he discovered from field studies around the world - that there are universal elements of education, such as its exploratory, conservational, and creative nature, which can be found in all cultures (Redfield 1962:273). We can learn from folk societies - its single greatest lesson to modern society in Redfield's viewpoint is its consistency and its high regard for the heritage of the culture" (Nash 1974:10). It is important for a child in American culture, Redfield argued, to have a chance to look at his own culture from the vantage point of another so he can consider thoughtfully and objectively his own conduct, and discover that there are ways other than his own which are compatible with human needs and dignity (Redfield 1973:205).

Redfield believed that anthropology as a discipline had great potential in educating, not only students, but teachers as well (Redfield 1973:201). He states that "Children are to be educated so as to find what personal and cultural security they can find in the communities that now exist, and they are also to be educated to make, by effort and understanding, new integrations out of whatever pieces of living the future may bring them" (Redfield 1973:210). However, this can only come about when the teacher's role becomes that of "both a perpetuator of an old integration and a builder of the power to meet disintegration" (Redfield 1973:210).

Redfield's major contribution to United States educational theory was the stress he placed on educators advancing the value of each child's individual worth. He felt one way this could be practically be accomplished was in the exploration of enduring values found in the great literary works (Nash 1974:10).

Clyde Kluckhohn, another industrious researcher, saw the matter of values as the "Prime intellectual issue of the present day" (Kluckhohn 1962:286). He believed the entire strength and cohesiveness of the American people depended upon how clearly and forcefully schools are willing to show Americans and others in the world "what we conceive to be good, what we hold to be right or wrong in private acts, our official duties, and the responsibilities of our nation in its dealing with other nations" - the value assumptions which underlie our behavior (Kluckhohn 1962:286). He advocated an exhaustive examination of universal values with the intention of modifying our own to eliminate self-defeating norms (Nash 1974:11). Along this same line, Kluckhohn raised the thought-provoking question, "Why should we not teach the child the ultimately correct type of behavior from the very outset, or, when this patently impossible, allow him to learn nothing until he becomes capable of learning precisely what will be ultimately expected of him as an adult member of society" (Kluckhohn 1960:183). In the face of all this one naturally will ask: "What are the universal values? Who decides the ultimately correct behavior?"

Accordingly, his major contribution to educational theory, in Nash's words, "was his movement away from the position of value relativism and away from a conception of personality which is behavioristic, to a

recognition that there may be universal values worth examining in the classroom..." (Nash 1974:11).

Kluckhohn saw students, not only as possessing values, but as human beings with integrated personalities. He promoted curricula rooted in the potentialities of the individual's personality, and had other grandiose plans for the educator - to help investigate the nature and causes of human conflict and devise means for its reduction (Nash 1974:11).

Just a quick skim over the titles of some of Ashley Montagu's works - Education and Human Relations (1958), How to Find Happiness and Keep It (1942), The Meaning of Love (1942), etc. - convinces the reader of Montagu's humanistic nature which carries over into his anthropological/educational research and theory. His belief in the general goodness of human nature led him to promote education beyond the traditional boundries of the three R's. To him, the aggressiveness of mankind is a learned trait and therefore can be unlearned by indulging in man's natural propensity for cooperation and brotherhood - an "indisputable socio-biological fact" to which learners of all cultures should be sensitized (Montagu 1958:79).

Jules Henry made contributions to educational theory based, not only on observations in several cultures, but direct fieldwork in U.S. classrooms. He has shown that education in America can only be understood through the broader perspective of the culture as a whole. By making use of communications and psychological theory, Henry focused much of his research on "the implicit and explicit teaching of values" in the American public school system (Nash 1974:12).

Henry was not as optimistic regarding effects and potentialities of the American school system on our total culture as previous researchers

had been. As schools reflect "all the drives, the conflicts, and the discontinuities inherent in the culture as a whole," he illustrated, by the technique of anthropologist-observer how teachers in the classroom consciously and unconsciously foster the spirit of competiveness, fear, and docility, all of which reinforce the key cultural drive in their students (Nash 1974:12-13). He has shown "the subtle and automatic rewards and punishments that teachers mete out to those students who conform to, or violate, their class-oriented sense of proper behavior" (Kimball 1974:27). The schools end up producing individuals who fit their culture's requirements very nicely, but, "in so doing, have made love among people a virtual impossibility" (Nash 1974:13). By studying families with psychotic breakdown and to discover relations between family life and people's behavior in schools and other cultural outline of education, Spindler has pointed out that Henry lacks a consistent underlying theory "that can give coherence and organization to the categories of behavior to be observed and their interpretation" (Spindler 1973:99).

Robert Nash describes George Spindler as "one of the pioneers in systematically stimulating cross-fertilization between anthropological and educational theory" (Nash 1974:13). His own example itself (being jointly appointed as Professor in the Department of Anthropology and in the School of Education) has helped him long advocate closer relationships between the two fields (Ianni 1973:94). Indeed as seen from previous references, his name seems to appear almost anytime the two fields are interrelated.

Spindler has treated the historical involvement of anthropology and

education perhaps more comprehensively than any other researcher (Ianni 1973:94). He defines the term "acculturation" as "those processes that occur as a society (or group of people) with a distinctive culture adapts to changes in the conditions of life brought about by the impact of another population and its culture" (Spindler 1973:99). He sees most of the previous work done on acculturation as lacking "penetrating interpretation (and, hence, application) with most issues left at the descriptive level (Spindler 1973:99). As a result, anthropologists have largely contributed to our knowledge of "how education functions to preserve cultural continuity" instead of focusing on cultural transmission or the problems of cultural change (Spindler 1973:99). He sees that "cultural change as well as stability must be mediated by what is transmitted from parents and teachers to children" (Spindler 1973:99).

He points out how the anthropological interest of social structure has received a relatively large amount of attention in relation to educational problems (Spindler 1973:100). In fact, more is known about how social class and community structure influence the educative class in American towns than in nonliterate societies, the usual "happy hunting ground" of anthropologists (Spindler 1973:100).

As to how research in the anthropological/educational field may be conducted without being strait-jacketed to day to day interests, he has this to say:

> The anthropologist need not work within the framework of immediate education interests in his research. He may confine himself to his own cross-cultural field, chasing down questions on educative process in non-Western societies, as John Whiting has done in his Laboratory of Human Development in the graduate school of education at Harvard University. Possibly the most significant

> contributions of anthropology to education through research channels actually lie here (Spindler 1973:111).

Much of Spindler's educational research can be described as "configurative" or "functionalistic." This means, in Nash's words, that "he has shown how the school is an interrelated, functionally interdependent, self-reinforcing system, with both teachers and students profoundly influenced by life experiences outside the classroom." Similar to Jules Henry, he viewed the educational process as a "basic reflector of the value conflicts" which rage in the culture surrounding the school - and saw a teacher's role as transmitter of the culture. Through this research, he examined 1) how the transmission of values in the classroom can destroy worthwhile teacher goals, 2) how American cultural values are personified in the role of the school administrator, and 3) how conflicting values of a teacher "influence his perception of student behavior" (Nash 1974:13). In Spindler's research, "the teacher so stereotyped class behavior that he was unaware of the differences between his rating of students and their actual performances" (Spindler 1959, Kimball 1974:27). Spindler has also examined educational processes among the Menomini Indians, (Spindler 1963) as well as that of other cultures with his wife, Louise (G. and L. Spindler 1965). His recent research has included the study of minority groups and disadvantages imposed upon them by American schools, a study of cultural transmission and "instrumental adaptation" in a German school, and a cultural sensitization program created to enrich the overseas experience of students (Spindler 1974).

Throughout his research Spindler has stressed the need of teachers to become aware of 1) how cultural institutions are functionally

interdependent, 2) the conflicting values "built into" the American culture, and 3) the overall influence culture has in influencing human behavior. He believes that the teacher, by working with the professional anthropologists, can see these goals accomplished and begin to see his own (and his students') value orientation (Spindler 1959).

Maria Montessori's influence, though her work was in the early 1900's still remains. She saw in Pedagogical Anthropology (1913) the need for understanding the "organic" relation "of the whole child to the environment," tried to destroy the picture of a child as "diminutive adult" by emphasizing developmental processes, developed a concept of "regional ethnology" and local conditions study, called for respect "for individual differences in growth and function," wanted the "scientific pedagogy" to concern itself with normal individuals for the most part, and developed a "biographical chart" that took the report card's place (which included "antecedents" such as careers of parents, their morality and attitudes, etc. plus reports of physical and psychological examinations of the child). Though Montessori's cultural anthropology has since been condemned as having certain racist errors and "her physical anthropology is now outmoded," her major assumptions "have been integrated into the framework of modern education through the progressive school" (Spindler 1973:105-106).

Boas had implied the connections between the "parts" and "whole" of a culture, but it took two anthropologists, B. Malinowski and A. R. Radcliffe-Brown, to clarify their interrelationship. They both published monographs analyzing cultural behavior by using the functional approach. Malinowski, with his work among the Trobriand Islanders, maintained that any behavioral unit was a response made to satisfy the individual's "needs." Thus, all men

had basic drives and the "need to satisfy these drives led to primary, derived and integrated responses which were culturally modified. Radclifee-Brown, meanwhile, focused his attention on how various elements contribute to maintain the social structure. He saw some societies whose parts worked well together and some which tended toward dysfunction. Both men saw the total system as having the most importance, with all units of behavior of the system being secondary and determined by the system (Nicholson 1968:11).

Ruth Landes, in her Culture in American Education (1965), asserts that class biases often manifest themselves indirectly in the classroom. When the cultural identity of an ethnic group is threatened in the learning process, ethnic learners tend to be reactionary and defensive. Much of the "unwittingly created tension" disappeared when teachers began first to understand such ethnic-based behavior as the hesitancy of Mexican girls to shower in open stalls after gym classes, and then, made efforts to accommodate to them (Kimball 1974:27-28).

Education has been said to "cut across every phase of human activity" (Spindler 1973:104). I would now like to briefly examine, with a slightly different twist, education's contributions to the joint study of anthropology and education.

Henry Winthrop, a social scientist and philosopher, has in Ventures in Social Interpretation (1968:1-15) distinguished two kinds of interdisciplinary research: methodological and hermeneutical." To Winthrop, the methodological interdisciplinarian is interested in other disciplines because they pose new problems, provide an opportunity for new methods of analysis, and suggest fresh analogies and models - these modes of analysis are characterized by scientific objectivity. Conversely, the hermeneutical scientist

is a mediator between fact and value. He interprets the human behaviors and attempts to apply scientific findings to social, spiritual, and intelectual phenomena (Nash 1974:14-15). As a rule, therefore, most educator's contributions to anthro-education are hermeneutical in nature.

Two textbooks illustrate the hermeneutical tendencies which Winthrop has described. Scientific Foundations of Education (1960) by Thomas M. Weiss and Kenneth H. Hoover, emphasizes the need for learner to understand the "serious conflicts in their own cultures" (Weiss and Hoover 1960:130). Hoover examines problems the educator faces in re-education students with culturally impoverished backgrounds, tries to determine the extent to which the mental health of students is affected by inconsistent cultural norms, and looks to other cultures to see how they resolve such universal conflicts. Hoover's analysis of anthropological writings is summerized by Nash as follows:

> 1. Culture determines how individuals think, but nevertheless, human behavior is infinitely flexible. 2. The inconsistencies between what boys and girls ought to do and the frustration and conflict which arise often lead to open rebellion. 3. Some cultures produce very few conflict situations. 4. Language differences between various cultural groups create needless misunderstandings. 5. The school is an agent of cultural transmission and any revision of education should reflect the needs of a changing culture (Nash 1974:15).

Solon T. Kimball, an anthropologist, and James L. McClellan, an educational philosopher collaborated on a book, Education and the New America (1966), in which they examine the role of education in a rapidly changing industrialized society. Ten years later, in "learning through involvement - Puerto Rico as a laboratory in education", Kimball further

stressed the necessity for learners and teachers alike to understand basic cultural frameworks and their application in education through first-hand direct on site involvement. The main object of their study with its hermeneutical approach, was to create first the awareness that public and private worlds are difficult to fuse together and yet are necessary parts of the social system, and, second, that the school has the possibility of creating meaning and purpose in a student's life only if it understands "forms of human association and new symbolic relationships between the person and his external world" (Nash 1974:16).

Theodore Brameld, an educational philosopher, is both methodological and hermeneutical. In Cultural Foundation of Education (1957), he examined the problems of education in cultural perspective - cultural order, cultural process, and cultural goals. Ten years later, in "learning through involvement - Puerto Rico as a laboratory in education", he further stressed the necessity for learners and teachers alike to understand basic cultural frameworks and their application in education through first-hand direct on site involvement.

Spindler describes the greatest problem which present day anthropologists in the education field encounter as "one of relevance", he must "understand what it is that educators need to know in order both to build better educational theory and to solve problems of immediate applied research" (Spindler 1973:111). Grandiose theories of education have little value without relevance of some sort in the classroom, and anthropologists need some integration of the two disciplines to determine if application is feasible. A research team developed at Stanford found a

partial answer to this problem when "the educator, psychiatrist, and anthropologist exchanged roles for a time so that each could achieve insight into the other's problems" (Spindler 1973:111).

Other difficulties which anthropologists face, deal with the educational process itself. The educational process "has as its function the presentation of cultural behavior both inter-generationally and intra-generationally." From this, value judgements must necessarily come into play to answer such questions as "What does one present to all?", "What does an educator present only to selected individuals?", and, perhaps most important, "What criteria will determine just who is allowed to learn?" (Nicholson 1968:36). It appears that the "ideal" anthropologist in the education field must not only have a good integrative background in those two disciplines, but he must also have some inner sense of "right" and "wrong" - so he is capable of making sensitive, moral judgements.

Finally, the job of the anthropologist/educator is compounded because of the very nature of culture. "Culture has never remained static," and our society with its extremely rapidly changing cultural base gives quite a challenge to modern anthropologists (Nicholson 1968:3). In fact, Benedict had already voiced the danger 35 years ago that schools underestimate "the cultural changes that occur in such a society as ours" (Benedict 1943:724). And Spindler has pointed out, as mentioned previously, that there has been little research focused on cultural transmission or the problems of cultural change. Most of the works by the educational reseachers so far have been concerned with cultural continuity

(Spindler 1974:99). Educators find their skill and the effectiveness of their methods "taxes with a mounting difficulty of selection and an increasingly complex problem of presenting our burgeoning cultural repertory" (Nicholson 1968:3). Prescriptives for actions "vital to a particular people at a particular time may lose their importance at another time under different circumstances" (Nicholson 1968:36). This is not to mention the presence of sub-cultures, which even during one time period, introduce conflicting values to the learners

Spindler lists "many areas of potential application of anthropologically based concepts and methods in educational research in our own society" to which he believes "more attention should be directed":

> The roles of teacher and school administrator in American society call for treatment from a cultural point of view that will focus on some of the paradoxes projected in the role expectations... New approaches to the study of the school as a social system need to be devised... James Coleman (1961) has provided a most significant analysis of the social climates in high schools and the development of a separate teenage culture. American culture as a specific context of the goals, expectations, and functions of education needs exploration - possibly in the vein of national character approaches... (Spindler 1973:105).

He also points out the need for more cross-cultural research in education as it will put our own educational process in new perspective.

Learning theory, as mentioned previously, has not, up to this point, been a major concern of anthropologists. However, it has almost infinite possibilities for future research. Kimball states that "among both anthropologists and psychologists, the implicit acceptance of the stimulus-response pardigm and of the conditioned reflex as basic neurological processes may help to explain the neglect of the distinctly human, sym-

bolic aspects of behavior, and the processes of their acquisition". He believes the study of culture transmission will only be truly comprehensive as it concerns itself with "the cognitive, symbolic structure, the cultural behavior, and the social groupings within which learning occurs." To accomplish this goal, he argues, we need to "broaden our area of inquiry considerably beyond the traditional description of child-rearing practices and specification of personality formation. We must look for the congruencies between cultural pattern, social grouping, the logics of mythology and language and their relationships to the cognitive screen through which experience is received and organized" (Kimball 1974:33).

The purpose of Chapter Three is to present the congruencies between the cultural configurations of the earliest civilization of the Americans - the Olmec and that of the early dynasty China. It is hope that this study will shed new light on the learning processes of the ancient people of both the new and the old world.

CHAPTER III

CULTURAL LEARNING CASE ONE: CHINESE-OLMEC

A. Diffusion vs. Evolution

The existence of similar cultural motifs occurring in widely separated civilizations has given rise to two seemingly opposed, anthro-archaeological theories. One school believes that resemblance between cultures is basically the result of independent invention or parallel evolution; the other argues that it is mainly due to cultural contacts.

Evolution, the process of continuous change from a lower, simpler stage to a higher, more complex stage, was established as a theory with the publication of Darwin's Origin of the Species in 1859. His hypothesis was cross-fertilized with that of Herbert Spencer (Spencer 1896) and further developed by Edward Tylor (Tylor 1871, 1878) and Lewis Morgan (Morgan 1878) into a doctrine commonly known as cultural evolutionism. It asserts that there is a necessary and pre-determined scheme - a universal law - underlying all stages of progressive development of culture.

Another famed evolutionist, Adolf Bastian (Bastian 1869, 1881), used the concept of "psychic unity" or "overinventiveness" to explain resemblance between cultures. If different cultures advance through similar sequences and all human minds are essentially alike, resulting in similar "elementary concepts," it is only natural that parallel cultural achievements can be attained independently by unrelated civilizations.

Morgan expressed the idea of "psychic unity" as follows:

> The remote ancestors of the Aryan nations presumptively passed through an experience similar to that of existing barbarous and savage tribes...

> It may be remarked finally that the experience of mankind has run in nearly uniform channels; that human necessities in similar condition have been substantially the same and that operations of the mental principle have been uniform in virtue of the specific identity of the brain of all races of mankind (Morgan 1878:8).

Departing from Bastian's "psychic unity" and negating Morgan's rigid "historical sequence" ("uniform channels" of progressive development), Franz Boas (Boas 1940) believes that each culture is composed of a number of individual traits brought about by historical accidents, particular or specific events. He emphasizes these events and the need for exhaustive research on carefully defined problems of limited scope with strictly controlled variables. Unlike Bastian, who ascribed a subordinate, dispensable role to diffusion, Boas contends that although a culture may possess a few independently invented traits, its main components are of divergent, imported origins.

The German school of diffusionists led by Graebner (Graebner 1905: 28-53) and Schmidt (Schmidt 1939) was more extreme than Boas: their "Kulturkreislehre" contended that cultural similarities were solely the result of diffusion. Both Graebner and Schmidt underscored the "uninventiveness" of man and the concept of "kulturkreis" (cultural circle) - a scheme which assumed a number of original cultural centers from which "cultural circles" were diffused, in part or in whole, to all the lesser ones in the world.

Their counterpart in England, the heliolithic school led by Elliot Smith, W.H.R. Rivers, and W.J. Perry, went one step further. Robert Lowie summarized its tenets as follows:

> (1) Man is uninventive; hence, culture arises only in exceptionally favorable circumstances, practically

never twice independently.
(2) Such circumstances existed only in ancient Egypt; hence elsewhere culture, except some of the simplest elements, must have spread from Egypt with the rise of navigation.
(3) Civilization is naturally diluted as it spreads to outposts; hence, decadence has played a tremendous role in human history (Lowie 1966:161).

The fallacy of the extreme diffusionist and the parallel evolutionist is evident. As pointed out by Tylor, similar stages of culture succeeding each other in substantially uniform fashion do not necessarily require the separation of independent traits from borrowed ones:

> In the first place, the facts collected seem to favor the view that the wide differences in the civilization and mental state of the various races of mankind are rather differences of development than of origin, rather of degree than of kind... wherever the occurrence of any art of knowledge in two places can be confidently ascribed to independent invention, as for instance, when we find the dwellers in the ancient lake-habitations of Switzerland, and the Modern New Zealanders, adopting a like construction in their curious fabrics of tied bundles of fibre, the similar step thus made in different times and places tends to prove the similarity of minds that made it. Moreover, to take a somewhat weaker line of argument, the uniformity with which like stages in the development of art and science are found among the most unlike races, may be adduced as evidence on the same side, in spite of the constant difficulty in deciding whether any particular development is due to independent invention, or to transmission from some other people to those among it is found. For if the similar thing has been produced in two places by independent invention, than as has just been said, it is direct evidence of similarity of mind. And on the other hand, if it was carried from the one place to the other, or from a third to both, by mere transmission from people to people, then the smallness of the change it has suffered in transplanting is still evidence of the like nature of the soil wherever it is found (Tylor 1878:372-75).

B. Speculations Based on Greek and Hebrew Sources

One of the most challenging problems confronting archaeologists and

ethnologists today is the origin of ancient American civilization. Soon after it was recognized that the land Columbus "discovered" was not India, speculations regarding what gave birth to Meso-American culture sprang up like grass after rain in the summer. The sources on which scholars all over the world have based their conjectures since the early sixteenth century generally can be divided into three major categories: Greek, Hebrew, and Chinese.

One of the earliest and most persistent theories ascribed the source of the New World civilization to the sunken continent, Atlantis. According to Plato's descriptions in the Timaeus and Critias, Atlantis was a gigantic island in the middle of the sea west of the Pillars of Hercules. The island, thought to be larger than Asia and Africa put together, was supposedly inhabited by a highly civilized people whose king had once invaded Europe and Egypt (Wauchope 1962).

The Atlantian theory was first put forth by Giralamo Fracastoto in 1530 and championed by Gonzalo Fernandez de Oviedo y Valdes in 1535. Since then it has been maintained and expounded upon by numerous other scholars. As recently as 1966, Cyrus Gordon wrote, "Greek classics independently and repeatedly attest transatlantic contacts between the Mediterranean and America (Gordon 1966:49). Few proponents of this theory, however, have mentioned that, according to the Timaeus, Plato learned of Atlantis from Solon who heard of it from an Egyptian priest who explicitly stated that Atlantis had sunk 9,000 years prior to Plato's time. This theory is ruled out by the fact that civilization did not emerge in America until the late second millenium of early first millenium B.C.

The tenet of another major speculative theory concerning the roots of ancient American culture was best expressed by Joseph de Acosta in his The Natural and Moral History of the Indies published in 1590:

> The reason that inforceth us to yield that the first men of the Indies are come from Europe or Asia, is the testimony of the holy scripture, which teacheth us plainly that all men came from Adam. We can therefore give no other beginning to those at the Indies, seeing the holy scripture sayeth that all beasts and creatures of the earth perished but such as were reserved in the Ark of Noah, for the multiplication and maintenance of their kind; so as we must necessarily refer the multiplication of all beasts to those which came out of the Ark of Noah, on the mountains of Ararat, where it stayed. And by this means we must seek out both for men and beasts the way whereby they might pass from the old world to this new (Acosta 1970:57).

One school to this theory - with Diego Duran, (Duran 1585) James Adair 1775) and Edward King (better known as Lord Kingsborough) (Kingsborough 1831-48) as its devoted advocates - argues that the ten lost tribes of Israel were ancestors of the Indians of Central America. Another school, mostly consisting of Mormons claiming analogies between their sacred book (The Book of Mormon) and that of the Central American Indians, seeks to prove that the Hebrews were responsible for the civilization of Meso-America. In Article 8, Chapter 15, of the Articles of Faith for the Book of Mormon, (Wauchope 1962:59) it is asserted that the Jaredites mentioned in Gensis left the site of the Tower of Babel and settled in America. In the second century B.C. they supposedly became extinct as a result of natural calamities, but another group, headed by Lehi, had left the Holy Land for the New World around 600 B.C. A portion of this group, the Nephites, established civilized communities in Central America and the Andes while the other portion - the Lamanites

- headed north and became the North American Indians of our time. Some influential Mormons also believe that the Mexican deity, Quetzalcoatl, depicted in legend and Indian artifacts, can be identified as Christ. It is true that one of the earliest narrations regarding the Mexican deity contained in Bishop Landa's Relacion de las Cosas de Yucatan published in 1566, portrays a benevolent Quetzalcoatl:

> It is believed among the Indians that with the Itzas who occupied Chichen Itza there reigned a great lord, named Kukulcan, and that the principal building, which is called Kukulcan shows this to be true. They say that he arrived from the west; but they differ among themselves as to whether he arrived before or after the Itzas or with them. They say that he was favorably disposed, and had no wife or children, and that after his return he was regarded in Mexico as one of their gods and called Quetzalcoatl; and they also considered him a god in Yucatan on account of his being a just statesman (Morley 1946:85).

However, from the description of other early Spanish writers, including Herrera, the official historian of the Indies for the Crown of Spain, Quetzalcoatl was associated with human sacrifice. This and the fact that Chichen was not occupied by the Itzas until almost ten centuries after Christ's death,[1] make the Christ-Quetzalcoatl theory highly improbable.

> The old men of the provinces (Yucatan) say that anciently, near to eight hundred years ago, idolatry was not practiced, and afterwards when the Mexicans entered it took possession of it, a captain, who was called Quetzalquat (Quetzalcoatl) in the Mexican language, which is to say in ours, plumage of the serpent,.. introduced idolatry into this land and the use of idols for gods, which he had made of wood, of clay and of stone. And he made them (the Maya) worship these idols and they offered many things of the hunt, of merchandise and above all the blood of their nostrils and ears, and the hearts of those whom they sacrificed in his services... They say that the first inhabitants of Chichenyza (Chichen Itza) were not idolators, until a Mexican captain Ku Kalcan (Kukulcan) entered into these parts, who taught idolatry,

> and the necessity, so they say, to teach and practice it (Morley 1947:211).

Archaeological finds of recent decades support these historians' descriptions of the bloody religious ceremony practiced by the Meso-Americans. A stela at Piedras Negras, (Proskouriakoff 1950:Fig. 52C) Peten, Guatemala, dated 751 A.D. clearly depicts a scene of human sacrifice. At the bottom of the stela, the victim was placed on top of a basketlike altar. Under the watchful eyea of Quetzalcoatl, his stomach was opened by a heart-shaped object with feathers attached to the top.

The believers of the Bible-related theories concerning the ancestry of the American Indians differ from the Atlantain theorists and are generally more dedicated; the Mormons have spared few resources in the search for physical evidence in support of their contentions, but I believe most of their efforts have been misdirected. In my book manuscript, The Life-Death Tree, I attempt to document the thesis that the cross motifs of Palenque, which Mormon scholars identify as Christ's cross, are of direct Hindu-Buddhist-Taoist derivation.

C. Speculations Based On Chinese Sources

The speculative theories of Buddhist influence on pre-Columbian American civilization center around an account of a voyage taken by five monks from Afghanistan to the Fu-Sang Kuo (Country of Teh Extreme East) recorded in the "Chu I Chuan" ("Record of the Barbarians") of Liang Shu[2] (The History of the Liang Dynasty).

The story of the voyage was told in the first year of Yung Yuan of the Chi Dynasty (A.D. 499) by a shaman named Hui Shen. It was related

that in the second year of Ta Ming of the Sung[3] Dynasty (A.D. 458), five monks of Chi-Pin (Cophen[4] - an early Buddhist center - present day Kabul, capital of Afghanistan) wandered into the country of Fu-Sang, which was supposedly thirty-two thousand Chinese miles east of Japan (three Chinese miles equal one American mile). The monks preached Buddhism, distributed religious writings and drawings, and succeeded in reforming the customs of that country.

Following is a translation of the Fu-Sang episode recorded in Liang Shu:

> In the first year of the reign of Yung-Yuan of the Tung Heun, Chi Dynasty (A.D. 499), Shaman priest named Hui-Shen arrived at Ching-Chou from Fu-Sang and related the following account regarding the country of Fu-Sang.
>
> Fu-Sang lies east of the kingdom of Ta-Han more than twenty thousand li (Chinese miles); it is also to the east of the Middle Kingdom (China). It produces many fu-sang trees, from which it derives its name. The leaves of the fu-sang resemble those of the tung tree. It sprouts forth like the bamboo, and the inhabitants of the country eat the shoots. Its fruit resembles the pear, but is red; the bark is spun into cloth for dresses; and woven into finer fabrics. The houses are made of slabs. There are no walled cities. The people have written characters and make paper from the bark of the fu-sang. They have no soldiers, no armour, and do not wage war.
>
> According to the laws of the country, there exists a northern prison and a southern prison. Those who have committed crimes of little gravity are sent to the southern prison, while the great criminals are confined in the northern prison. If there is a general pardon, those in the south prison are let out and those in the north remain. The men and women of the north prison are allowed to marry one another. The children which are born of these unions become slaves, the boys at the age of eight years, and the girls at the age of nine years. Convicted criminals are not allowed to leave their prison while alive.
>
> When a nobleman has been convicted of crime the people of the kingdom assemble in great numbers and place the criminal in a ditch. They wine and dine with him as if he is departing for good - then he is surrounded with ashes. If

the crime is only one of the first degree, the criminal alone is punished; if the crime is of the second degree, his children and grandchildren are punished with him; and, finally, if the crime is of the third degree, the punishment is extended to the seventh generation.

The king is called I-Chi. The nobility of the first class are called Tui-Lu; those of the second class, little Tui-Lu; and those of the third class, Na-To-Sha. When the king takes a trip he is preceded and followed by drummers and horn trumpeters. The color of his robes changes in accordance with a ten year cycle. The first two years, green; the third and fourth, red; the fifth and sixth years, yellow; the seventh and eighth years, white; and the ninth and tenth years, black.

They have long ox horns which they use as containers to hold over twenty "Hu" of grain. They have horse carts, cattle carts, and deer carts. The people of the country raise deer as cattle are raised in the Middle Kingdom and a creamy substance is made out of their milk. The people have red pears which will keep throughout the year without spoiling; they also have many grapes. This land has no iron, but contains copper. Gold and silver are not treasured. In the markets no taxes are assessed.

In regard to marital customs, the suiter constructs a dwelling place in front of the house of the maiden he seeks. Morning after morning, evening after evening, he sprinkles the ground and sweeps. After one year elapses if the young woman does not like him, she sends him away and if she does like him they will get married. The marriage ceremonies are, for the most part, identical with those of China.

A fast of seven days is observed for parents at their death, five for grand-parents, and three days for brothers, sisters, uncles, and aunts. Images to represent their spirits are set up, before which they make their offerings and pay their respect morning and evening. They do not wear mourning garments. As a token of reverence the successor of the deceased king does not attend government affairs for the first three years.

In former times they knew nothing of the Buddhist religion, but in the second year of Ta-Ming of Sung Dynasty (485 A.D.), five monks from Chi-Pin traveled by ship to that country. They propagated Buddhist doctrines, circulated scriptures and drawings, and advised the people to relinquish worldly attachments. As a result, the customs of Fu-Sang changed.

The Fu-Sang hypothesis has been passionately discussed by numerous scholars since the mid-eighteenth century. The earliest exposition regarding the story of Fu-Sang appeared in Phillippe Buache's "Considerations geographiques et physiques sur les nouvelles descouvertes au nord de la Grande Mer," in 1753. In this article he pointed out the existence of what was later to be known as the Bering Strait and contended that the Chinese Buddhists had established a colony in California in the fifth century. In 1761, an article[5] entitled "Investigation of the Navigations of the Chinese to the Coast of America, and as to Some Tribes Situated at the Eastern Extremity of Asia" was published by a well-known French scholar, M. de Guignes, who argued that Wen-Shen Kuo[6] (Country of the Tattooed Body) should be identified as Hokkaido in northern Japan and Ta-Han Kuo (Country of Great Han) as the Kamchatka Peninsula. He concluded accordingly that Fu-Sang Kuo (Country of the Extreme East) could only be North America.

Another distinguished scholar of the time, J. J. Klaproth, argued against de Guignes' hypothesis in an article published in 1831, entitled "Researches Regarding the Country of Fu-Sang, Mentioned in Chinese Books, and Erroneously Supposed to be a Part of America." Citing that horses and grapes mentioned in Liang Shu were not native to America but were imported by the Spaniards, Klaproth concluded that the country of Ta-Han was merely Sakhalin and the country of Fu-Sang none other than Japan.

Karl Newmann disagreed. Armed with many Chinese historical records, he concluded in "Eastern America, According to Chinese Authorities of Fifth, Sixth, and Seventh Centuries" that the country of "Picture People" (Tattooed Body) lay probably in the Aleutian Islands. He further asserted

that five thousand Chinese miles east of these islands, "The distance and direction lead us to the great peninsula of Alaska," which he identified as Ta-Han. Differing from de Guignes, who situated Fu-Sang in the northwestern part of the American continent, Newmann pushed Fu-Sang farther south into Central America.

His hypothesis was given a strong boost in 1885 with the publication of Edward Vining's An Inglorious Columbus. A multitude of alleged similarities of customs between Mexico and Fu-Sang described in Liang Shu was added, among them the making of cloth and paper from the bark of the fu-sang, changing the color of garments according to ten-year cycle, the procession of drummers and trumpeters accompanying the king on a trip, and the ceremonies for marriage and mourning. Based partially on the works of other scholars of his time - notably de Paraley, Neumann, Deichthal, Humboldt, Leland, d'Hervey, de Saint-Denys, and Lobscheid - Vining listed the following as positive proofs that the country of Fu-Sang depicted by Hui-Shen was indeed Mexico (Vining 1885:706-8).

1. The existence of monasteries and nunneries said to have been founded by Quetzalcoatl, the "Revered Visitor."
2. The vows of continence taken by their inmates.
3. The fact that these vows were not necessarily for life.
4. The daily routine of life of these ascetics, consisting of watching, of chanting hymns to the gods, of sweeping the temples and their yards, etc.
5. These priests were the educators of the children.
6. They were divided into orders, and some were of superior rank and governed the others.
7. They lived on alms.
8. They occasionally retired alone into the desert to lead a life of prayer and penance in solitude.
9. They were known by the title Tlamascazque or Tlams, corresponding to the title of Lama given to the Buddhist priests of Asia.

10. It was thought best to eat but once a day and then at noon.
11. They celebrated once each year a "feast of the dead," at which they supposed that the hungry spirits of their deceased friends returned to be fed.
12. They worshipped upon large, truncated earthen pyramids.
13. These were covered with a layer of stone or brick, and the whole covered with plaster or stucco.
14. They used the false arch of overlapping stones, but not the true arch.
15. The inner walls of their temples were coated with stucco or plaster, which was ornamented with grotesque paintings.
16. A seated, cross-legged figure was found in one of their temples, resembling in its attitude, in the lion-headed couch upon which it was seated, in the niche in which it was found, and in its position in the temple, the statues of Buddha found in Buddhist temples.
17. The tradition of the conception of Huitzilopochtli closely resembles the Asiatic stories of the conception of Buddha.
18. They represented one of their gods as holding a mirror in his hand, in which he saw all the actions of men.
19. They believed that the inhabitants of the world had been four times destroyed - by water, by winds, by earthquakes, and by fire - and recreated after each destruction.
20. They had the custom of placing the walls of their temples facing the four cardinal points and of decorating each wall with a destinctive color.
21. They buried a small green stone with corpses.
22. Their idols were always clothed and were never offensive to modesty.
23. The custom of tying the corners of the garments of the bride and groom together constituted one of the most important of the marriage ceremonies.
24. Marriage was not consummated until the fourth day after the ceremony.
25. They placed in the hands of young children, a few days after their birth, toys symbolical of the instruments of craft or of household labor which it was expected that they would use during afterlife.
26. The long band of cloth worn about their waist was precisely like that worn by the natives of India.
27. They wore quilted cotton armour similar to that worn in Asia.
28. Their cakes of meal were similar to those made in

India.

29. Their books were folded back and forth like those of Siam.
30. They played a game called patolli, which seems to have been substantially like the pachisi of the Hindoos.
31. They understood the arts of melting and casting precious metals and or working jewels, attributing their knowledge to Quetzalcoatl.
32. But they knew nothing of the use of milk or of any food prepared from it.
33. Their anchors were like those used in Asia, with four hooks without a barb.
34. They understood the art of constructing suspension bridges, and
35. Their calendar showed so many resemblances to that used by many nations of Asia, that from this fact alone Humboldt[7] was convinced that there was some connection between the civilizations of these two regions.

Speculations on the Fu-Sang episode have been surfacing sporadically since Vining's meticulous work. These later works only damaged further the credibility of the circumtranspacific cultural diffusion theory. It is sufficient to mention only two of the more bizarre ones.

In 1970, a book entitled Chung-Kuo Ku Tai Yu Mei-Chou Chiao Tung Kao (China and America; a Study of Ancient Communication between the Two Lands) was published by Wei Chu-Hsien in Hong Kong. A Taoist as well as a Confucian, Wei has published widely on Chinese archaeology and sociology. In his book, he related that a Mexican statue discovered by a friend of his bore the inscription of three Chinese characters: Wu Tang Shan (a Taoist center located in Wu-Tang Mountain). Furthermore, he claimed that both Confucius and Li Tai-Po (the famed Tang poet) had visited America - the former in 484 B.C., the latter in A.D. 725.

No less fanciful is Henriette Mertz's Pale Ink, first published in 1958, with a second, revised edition published in 1972. The title of her work is derived from a saying of Confucius, "Pale ink is better than

most retentive memory." It appears, however, that another equally famed passage in the Confucian classics has escaped Mertz's scrutiny. Book 5, Part 1, Chapter 4, Stanza 2, of Meng Tzu (Mencius) reads as follows:

> One should not arbitrarily insist on one phrase so as to do violence to a sentence, nor should one twist the meaning of a sentence to do injustice to the general spirit of a paper. One must attempt, with one's intelligence and knowledge, to interpret the general spirit. Then one can gain real insight.

In Pale Ink Mertz acclaimed Hui-Shen of the Fu-Sang story in Liang Shu as one of the "greatest" missionaries the world has ever known. In addition to "converting an entire country," Mexico, Mertz contended that Hui-Shen brought "a better life" to the Mexican people and taught them "advanced methods of agriculture," weaving, ceramics, metallurgy, astronomy, and the calendar (Mertz 1972:82) single-handedly.

In a similar vein to the Mormons who associated Quetzalcoatl with Christ, Mertz defined Hui-Shen as "Quetzalcoatl, Kukulcan and Wixipecocha" (Mertz 1972:85).

> Fu-Sang is no geographical myth. It is real. In the Fifth Century, it was a vital strategic spot - Hwui Shan's visit there changed the entire course of its history. It was he who was instrumental in creating in it a magnificently brilliant civilization - the like of which the world has never seen (Mertz 1972:2).

But this is not all. In the second part of her book Mertz ventured into fabulous territory no informed Chinese scholar has seriously considered, not even the Grand Imperial Historian, Szu-Ma Chien of the Han Dynasty.[8] She claimed that the legendary emperor Yu sent out a Chinese exploration team to America in 2250 B.C., (Mertz 1972:159) and, after his men came back, compiled the "world's oldest geography"

(Mertz 1972:104) - the Shan Hai Ching[9] - which contained accurate and detailed descriptions of America:

> This instant document was written in the time of Yu, 2250 B.C., 2700 years before the time of Hwui Shan. At that early date, the Chinese had identified "Fu-Sang." This is within 30 miles of the identical spot where I had previously calculated that Hwui Shan landed, at Point Heuneme (California)... Hwui Shan, without question, studied these ancient records and knew precisely where he was going before he started out. He came within 30 miles of the spot identified in Yu's record as Fu-Sang... (Mertz 1972:132-133).

Thus, according to Mertz, the "Shu-Chu" Mountain mentioned in Shan Hai Ching can be identified as a peak near Casper, Wyoming; "Keuch-Wang" Mountain, Long's Peak, Colorado; the "Wu-Kao" Mountain, a hill near Madera, in the state of Chihuahua, Mexico (Mertz 1972:114, 115, 126, 132, 158).

> It is my belief that from those ancient Chinese documents we have the answers to the problems that have perplexed us for years and for which we have had no solution. These two records have taught us: That Fu-Sang was no "geographical myth... figment of the Buddhist imagination"- that the plant "Fu-Sang" was corn, and the country "Fu-Sang" was Southwestern United States and Mexico.

More than five hundred years have elapsed since man's first attempt to explain the splendid achievements of the ancient American-Indian culture. A multitude of theories have been proposed and expounded upon; but all have failed to document a satisfactory answer concerning the origin of the Meso-American civilization. The transpacific cultural diffusion theory is no exception. Gordon Willey, an authority on American archaeology, wrote as recently as 1974:

> More dubious and debatable have been the claims for transpacific relations between Asia and America in relatively late pre-Columbian times. The Austrian ethnologist-archaeologist, Robert von Heine-Geldern, had long been the spokesman for the importance of

> such diffusion in the rise of the New World Meso-American and Peruvian civilizations, and he continued to argue his case in the 1950's and 1960's. Generally, American archaeologists were not convinced, citing difficulties in finding proper Asiatic antecedents with proper dating and arguing for the more likely possibility of independent development and evolution (Willey 1974:172-174).

The East Asians probably have played an important role in the blossoming of ancient American culture. Why is it then, that for five centuries no one has been able to convincingly establish that fact? There are three major reasons. First, the problem of cultural diffusion is complex and full of pitfalls; it involves not only a trait-generator, a trait-transmitter (the former and the latter can sometimes be the same entity), but also a trait-receiver and a trait-adapter (a receiver is not necessarily always the adapter). A trait in the process of transmission may sometimes be forced upon the trait-receiver or be adopted readily and voluntarily. An imported trait may be adapted immediately and at other times have a period of hibernation only to resurface and be adapted at a later time when the environmental-social-economical conditions change. This is not to mention the difficulties in deciding whether a trait was diffused or independently invented, as diffused traits are frequently disguised and intermingled with indigenous ones.

The second major reason for the transpacific or circumpacific diffusionists' failure to firmly establish their claims is their propensity for false analogies, forced associations, and narrow-minded, distorted textual interpretation of historical writings. Their lack of firsthand, indepth knowledge of Asian culture in general and Chinese culture in particular also prevents productive advancement of the hypothesis.

Let us begin with de Guignes, the precursor of the Fu-Sang diffusionist theory. In Liang Shu (The History of Liang Dynasty), it was mentioned specifically that Hui-Shen was a shaman of the country of Fu-Sang and that the five monks who brought Buddhism to Fu-Sang in the fifth century were natives of Chi-Pin (the ancient Buddhist center in present-day Afghanistan). In his translation of the Fu-Sang episode, de Guignes conveniently omitted the statement concerning Hui-Shen's nationality and claimed that the five monks were Chinese - and the Chinese, he asserted in another article, were colonial subjects of the ancient Egyptians (Needham 1971:540).

Edward Vining, another proponent of the Fu-Sang theory, was more accurate. To establish the validity of the Fu-Sang story, he endeavored word by word and sentence by sentence, to find a Mexican parallel for everything about Fu-Sang mentioned in Liang Shu. Thus, he asserts Fu-Sang Kuo (the Country of Fu-Sang) is related both phonetically and semantically to the word Mexico; "tui-lu" (first rank nobleman) is identical to the American Indian word "tecuhtli" (soldier of high honor), while "nah-to-sha" becomes the Indian word "tlatoque." According to Vining (Vining 1885:697), "to-pu-tao" is analogous to tomato - Indian "tomatl." The truth is that "to" was used in the Chinese Fu-Sang text as an adjective meaning "many," modifying a noun "pu-tao" meaning grapes. Vining arbitrarily put the adjective and the noun together as a phonetic unit "to-pu-tao" and literally turned many grapes into a tomato. In spite of these errors, Vining's book has value for western readers interested in Asian - Meso-American contacts. In addition to a Chinese text of the Fu-Sang episode in Liang Shu, Vining carefully translated and summarized

works about Fu-Sang by many scholars of various nationalities.

There seems to be a vicious cycle operating here; without an aptitude for association, one will not become a diffusionist in the first place. Yet a person gifted with this quality is likely to perceive connections where none exist.

Mertz, who based a large part of her book, Pale Ink, on Vining's work, strived to link Shan Hai Ching, a Taoist counterpart of the Buddhist Hsi Yu Chi[10], (Record of a Journey to the West), to Hui-Shen's Fu-Sang story. Like some Chinese Taoist writers, who put words into both Confucius's and the Grand Historian Szu-Ma Chien's mouth (Mertz 1972:107) and claimed that both mentioned Shan Hai Ching and sttributed it to Yu, a legendary emperor who ruled from 2205-2197 B.C.

A careful study of Szu-Ma Chien's Shih-Chi (Historical Records) and the Confucian Chia-Yu (The Family Sayings of Confucius) reveals that neither Confucius and his disciples nor Szu-Ma Chien had ever spoken of Shan Hai Ching, let alone of its having been compiled by Yu. Mertz has confused the Shan Ching (The Book of Mountain and Sea).

The chief flaw of Mertz's treatment of Shan Hai Ching was her method of relating the mountains and rivers mentioned in the Shan Hai Ching to those in western America. She was not aware of the following:

1. The Shan Hai Ching never mentioned anyone having taken a journey from a definitive place.
2. The Shan Hai Ching made statements only to the effect that approximately so many miles from a certain "shan" (mountain or hill) there was another "shan," and so many miles from such a peak was a river.
3. Chinese miles differed from Western miles and were frequently

exaggerated in ancient Chinese books for there was no accurate means for measurement and the length of a mile changed sometimes from dynasty to dynasty. This practice remains even in modern times. For example, the Great Wall is called in China "The Wall of Ten Thousand Miles" when it is actually 1400 miles long, and the Chinese Red Army's famed Long March is commonly known in China as the "Twenty-Five Thousand Miles Long March" when it was actually one of less than 6000 miles.

4. The Chinese term "shan" can mean a towering mountain or merely a hill.

5. It is not difficult to fit the description in Shan Hai Ching to any extended mountainous region--whether it is in Europe, Asia, or America--as long as one is at liberty to arbitrarily choose a starting point. Mertz did just that:

> There may be some indication in the untranslated portions that I do not have that told how the Chinese got across the Eastern Sea to the Eastern Mountains (There is no such indication in the untranslated portion). Since it is not available, to decide independently how they got there would only be pulling a conclusion out of thin air. Therefore, with no apology, we shall jump across and only try to solve the geographical problems that we actually have.
>
> The opening sentence of the section started out by saying that "Suh-Chu Mountain" on its northern side adjoined the "Sunless Mountain" and that drinkable water was found in a river flowing northeasterly. I chased up and down a dozen or more times on my map, from Canada to Mexico, and each time examined every peak without even a flicker of a clue. Being unable to locate "Suh-Chu Mountain" or the good drinking water, I finally passed it over. The second peak had to be passed over for the same reason. The third one "rang a bell." The Chinese had named it "Aspen Mountain." "Aspen," to me, meant only one thing--Estes Park, Colorado. Taking a chance that the third peak was somewhere in Colorado, I pinpointed it there. From that point, I worked both forward and backward. Going backward to peak number one, "Suh-Chu Mountain," I found myself looking at Sweetwater River, in Wyoming, flowing northeast--good

> drinking water. Working my way down the map, the shifting sand, the sand that had eliminated the Andean range, was found precisely on the spot where the Chinese had placed it--and today, we have commemorated that spot, unknowingly insofar as the Chinese were concerned, with our Great Sand Dunes National Monument. From then on, peak after peak tallied. It seemed unbelievable at first--but it worked. If the first one worked, the others would have to do so (Mertz 1972:111-113).

As in de Guignes's translation of the Fu-Sang story, Mertz also left out the statement in the original Chinese text that Hui-Shen was from the country of Fu-Sang. She alleged that Hui-Shen, a Chinese following the footsteps of Yu's explorers, reached Fu-Sang in A.D. 458 and civilized it. She outperformed her predecessors by contending that cultural influence was "a two-way street"--the Chinese first learned the use of arrowheads from the American Indians during the former's expedition to American in the twenty-third century B.C. (Mertz 1972:100):

> The Shan Hai King made sense. It was a simple and sincere statement of a place visited and a distance measured by a man who had been there--short notes jotted down in a little bamboo notebook (Mertz 1972:109).

Transforming many grapes into a tomato was quite an exploit, but converting a Chinese Homeric Odyssey into a factual "bamboo chronicle" bearing the date of 2300 B.C. is a feat possible only by Zeus--not by a mortal.

The foregoing are only a few examples of excesses by some diffusionists who believed in the Asiatic origin of Meso-American culture. When a theory contains such improbable conjectures, the Asiatic hypothesis receives only meager support from the public and academia alike.

The third main reason for the transpacific diffusionists's unsuccessful attempt to establish their hypotheses is that most of the

important Meso-American historical documents were destroyed by the conquerors of Central America during the colonial period--a time when it was considered a righteous undertaking to eradicate infidel cultures. Thus the famed (or notorious) Diego de Landa (1524-1579), Bishop of Yucatan, wrote:

> These people also made use of certain characters or letters, with which they wrote in their books their ancient matters and their sciences, and by these and by drawings and by certain signs in these drawings, they understood their affairs and made others understand them and taught them. We found a large number of books in these characters and, as they contained nothing in which there were not to be seen superstition and lies of the devil, we burned them all, which they regretted to an amazing degree, and which caused them much affliction (Landa 1966 reprint:169).

Other noted Spanish historians also recorded the book burning incidents (Landa 1966:169). Antonio de Ciudad Real narrated in 1588:

> but because in these books were mixed many things of idolatry, they burned almost all of them, and thus was lost the knowledge of many ancient matters of that land which by them could have been known (Ciudad Real 1932:314).

In 1590, Jose de Acosta gave the following account:

> In the province of Yucatan, where is the so-called Bishopric of Honduras, there used to exist some books of leaves, bound or folded after a fashion, in which the learned Indians kept the distribution of their times and the knowledge of plants, animals, and other things of nature and the ancient customs, in a way of great neatness and carefulness. It appeared to a teacher of doctrine that all this must be to make witchcraft and magic art; he contended that they should be burned and those books were burned and afterwards not only the Indians but many eager-minded Spaniards who desired to know the secrets of that land felt badly (Acosta 1950 reprint:78).

In 1633, Bernardo de Lizana reported in his Historia de Yucatan:

> Thus he collected the books and the ancient writing and he commanded them burned and tied up. They burned many historical books of the ancient Yucatan

which told of its beginning and history (Lizana 1893).

In 1688, Diego Cogolludo wrote:

> they collected all the books and ancient writings which the Indians had and in order to erase all the danger and memory of their ancient rites, as many as they were able to find were burned publicly on the day of the auto and at the same time with these (were destroyed) the history of their antiquities (Cogolludo 1688).

In addition to stamping out Mayan historical records and other books, the Spanish priests also destroyed a large quantity of Indian artifacts:

> From some notes of D. Pablo Moreno and from a letter of a Yucatecan Jesuit, D. Doming Rodriquez to Illmo. Sr. Estevex, dated Bologna, March 20, 1805 we are able without other authority to offer to our readers the following annotation of the objects some of which were destroyed and others burned:
>
> 5000 idols of different form and dimension,
> 13 great stones which served as altars,
> 22 small stones of various forms,
> 27 rolls of signs and hieroglyphics on deer skin,
> 197 vases of all sizes and shapes (Cogolludo 1892).

Other accounts of similar incidents are related in the following:

> The Biship Marroquin in the said city of Guatemala made a public auto in the presence of the Senores of the Audiencia... in which they'burned and broke a very large number of idols.' This would seem to show, as already pointed out, that most of the idols were of wood or clay (Scholes 1966 reprint:108).

> And after the above, the said auto was preached to the said Indians in their language and said interpreter (Gaspar Antonio Chi) read and stated the sentence of each delinquent and they were executed on their persons; and some were condemned to wear sambenitos, as has been said, and besides that to personal service for a certain number of years, some many, others less, and to be shorn and whipped and to burn statues and bones,... the said friars suspend many Indians by their arms, and some of them by the feet, and hang stones from their feet, and whip them and spatter them with tapers of burning wax, and mistreat them grievously in such a way that afterwards, at the said time when, as he has said, they were given penance and brought forth in the said public auto (de fe), there was not a sound place on their bodies where they could be whipped again...(Tozzer 1966 reprint:77).

D. Speculations Based on Resemblances Between Artifacts of the Old and New World

As more ancient American artifacts came to light in the nineteenth and early twentieth centuries, some scholars speculated on possible Asiatic contacts because of similarities between art motifs of the Mayan culture and those of East Asian culture. One of the earliest, most hotly debated items was the elephant snout motif on Stela B in Copan, West Honduras.

John Lloyd Stephens, in his famous Incidents of Travel in Central America, Chiapas, and Yucatan published in 1841, first noted the resemblance of the two long-nosed elements (on top of Stela B) to elephant trunks. Twenty-five years later, in 1865, G. B. Taylor made an elaborate argument for the recognition of the Indian elephant as the subject matter depicted on the stela in a book entitled Research into the Early History of Mankind. Although noting the resemblance of the principal figure to an oriental one, Alfred Maudslay, a distinguished English scholar of Mayan archaeology, believed that the two heads with trunks on top of the stela could have been tapirs:

> The principal figure on the front of the stela has much the appearance of a Chinaman. The face is bearded and has what appears to be a moustache joined into a curious ornament... The headdress bears a strong resemblance to a turban...Above the turban is a complicated ornament...The Great curved teeth are, however, common to this heat and to the heads which bear some resemblance to those of elephants occupying the top corners of the stela.
>
> The elephant-like appearance of those heads has been the subject of much discussion, but I fail to see any reason why the form may not have been taken from the head of the tapir, an animal still commonly found in the neighborhood (Maudslay 1889-1920:42).

Alexander von Humboldt, whose earlier work Views of the Cordilleras and Monuments of the Indigenous Nations of America documented parallels between ancient American and Asian zodiacs and myths, also felt that the long-nosed animals described in Mexican codices were probably native animals of America.

In 1909, G. B. Gordon, who was in charge of the fourth expedition (1894-95) at Copan, published an article entitled "Conventionalism and Realism in Mayan Art in Copan," which first identified the two animal heads as local blue macaws. This view received immediate support from Alfred Tozzer (Tozzer 1910:343), then curator of Middle American Archaeology and Ethnology, Peabody Museum, Harvard University, and Herbert Spinden (Spinden 1913:79), an American authority on Mayan art, then associated with the American Museum of Natural History in New York City. A fierce battle between the elephant and the macaw advocates ensued.

Elliot Smith, the champion of the British heliolithic school, challenged the Harvard-centered authorities in his "Pre-Columbian Representations of the Elephant in America" in 1915:

> No one who looks at the accompanying tracing, which I have taken from Dr. A. P. Maudslay's magnificent atlas of photographs and drawings of the Central American monuments should have any doubt about the justification for Stephens' comment. Moreover, the outline of the head is so accurately drawn as to enable the zoologist to identify the original model for the design as an Indian species of the elephant (Smith 1915:340).

Tozzer and Spinden instantly responded with two separate letters to the editor of Nature magazine, Spinden saying:

> There appeared to be little doubt that these heads under discussion on Stela B at Copan are intended to represent the blue macaw...
>
> It is not a mere difference of opinion upon rather minor details of archaeology that prompts this reply to

> Dr. G. Elliot Smith's communication. It is because he ventures to draw conclusions of great importance as regards cultural connection between China and Mexico in ancient times from this tainted evidence. In dealing with the hydra-headed fallacy of Old World origins for New World civilizations it is necessary to cut off each head in turn with a searing sword (Spinden 1916:593).

Tozzer commented:

> If Prof. Smith will look on the back of the monument on which his fugure is found he will note at the bottom the drawing of the glyph referred to in the quotation. This is unmistakably a macaw (Tozzer 1916:593).

Undaunted, Smith countered:

> The account given in my memoir sheds a remarkable light upon the psychology of Americans, both ancient and modern, and expecially upon the ethnological "Monroe Doctrine" which demands that everything American belongs to America, and must have been wholly invented there. The Maya civilization was American in origin only in the same sense that Harvard University is - immigrants from the Old World supplied the ideas and the technical knowledge, which enabled an institution to be built up, no doubt with certain modifications prompted by local conditions and the contact of a variety of cultural influences.
>
> Dr. Spinden's refusal to admit that the Copan sculptures represent elephants becomes more intelligible when one reads the statements in his monograph on "Maya Art" that "he does not care to dignify by refutation the numerous empty theories of ethnic connections between Central America and the Old World (p. 231). This is the attitude of mind not of the scientific investigator, but of the medieval theologian appealing to the emotions in defense of some dogma which is indefensible by reason (Smith 1961:593-595).

In 1920, another well-known American Mayan scholar, Sylvanus Morley, entered the battlefield and declared war on Smith.

> More recently Elliot Smith has revived this highly improbable identification finding detailed anatomical similarities between this decorative element in Stele B and the trunk of an elephant. He has been ably answered, however, by Tozzer, Spinden, and Means.
>
> It is hardly necessary to point out that any attempt which seeks to establish direct cultural connection between the Maya and any old world civilization, either Egyptian or

> Mongolian, is quite at variance with the results of modern research in this field. And yet the superficial similarities of the Maya to these civilizations are such as to win for this now exploded hypothesis new adherents from time to time (Morley 1920:224).

His convictions unshaken despite overwhelming opposition, Smith published in 1924 a book titled Elephants and Ethnologists in which he retorted:

> The sole reason for the refusal to admit that the Copan sculptures and the pictures on the Maya codices are Indian elephants is due to the fact that such an admission would destroy the whole foundation of the doctrine of the independent evolution of American culture. I am not claiming that ethnologists on the two sides of the Atlantic are wittingly guilty of this deception; it is a case of the unconscious repression of an awkward fact. Having adopted as a rigid dogma, to which they cling with quasi-theological fervoir, the belief that the civilization of the New World was developed without any help or even prompting from the Old World, it is clearly impossible for them seriously to consider even the possibility of an Indian elephant being represented on American monuments. Therefore, without even examining the evidence that is fatal to their creed they simply shut their eyes to it and refuse to admit a patent fact (Smith 1924:109).

That the American authorities, after years of painstaking on-site research, were outraged is understandable. An amateur (he was a professor in medicine), Smith was notorious for his fantastic heliolithic theory that the origin of all major cultures could be traced to ancient Egypt (Smith 1933). Smith had never visited Copan or any Mayan site and had based his speculations regarding Stela B mainly on a secondary source, Maudslay's illustrations in Biologia Centrali Americana.

An outsider who had neither formal training in American archaeology nor direct access to Meso-American artifacts, he challenged an academic cartel of distinguished professionals associated with such prestigious scholarly institutions as Harvard University, the Carnegie Institution of Washington, and the American Museum of Natural History. After Smith's

death, his elephant theory was never heard of again.

In Chapter IV, section 5 of my book, Asiatic Influence in Pre-Columbian Art (Shao 1976:134-156) I attempt to demonstrate with the materials I found at Copan[11] that the explanations offered by Tozzer, Spinden, and Morley regarding the two long-nosed animals were just as defective as Smith's. It appears they all failed to recognize that the ancient Mayans were masters of zoomorphic synthesis, skillful in combining attributes of different animals into a single entity. The two long-nosed creatures, in my opinion, are neither macaws nor elephants. As Chapter IV will demonstrate, they appear to be an artistic hybrid of a liaison between a naughty Asian elephant and a swinging American macaw.

Other resemblances between Meso-American artifacts and those of Southeast Asia have observed by a number of other scholars. Channing Arnold and Frederick Frost, in their American Egypt (1909), first pointed out the similarities in the water lily, Makara, cross, animal throne, and sitting posture motifs (Arnold 1909:269-273). They were unable to produce any documentation, using the excuse that "archaeology is not such a popular and paying science as will allow those without large means at their disposal to follow up their theories" (Arnold 1909:VIII). This drew fierce attacks from Morley:

> The front of Stela B is sculptured with a human figure of heroic size whose somewhat Mongoloid cast of countenance has given rise to a flood of ill-considered speculations regarding the possible Asiatic origin of the Mayan civilization. One of the more recent supporters of this extravagant hypothesis, long since relegated to the rubbish pile of scientific discards, is Arnold (Morley 1920:224).

Added to Arnold and Frost's list of similarities in sculpture motifs of East Asia and Meso-America are the double-headed monster, the Kirtimukha

motif (large frontal mask flanked by a profile on each side), and the animal headdress by Elliot Smith (Smith 1933: Plates 13, 14, 21, 22, 23, 28, 36, 39, 41, 42); the wheeled toys (Ekholm 1946:222-228) and tripod vessles (Ekholm 1964:489-510) by Gordon Ekholm; the vertically stacked masks, the "Hockers," and the alterego motifs by Miguel Covarrubias (Covarrubias 1954:34-60); the overlapping scroll motifs by Robert Heine-Geldern (Heine-Geldern 1966:277-295); and the Jomon motifs by Estrada, Meggers, and Evans (Meggers 1965). Nevertheless, none of these scholars succeeded in breaching the defense line of the old guard which advocated the indigenous origin of ancient American culture. Hence the frustration of Ekholm, curator of Middle American archaeology of the American Museum of Natural History and a leading transpacific culture diffusionist, who concluded in 1971, "Finally, and as a summary, we might come back to the question of transpacific contacts. I admit that there is no hard evidence of such contacts" (Ekholm 1971:59).

Though I have great respect for Dr. Ekholm's scholarship, I disagree. The problem, in my opinion, is not so much the lack of hard evidence as the lack of adequate knowledge and pertinent tactics in discerning, structuring, and presenting such evidence. Tangible evidence favoring transpacific contacts abound. Wanting is a diachronic[12] and synchronic[13] matrix which correlates arbitrary trait-complexes of the Old and the New World instead of single and simple traits. As arbitrary trait-complex is defined here as being composed of a number of highly stylized motifs arranged in an arbitrary manner to form a whole (a new configuration - or a complex), which is usually symbolic in content and is not directly attributable to structural and functional limitations.

E. The Olmec

The name Olmec (derived from the Indian word olli, meaning rubber) was originally used by the 16th century Spanish chroniclers[14] to designate a branch of the Toltec[15] people residing in Gulf Coast Mexico (Sahagun 1961:187). It was not until recent years that the people of Olmec were recognized by leading archaeologists as the most ancient founders of Mesoamerican civilization dating as far back as the second millenium B.C. (Moreno 1942). Opinions differ, however, as to the origin of the Olmec.

1. Early Theories

The earliest theory concerning the Olmec - African origin - was proposed by Jose Melgar. He wrote:

> In 1862 I was in the region of San Andres Tuxtla, a town of the State of Veracruz, in Mexico. During my excursions, I learned that a Colossal Head had been unearthed a few years before...but what astonished me was the Ethiopic type represented. I reflected that there had undoubtedly been Negroes in this country, and that this has been in the first epoch of the world (Melgar y Serrano 1869:292-297).

After Frans Blom[16] and Oliver La Farge[17] discovered a second colossal head and a number of large stone figures and altars, another theory - Mayan origin - appeared. Referring to the standing figure inside a niche underneath a monster-mask of what is now known as La Venta Stela No. 1, they wrote:

> There is no doubt that this figure is strongly influenced by Maya art, if it is not really Maya. The ruins of Comalcalco, the nearest Maya city previously reported, lies

> 100 kilometers to the east. The crudity of some of the La Venta figures must undoubtedly be ascribed to the hardness of the material in which the carving was done (Blom and La Farge 1926:83).
>
> There is a strong Maya feeling about this monument. The person in the niche resembles figures on Stela E at Piedras Negras, and the design above the figure undoubtedly represents a conventionalized animal's head (Blom and La Farge 1926:87).
>
> It might be well to summarize the discoveries at La Venta. We have here a collection of huge stone monuments, and at least one large pyramid. Some features of these monuments are similar to things seen by us in the Tuxtla region; other features are under strong influence of the Maya culture to the east. The Maya features in Stela 2, the standing figure with diagonal ceremonial bar and huge head-dress, and in Altars 3 and 4, are so strong that we are inclined to ascribe these ruins to the Maya culture (Blom and La Farge 1926:90).

Blom and La Farge's beliefs were shared by Sylvanus Morley, an accomplished Maya scholar associated with the Carnegie Institution of Washington:

> Nevertheless the Mexican archaeologists believe that this southern Verzcruz region, where the Tres Zapotes monument and the Tuxtla Statuette were found, that of the Olmeca culture, was the original center of distribution of the higher civilizations of all Middle America. Alfonso Caso has recently summarized the Mexican school of thought on this point, with which, however, I disagree, in the following words:
>
> > It is very probable that paper is one of those inventions (in the Middle American region) which like writing, seals or markers, the brush, the ritualistic calendar or tonalpohualli, the creator gods, the god of rain, etc., must be attributed to a most ancient mother culture, which is found at the bottom of the specialized cultures of central Mexico and northern Central America, and which spread from a place, so it appears, that we must locate in the southern part of Veracruz and in the nearby sections of Tabasco, Oaxaca and Chiapas.

> Since, as will be shown later, the earliest dates which are surely contemporaneous, that is to say surely executed at the times they severally represent, are more than a century and a half later (A.D. 320 on the Layden Plate and A.D. 328 on Stela 9 at Uaxactun), it is probable that the Tres Zapotes and El Baul monuments and the Tuxtla Statuette are only apparently early, that, in reality, they are anachronistic, carved sometime later than the apparently very early dates inscribed on them (Morley 1964:42).

By this time Olmec had already been established as a distinct art style by Marshall Saville and George Vaillant, largely based on comparative study of the Olmec jade votive axes. Nevertheless, they did not rule out the possibility of cross-cultural influence between the Olmec and the Maya (Valliant 1929:335-342). This opinion was obviously to a great degree affected by the then dominance of Mayanists on the archaeological scene. The scholarly stamina of Eric Thompson (Thompson 1941) for one, whose accomplishments in Mayan calendric and hieroglyphic learning overshadow those of many a contemporary colleague of his, was so overwhelming at the time that, despite significant discoveries repeatedly made by Matthew Stirling[18] at the sites of Tres Zapotes, La Venta and San Lorenzo, the Primacy of the Olmec in the cultural sequence of ancient America was not generally recognized until the late 1950's and 1960's - thanks primarily to the radiocarbon dating technique:

> True name of this Indian people perished with their broken altars. For convenience, archeologists at first labeled their civilization "Olmec" and, more recently, "La Venta," after the site. Their culture developed side by side with that of the Old Empire Maya, but it differed widely in most aspects.
>
> Between 500 and 800 A.D., La Ventans abandoned their shrine to the jungle or, more probably, surrendered it to conquerers. Their successors tried to smash every object sacred to La Venta's gods (Stirling 1941:321).

Philip Drucker, the principal excavator of the most important Olmec site, La Venta, also detected Mayan influence in Olmec art:

> In short, it appears that Upper Tres Zapotes is to be regarded as more or less coeval with Teotihuacan IV, and thus, also approximately, with the Mayan Tepeu period. By this devious and roundabout line of evidence, there is nowhere else to put the La Venta-Middle Tres Zapotes period than in between, or roughly contemporary with Tzakol. So far, we have only one suggestion of important outside influence during the La Venta period, but it may be a very significant one: the presence of volcanic ash tempering in the Fine Paste wares of La Venta that appear on this horizon and begin their steady increase that lasted to the end of the Olmec occupation, although in altered forms. Elsewhere it has been suggested that these wares may have reached Olmec territory from the eastward, spreading thereupon from the La Venta district toward that the Tres Zapotes (Drucker 1947). The type of tempering material, if not the wares themselves, point to Mayan influences during Tzakol times (Drucker 1952:150).

Other scholars, notably Robert Smith (Smith 1955:7) and Gordon Ekholm, (Ekholm 1944:423-426) also observed identical motifs between the pottery of Olmec and that of the Mayan homeland.

Although Drucker admitted later, in his 1959 Bureau of American Ethnology Bulletin co-authored with Heizer and Squier, that his earlier correlation of the early Tres Zapotes period with early Uaxatun[19] (Mamon, 550-1000 B.C.) period and Middle Tres Zapotes - La Venta period with Tzakol (200-400 A.D.) level was inaccurate, he did so with considerable reluctance. After the statement, "The C-14 dates presented here indicate that Drucker's estimate of the chronological position of the La Venta horizon was wrong," (Drucker, Heizer, Squier 1955:260) a footnote immediately appeared: "This statement does not mean that we are certain that the radiocarbon dates are in fact accurate and correct, but merely that we accept them at this writing as correct" (Drucker 1955:260).

2. The Mexican School

The "Mexican school" mentioned by Morley consists of those who believe that the Olmec were the "mother" of Mesoamerican cultures. It includes such well known Mexican scholars, aside from Alfonso Caso,[20] as Roman Pina Chan, Miguel Covarrubias and Ignacio Bernal,[21] and it has been reinforced during recent decades by most leading North American archaeologists in the field: Matthew Stirling, Michael Cog,[22] and Robert Heizer, to name only a few. Within this school, there are different theories as to the birthplace of Olmec culture in Mesoamerica.

Miguel Covarrubias, whose keen sense of observation benefited many a student of Mesoamerican culture, was a professionally trained artist as well as an archaeologist in his own right. He observed in 1954:

> I have always been struck by similarities in the concepts and styles of the arts of America, eastern Asia, and the South Seas, and have become hopelessly guilty of subversive diffusionist convictions. The theories of Rivet, Gladwin, Heine-Geldern, and others have all helped to clarify my own impressions on the matter of cross-Pacific contacts (Covarrubias 1954:32).

Three years later, he published his Indian Art of Mexico and Central America, which is highly regarded by scholars in the field. Michael Coe is of the opinion that it "contains the best statement in print about Olmec art and its characteristics" (Coe 1965:741).

Covarrubias felt that since most of the jade celts and other small artifacts bearing Olmec traits were found in Guerrero - a state on the Pacific Coast - and since these traits were more "archaic" than those found elsewhere, the homeland of the Olmec was probably located in Guerrero and Oaxaca:

> One treads on truly dangerous ground when trying to answer the prickly question of who were the creators of the "Olmec" culture. However, the temptation is greater than caution. To judge from the geographic distribution of "Olmec" art - sweeping from the Pacific Coast of Guerrero and Oaxaca northeast into Veracruz and south into Guatemala and Honduras - and taking into consideration the trend of development and elaboration of the culture in those places, it may well have had its origins either on the coast or in the valleys of the Pacific slopes of Oaxaca and Guerrero, where its most archaic forms appear. It probably moved eastward into the valleys of the Central Plateau, reaching a grand climax on the Gulf Coast around Tres Zapotes and La Venta, and moving into Chiapas and Guatemala. The area of La Venta, where the culture reached its greatest complexity in colossal stone monuments, was perhaps the last redoubt of the diehard elite of proud jagular people, pressed on all sides by new peoples approaching ascendancy (Covarrubias 1957:76).

Covarrubias proposed an "archaic"-formative phase for the Olmec, coeval with the "earliest agricultural peoples" in Mesoamerica, and thus seemed to have reversed his earlier position on possible Asiatic origin of Mesoamerican culture.

3. Coe's Theory

Michael Coe, whose influential work on the San Lorenzo site placed him in the ranks of the world's foremost Olmec authorities, believes that the birthplace of the Olmec culture is in the Mexican Gulf Coast state of Veracruz. He thinks that the presence of the Olmec in Guerrero was largely due to their need for a precious raw material - jade:

> Miguel Covarrubias, in particular, was an advocate of Guerrero. I think that this proposition is highly unlikely, and that another explanation is possible for the Olmec presence here.
>
> Basically, my position is that the Olmec erupted into southwestern Mexico and in particular into the drainage of the great Balsas River, because there was

> something that they needed in the heartland which was not present along the Gulf Coast. This "something" was undoubtedly jade, the very symbol of Olmec wealth and authority (Coe 1978:92,94).

Unlike Covarrubias, who felt the logic of evolution, the mode of production (level of technical knowhow), the relationships of production (such as relationships between the priest-kings and their supporting peasants, the master and the slave), and the physical environment did not point to the possibility of the Olmec homeland being Veracruz, Coe argued, in a Veblenian mode, that ideas and state were underlying forces that propelled Olmec's sudden cultural take-off. An ideological skirmish erupted:

> Covarrubias had a theory about the development of civilization in the Valley of Mexico, which ran something like this: a group of Olmec aristocrats took over what had previously been a classless peasant society. The social and political contradictions between these two eventually led to a class state, which ultimately turned into Teotihuacan. This idea, so obviously stemming from Marxist political theory, is now somewhat outdated, since we are sure that the Olmec civilization was so ancient that it could have had little to do directly with the rise of Teotihuacan. Nonetheless, I think it likely that the number of Olmec at Tltilco may have been small, that they may have functioned as a nobility and have had to adapt somewhat to the local culture (Coe 1968:98).

Citing the innovation of motor cars and its attendant chain effect on the American economy, Coe went on to buttress his contention as follows:

> So, sudden commitment on the part of pre-San Lorenzo tribal leaders to vast public works in honor of the rain god might well have opened Pandora's box, just as yesterday's decision by some new nation to have motor cars would also bring a host of concomitants (asphalt roads, gas stations, street lights, traffic police, and so forth) in its wake. To make

> such a gradiose project work, even though suggested by purely ideological considerations, it would have been necessary to impose a super-tribal order - a state, in other words - under the direction of a super - tribally recognized power which quite likely was a now - royal lineage. Despotic authorities demand a public recognition of themselves and their ancestors in the form of great images as the symbols of their power. States demand armies, and armies look for conquest. An increasing prosperity leads an upper class to look for more costly tribute and more refined luxuries, and may have taken the Olmec on a search for jade, serpentine, and magnetite. In short, the entire transition from tribe to state may have been very brief. But once that step was taken, there was no going back. A pristine state bent on conquest, tribute, and proselytizing acts as a catalyst in the eventual evolution of a great culture area like Mesoamerica from a simple food - producing stage to civilization. The pattern that it has set in social, political, religious, and artistic behavior becomes the pattern - often quite altered through time and space - of others (Coe 1967:65).

4. Critique of Coe's Theory

Coe's attempt to explain the origin of a culture by an isolated, extraordinarily particular event seems to contradict two major cornerstones of modern archaeology: context and function. The essence of the contextural-functional approaches were expounded by Gordon Wiley in his 1974 book,(Willey 1974:131) which can be summarized as follows: (1) Archaeological remains are to be considered as material-functional manifestations of social and cultural behavior with close attention paid to context. (2) The manner man settles in the natural environment in conjunction with other men is crucial for the understanding of "social economic adaptation and social political organizations." (3) The development of culture is closely related to natural resources.

Let us examine Coe's argument in more detail according to these three criteria. To my knowledge, no jade artifact of any substance has ever been found at San Lorenzo, a site regarded by Coe as the oldest and most important cultural center of the "Olmec state." As anyone familiar with the Olmec culture will know, jade artifacts - figurines, votive axes, ear plugs and the like - are hallmarks of Olmec material manifestation, the foundation whereupon the Olmec art style, the were-jaguar, was established (Saville:285). By coe's own admission, they were the "very symbol of Olmec wealth and authority." It was jade, Coe claims, that propelled the Olmec to send an army across the width of Mexico, through Puebla and Morelos to conquer the Pacific Coast (Coe 1965:123). Why was there not even a single piece of jade in San Lorenzo? This leads us to another of Coe's farfetched speculations - an Olmec Empire, 1150 years before Christ, stretching from the Gulf Coast of Veracruz to the Pacific Coast of Guerrero and from there as far southeast as El Salvador (Coe 1963:34). I have studied personally every known monument and altar from the site of San Lorenzo and vicinity[23] and failed to detect even the remotest suggestion of war or warrior in the imageries depicted. This is rather odd for a culture which possessed unparalleled skill in realistic three-dimensional articulation and which relied solely on this medium for recording significant events. What perhaps renders Coe's hypothesis even more dubious is our knowledge today of the sparse settlement pattern and the inhospitable environment of the "Olmec heartland." How was the far-flung army peopled? What socioeconomic base supported and provided for the army? Why, given the alleged military nature of the Olmec, not only San Lorenzo, but also the other two major

Olmec, not only San Lorenzo, but also the other two major Olmec centers - La Venta and Tres Zapotes - were all not strategically situated, without fortification and practically defenseless. What superior weapon that the Olmec had, and their contemporaries had not, accounted for the Olmec dominance in Mesoamerica from 1150 B.C. to 900 B.C. as Coe contends?

Coe himself points out:

> Our house-mound evidence indicates a population of about a thousand persons at San Lorenzo towards the end of the San Lorenzo Phase, following the destruction and burial of the monuments; another thousand may have lived at Tenochtitlan, and perhaps a quarter that figure at Potrero Nuevo. If this density was maintained during the height of Olmec culture within the San Lorenzo Phase, then the total population in the zone may never have exceeded 2,500 souls (that is, much less than 1,000 able-bodied men). This is not very much, and completely inadequate to account for the enormous expenditure of time and brute force which must have been involved in the construction of San Lorenzo and the stone monuments, as well as in their destruction and burial (Coe 1967:57-59).

The other known major Olmec center, La Venta, is virtually a small island in the swamp. Philip Drucker, the major excavator of La Venta, described the area as follows:

> The archeological site of La Venta is situated on the low coastal plain of western Tabasco, ten or a dozen miles inland, between systems of streams and sloughs draining into the Rio Tonala. The terrain in this region is predominantly swamp, next to impassable to foot travelers. Mangrove swamps line the riverbanks for many miles inland, indicating the reach of the low Gulf tides in the flat plain. Here and there are elevated areas, varying from a few square feet to a good number of acres in extent. It is such places that are occupied at the present day, and were selected for habitation in ancient times as well (Drucker 1952:4)

Unable to explain the apparent inconsistency of archaeological remains and the number of inhabitants, he theorized, rather arbitrarily:

> The habitable area is relatively small, and certainly would not have supported the manpower that must have been utilized to handle the stone monuments and build the massive structures - it seems more probable that the site was a ceremonial center with a small permanent population of priests, or priest-rulers, and their personal servants and perhaps artisans, supported by tribute from neighboring villages located on similar elevated areas among the swamps, from which, as well, the laborers were recruited for major constructional endeavors. If this surmise is true, it indicates considerable centralization of authority, and an elaborate organization (Drucker 1947:2,3).

It is one thing to casually postulate a highly centralized state in the second millenium B.C. in the midst of swamps drawing on a vast supporting area, but quite another to document its feasibility and practicality. Unless Olmec material manifestation of a bona fide military nature can be produced, any proposition relating to empire or extensive tributary system should be regarded as spectacular conjecture. One need not cite Old World examples of Roman, Persian, Hunnish, Han, Tang, or Yuan Empires to support this view. Close at home in Mesoamerica, the Teotihuacan intrusion in the Guatemala highland (Kaminalijuyu) and the Toltec encroachment in Yucatan (Chichen Itza) were both deeds of well known martial cultures. Ironically, the local cultural remains of the Olmec "colonies" displayed attributes far more warlike than those of their alleged conqueror. The petroglyphs at Chalcacingo, Morelos, the cave paintings at Juxtlahuaca, Guerrero, the stelae at Izapa, Chiapas, and the relief carving at abaj Takalik, Gutemala, to mention only a few, all posses militant traits missing in Olmec artifacts in the Gulf Coast of Mexico. Was it not possible, perchance, that the direction of cultural flow followed a northwesterly route - from the Pacific coast to the Gulf Coast - rather than the reverse? Archaeological and environmental evidences support this possibility.

Can "America's first civilization" originate in a predominately swampy, non-agricultural area? Coe, like Caso, who termed the La Venta-San Lorenzo region the "Mesopotamia of the Americas," (Caso 1965:12) thought so:

> I think that these events happened a very, very long time ago in the Early Formative of the Mexican Gulf Coast, and that the Olmec pattern was eventually to become through many transmutations a Mesoamerican way of life (Coe 1967:66).

Immediately after this statement, Coe added a footnote:

> It is in this sense that I personally believe Olmec to have been the cultura madra of Mesoamerica, although I fully realize that in individual civilizations of later times many other factors and influences were at work. Its historical role for Mesoamerica would have been comparable to that of Classical Greece for Europe (Coe 1967:66).

5. Environmental Considerations

While Caso compared the "Olmec heartlands" to Mesopotamia in his argument for its being the birthplace of America's first civilization, Coe chose the Nile Valley as the Old World counterpart of the San Lorenzo region:

> Economically speaking, the San Lorenzo environment is rich, beyond any doubt. The natural river levees which are annually inundated now afford a dependable and tremendously productive corn agriculture,[24] a situation almost paralleling that of the Nile Valley and one which must have prevailed in Olmec times as well (Coe 1967:65).

Both Coe's and Caso's analogies are unfortunately too superficial. True, the Tigris and Euphrates Rivers of Mesopotamia and the Nile River of Egypt flood annually, as do the Coatzacoalcos River of San Lorenzo and the Tonala River of La Venta, but the similarity ends there. In

both the Nile and the Tigris-Euprates River Valleys: (1) the rivers run through predominantly desert or semiarid regions, (2) most of the rainfall is received during the short violent rainy season, (3) all of the flooding takes place at one time, and (4) the effects of the flood are transient so the area quickly returns to its arid state. The opposite, however, is the case in the "Olmec heartlands," viewed as a whole: (1) the rainy season is almost year round, and (2) the region virtually remains "flooded" most of the year. Furthermore, in Egypt and Mesopotamia, the floods, which left fertile silt, and the short rainy season, which caused man to devise ways to better utilize water (irrigation), together made possible the production of an abundance of food. The annual floods in the Nile and Tigris-Euphrates Valleys also dispensed with the necessity of people moving from one place to another because of exhausted land, which in turn made possible man's first step away from the roaming, food gathering, and hunting way of life toward civilization. On the other hand, the "floods" in the Olmec heartland caused more harm than good. Any silt deposits which the flooding might leave were largely unavailable for agricultural purposes because it remained perpetually submerged. If anything, the "floods" only created more swamp, which served to limit the food producing area to a handful of elevated spots in the so-called Olmec heartland. Coe, himself, in an earlier publication, admitted that the Olmec heartland of Veracruz was highly "inhospitable" and proposed that the development of civilization was not necessarily related to environment:

> It must be concluded that, in the absence of other evidence (such as the postulated wooden stelae), the

> lowland Maya did not originate the Long Count or the practice of erecting dated stone monuments. These were probably invented by the La Venta Olmecs and diffused into the Peten lowlands from highland Guatemala. This would seem to substantiate Meggers in her claim that Maya civilization was not an indigenous development, for the life of the ancient Maya was really centered around their ingenious and complex calendar system; if this was diffused to them, probably most other important Classic traits were, too. However, unfortunately for any theory of environmental determinism, the original source of this diffusion seems to have been another "Type 2" environment, namely, the even more inhospitable jungle and swamp lowlands of Veracruz and adjacent Tabasco, the center of the Olmec-La Venta civilization. It appears that we have underestimated the ability of human groups to attain great cultural achievements at times in spite of the natural surroundings in which they find themselves. Certainly the brilliant development of Olmec-La Venta culture would caution us against viewing man merely as a function of environment (Coe 1957:609).

The "Type 2" environment referred to by Coe was defined by Betty Meggers in a brilliant article titled "Environment Limitation on the Development of Culture," as areas of limited agricultural potential, under which setting a culture could not be originated and sustained. In the case of the swampy environment of lowland Veracruz just cited, Coe was somewhat generous in type grading - the La Venta environment was not even Type 2; it was Type 1: areas of no agricultural potential.

> This includes the greatest variety of natural landscapes because only one of the many components necessary for agriculture need be absent for the area to be unsuitable. The defective element may be soil composition, temperature, rainfall, short growing season, elevation, terrain, etc. Type 1 regions include tundra, some deserts, tropical savannas, swamps, some mountain ranges, and similarly uncultivable types of land (Meggers 1954:803).

The birthplace of civilization is highly unlikely to be found in a Type 2 environment. Needless to say, Type 1 areas are the least probable cradle for the genesis of a culture.

6. The Highland School

William Sanders is one of the most staunch opponents of Coe's lowland origin theory, which alleges that the lowland of Veracruz is the "place of origin of the Mesoamerican formative, where village-farming became a way of life for the first time" (Coe 1963:34).

> As an exponent of the Highland School myself, I, of course disagree with many of Coe's points.
>
> 1. Some of his reasoning sounds circular and inconsistent. He accepts Sears' pollen profile of the Valley of Mexico (which is highly suspect anyway) in which the Classic is visualized as a period of low rainfall, and even suggests that the collapse of Teotihuacan may have been the result of this climatic deterioration. Yet he also unceremoniously denies the role of irrigation in the evolution of the city!
>
> 2. ... Coe concludes that dense forests in the lowlands offer a great challenge and civilizations evolved there first in Toynbee's terms. Coe here confuses the simple physical challenge offered by forests to cultivators and universally solved by small group cooperation (frequently even on a familial level), with the type of challenge offered by arid regions in which large cooperative groups are necessary for effective manipulation of the environment. The latter ecological system can be easily seen as the basis of civilizational growth, whereas there seems little theoretical rationale behind the concept of such a growth from the ecological system of the lowlands.
>
> 3. ... The argument presented by Coe offers a number of exceedingly difficult problems which he does not attempt to answer or even suggest that they exist. Why should the Central Plateau play the role of a dominant center for 2,000 years from the Proto Classic until 1962? Furthermore, since Coe admits the priority of the area with respect to the incipient phases of plant domestication, why then did it play the "marginal" role for 1,500 years of succeeding Preclassic?
>
> 4. The major argument in favor of the Lowland School is based on archeological data from southern Vera Cruz where Coe sees the Olmec culture as the "Cultura Madre," as did Covarrubias before him, in the evolution of Meso-

> american civilization. I still feel however that the geographical setting of the initial place of Olmec remains an open question. Olmec sites are abundant in the southern strip of the Central Plateau (southern Puebla, Morelos) and at least two Mexicans (Pina Chan and Covarrubias himself) have suggested this area as the birthplace of the culture.
>
> 5. Coe's vigorous defense of the Lowland School has led him to reject perhaps 90 percent of the C 14 dates from the Central Plateau as too early. If taken at their face value they suggest that each of the major ceramic stages of the Pre-classic was several centuries earlier in the Plateau than elsewhere.
>
> 6. The major defect of the entire Lowland argument is the complete lack of any functional theoretical system parallel to the Hydraulic hypothesis of the Highland School (Sanders 1963:973-974).

To these charges Coe retorted four years later, having just excavated the important Olmec site, San Lorenzo:

> These early Olmec were the first and, ironically in spite of all that has been wishfully written on the subject, one of the very few Mesoamerican "hydraulic civilizations" - hydraulics, of course, devoted to functions which were definitely non-agricultural, but which were water control just the same. They were above all obsessed with getting people to work, to work so hard and so long that they did things one would a priori think impossible. If there was a hard way to do anything, they did it. There was a Veblenian waste of labor and material on a hyper-conspicuous scale. Along with this prodigality went an experimentalism expressed mainly in sculpture and in site planning, for who else prior to them had ever done anything similar (Coe 1967:64)?

Coe is convinced that the entire tableland of the San Lorenzo site, 50 meters high, 1.2 kilometers long (north-south) and .7 milometers wide (east-west), is "an artifact on a gigantic scale," constructed by order of the "tribal leaders of a coercive state" prior to 1200 B.C.

> The amount of work which must have been involved staggers the mind, for there are many thousands of tons

> of pre-San Lorenzo fill (consisting of earth, sand, clay and bentonitic rock) which was brought in in basketloads to form the Group D ridge alone (Coe 1967:45).

He proceeds to conclude that the development of Olmec civilization from a formative village life is an indication of "quantum evolution" resulting from "ideas and institutions rather than in modes of production (Coe 1967:65). This underscores the fundamental ideological differences between Coe's lowland-origin school and Sander's highland-origin school: it is idealism versus materialism.

Other scholars who side with Sanders include Pina Chan who believes that the most ancient Olmec manifestation ("Olmecas Arcaicos") occurred in the state of Morelos and spread from there to the valley of Mexico and to the Gulf Coast (Chan 1955:106-107). It also later included Charles Wicke who claims that the beginnings of Olmec style at Huamelulpan, Oaxaca, dates back as early as 1600 B.C. (Wicke 1971:162)! While Pina Chan's hypothesis is arguable, that of Wicke's is more open to question. Its weakness lies in his overemphasis on the applicability of the Guttman scale and on the Huamelulpan monolith. The criteria by which he chooses his constants and variables in seriating the vortive axe and colossal heads are altogether arbitrary. In the case of the colossal head for example, he assumes time intervals between colossal heads are constant. He further stipulates that the variables through time are: 1) facial expression changes from serenity to smiling countenance to frozen look, 2) proportion of the heads become increasingly squashed, 3) definition of eye becomes less detailed (Wicke 1971:136). Now it has been generally accepted that these Colossal Heads are portraits of Olmec leaders.

Applied similar reasoning to the portraits of the presidents of the United States, can one surmise, 1) that President Jimmy Carter predates President Calvin Coolidge, 2) that President Abraham Lincoln predates George Washington or 3) that a Hery Moore sculptural portrait of a president necessarily antedates another one by Michelangelo? It appears to me that inference of the direction of "stylistic drift" can be meaningful only when it is corroborated directly or indirectly by an established time frame of reference.

In addition to Wicke, there are other scholars who believe the ancient people of Oaxaca played an important role in the genesis of Mesoamerican civilization. Wigberto Jimenez Morenos, then head of the Department of Historical Research at the National Institute of Anthropology and History in Mexico City observed:

> As is known, there are quite clear indications of contact between the La Venta culture and that of Monte Alban I, indications that are striking enough to suggest that the two centers were just then the most highly evolved of all; and probably (for this very reason they acted more or less in unison as the guiding forces of the cultural development. A sort of La Venta-Monte Alban civilizing axis (Moreno 1966:17).

John Paddock, noted authority on Oaxaca Archaeology agrees:

> It is not strange, then, that certain strong resemblances should have been noted between parts of the "Olmec" and Monte Alban I cultures. We cannot yet say which one came first, or which one (if, indeed, either) played the dominant role in their borrowing and lending (Paddock 1966: 91-95).

The recent discovery of some 50 low relief carvings of "danzantes" at Dainzu in the Valley of Oaxaca has given this school of thought a boost. Ignacio Bernal, Director of the famed National Museum of Anthropology in Mexico City, feels that the Oaxaca Culture, in many areas,

possessed even higher achievements than that of the Olmec. Not only did Oaxaca posses far more advanced architecture than the Olmec heartland of Veracruz, he maintains it also boasted superior calendars, hieroglyphic, pottery and a more sophisticated religious system.

> There is little doubt that the Monte Alban danzantes and the later Dainzu ball players are related to, if different from, the Olmec art. We may consider them parallel products of separate but intercommunicated histories.
>
> The writing system of Monte Alban I is not the only great contribution the Oaxaca valley gave to Mesoamerica. We have already mentioned the considerable progress in architecture; and let us now turn to yet another aspect. In the Olmec heartland we can think of at most, one god, the jaguar. By the end of the Monte Alban I period, at least ten deities are sufficiently well characterized as to be easily recognized.
>
> The very sophisticated and technically perfect pottery of the Monte Alban I period has certain Olmec traits and frequently an Olmec flavor, but is quite distinct and hardly ever suggest anything resembling Olmec (Bernal 1971: 45).

Accordingly Bernal proposes a developmental model which includes a pan-Mesoamerican common base of "pre-civilized" traits in second millennium B.C., immediately before the birth of civilization. From this common base sprang branches of civilizations, co-existing in a mutually beneficial relationship:

> With no apostolic zeal let me give my own opinion on the narrower issue, or in other words, how I envisage Mesoamerican civilization.
>
> It is an original one, that is not derived from a parent civilization but emerging from lower cultures.
>
> Like all civilizations, the Mesoamerican is formed by a number of different peoples with sufficient individuality to cross-fertilize one another but close enough to have a common basis for all. Thus a large number of traits - mentioning now only some of the pre-civilized ones corresponding to that second millennium - were common to all. Similar agriculture, plants, domesticated

> animals, magic, tribal systems, sedentariness, pottery, weaving.... From this basic culture the civilized one would emerge, having a common origin but differing somewhat in later developments.
>
> Among all the different nations of Mesoamerica they managed to build a number of typical traits that taken together separate the area from any other culture.
>
> Evidently not all Mesoamericans possess all the traits nor are some common ones equally shared by the different areas. I believe this is typical of any civilization. Some areas went further along one path whilst others followed a diverging course (Bernal 1971: 48-49).

Bernal did not elaborate on the difference between the "basic culture" and the "civilized one," neither did he furnish an answer as to the force that stimulates the "basic culture" to take-off, blasting into the orbit of the "civilized one." True, the number of deities in the Monte Alban pantheon are impressive but quantity is not what superiority in religion is predicated upon. The decadent version of Mahavana Buddhism maintains an entourage of gods of astronomical proportion. This does not guarantee that it is more exalted than a simpler form of Buddhism - or for that matter, Christianity. Personally, I detect a strong barbaric flavor in the Oaxacan portrayals of every member of their pantheon. Whereas in the case of the Olmec, were-jaguar aside, the depictions of ruler-diety are often tranquil, platonic and transcendent. This of course is pure value judgment. Both Bernal and I are using a modern code in judgment of the ancient.

In addition to religion, I disagree with Bernal that the "danzantes" and the "Dainzu ball players," are related to Olmec Art. I fail to see any similarity between the two, both in design concept, content and in

execution. I also have doubt concerning his allegation that the vertically placed glyphs carved on the Monte Alban, Stela are the "oldest texts so far found in Mesoamerica." In the first place, there is no evidence that the Monte Alban glyphs predate those on the roller stamp from Tlatilco (Kelly 1966: 744-746) or those on the Olmec Humboldt Celt in the collection of the Berlin Museum, to cite only two examples. In the second place, it is most likely that the "oldest texts in Mesoamerica" were carved on more perishable material, the likes of wood, etc. Bernal is correct, however, in stating that the pottery of the Oaxaca culture surpasses those of the Olmec's. I have yet to see a single piece of pottery from any major Olmec site in the "heartland" that is of above average quality. Practically all examples of Olmec pottery published by scholars in the field are from either Puebla, Morelos, or the Valley of Mexico.

7. The Pacific School

As more and more Olmec-related sites are discovered on the Pacific Coast of Central America - Ocos (La Victoria), Salinas La Blanca Padre Piedra, San Miguel Amuco, Juxtlahuaca, Oxtotitlan, Tonala, Sin Cabezas, Pijijiapan, Izapa, El Jobo, Abaj Takalik, El Porton, El Baul, Monte Alto, Kaminaljuyu, Tazumal - other scholars begin to speculate on the possibility of this region being the birthplace of Mesoamerican culture. S. T. Miles, in one of the best illustrated articles dealing with pre-classic and proto-classic pacific sculpture, suggests that there is supporting evidence pointing to middle pre-classic placement to middle

pre-classic placement of the Monte Alto sculpture (Miles 1965:244). Lee Parsons and Peter Jenson proceed further in maintaining that the Olmec culture of Veracruz may be coeval with that of the Pacif Coast.

> On the basis of what evidence we have, we may make two assumptions: first, it is probable that at an early period there was intensive cultural flow between the Gulf Coast of Mexico and the southern Pacific Coast of Mexico, Guatemala and El Salvador across the Isthmus of Tehuantepec. This region, composed of continuous lowland tropical rainforest and savana is a single unit geographically and environmentally. Second, some sort of developmental relationship existed between boulder sculptures such as those found at Monte Alto and monumental Olmec sculpture. What we do not know - and what can only be solved by more excavation - is the place of origin, the sequence of development and the direction of diffusion of these art styles (Jenson 1965:144).

Robert Sharer and David Sedat after excavating the site, El Porton in the Salama Valley of Guatemala in 1972, Buttress the assertion of Parsons and Jenson with additional pre-classic sculptures, one of which (El Porton Monument 1), they point out, contains a "Glyphic Text."

> In either case, Monument 1 and the precocious Maya highland society it represents is one more indication that the development of Mesoamerican civilization was via a series of contemporaneous interacting regional centers of population, rather than due to a single "Mother Culture" as has been suggested in the past (e.g. M. D. Coe 1962:84). Additional archaeological research at the site of El Porton and in the Salama Valley will subject these questions to further scrutiny (Sedat 1973:186).

The Pacific school experiences another major breakthrough when Abaj Takalik,[25] a site which is now occupied by two coffee farms, Santa Margarita and San Isidro Piedra Parada near a small town named Asintal, was re-excavated in 1976 and 1977 by John Graham, Robert Heizer and Edwin Shook.

> In addition to the discovery of very early Maya sculptures and hieroglyphic texts, a series of Olmec monuments were also unearthed. A human figure in Olmec relief style located on a large boulder near abaj Takalik has been known for many years. The group of Olmec carvings discovered in 1976, however, represents the first time a substantial series of Olmec monumental sculptures have been found at a Maya site. Together with scattered discoveries of Olmec pieces from sites along the Pacific coast, these finds indicate a major Olmec presence on the south coast of Guatemala.
>
> Excavations were resumed at Abaj Takalik in late January 1977, and a number of exciting new sculptures were unearthed. Additional examples of Olmec art were uncovered and include a large boulder first carved as a colossal head and subsequently recarved to present a seated "niche" figure. Substantial deposits of Preclassic ceramics corresponding to the periods of sculptural activity at the site have also been excavated. Additionally, a Late Classic occupation of the site, which saw the erection of plain, uncarved stelae and the repositioning of older carved monuments and monument fragments has also been defined by the most recent excavations. Further study should cast even more light on the people who lived at Abaj Takalik and give a greater insight into their relations with the Olmec peoples (Graham 1977:197).

Thus, the Olmec pendulum gradually begins to swing from the Gulf Coast lowland, across the Isthmus of Tehuantepec, to the highland and slope of the Pacific Coast.

There is ample evidence revealing extensive Chinese cultural strain in Mesoamerican art from its beginning to the time of the Spanish conquest. The transmission of culture to the New World appears to be connected with the alternating ascendency to power of the Chinese and the "barbarians" in China. I will next attempt to 1) clarify a number of common misconceptions concerning interhemispheric contacts; 2) summarize the chronic and volatile conflicts between the Chinese and the "barbarians" as a background for migration and cultural diffusion; 3) present a sampling of the striking similarities of traits unique to Chinese and Olmec art.

F. Diffusion vs. Evolution: The Vaulting System and the Wheel

The three arguments most frequently cited by scholars who believe the origins of Mesoamerican culture to be indigenous are: a. non-existence of the true arch, b. absence of the wheel, and c. absence of bona fide stratigraphically excavated old world artifacts in Pre-Columbian America.

Scholars holding the notion of indigenous origins of Mesoamerican culture discount theories of cultural contact in asking, "If there were contacts, why was the true arch never employed in the ancient Americas?" It is surprising that no one has previously enumerated the two sound reasons for the non-use of the true arch. First, most Mesoamerican cultural centers were located on or near seismic faults: an arch with radial joint construction is inferior to corbelled construction in its ability to withstand ground vibration. The true arch constructed with the principle of side thrust by the key stone, is more vulnerable to side pressures as a consequence of ground vibrations. The falling on only one arched stone will result in a failure of the arch.

In contrast, the vaulting system with stacked horizontal layers (false arch) exerts only vertical pressures on the walls, this force being applied in such a way that each component is in a state of constant static equilibrium. The rending of one or more corbelled layers in no way affects the general stability of the whole. Thus, the vaulting system with stacked horizontal joints was not only better adapted to the environment of the Mesoamericans but also more economical - the corbel arch does not require precise dressing of the stone or the rigid adherence to specifications and formulas which the true arch requires.

It should be noted, however, that not all so-called corbelled arches in Mesoamerican were indeed true corbel systems. In the strict sense, some are a false version of the false arch since there was not enough vertical purchase between layers to attain the level of equilibrium necessary to bear the load from above (and withstand earch vibration). To compensate for this, however, irrelevant to the isolationists' argument since their proposition deals with the absence of the false arch.

The second sound reason for the non-use of the true arch may be recognized by examining the socialization pattern of Mesoamerican people. Scholars of the indigenous origin persuasion hold the position that the absense of the true arch, and therefore, large interior spaces in Mesoamerica is synonymous with the absence of cultural contact between the Old and New Worlds. This tenuous position is no doubt based on our experience in congregational worship within interior spaces whereby we automatically assume large interior space to be more desirable in the case of temples. This ignores the fact that in most primitive cultures the custom of interior mass worship simply was not practiced. The temple, as constructed in Mesoamerica, was to accommodate not the common people but a specific social group: Priest-king, Shaman, etc. Thus, the entire temple complex was conceived as a symbol or monument of worship rather than an interior space for assembly.

Corroboratively, it is interesting to note that all major temple complexes constructed prior to the 15th century A.D. in Java, Cambodia, Thailand, Vietnam, and a number of other Southeast Asian cultures were constructed exclusively with the corbel arch - including such noted religious centers as Barabudur, Chandi Sari, Chandi Kalasan, Chandi Mendut,

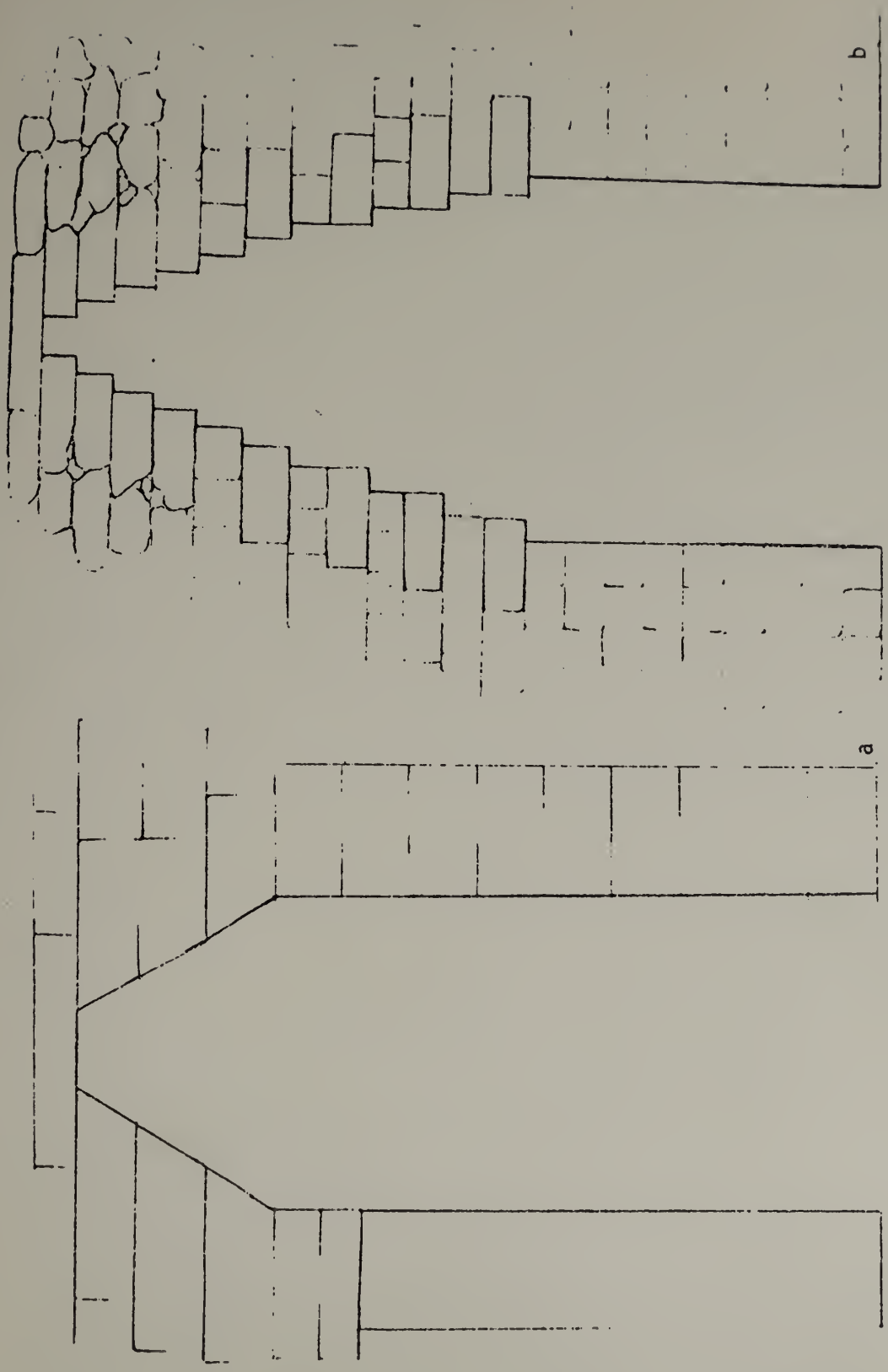


Fig. 1. Corbeled arch. a. Angkor, Cambodia. b. Copan, Honduras.

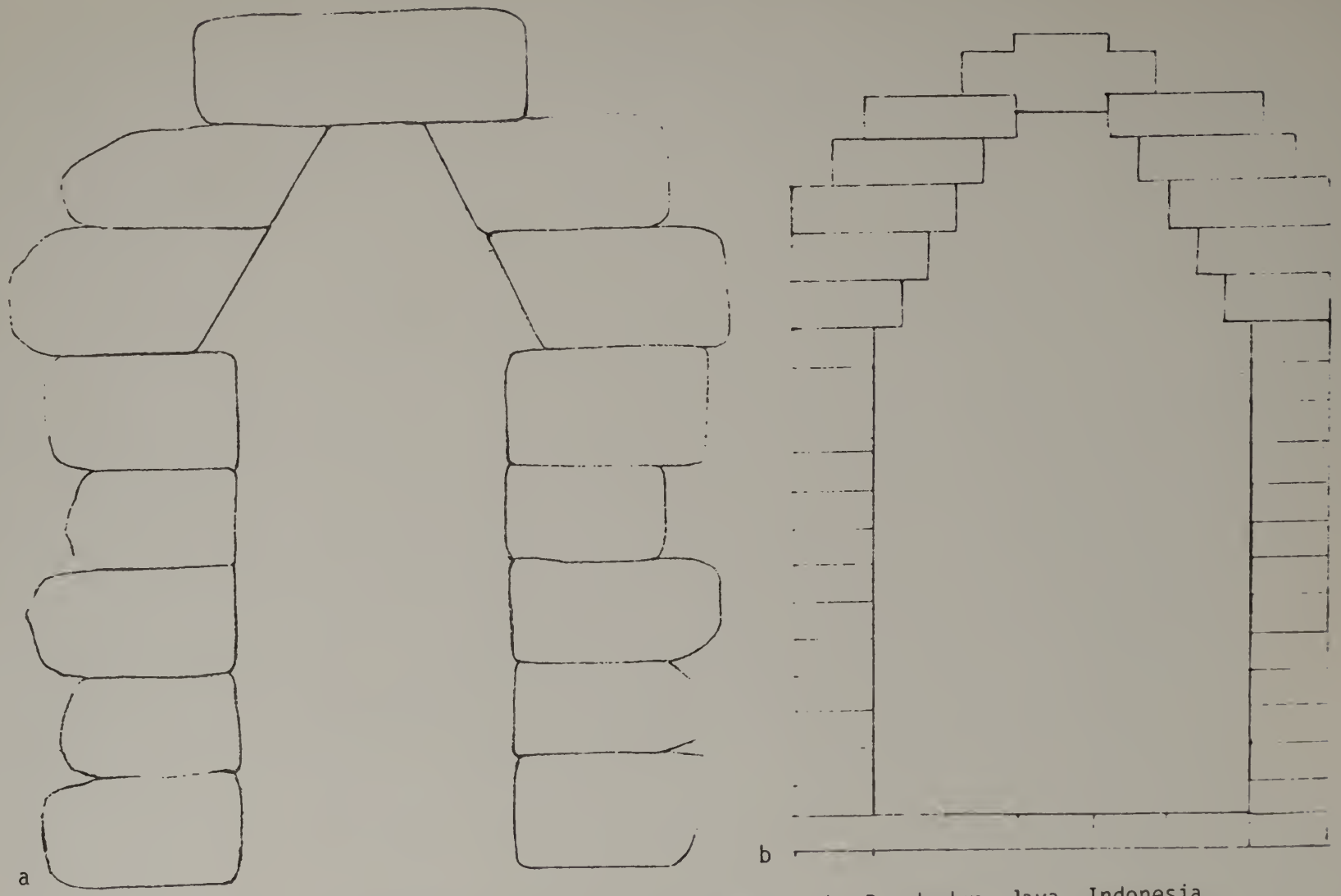


Fig. 2. Corbeled arch. a. Tikal, Guatemala. b. Barabudur, Java, Indonesia.

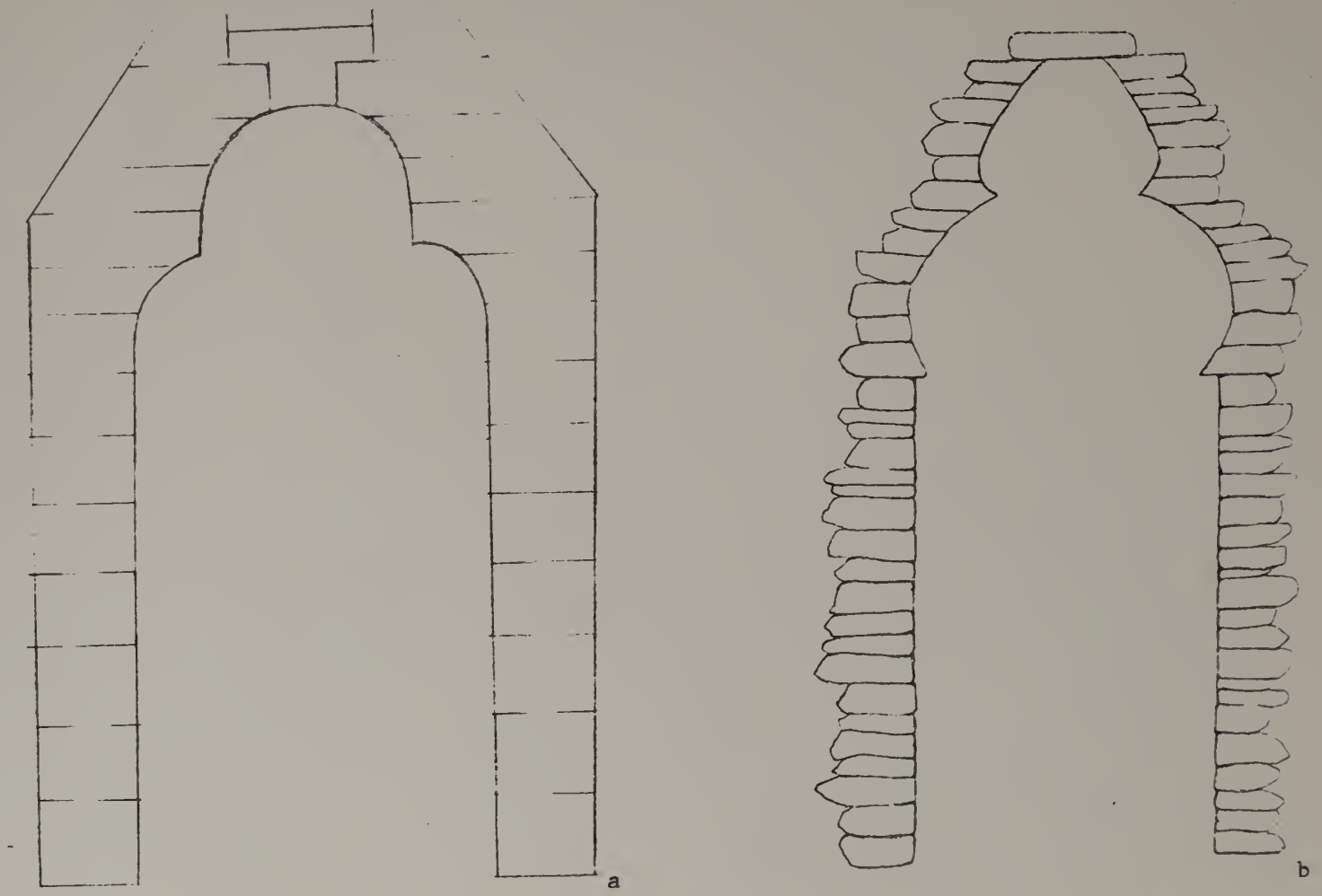


Fig. 3. Trilobe arch. a. Sun Temple, Martland, India. b. Palenque, Mexico.

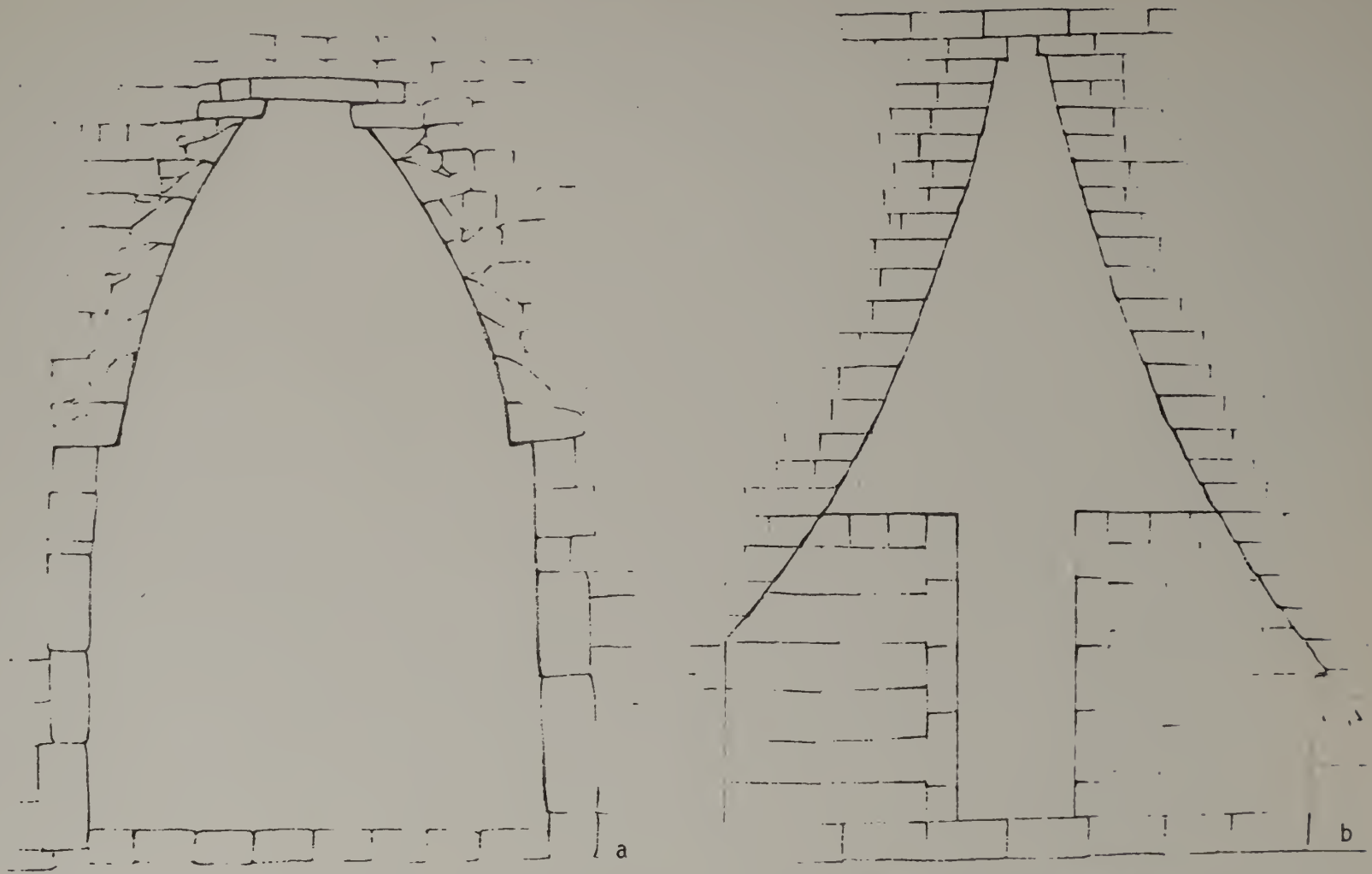


Fig. 4. Mortared "corbeled arch". a. Labna, Mexico. b. Uxmal, Mexico.

Chandi Sewu, Lara-djonggrang Prambanan, the Ankor Thom, Ankor Wat, and numerous others. Clearly, in spite of the close contact with ancient culture centers in the Old World and resulting knowledge of the true arch, these Southeast Asian cultures had chosen to employ the corbel arch in preference to the true arch for environmental and ideological reasons similar to those of their Mesoamerican counterparts, that it, in being located in earthquake and volcanic zones and in their regarding temples as monuments rather than interiors for congregational assembly. Consistent with the architectural dictum, "for follows function," there simply was no demand for substantially large interior spaces and no need to discard a proven efficient method of building, such as the false arch. It appears that the absence of the true arch in Mesoamerica argues for cultural contacts between Southeast Asia and Mesoamerica rather than for indigenous origin.

The second often used argument of the independent inventionists centers on the absence of the wheel in Mesoamerican culture. However, this absence can be explained by reasons of environmental and economic necessity just as in the case of the corbel versus the true arch. Productive application of the wheel is directly related to the presence of metal, good roads, bridges, and voluminous trade requirements. Without metal, the durability and practicality of the wheel is seriously limited, especially in view of the rugged terrain and the heavy rainfall of the tropics which render the construction and maintenance of flat roads suitable for vehicular travel economically prohibitive in terms of small scale trade.

It is inconceivable that tiny groups of traders could maintain a far-reaching road system which, soon after construction, would be

devoured by tropical vegetation and rainfall. Under conditions typical in much of Mexico and Guatemala, the flexibility of human legs on bodies capable of transporting substantial volumes of materials was far more efficient and economical. With bad roads, rugged terrain, no vehicular bridges and the absence of a suitable pulling force such as horses or oxen, the wheeled vehical would be, more often than not, a liability. That the wheel can be a liability or certainly not an asset can be borne out even by modern travelers attempting to reach remote ruins in Central America; there are hundreds of ancient sites and contemporary villages where even powerful four wheel drive vehicles are helpless while two strong feet and a hand with machete penetrates with relative ease. In these remote areas of Central America and Mexico, as well as in East Asia, human rather than wheeled vehicles, remain the primary mode of cargo transportation.

G. The Chinese and the "Barbarians": Ethnic Conflicts and Their Impacts on Cultural Contacts

It is my belief that while the cultural motifs diffused to Mesoamerica were primarily Chinese in character, the cultural transmitter was mostly non-Chinese. And moreover, the process of diffusion from East Asia to Mesoamerica was activated by and synchronized with the alternating ascendancy to power in China, between the Chinese people and the "barbarians" - the western Jung Barbarians, northern Ti Barbarians, eastern I Barbarians, and southern Man Barbarians (the Turanian, Mongol, Tibetan, Tartar, Topa, Tungus, Hsien-pi, and the Manchu, to cite a few). The following brief examination of historic and prehistoric Chinese cultural context is offered in support of my belief.

The Central Plain of lower and middle Huang-ho (Yellow River) Valley

of northern China has long been variously regarded by archaeologists and historians as "the cradle of Chinese civilization," "the cultural nucleus," or "the center of the world." There is an ancient Chinese proverb which can literally be translated, "We chase the deer in the Central Plain; nobody knows under whose hand the deer will die." This proverb had often been used by ambitious warlords - barbarians and Chinese alike - to legitimize their claim for control of this well-endowed region. The Central Plain was the focus of contention by various peoples even before the Chinese historical period. This constant struggle for control in the Central Plain provided continual cultural exchange between different peoples and cultural take off and the birth of the glorious Chinese civilization in the early second millenium B.C. This struggle also brought about massive movement and dislocation of people - in a manner not very different from the dislodging of millions of nationalists from the Chinese mainland to the island of Taiwan in the 1940's. This influx in modern times from mainland China forced some of the native Taiwanese to seek asylum in the United States to launch the so-called indépendent movement.

1. Early Cultural Context (10000 B.C.-2800 B.C.)

Since the end of the Ice Age, from about 10,000 B.C., China Proper was the home of several agricultural peoples using cord-marked pottery (Chang 1977:119). In the North the cord-marked culture gradually evolved into the pre-historic Chung-yuan (Central Plains) culture. Based on the most recently released carbon 14 data from the People's Republic (Hsia 1977:217-227) the Central Plain Culture can be divided into three successive but sometimes overlapped horizons: the Yang-shao horizon (painted pottery, carbon dated

5000-2500 B.C.), the Miao-ti-kou horizon (transition 4000-2700 B.C.), and the Chung-yuan Lung-shan (black pottery, 2800-1700 B.C.). Centered around the meeting place of the Huang, Fen, Lu and Wei Rivers in eastern Honan, southern Shansi, Shensi and extending as far west as Kansu - the "corridor" of cultural contact between China and Central Asia - the horizon marker of the early Chung-yuan Neolithic culture is painted pottery with red pottery dominant. Most common pottery forms were narrow-necked, pointed bottom bottles; long-necked jars; and flat-based bowls. There was little occurence of tripod vessels; those which did appear were usually of a later date. During the early stage, the Chung-yuan Neolithic people dwelled in semi-underground habitats. Subsequently, mud-walled structures reinforced by wood were made as shelters. They subsisted mainly on millet, fish, and domesticated animals. Most agricultural implements were made of stone. The next two phases of the Chung-yuan cultural development witnessed the gradual infiltration of the East Coastal traits into the Yang-shao cultural milieu.

In the East, recent discovery at Ho-mo-tu, Chekiang Province (Chekiang 1974:6-12) pushed back the beginning of the East Coastal horizon to 5200 B.C. The main staple of this early culture was rice with domesticated animals: dogs, pigs, and water buffalo. Its pottery consisted chiefly of the charcoal mixed black, with five form-types: Pan (dish), Pen (bowl), Kuan (pitcher), Pen (deep dish), and Fu (pot). At this early time the Ho-mo-tu people already were well versed in the tenon and mortise technique in the construction of their usual wooden shelters. The majority of their agricultural tools were made of bones (Hsia 1977:222). These include bone shovels and bone hoes which are almost identical to those

excavated in Sakhalin Island and are similar to the ones found further north in Chukotski Peninsula and the Aleutian Islands. The specimens found on the Sakhalin Island have been dated by in Hsien-jen-tung in Kiangsi with evidence of domesticated plants and animals: rice, pigs, dogs, chickens, and sheep. The Hsien-jen-tung remains are carbon dated 8920± 240 B.C. Its lower level yielded the "rough sand mixed red" pottery decorated with cord-marks, incised checker pattern on cord-marks and spirals which were sometimes rubbed with Cinnabar (Kiangsi 1977:40). Pottery of this level consists solely of ring-bottom jars. The upper level yielded both red and grey wares with straight neck and saw-tooth lip. In addition to the cord-marked pattern, the surfaces of these utensils were adorned with oval and circular spirals, checker and basket patterns of both incised and stamped variety. Subsequent Neolithic finds datable to 3rd millenium B.C. provide further evidence of contact among the ancient people of north, east, and south China. Among these finds were painted and incised pottery, shouldered adzes, flat trapezoid axes, and flat oblong axes - in Hong Kong, Tung-yuan - both in Kwangtung Province and in Yuan Shan, Taiwan. The last Neolithic horizon of the South is marked by the extensive appearance of impressed geometric wares. According to scholars of the People's Republic, the peak period of this horizon is contemporaneous with the Shang and Chou Bronze culture in the North (Kiangsi 1977:46). It is interesting to observe, however, that in the early Shang bronze of the Central Plains, the Yun (cloud) and Lei (thunder) scroll pattern rarely graced the ground of the Tao-te figure; whereas after the middle Shang period these scroll lattice-works became so pervasive in the figure-ground composition of bronze decoration that practically every niche and cranny on the surface of the ceremonial bronze

utensils were covered by them. Furthermore, bronze works from Anhui and Hunan Province, located south and southeast of the Chung-yuan area (Central Plains - traditionally the heartland of Chinese civilization) embody bolder, more sophisticated manipulation of the Yun and Lei pattern both in terms of aesthetic and technical achievement. This points to further evidence for cultural borrowing among the North, South, and East cultural spheres in ancient China.

2. The Protohistoric (Legendary) Period (2852 B.C.-2205 B.C.)

Immediately before the emergence of China's historical period, numerous small tribal groups of various ethnic affinities possessing different, yet related cultures co-existed in present day China proper. Some of these tribes engaged in settled agriculture, some were nomadic herdsmen, and the others were occupied with both. This phenomenon continued even into the early historical period.

As early as during the leadership of Shun (reigned from 2255 B.C. to 2205 B.C., the last of the five legendard emperors) various native tribes of the Central Plains were forcibly driven out to peripheral areas:

> He banished the tribe of Kung-kung[26] to Yu Chou,[27] sent the tribe Kuan-tou to Tsung Shan;[28] drove the three tribes of Miao to San-wei,[29] and confined Kun's[30] tribe to Yu Shan.[31] These four criminal tribes having been properly dealt with, all under Heaven and Earth submitted to Shun (Shu-ching: Yu-shu, Shun-tien).

Few archaeological remains have been found - or recognized - which can be firmly ascribed to the first historic dynasty of China, the Hsia (2205-1766 B.C.). It is highly possible some of the Ling-shan or early Shang artifacts could have belonged to the Hsia culture because of the close relationship and temporal overlap between these cultural horizons.

Before founding the first historic dynasty of China, Yu was recorded (Chu-shu-chi-nien: Ti Yao Tao Tang Shih) to have conquered the Jung Barbarians of the East in Tsao (Shatung Province) and of the West in Wei (Shensi Province). According to Shu-ching (Book of Historical Documents), the Miao Barbarians, unlike the others, continued to defy Yu's authority and created havoc. Yu gathered all his princes and launched a punitive expedition against them. After three decades of unsuccessful attempts, Yu had to draw off his troops and adopt a pacific policy in order to bring about a peaceful seetlement with the Mial Barbarians (Shu-ching: Yu-shu, Ta-yu-mo).

3. The Hsia, Shang, Chou, and Chin Period (2205 B.C.-207 B.C.)

The Hsia people were recorded to have to roamed eastern China extensively. According to Chu-shu-chi-nien (Bamboo Annals) which were found in the tomb of An-li-wang, prince of the Wei state (ca. 276-245 B.C.), Yu (the first ruler of the Hsia Dynasty) led a hunting expedition in 2200 B.C. to Tu-shan in modern Chekiang Province (homeland of the important Neolithic Ho-mo-tu and Liang-chu cultures) on the southeast coast of China. In 2197 B.C. he went back to Chekiang Province to meet his nobles, died there, and was buried in Hui-chi. Before him, in 2208 B.C., Shun - Yu's co-ruler of China prior to the founding of the Hsia Dynasty - on an "inspection tour," also died in the South in the Province of Hunan, over a thousand miles from his capital. In the first year of the reign of Hsiang (2146-2118 B.C.) a punitive expedition was conducted against the Huai "barbarians" in the Southeast. In 2146 B.C. another such expedition was conducted against the Feng and the Huang "barbarians." In the year 2139,

the Yu "barbarians came to pay tribute.[32] During the reign of Shao-kang (2079-2057 B.C.), the Fang "barbarians" came to pay tribute; during the reign of Chu (2057-2040 B.C.) a campaign was launched against the barbarians residing on the coast of the Eastern Sea (the Pacific). At the time of the reign of Feng (2040-2014 B.C.), nine barbarian tribes of the East came to offer their service (submission) to the Middle Kingdom. A hunting expedition was made to the Eastern Sea, where enormous fish were caught, during the reign of Mang (2094-1996 B.C.). In 1975 B.C. during the reign of I, the Dog Barbarians, the White Barbarians, the Black Barbarians, the Wind Barbarians, the White Barbarians, the Red Barbarians, the Yellow Barbarians were brought into order. During the reign of Fa (1837-1818 B.C.), barbarian tribes from many different areas came to the palace to offer their submission. At the celebration party on the Upper Lake, the various barbarian tribes performed their dances (Indian Pow-wow?). In 1815 B.C. during the reign of the last ruler of the Hsia Dynasty, the Dog Barbarians rebelled and penetrated far into the Middle Kingdom; 1812 B.C. during the Chi-Chung Barbarians came to pay tribute.

It is not surprising, under the pressure of continual incursion of various barbarian tribes, that the capitol of the Hsia Dynasty had to be relocated repeatedly.

According to Chu-shu-chi-nien (Bamboo Annals), the capitol of Hsia (2205-1766 B.C.) was relocated eight times. During the reign of Yu (2205-2197 B.C.) the capitol was Yang-cheng - present day Kai-feng, Honan. When Chung-kang became emperor (2159-2146 B.C.) the capitol moved to Chen-Hsun, presently Wei-hsien, Shantung. At the time of Hsiang's reign (2146-2118 B.C.), Shang became the capitol of Hsia - Shang-chiu, Honan.

In 2137 B.C., the capitol was moved to Chen-kuan - Shou-kuang, Shantung.

In the 18th year of the Reign of Shao-kang (2079-2057 B.C.) the capitol was moved from Chen-kuan - present day Chi-yuan, Honan. Likewise, five years into the reign of Chu (2057-2040 B.C.) the capitol moved from Yuan to Lao-chiu, presently Chin-liu, Honan.

During Chiu's reign (1900-1879) the capitol was located in Siho, in Shensi. Following Chiu's reign, Chieh became emperor (1818-1766 B.C.) and the capitol was Chen-hsun which is present day Wei-hsien, Shantung. In 1803 B.C., the capitol was moved to Honan - south of the Huang-ho.

Struggle between the residents of the Central Plains and the surrounding barbarians continued during the Shang Dynasty (1766-1122 B.C.). In 1747 B.C., it is recorded (Chu-shu-chi-nien: Yin-shang cheng-tang) that the Ti-chang Barbarians of the West came to offer their submission to the Shang court. During the reign of Tai-wu (1637-1562 B.C.), the Jung Barbarians from the West and the nine tribes of I Barbarians from the East came to pay tribute. In 1556 B.C. during the reign of Chung-ting and again in 1530 B.C. during the reign of Ho-tan, the Lan Barbarians of the East were attacked. During the reign of Yang-chia (1408-1411 B.C.) an expedition was launched against the Shan Barbarians in the West. In 1292 to 1290 B.C., Wu-ting (1324-1265 B.C.) attacked the Kuei (ghost) Barbarians of the North and finally conquered them, prompting the western barbarians of the Chiang and Ti tribes to acknowledge submission. In 1274 B.C., the Shih (pig) Barbarians were also conquered. During the reign of Tsu-chia (1258-1225 B.C.), expeditions were made against the western barbarians in 1213 B.C. resulting in their submission the next year. Like the previous dynasty, the repeated confrontations with the barbarians during the Shang Dynasty were accompanied

by frequent relocations of Shang capitols. First from Po (Shu-ching: Hsu) in modern Yen-shih, Honan Province, they moved to Ao near Cheng-chou, Honan Province, then to Hsiang, (Li 983 A.D.: Chi-nien) in Nei-huang district northeast Honan. Next they moved to Keng, (Szu-ma 90 B.C.: Yin-pen-chi) in Ho-tsin district, Southeast Shansi Province. They then moved to Yen, (Chu-shu-chi-nien: Nan Keng and Tso 300 B.C.: Shao-kung) in the district of Chu-fu, Shantung Province, The birthplace of Confucius. The last place they relocated was Yin, (Szu-ma 90 B.C.: Hsiang-yu-chi-nien) in the extreme north of Honan Province bordering Hopei and close to Shantung and Shansi Province.

In 1122 B.C., a confederation of western barbarians - the Yung tribe, Shu tribe, Shiang tribe, Mou tribe, Wei tribe, Lu tribe, Pang, and Po tribe - under the leadership of Wu-wang marched east, fought a decisive battle at Mu and put an end to the Shang Dynasty (Shu-ching: Mu-shih). Earlier, during the reign of Tai-kang (B.C. 2188-2159), Wu-wang's ancestor Pu-ku of the Hsia Dynasty was recorded to have brought his clan to live among the western Jung Barbarians in eastern Kansu, western Shensi Province, adopting their ways and founding a settlement at Pin, which after several generations had grown into a major power west of the Shang domain (Szu-ma 90 B.C.: Hsiung-nu-Chuan).

In spite of this close affiliation with the barbarians at the inception of the Chou Dynasty (B.C. 1122-255) the conflict between the Middle Kingdom and the barbarians surrounding the Central Plains, not only did not abate but became more fierce. A passage in one of the oldest Chinese classics, the Shih-ching, edited by Confucius in the 6th century B.C., exemplifies the situation:

> Our dukes' chariots are a thousand strong
> equipped each with two spears and two bows and decorated with
> red tassels and green ribbons
> their footmen numbered thirty thousand, with sea shell and
> vermilion strings adorning their helmets
> a great roaring multitude,
> to drive out the intruding Jung Barbarians in the West and
> the Ti Barbarians in the North
> and to launch punitive expeditions against the Ching-shu
> Barbarians in the South (Shih-ching: Lu-sung, Pi-kung).

A fascinating outcome of this constant threat from four sides is reflected in the Chou ceremonial practice:

> Formerly, when the duke of Chou gave audience to the feudal princes in the Hall of Enlightenment, the son of Heaven stood with his back to the screen embroidered with images of axes, and his face towards the south.
>
> The three dukes were in front of the steps, in the middle, with their faces to the north, turning slightly to the east as the most respectful position. The places of the marquises were at the east of the eastern steps, with their faces to the west, turning slightly to the North as the most respectful position. The lords of the earldoms were at the west of of the western steps, with their faces to the east, turning slightly to the north for the same reason. The counts were on the east of the gate, with their faces to the north, turning slightly to the east as the more respectful position. The barons were on the west of the gate, with their faces to the north, turning slightly to the east for the same reason.
>
> The chiefs of the nine I (barbarian tribes of the East) were outside the eastern door, with their faces to the west, turning slightly to the north as the position of respect; those of the eight Man (barbarian tribes of the South) were outside the door on the south, with their faces to the north, turning slightly to the east for the same reason; those of the six Jung (barbarian tribes of the West) were outside the door on the west, with their faces to the east, turning slightly on the south for the same reason; and those of the five Ti (barbarian tribes of the North) were outside the door on the north, with their faces to the south, turning slightly to the east for the same reason (Tso ca. 100 A.D.: Ming Tang Wei).

In 771 B.C., during the reign of Yu (781-771 B.C.), Hao was overrun by the barbarians known as the Chuan Jung (Dog Barbarians) from the Northwest. King Yu was slaughtered at the foot of the Li Mountain. His crown

prince had to move the seat of government to Lo-yang in Honan Province, hundreds of miles west of the old one. The new king was titled Ping, meaning pacifier. This was the beginning of a new era called the Eastern Chou Dynasty (722-221 D.C.) which never regained the power of its predecessor; the kingdom was gradually divided by a great number of feudal lords. Warfare with the barbarians continued. Proof of those struggles can even be observed today. During this period many extensive walls were constructed, mainly to ward off the onslaught of various barbarians by a multitude of feudal states: the Wei state, Chi state, Yen state, the Chung-shan state, the Chu state, the Chao state, the Tsin state and the Chin state (Lattimore 1940: 336, 429-468). The latter state subsequently succeeded in overpowering all the other states and gave birth to the first unified empire of China, the Chin Dynasty (221-207 B.C.). Under the leadership of the Chin Shih-huang-ti (Chin the first emperor), the existing walls of the former feudal states were modified and linked together to create a unified line of defense against the barbarians which has come to be known as the Great Wall. Some scholars believe that the desruption of the traditional southerly movement of the barbarians resulted from the building of the Great Wall, triggering a westward movement of these fierce barbarians. A transmission of this shock was felt as far as Europe, directly or indirectly causing the Steppe Barbarians of Alans, Goths, and others to bring down the Roman Empire (Needham 1954: 183-184 and McGovern 1939:114). The Great Wall in actuality did not accomplish its goal - it was intended to seal off the barbarians. Wave after wave of nomadic hordes continued to swarm south.

4. The Turanian and the Han, Nan-Pei, Tang, and Subsequent Period (207 B.C. - 1912 A.D.)

Parallel to the change from feudalism to a unified empire, which was then existent in China, a similar transformation among the barbarians of the North took place - from a fragmentized and localized tribalism to a confederate association which led to the formation of the first barbarian (Turanian) empire (209-141 B.C.), in Mongolia - the Hsiung-nu, under the leadership of Mo-tun (reigned from 209-174 B.C.). One of his first tasks after assuming leadership was to invade the territory of Tung-hu, the eastern barbarians controlling eastern Mongolia and western Manchuria. The success of his campaign extended the domain of the Hsiung-nu Empire as far east as the Pacific and thus, obsorbed most of the Tung-hu population into his tribal organization and dislocated other barbarian tribes of the East, the Wu-huan and Hsien-pi. Next, he directed his forces to the north and northwest and brought to submission various nomadic tribes inhabiting south Siberia and northeastern Turkistan, amon them: the Ting-ling, Ko-kun, Hsin-li, Hun-yu and Chu-she (Szu-ma 90 B.C.: Hsiung-nu Chuan).

At this time a new dynasty, the Han (202-220 B.C.), had just been founded by Kao-tsu. In response to Mo-tun's southward invasion across Mount Chu-chu, taking Tai-yuan, Shansi Province, and reaching as far as Chin-yang, Kao-tsu led a punitive expedition against Mo-tun. Mo-tun then engineered a fake retreat, luring Kao-tsu and his army with three hundred and twenty thousand infantry north in pursuit of him. With his best cavalry, four hundred thousand strong, Mo-tun unexpectedly descended on the tired pursuers. It was through intrigue and bribery that Kao-tsu finally managed to save his men from being totally wiped out by the Hsiung-nu.

Thereafter, until his death, he was never disposed to undertake further venture against the Hsiung-nu. Instead, a beautiful woman pretending to be his daughter was sent to Mo-tun to induce peace (Szu-ma 90 B.C.: Hsiung-nu Chuan).

In his military ventures in the South, however, Kao-tzu was more victorious. Not only did he succeed in maintaining the territories as far south as modern Canton, Kwantung, and North Vietnam (gained under Chin Shih-huang-ti), but he also accomplished extensive Sinicization of the southern barbarians. Thus, derived the modern usage of the work Han to distinguish Chinese from other ethnic groups in China.

Since the downfall of the Han Dynasty, the scale of struggle between the Chinese and the barbarians began to tip against the former. North and northwest China was repeatedly divided and controlled by various barbarians. The Hsiung-nu barbarians founded the Chien Chao Kingom (304-329 A.D.) in Shansi and Shensi Province, the Hou Chao Kingdom (319-352 A.D.), Hopei Province, the Pei Liang Kingdom (397-439 A.D.), and the Hsia Kingdom (407-432 A.D.) in Kansu Province. The Ti Barbarians established the Hou Liang Kingdom (386-403 A.D.) in Kansu Province and the Hou Chin Kingdom (384-417 A.D.) in Shensi Province. The Chiang Barbarians built the Chien Yen Kingdom (349-370 A.D.) in inner Mongolia. The Tungus Barbarians founded the Hou Yen Kingdom (384-408 A.D.) in Hopei Province and subsequently many other kingdoms in north, west, and east China - the Si Yen (384-396 A.D.) in Chungshan, the Nan Yen (398-410 A.D.) in Kansu, the Wei (386-557 A.D.) in Shansi and Honan, the Pei Chou (557-580 A.D.) in Shensi.

After the downfall of the Tan Dynasty (Chinese, 618-906 A.D.), the Khitan Barbarians conquered China and established the Liao Dynasty

(937-1125 A.D.). From this point until the founding of the Chinese Republic by Sun Jih-hsien in 1912, China was governed for the most part of this period by the barbarians - from 1115-1254 A.D. by the Tartar Nuchen (Chin Dynasty), from 1260-1368 A.D. by the Mongol (Yuan Dynasty), and from 1644-1911 by the Manchu (Ching Dynasty).

5. The Case of the Cambodian and Vietnamese Refugees

The impact of the long chain of alternating control of China by Chinese and barbarians was far-reaching. Perhaps one of the easiest ways to understand how these historical events affected the process of trans- or circum-Pacific cultural contact is to study the voyages of the recent Cambodian and Vietnamese refugees who escaped from their homeland by small fishing boats, not very different from the ones used by their ancestors two to three thousand years ago. The following was a news release quoted from the Asian Student (a fortnighly published by the Asia Foundation in San Francisco) dated December 17, 1977:

> A boat carrying 75 Vietnamese refugees arraived in Darwin on Dec. 1, adding to the flood of Vietnamese who have reached Australia since Thailand began to enforce its policy of turning them away. The number of Vietnamese refugees to enter Australia since mid-November has now reached almost 600.

On another page of the same paper, a photograph of a small boat crowded with people was shown. Under the photograph is a description which reads as follows:

> This 30-foot fishing boat loaded with 50 Vietnamese refugees sits in Kampuchean waters after being towed to that area of the sea by Thai police, who refused them entry. Vietnamese refugees are increasingly being turned away from most Asian countries.

6. Questions Concerning the Absence of Old World Artifacts

Let us now return to the earlier question of the absence of "bona fide stratigraphically excavated old world artifacts" in Pre-Columbian America. Had one been in the boat among these above-mentioned Southeast Asian refugees, perhaps the absence of artifacts in America from their ancient ancestors would not have been surprising. For people who flee their homeland under duress are not likely to carry with them an abundance of articles, since each article carried would displace valuable space which could otherwise have been available for additional people in the boat. Moreover, any excess baggage would have made the voyage more hazardous. This is not only true of sea journeys, but also true of travel by land - one cannot flee too far and too fast on foot if one carries even a minimum amount of metal or stone objects. Thus, it can be assumed that most of the items carried by these early immigrants to the New World were of a relatively light, small, and perishable character. On account of their scarcity and irreplaceable nature, what limited amount of permanent objects these refugees managed to bring to America were not likely to have been buried with the dead. This, together with the vast span of space separating the two cultures under study, renders the likelihood of discovering bona fide Chinese artifacts in well-stratified deposits in America extremely remote. It must also be kept in mind that most of the Pre-Columbian immigrants to America were probably "barbarians" on the peripheral of the Chinese heartland possessing a semblance of Chinese culture. Under these circumstances even burials discovered containing genuine Old World artifacts might not be easily identified as such because of their hybrid character.

Another factor that accounts for the absence of Old World artifacts in the Pre-Columbian New World was the plundering and indiscriminate, wholesale destruction of Indian Cultural relics by the Hispanic conquerors of Mesoamerica. Historic examples of these ruthless exterminational efforts have been cited earlier in Chapter III, Section C.

In a manner resembling the practice of today - that we treasure and preserve the cultural relics of the 16th-17th century immigrants to America in museums - what permanent artifacts those early immigrants from Asia left behind probably were collectively kept as heirlooms by the Mesoamerican priest-kings and, as such, were vulnerable to collective destruction by the Spanish priets.

7. A Working Hypothesis

The following working hypothesis thus can be postulated: the alternating ascendancy to power of the Chinese and the barbarians in China activated a chain of events which led to the dislocation and subsequent emigration of people from East Asia. This exodus probably resulted in sporadic, involuntary arrivals on the coast of the American. As immigrants in the Americas, these East Asians could have provided the cultural stimuli necessary for the emergence and development of a civilization in America. If not a more satisfactory explanation, this seems to be as reasonable an explanation as the indigenous evolution theory for the sudden emergence of the highly-developed Olmec culture and the subsequent blossoming of Classic civilization.

H. Evidences in Support of the Hypothesis of Chinese-Olmec Cultural Diffusion

In the course of this study, over two thousand Olmec motifs have been photographed, analyzed and seriated. Of the total, two third have been successfully correlated with those of the Chinese Dynasties of Shang and Chou. The period in which correlation occurred most frequent spanned seven hundred years, from 1200 B.C. to 500 B.C. In analyzing the data, the following assumptions have been made:

1. The simpler a cultural trait, the easier for it to be independently invented or evolved.

2. The more functionally and structurally oriented a trait, the greater the probability of independent invention.

3. Conversely, the more complex, arbitrary and stylized a trait correlated, the higher the likelihood of its being borrowed from a more advanced culture, particularly if these highly complex traits appeared suddenly without traceable precedence.

4. the probability of cultural diffusion increases if resemblance occurred not only between individual traits of the two cultures, but also between trait-complex which is composed of several traits arranged in a particular juxtaposition.

5. the probability of diffusion is positively related to the number of trait-complexes for which counterparts in another culture can be isolated.

6. The significance of the similarities between trait-complexes of the two culture multiplies if the resemblances can be correlated not only in motif form and content but also in time sequence.

7. The case for cultural diffusion becomes more convincing if the correlated trait-complexes are unique to only the two cultures under study.

In comparing the artifacts of Mesoamerica and China, care has been taken to avoid simple traits-comparison which can easily be attributed to psychic unity of mankind or to the law of limited possibility. Clay pots, whether the potter possesses the knowledge of the wheel or not, are usually round because they are structurally stronger, not as susceptible to chipping as square ones, and can be held more easily. Thus, if the form of one pot appears similar to another of a different culture, this can not necessarily be considered as evidence of cultural diffusion. In short, little significance is attached to resemblance of "one-shot," simple, or functionally oriented traits in the analysis of data collected. Emphasis has been placed on the correlations of complicated, highly stylized trait-complexes unique to the Olmec and the Shang, Chou Chinese.

Most of the correlated data from this study will be published by the Iowa State University Press in my forthcoming book entitled The Origin of Ancient American Culture. In this dissertation, because of reproduction problem, I have included only a small portion of the evidence, in line drawing, in stead of photograph. All drawings contained in this dissertation are based on photographs. All photographs and drawings are by the author and can not be reproduced without written permission from the author.

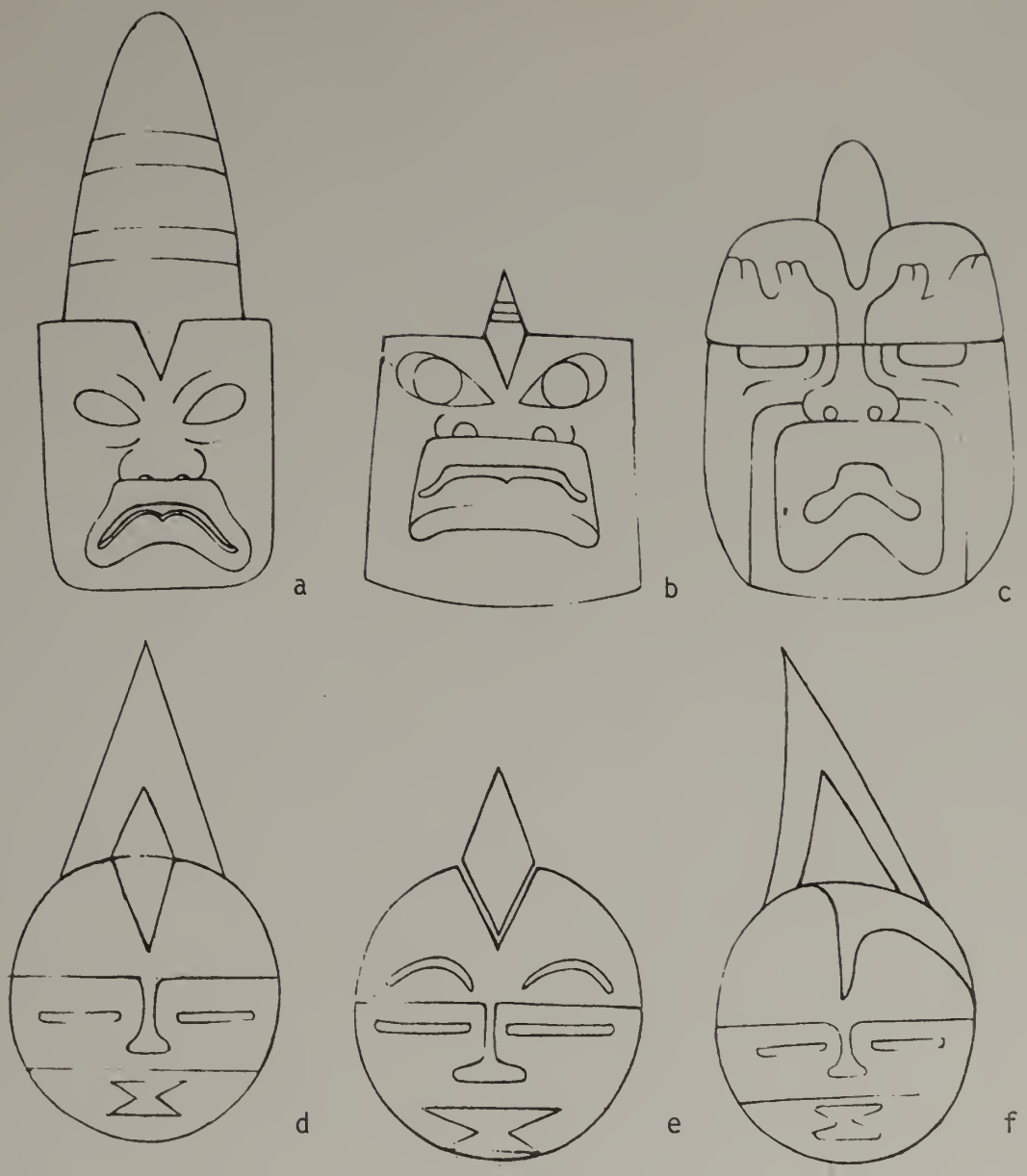


Fig. 5. Cleft head motif. One of the most unusual traits unique to only Olmec and Chinese art is the cleft head motif with a blade or plant-like element on top. a. Olmec celt from Ejido Ojoshal, Municipio Cardenas, Tabasco (ca. 900 B.C.-300 B.C.). b. Olmec round plague from Guerrero (ca. 900 B.C.-300 B.C.). c. Olmec celt, provenience unknown (ca. 900 B.C.-300 B.C.). d.,e.,f., Chinese painted design on pottery, Pan-po, Shensi Province (ca. 4000 B.C.).

Fig. 6. Cleft head motif. a. Chinese bronze relief, Han Dynasty (206 B.C.-220 A.D). b. Olmec carving on stone La Venta (ca. 500 B.C.). c. Olmec carving on stone (ca. 500 B.C.).

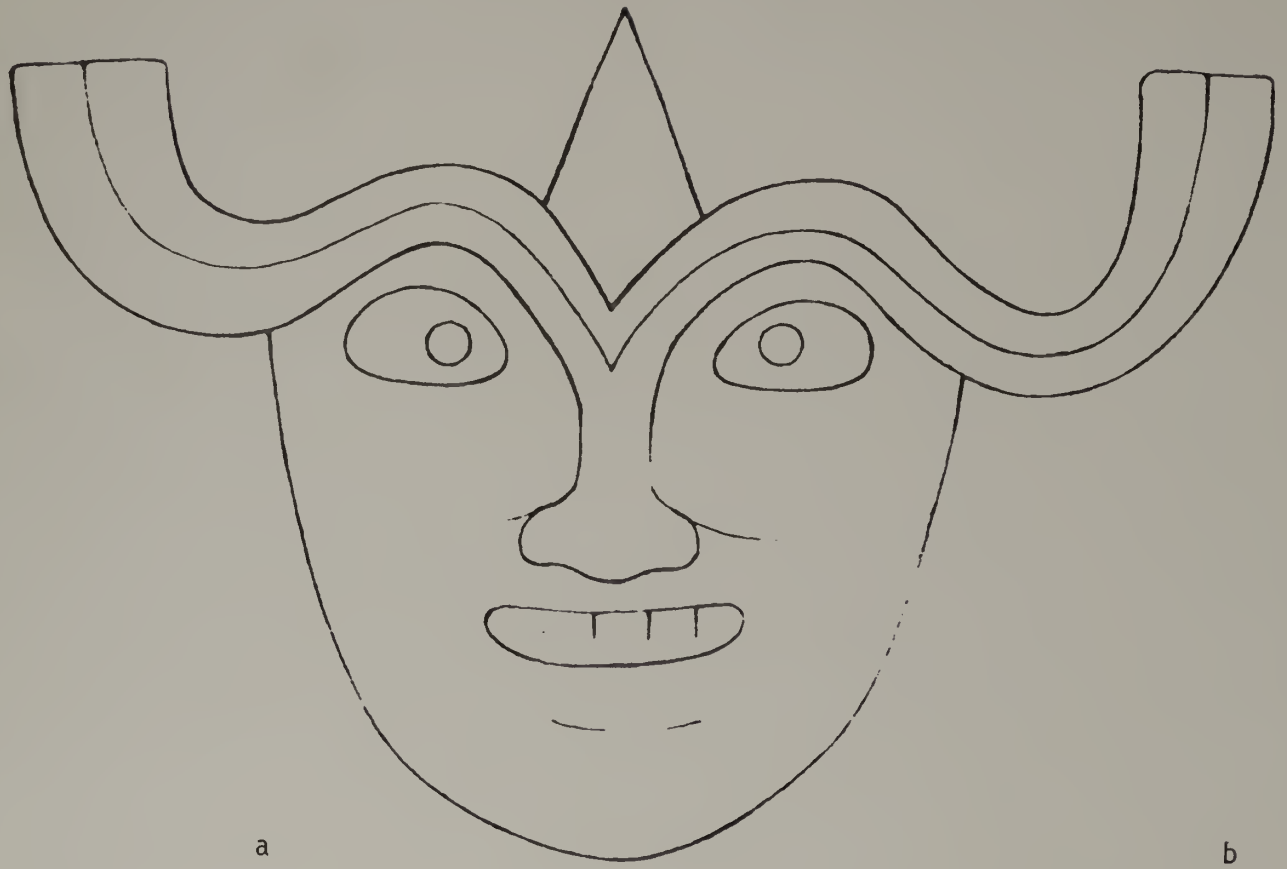


Fig. 7. Cleft head motif. a. Chinese stone relief, Han Dynasty (206 B.C.-220 A.D.). b. Olmec stone relief (ca. 500 B.C.).

Fig. 8. Dragon motif. A priest-king holding an alter ego dragon, La Venta (ca. 500 B.C.). Another dominant Chinese and Olmec religious art motif, the dragon, possesses striking similarities in form as well as in content. The ancient Chinese and the Olmec considered the dragon as a life-giving alter ego which differed markly from the Western concept of dragon, the evil creature. Both the Chinese and the Olmec dragon shared a combination of feline and reptile traits.

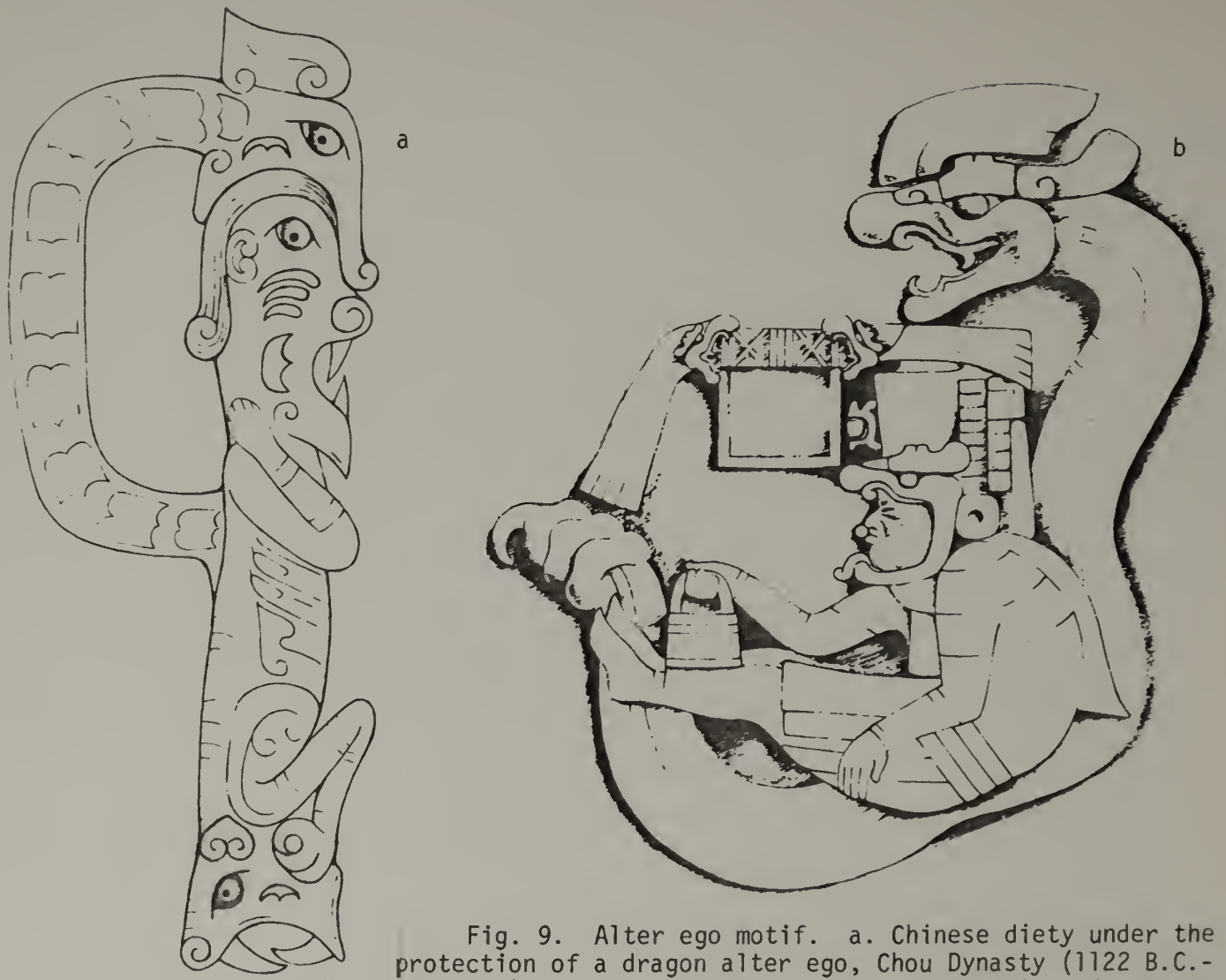


Fig. 9. Alter ego motif. a. Chinese diety under the protection of a dragon alter ego, Chou Dynasty (1122 B.C.-225 B.C.). b. Olmec diety under the protection of a dragon alter ego, La Venta (ca. 500 B.C.).

Fig. 10. Tao-te motif. Closely related to the dragon motif, the tao-te (chinless feline monster mask) motif is also another dominant Olmec religious motif. a. Chinese diety under a tao-te, late Shang Dynasty (1766 B.C.-1122 B.C.). b. Olmec diety under a tao-te, La Venta (ca. 500 B.C.).

Fig. 11. Diety under a tao-te, Izapa, Mexico (ca. 300 B.C.).

Fig. 12. Chinese diety under a tao-te, early Chou Dynasty (1122 B.C.-255 B.C.).

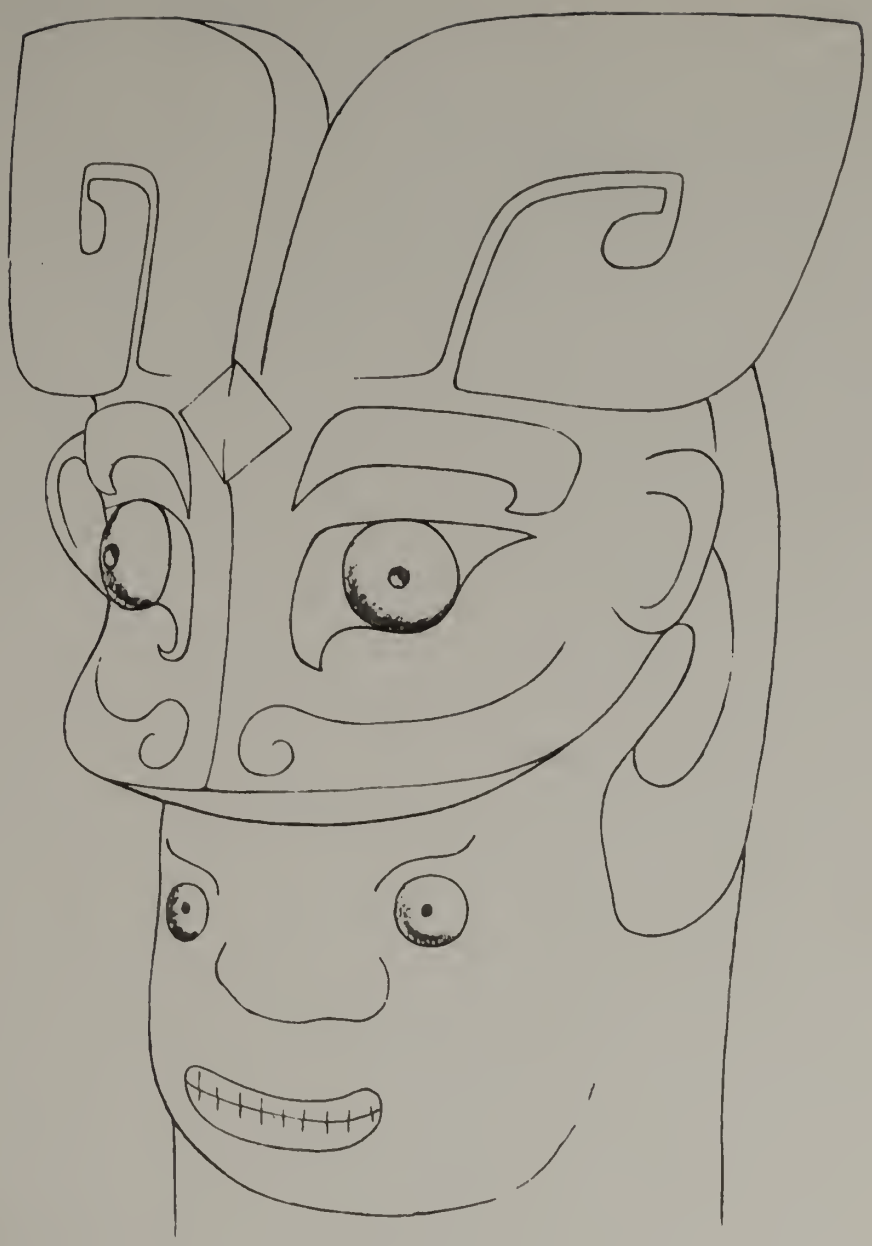


Fig. 13. Chinese deity under a tao-te, Shang Dynasty (1766 B.C.-1122 B.C.).

Fig. 14. Feline alter ego. Another variation of the alter ego motif, the tiger-jaguar was also common to Olmec and ancient Chinese culture. It was often stylized as headdress and costume for a deity. a. Chou Dynasty (1122 B.C.-255 B.C.). b. Atlihuayan (ca. 900 B.C.- 300 B.C.).

Fig. 15. Olmec crested kneeling figure holding object in offering position, La Venta (ca. 500 B.C.).

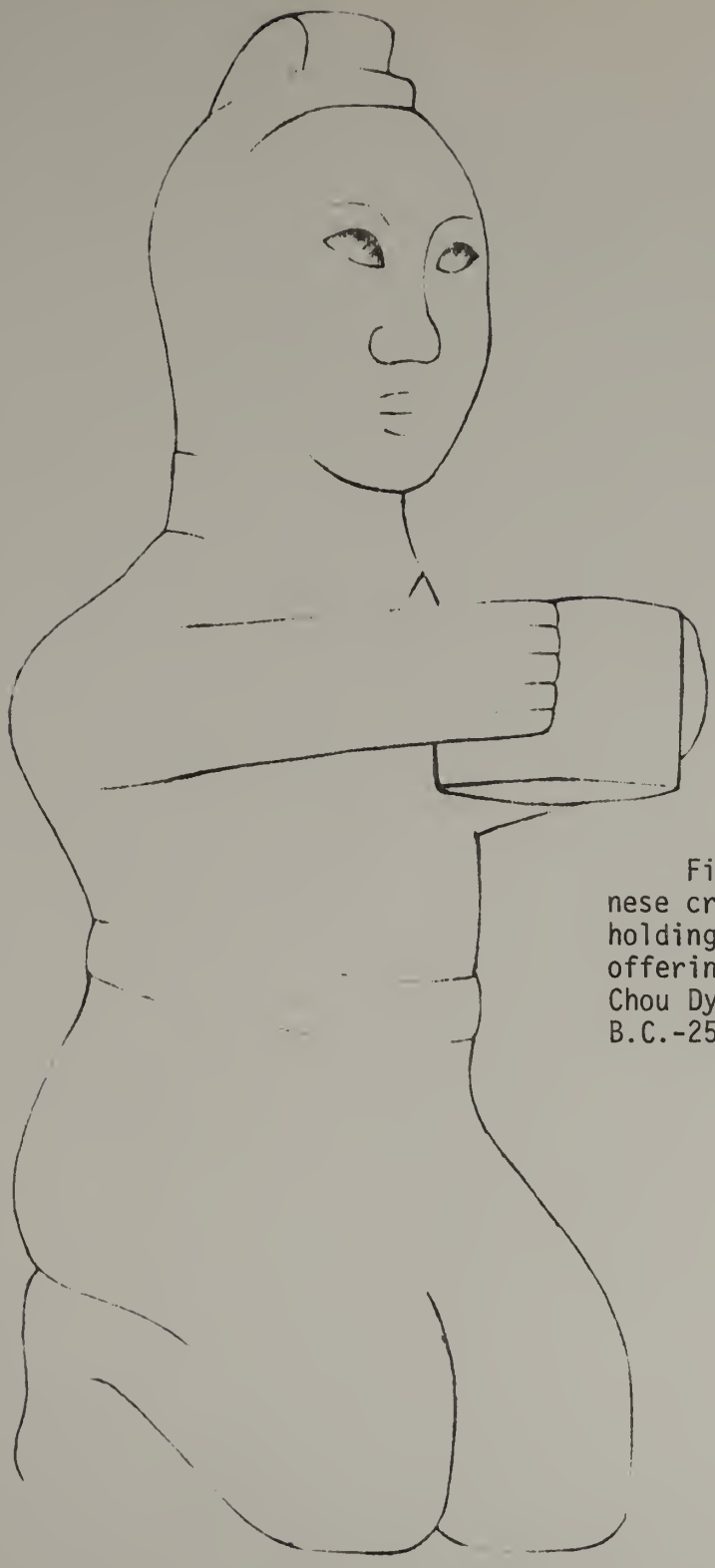


Fig. 16. Chinese crested figure holding object in offering position, Chou Dynasty (1122 B.C.-255 B.C.).

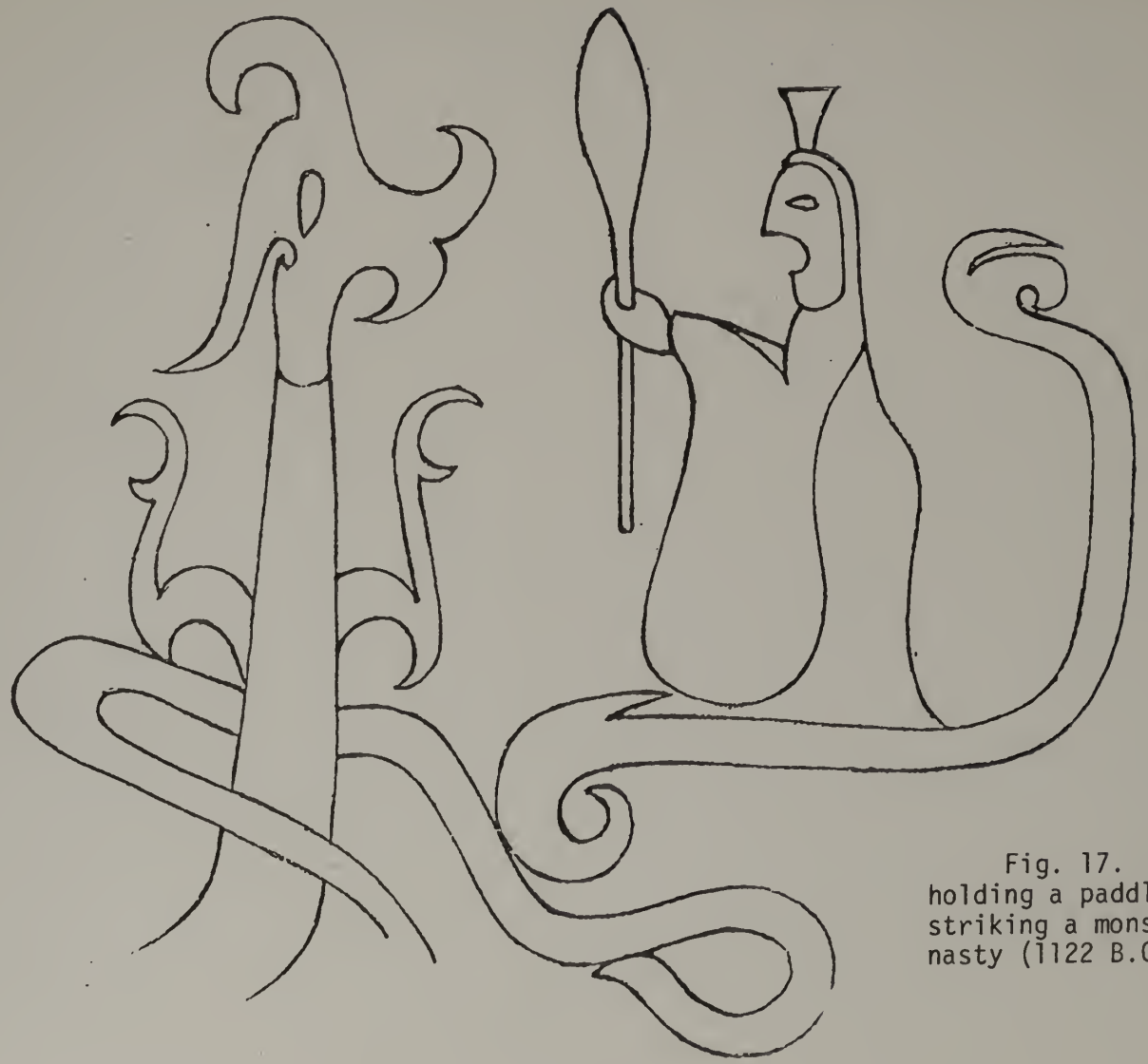


Fig. 17. Chinese diety holding a paddle-like weapon striking a monster Chou Dynasty (1122 B.C.-255 B.C.).

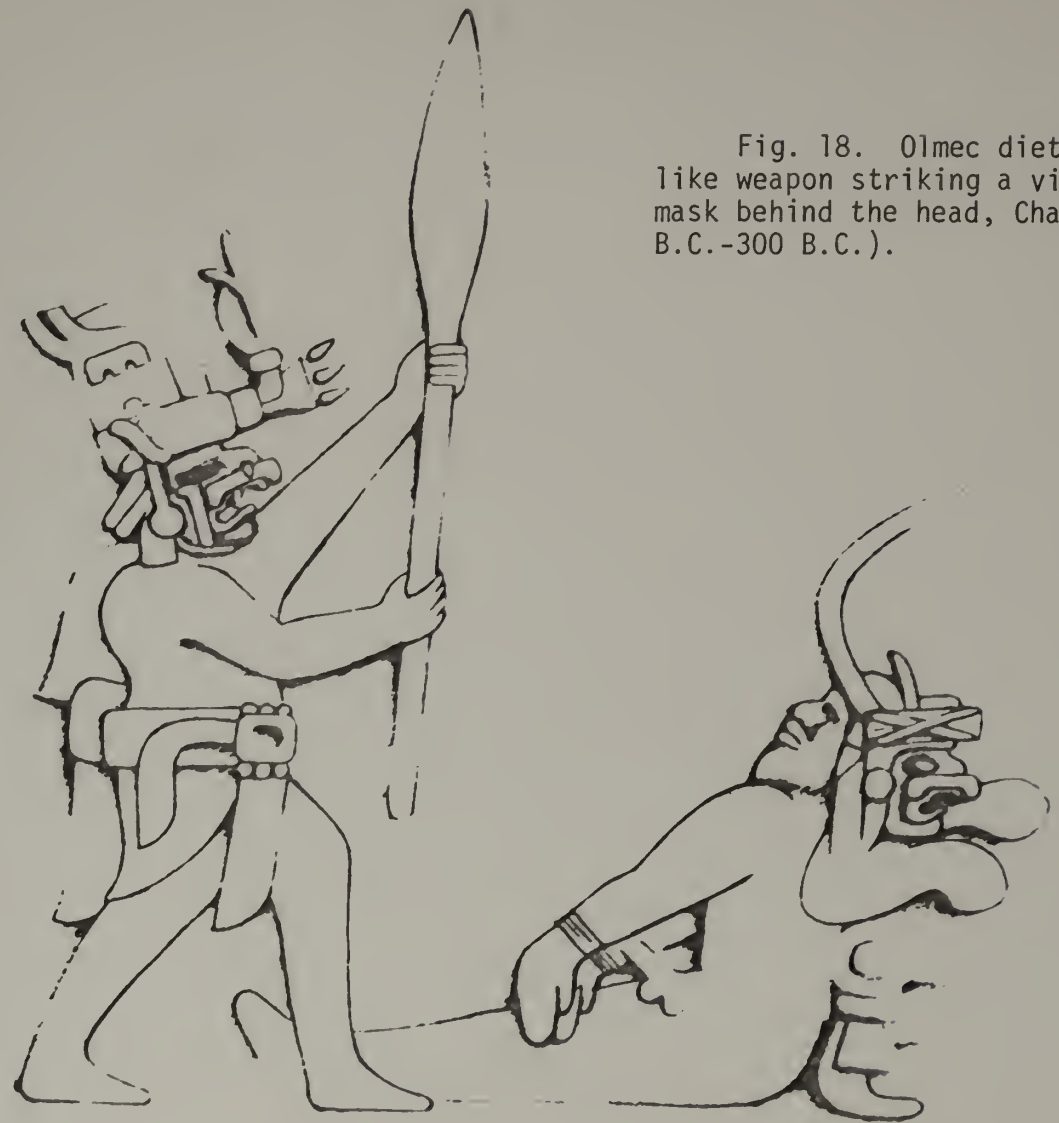


Fig. 18. Olmec diety holding a paddle-like weapon striking a victim with a monster mask behind the head, Chalcacingo (ca. 900 B.C.-300 B.C.).

Fig. 19. Seated figure with diagonal cross on belt. a. Chinese figure, An-yang, late Shang Dynasty (ca. 1766 B.C.-1122 B.C.). b. Olmec figure, La Venta culture (ca. 500 B.C.).

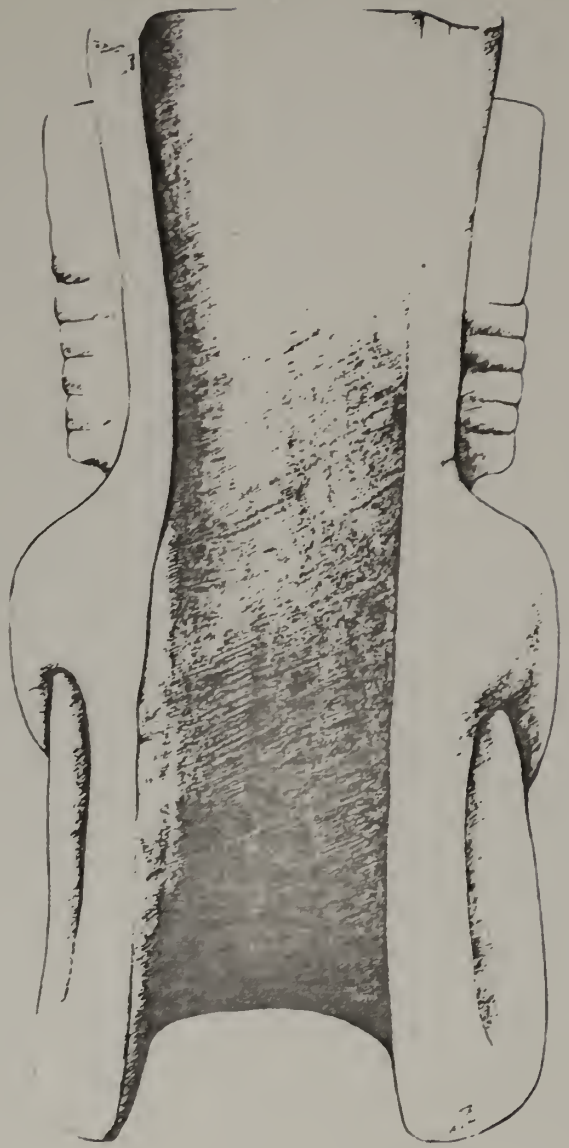
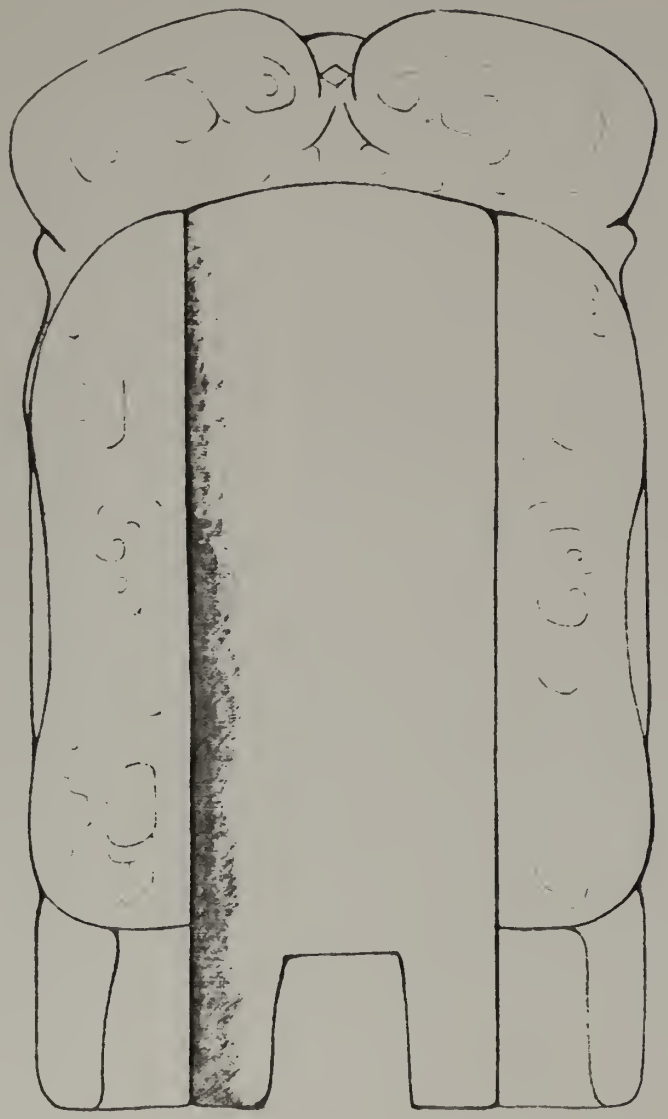


Fig. 20. Olmec niched-back seated stone figure, San Lorenzo (ca. 1150 B.C.-600 B.C.). One of the most unusual architecture feature shared only by the Chinese and the Olmec is the seated figures with their backs hollowed out to fit into the bases of columns. It is significant that this feature was in practice in both cultures at the early date of 1000 B.C.

Fig. 21. Niched-back seated stone figure, An-yang, late Shang Dynasty (1766 B.C.-1122 B.C.). a. Backview. b. Sideview.



a

b

Fig. 22. Niched-back seated stone figure, An-yang, late Shang Dynasty (1766 B.C.-1122 B.C.). a. Backview. b. Top-view.

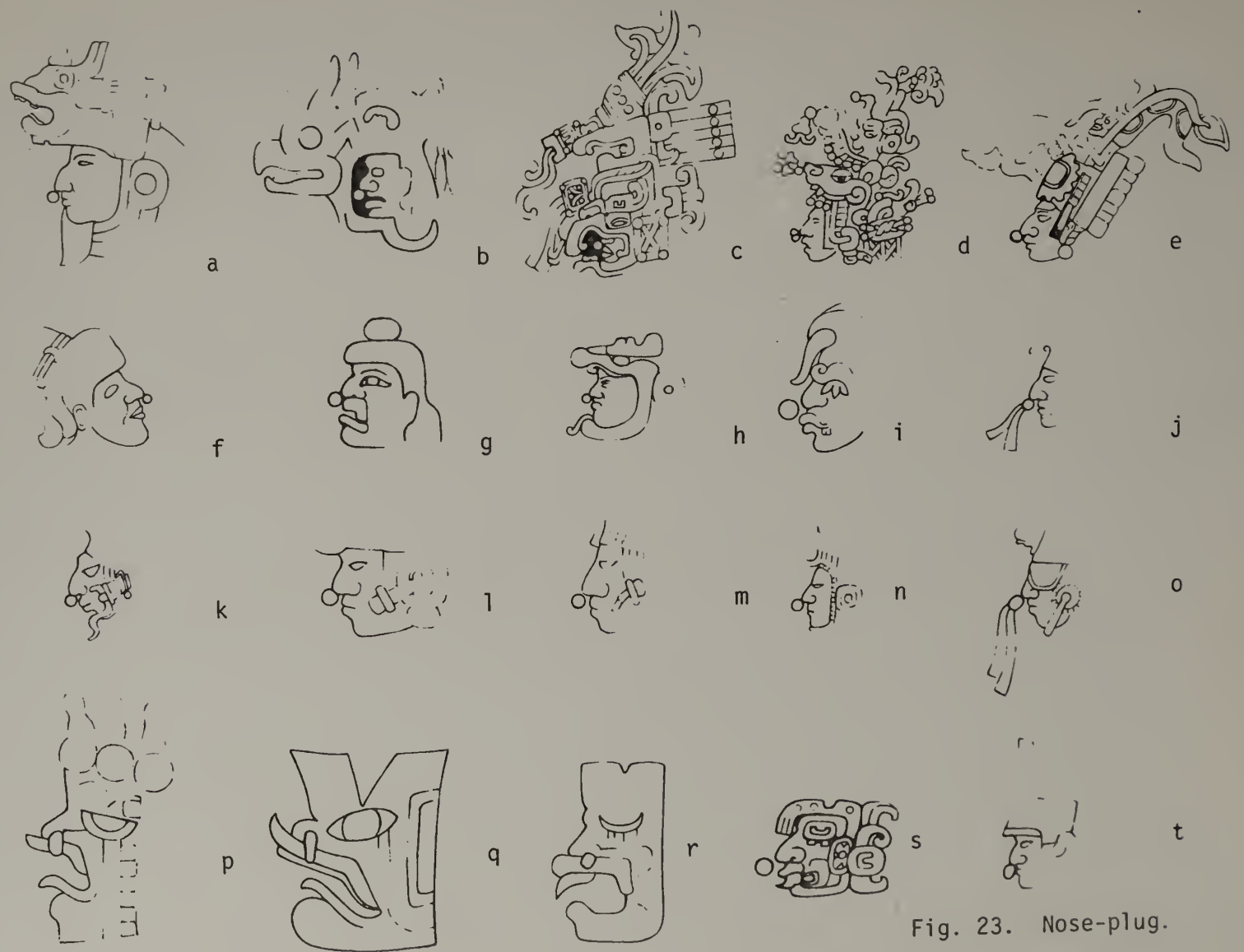


Fig. 23. Nose-plug.

Fig. 24. Knuckledusters.

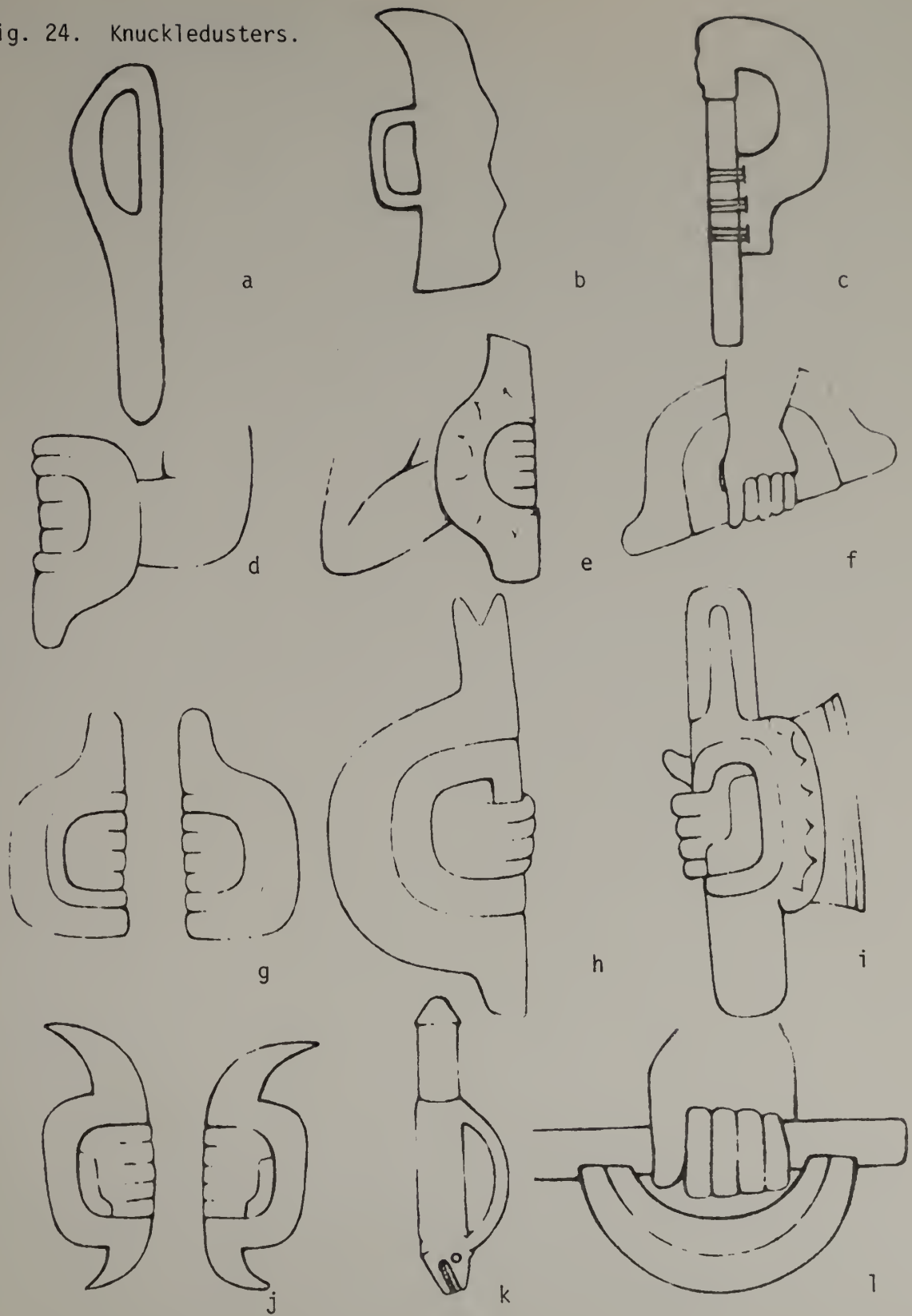


Fig. 19. Nose-plug is an unusual and and well-known decordative item for Chinese burial. It was in vogue as early as the Shang Dynasty (1766 B.C.-1122 B.C.) and was usually made of jade. In Mesoamerica, nose-plug, also commonly made of jade, was widely used by both the Olmec and the Maya Indian. a., d., e., j., k., l., m., n., o., and t., Maya style (ca. 600 A.D.-900 A.D.). c., i., s., Proto Classic style (300 B.C.-300 A.D.). b., f., g., h., p., q., and r., Olmec style (900 B.C.-300 B.C.).

Fig. 20. Knuckleduster was used by both the Olmec and the ancient Chinese as ceremonial object. a. Chinese neolithic (ca. 5000 B.C.). b., c., Chou Dynasty (1122 B.C.-255 B.C.). d-k. Olmec (900 B.C.-300 B.C.). l. Han Dynasty (206 B.C.-220 A.D.).

FOOTNOTES

1. According to the Mayan natives at the time of the Spanish conquest, Kukulcan (Quetzalcoatl) entered the Yucatan region between 987 and 1000 A.D. He first settled in Mayanpan and later in Chichen Itza.

2. Liang was a southern kingdom succeeding Chi Dynasty in A.D. 502 and lasted to A.D. 556. Its first king, Liang Wu-Ti, was a well-known patron of Buddhism. The Liang Shu was written during the first half of the Seventh Century.

3. Liu Sung Dynasty (A.D. 420-447) of the South-North Epoch, not be confused with Sung Dynasty of A.D. 960-1126.

4. This name was mentioned by both Caius Plinius (Pliny VI.23) and Stephanus Byzantinus (Arachotus). It bears phonetic similarity to that of the important Mayan cultural center - Copan, Honduras.

5. For more detailed discussions of literature on Fu-Sang prior to 1885, see Edward P. Vining, An Inglorious Columbus, Appleton and Company: New York, 1885.

6. Both the country of Tattooed Body and Great Han were described in "Chu I Chuan" of Liang Shu. The country of Great Han was said to be located five thousand Chinese miles east of the country of Tattooed Body which was supposed to be situated more than twenty thousand Chinese miles west of Fu-Sang.

7. For a detailed discussion of the calendrical similarities, see Alexander von Humboldt, "Views of the Cordilleras and Monuments of the Indegenous Nations of America, (Vining 1885:142-155)

8. Szu-Ma Chien remarked in Shih Chi that the Shan Ching contained so many strange and fictitious things, he would not speak of them.

9. Shan Hai Ching (The Book of Mountain and Sea) was based on an earlier work - Shan Ching (The Book of Mountain) of pre-Han period. It is generally regarded by authentic Chinese scholars as a Taoist fiction of Han (206 B.C.-A.D. 220) or later period.

10. Hsi Yu Chi, a fabulous version of a journey to India taken by a Chinese priest, Tang San-Chuang, accompanied by a monkey king and a pig-headed monster. "Hsi- yu- chi" is today popularly used as a slang in China similar in meaning to America's "baloney"!

11. These motifs had obviously escaped the attentions of all the scholars involved in the elephant controversy.

12. An evolutionary, historical approach to cultural study dealing vertically with cultural changes through time sequence.

13. A nonhistorical approach to cultural study, dealing horizontally with coexisting cultures at a single moment in time.

14. Sahagun, Torzuemada, Ixtlixochitl, and Munoz Camargo.

15. Early Post-classic (900-1200 A.D.) culture, centered at Tula, Mexico.

16. Blom, born in 1893, was an early Danish explorer of Mesoamerican ruins whose photographs, taken for the Middle American Research Institute at Tulane University, recorded many valuable facets of Indian culture which have since disappeared or else deteriorated.

17. La Farge, an ethnologist graduate from Harvard University, was born in 1901. A Pulitzer Prize winner, he was later an activist for the American Indian.

18. Matthew Stirling was the Director of the Bureau of American Ethnology, Smithsonian Institution.

19. Uaxatun, located near Tikal, is one of the earliest Mayan lowland sites. The stucco covered pyramid unearthed in Uaxatun is the oldest yet discovered in the Mayan area.

20. Alfonso Caso is the director of the Instituto Nacional Indigenista and one of the founders of Oaxaca archaeology.

21. Ignacio Bernal is the director of the famed Museo Nacional de Antropologia in Mexico City.

22. Dr. Coe was the head of the Department of Anthropology at Yale University.

23. At the site of San Lorenzo, including monuments stored at the school house of Tenochtitlan, as sell as at the Museum of Anthropology, University of Veracruz, Jacapa, at the National Museum in Mexico City, and from published works by Coe, Beatriz de la Fluente, Beverido and Clewlow.

24. This is a tremendous exaggeration. Any expert on Mexican agriculture or anyone who has been to San Lorenzo knows that it is not a location for "tremendously productive corn agriculture," in comparison with parts of Mexico.

25. I studied at this site in November 1976. A letter had to be obtained from the Mayor of Asintal before I was allowed to take

pictures of the artifacts, and then only under the watchful eyes of a city official and the farm foreman involved.

26. Kung-kung, a title for the minister of public works. In context of this paragraph it was used to refer to the tribe whose chief was Shun's minister of public works.

27. Yu Chou, north of modern Hopei Province, Northeast China.

28. Tsung Shan, in Hunan Province, South Central China.

29. San-wei, in Kansu Province, West China.

30. Kun, Father of Yu the Great, founder of the first dynasty of China--Hsia.

31. Yu Shan, in Shangtung Province, East Coastal China.

32. Chinese historians customarily recorded all cultural contact between the Middle Kingdom and the "barbarian" as the latter's coming to pay tribute to the former. Even as recently as the Ching Dynasty (1644-1908 A.D.) the ambassador from England was recorded as a barbarian paying tribute to the Ching court.

CHAPTER IV.

CULTURAL LEARNING CASE TWO: THE WEST AND THE CHINESE

A. PRE-REVOLUTION PERIOD

> Ta-Hsueh, a work handed down to us by Confucius, forms the gate through which beginning learners enter into virtue. That we may now perceive the order in which the ancients pursued their learning is entirely owing to the existence of this volume, with the Lun-yu and Meng-tzu following behind. All learners must commence their studies with Ta-hsueh so that they will be kept from error (Chu-hsz:ca 1160 A.D.).

The above statement by Chang Tsu-i of the eleventh century (quoted by Chu-hsi in the introduction to Ta-hsueh) sums up the role played by Confucianism in Chinese education. No other educator in human history has so deeply and persistently influenced so many individuals in China, Japan, Korea, and Indo-China. Even today, after three decades of intensive "revolutionary thought transformation" aiming at the irradication of "the feudalistic, reactionary, and counter-revolutionary shop of Confucius," Confucian mode of thought continues to exert strong impact in the People's Republic of China. Liu Shao-chi, the last Chairman of the People's Republic (now purged) and Lin-piao (Defense Minister, one time heir apparent to Mao, died in an air crash after an unsuccessful anti-Mao coup) were accused of following Confucius' footsteps.

The basic tenents of Confucianism are virtue, humanism, order, and learner-centered self-discipline. The curricula of Chinese education prior to 1905, therefore, consisted exclusively of philosophy and sociology contained in the Confucian Four Books and Five Classics. The products

intended by the educational system were virtuous men who, as examples themselves, could bring benevolence and order to families, societies, nations, and the universe.

Ta-hsueh (Great Learning, Confucius:ca 500 B.C.), the most important Confucian treaty on education, begins as follows:

> The goals of the Great Learning is to make people understand the illustrious virtues, be able to relate to each other and not to mitigate their efforts until ultimate goodness of their nature is achieved. The goals having been known, the objectives become definitive; the objectives having been defined, tranquility of mind can be realized; peace having been attained, anxiety and detraction will disappear; without disturbance and divertion, thinking and reasoning can be performed; having deliberated and contemplated, we may hope to understand things.
>
> Things have stems and branches, affairs have origins and conclusions, knowing their orders will lead to the way of Great Learning.
>
> The ancients who desired to inculcate the enlightened virtue throughout the world, first ordered their country; wishing to order their country, they first organized their families; wishing to organize their families, they first cultivated themselves; wishing to cultivate themselves, they first purified their hearts; wishing to purify their hearts they first sought to be sincere in their thoughts; wishing to be sincere in their thoughts, they first endeavored to acquire knowledge.
>
> Acquisition of knowledge is consisted in the investigation of things. Things having been studied, knowledge could be obtained; knowledge having been obtained, their thoughts became sincere; their thoughts being sincere, they could purify their heart; their heart having been purified, they could cultivate themselves; having cultivated themselves, they could organize their families; their families having been organized they could order their country; their country having been ordered, they could bring peace to the world. From the Son of the Heaven (Emporer) to the man on the street equally, self-cultivation is the basis of everything...

The steps prescribed by Confucius for self-cultivation hinges on

acting in accordance with the will of heaven — harmony, harmony within oneself, harmony in the family, harmony in the nation, and harmony in the world. This can best be comprehended through study of things, events, especially those of the ancients which are collective manifestation of the law and order of heaven. Confucius admonished learners that only "little man" concerns himself with pecuniary pursuit which is in direct conflict with purification of heart and sincerity of thought. In order to achieve utmost knowledge, therefore, the learner should first retreat introspectively inside his heart and become one with the "knowledge of the heart" which heaven endows every man regardless of social origin. It is through investigation of things, phenomenons and events from the perspective of the order of heaven embodied in the born "knowledge of the heart" that ultimate knowledge can be attained. Thus Confucius declared (which can literally be translated as): "With education, there is no classes." All men can achieve perfect knowledge, and become scholars/gentlemen/statesmen if the good deeds of the sage kings (Yao, Shun, Yu) are studied and followed. All men can achieve perfect knowledge, if they endeavor to improve themself according to the will (order) of heaven through education. This emphasis on primordial harmony rather than change, virtue rather than profit, preservation of ancient rules (Li) and hierarchial order rather than scientific and technological development has made possible over two thousand years of homogenous cultural continuum unmatched in human history. It also has accounted for the underdeveloped, stagnant, formalistic and conservative nature of the Chinese society which is a living example reinforcing

Benedict's anthropological theory cited at the beginning of this paper, that a balanced society tends to perpetuate itself if no external force sufficiently strong to disturb its internal equilibrium is present.

In mid-nineteenth century such external forces of devastating magnitude were brought to bear on the "Central Kingdom." China was rocked from its foundation by the onslaught of Western technology and its attendant mights. In the next hundred years, convulsion after convulsion of cultural changes were to sweep all over the once proud, self-sufficient, and seemingly impenetrable "Center of the World."

One of the most unique features of the traditional Chinese educational system was its network of civil service examinations first given during the Han dynasty in 165 B.C. The examinations were designed to select the talented in the country for the service of the state and to preserve the Confucian orthodoxy which, in turn justified the social structure. The state played the role of selection, instead of education, of the people. The Civil Service Examinations were offered in a sequence at regular intervals varying from one to three years depending on the level and the dynasty. The candidates who passed the first of the examinations were awarded the titles of Hsiu-tsai, the Budding Talent; the successful candidates in the next examination were awarded the titles of Chu-jen, Elevated Man. The holders of these titles were then permitted to participate in the next examination, which took place in the nation's capital and the successful participants of which were bestowed the titles of Chin-shih — Advanced Scholar. Those who passed with honors were appointed to the Han-lin Yuan, the Knowledge Forest Academy. Holders of

any of the above-mentioned titles enjoyed prestige and privileges and the majority of them were offered positions at various levels of the Imperial Government.

Schools in China prior to 1905 fell into the following four categories:

1. family tutorial school
2. village (or clan) school
3. private academy
4. imperial academy

The family tutorial schools were founded by rich families for members of the families (Chinese had large families); the village schools were operated by the clans (in traditional China all the residents of a village usually belonged to the same clan, having the same last name). The private academies were often organized by well-known scholars who cherished no ambition for government posts, and were usually located in scenic areas of the country. The Imperial Academy was run by the imperial government and were staffed by scholars who had passed the highest level of Imperial Examinations.

As the Imperial Examination involved exclusively the Confucian classics, their orthodox interpretation, and skill in use of standardized forms of literary expression ("The Eight-Legged Prose"), the curricula at all schools and regardless of level were composed solely of the Confucian Four Books: Lun-yu, Meng-tzu, Ta-hsueh, Chung-yung (Analects, Mencius, Great Learning, Doctrine of the Mean), and the Five Classics: I-ching, Shu-ching, Shih-ching, Li-chi, and Chun-chiu (Change, Historical Records, Poetries, Rites, Spring and Autumn Annals).

Beginning in early 1840's, China experienced humiliation in all fronts and yielded steadily in the face of expanding Western powers created by the Industrial Revolution. At the end of the nineteenth century it was reduced to the status of semi-colony divided in the north by Russia and Japan, in the middle by Germany, Britain, and France, and in the south by Portugal and Britain.

After the disgracing defeat by Britain in the Opium Wars of 1842 and 1856 and the Anglo-French Allies' occupation of Peking in 1858, it became increasingly apparent that the Confucian self-cultivating system would not sustain the "Celetial Center of the World." Thus decried Feng Kuei-fen (1809-1874), a Confucian scholar and statesman:

> According to a general geography compiled by an Englishman, the territory of China is eight times that of Russia, ten times that of the United States, one hundred times that of France, and two hundred times that of Great Britain (shows the ignorance of the scholars at the time)... Yet we are shamefully humiliated by the four nations, not because our people are inferior... Now, our inferiority is not something allotted us by Heaven, but is rather due to ourselves. If it were allotted us by Heaven, it would be a shame but not something we could do anything about...
>
> We have only one thing to learn from the barbarians, and that is strong ships and effective guns... Funds should be allotted to establish a shipyard and arsenal in each trading port. A few barbarians should be employed, and Chinese who are good in using their minds should be selected to receive instruction so that in turn they may teach many craftsmen...
>
> Our nation's emphasis on civil service examinations has sunk deep into people's minds for a long time. Intelligent and brilliant scholars have exhausted their time and energy in such useless things as the stereotyped examination essays, examination papers, and formal calligraphy... We should now order one-half of them to apply themselves to the manufacturing of instruments and weapons and to the promotion of physical studies (Feng 1861:58-61).

The solution to China's predicament, to Feng, was not drastic change of the Confucian code of ethics and senses of value but to leave the Confucian teachings intact and supplement them with Western technology:

> It is from learning that the principles of government are derived. In discussing good government, the great historian Ssu-ma Chien said: 'Take the latter-day kings as your models.' This was because they were nearer in time; their customs had changed from the past and were more similar to the present; and their ideas were not so lofty as to be impracticable. It is my opinion that today we should also take the foreign nations as our examples. They live at the same time and in the same world with us; they have attained prosperity and power by their own efforts. Is it not fully clear that they are similar to us and that their methods can easily be put into practice? If we let Chinese ethics and Confucian teachings serve as the foundation, and let them be supplemented by the methods used by the various nations for the attainment of prosperity and power, would it not be the best of all solutions (Feng 1861:69-70)?

Two other famed scholars-statesmen of the Ching Dynasty, Tseng Kuo-fan (1811-1872) and Li Hung-chang (1823-1901) saw the need to unite Western scientific theory with practice and argued vehemently for sending young men abroad to study Western culture:

> Military administration and shipping are considered as important as the learning that deals with the mind and body, and nature and destiny of man. Now that the eyes of the people have been opened, if China wishes to adopt Western ideas and excel in Western methods, we should immediately select intelligent boys and send them to study in foreign countries...
>
> ...To go to distant lands for study, to gather ideas for more advantageous use, can produce far-reaching and great results. Westerners seek knowledge for practical use. Whether they be scholars, artisans, or soldiers, they all go to school to study and understand the principles, to practice on the machines, and to participate personally in the work. They all exert themselves to the utmost of their ingenuity, and learn from one another, in the hope that there will be

> monthly progress and yearly improvement. If we Chinese wish to adopt their superior techniques and suddenly try to buy all their machines, not only will our resources be insufficient to do so, but we will be unable to master the fundamental principles or to understand the complicated details of the techniques, unless we have actually seen and practiced with them for a long time (Li 1921:19-21).

In 1861 the Tung-wen (United Language) Institute was founded by the Imperial Government which was later developed into the now well-known Peking University. In 1866 China's first technical school opened door in Fukien Province on southeast seaboard. In 1881 the first naval academy came into existence in Tientsin in northeast China. In the years of 1872-1875, a total of 120 students were sent to the United States to acquire the knowledge of western science and technology. In 1895, a short-lived but extensive program of modernization and preparation for constitutional monarchy was launched by Emperor Kuang-sui with the advice of Kang Yu-wei. The reform was ended after a hundred days by Empress Dowager Tzu-hsi (this was later known as the Hundred-Day Reform). In 1905, the year when Japan defeated Russia, 15,000 students flocked to Japan to study. In the same year, the 2000 year old Civil Service Examination system was abolished.

Despite these efforts, most of the reformers at the time were still shackled extensively by the enduring Confucian mode of thoughts:

> The Western people happen to be the first in adopting this new way of life, but how can we say that they alone should monopolize the secrets of nature? And how do we know that a few decades or a hundred years later China may not surpass them?.. Now if we really take over the Westerners' knowledge of machinery and mathematics in order to protect the Way of our sage-kings Yao and Shun, Yu and T'ang, Wen and Wu, and the Duke of Chou and Confucius, and so make the Westerners not dare to despise China, I know that if they were alive

> today, the sages would engage themselves in the same tasks, and their Way would also be gradually spread to the eight bounds of the earth. That is what we call using the ways of China to change the barbarians (Hsueh (1888:48).

The process of cultural learning from the West accelerated after 1905. Increased numbers of students returned from studying abroad. Concomitantly missionary schools in China began turning out students trained strictly according to Western pedagogy. In 1912, the Ching Cynasty collapsed and the first Republic of China was founded. The stage was set for Westernization of the Chinese educational system on a more thorough scale.

By 1922, China had 33 universities, 9 medical schools and 13 technological schools. There was a total of 125 institutions of higher learning with 5613 teachers and 34,880 students. The education system from 1905 to 1927 was largely borrowed from Japan. After 1927, when Chiang Kai-shek succeeded in defeating the warlords and established the nationalist government in Nanking, the educational system of the United States was adopted. By 1948, the total number of institutions of higher education grew to 207 with 155,036 students. The enrollment of primary schools was estimated to be 23,683,000 and that of secondary schools 1,496,000.

B. THE PERIOD OF REHABILITATION AND CONSOLIDATION (1949-1953)

For three decades since the founding of the People's Republic in 1949, China's educational policies have undergone several cyclical movements, vacilating between emphasis on self-reliance (anti-West) and

emphasis on wholesale Westernization. Mao Tse-tung, an accomplished classic scholar, poet, and caligrapher, stressed that education should be integrated with productive labor and directly related to the need of the society. Repeatedly citing a Chinese Proverb that "a stupid old man can transport a mountain," meaning that sheer dedication and staying power can overcome anything, he shortened the duration of schooling and emphasized physical labor as an important mean to educate the youths of China to become constructive members of the socialist cause. He put the strongest emphasis, however, on the politics of class struggle, that is, human relationships rather than on scientific knowledge. In this regard, he is not very different from Confucius.

The "pragmatists" camp (also known as the moderates) formerly headed by Liu Shao-chi and presently by Teng Hsiao-ping perceives the urgent need for modernization of China and for Westernization of the Chinese educational system to produce highly trained scientists and technicians (who were labeled by Mao as elite privileged group, divorced from the mass and proned to follow the "capitalist road"). It is noteworthy that almost all of the so-called pragmatists had, at one time or the other, received Western education abroad.

In the pages that follow, the alternate ascendancy of Mao's "radical," and Liu and Teng's "moderate" educational policies will be examined.

From 1949, when the People's Republic of China was born, to 1952, when the first five-year plan began, China underwent major political and economic rehabilitation aimed at: 1) healing the wounds of the Japanese invasion and the civil war; 2) consolidation of the "proletarian

dictatorship;" 3) equalization of national wealth; and 4) recovery of general economic dislocations. Major campaigns launched during this period included the "Resist-America, Aid-Korea"[1] movement (related to the Korean War), "Three-anti Five-anti,"[1] Land Reform, "Suppression of the Counter-revolutionaries," Ideological Transformation of the Intellectuals, and Rehabilitation of Industrial and Agricultural production.

The government, preoccupied with consolidating its political power, had taken a rather cautious approach to education reform during this period. On June 15, 1949, (the People's Republic was established in October 1949) in a speech at the preparatory meeting of the Political Consultative Conference,[2] Mao instructed, "It is necessary to devote the maximal energy to rehabilitate and develop peoples' economic enterprises and at the same time, to rehabilitate and develop peoples' cultural and educational enterprises" (Chiao-yu Ko-ming (Educational Revolution) 1967:3).

In a report to the Third Plenum of the Central Committee of the Seventh Party Congress on June 6, 1950, Mao again directed that:

> We must systematically and persistently undertake the work of reforming the existing school educational enterprises in order to win over all patriotic intellectuals to serve the people. On this question the idea of procrastination and reluctance to reform is not right; nor is the idea of trying to launch reform by crude methods because of impatience (Chiao-yu Ko-ming 1967:5).

Change began to take place. The government took over 310,000 schools of different levels from the "fascists" and "Kuomintang reactionaries." The Kuomintang (Nationalist Party) courses on Tang-i (Party doctrine) were replaced with Marxist-Leninist political education. Higher institutions were reorganized and pedagogy altered. More educa-

tion became available to worker and peasant cadres, industrial workers, and demobilized soldiers through Su-cheng (rapid completion-extension or shortened) primary and middle schools.

Nothing that the Chinese were nicknamed by the "foreign aggressors" as the "sick men of Asia," Mao inaugurated at this time the famous "Health First, Study Second" slogan. In between classes, students of all levels were sent outdoors for body exercise.

> In most of the schools, under the influences of the old-style regularization, there were proliferations of courses; the teaching tasks were heavy and the burdens of the students were unduly great, thus resulting in poor health conditions. With respect to this question, Chairman Mao wrote on June 19, 1950, to Education Minister Ma Hsu-lun: 'It is necessary for the schools to pay attention to health first and study second. When nutrition is insufficient, funds should be increased. The time for study and meetings should be curtailed drastically (Chiao-yu Ko-ming 1967:5).

On January 15, 1951, Mao again wrote to Ma Hsu-lun[3] in support of the health first, study second policy, and in March of 1951, at the National Middle School Educational Conference, Ma Hsu-lun mentioned the importance of health first. But he went on to say that the consumation of the teaching work itself is the central phase of schooling, and, hence, he saw the necessity for having all organizations, personnel, and activities of the school revolve around this center.

It appears, even at this early time, that conflicts already existed among the leaders in the Chinese government concerning educational policies — Mao advocated the thought that "the educational experiences of the old liberated areas[4] should form the basis" (for educational policies), while Liu Shao-chi[5], Lu Ting[6], and Lin Feng[7] urged complete

Sovietization of the Chinese educational system.

> Liu Shao-chi opposed Chairman Mao's correct policy of using the educational experience of the old liberated areas to serve as the basis to reform old education; he advocated the thorough adoption of the Soviet Union's revisionist educational line.
>
> In the contents of teaching, according to the 'Decision of Textbooks for Middle and Primary Schools for the Autumn of 1950' promulgated by the Ministry of Education on July 5, 1950, it was stipulated that, except in language and history disciplines, the old textbooks of the Kuomintang Nationalist Period were to be used continually (Chiao-yu Ko-ming 1967:9).

In March of 1951, Liu Shao-chi issued a directive to the Ministry of Education underlining the importance of teaching, the need for political courses to teach broader political knowledge, and the advantages of basing teaching materials on Soviet texts. On March 18, 1952, (in "Draft of Temporary Regulations for Primary Schools"), the Ministry of Education authorized an experimental plan of "overall development of intellect, morality, physique, and esthetics" which was later labeled by Mao as a combination of old style bourgeois education and Soviet revisionist's materials and plans.

Mao's opponents in addition to supporting Sovietization of Chinese education, also opposed Mao's all-out use of the educational system to promote proletarian politics.

> Chairman Mao has always stressed that education must serve proletarian politics and revolutionary struggle. In the 'Directive Concerning the Problem of Revamping Kang-ta,' he has pointed out: 'Political education forms a central phase; there must not be too many courses; class education and Party education and work must be greatly strengthened.'
>
> Nevertheless, Liu Shao-chi and his company were opposed to

> the emphasis on politics. At a cadres conference in Tien-tsin in 1949, Liu Shao-chi said: 'For the time being, it is important to study culture and technology, while politics will be studied in the future.' In 1951, in his directive to the Ministry of Education, he said: 'It is necessary to stress pedagogy,' thus opposing participation in social and political activities on the part of the students (Chiao-yu Ko-ming 1967:11).

C. THE PERIOD OF "AFFIRMATION OF SOCIALIST EDUCATIONAL POLICY" (1953-1957)

By the end of 1952, Mao's plan for China's transformation from a "new democratic" state characterized by the "united front" to that of a socialist society with proletarian dictatorship and state ownership of properties, was clearly formulated. In 1953, the first five-year plan for socialist construction began, and by 1956, the agriculture and handicraft industries had completed the "socialist transformation" (nationalization), as had the heavy and light industries and the rest of the commercial sectors. The year 1957 marked the beginning of the National Anti-Rightist Struggle campaign and the "Rectification movement.

In education, Lin Shao-chi and his followers continued to promote emulation of Soviet educational policies, or as Mao put it, "the revisionist educational line." Mao, in the meantime, continued pressing for radical reform in education.

On May 17, 1953, in a meeting of the Central Political Bureau, Mao gave new directives for educational reform. He contended that leadership in schools was very important. With a strong principal, the teachers would be strong. It was also necessary, he said, to revise and compile new teaching materials and pedagogical methods and to stress labor

education in primary schools. He directed sharp criticism at Hsi Chung-hsun[8] (vice-director of the State Council's Cultural and Education Committee) and Liu Shao-chi's followers for opposing curriculum reform, opposing five-year primary schools, and eliminating extension primary education.

In June 1953, at the third national congress of the Youth League, Mao coined the "three-good appeal," where he expressed the view that New China should be concerned with the needs of her younger generation: "Young people must study and work, but youth is also the time for physical development. Hence, we must give complete attention to youth's work and study and also to recreation, physical education, and rest" (Mao 1973:17).

Instead of shortening the duration of education at all levels and dividing the student's time among study, labor and physical training as directed by Mao, the Ministry of Education controlled by Liu and other moderates lengthened the four years college residence requirement to five years, suspended the worker-peasant su-cheng ("rapid course" extension) middle schools and increased the number of courses required of all students.

> On the educational front, a handful of the people in authority in the party, who were headed by Liu Shao-chi and took the capitalist line with a view to consolidating the 'new democratic order' and restoring capitalism, advocated all-out and systematic emulation of the Soviet Union, energetically promoted the revisionist educational line, and boycotted basic reforms in educational enterprises (Chiao-yu Ko-ming 1967:13).
>
> The bourgeois educational ideology of 'intellect first' and 'teaching overrides everything' became rampant in China, thereby causing education to be alienated from politics and to form a tool for capitalist restoration (Chiao-yu Ko-ming

1967:17).

Liu was further accused of having allowed the "bourgeous intellectuals" to dominate the schools and replaced Mao's labor education with technological education. In view of this, Mao issued the following directives in March 1957:

> There should not be too many courses with such exalted standards; one-half could be reduced, and eight courses would be sufficient.
>
> Political and ideological education should be strengthened. There is a director of propaganda in each provincial committee; there is a director of education to be in charge of ideological education work and it is important to grasp ideological leadership.
>
> Political classes should be strengthened in junior and senior middle schools, and textbooks on politics should be compiled.
>
> It is necessary to curtail teaching materials, reduce the number of courses, and also classical literature.
>
> In regard to the problem of commune and popular sponsored schools, they should be developed wherever circumstances permit.
>
> The teaching material should have some local color; some local teaching materials should be added. Agricultural textbooks should be compiled by the respective provinces in which they are used. Some indigenous literature should be taught and this applies also to natural sciences (Chiao-yu Ko-ming 1967:23).

D. THE PERIOD OF "GREAT EDUCATIONAL REVOLUTION AND DEVELOPMENT" (1958-1960)

In 1958, Mao instituted the well-known "Great Leap Forward" campaign. This was the period in which the People's Communes were formed in the rural areas and "indigenous" methods of production: the "backyard furnace" and the like, were vigorously introduced in an attempt to raise

industrial and agricultural outputs drastically within a relatively short period of time. This was also the period in which the "rightists," with Peng Te-huai[9] heading the list, were liquidated and in which education became the battleground of political camps.

> ... under Chairman Mao's leadership, a resounding educational revolution was launched against the revisionist educational line represented by Lin Shao-chi and the remnant old educational systems of millenniums ago. This has destroyed all domestic and foreign dogmas and opened up the brand new road for education to serve politics and for coordination between education and productive labor (Chiao-yu Ko-ming 1967:27-28).

The direction and scope of Mao's "education revolution" during this period was clearly and elaborately spelled out in his "Sixty Articles of Working Methods," published on January 31, 1958. The main points of these articles are as follows:

> 1) 'Red and Expert:' Mao instructed that progressive political consciousness and professional expertise are two inseparable aspects of one entity. One should strive to be a good Marxist-Leninist-Maoist and at the same time, to excel in one's profession.
>
> 2) 'Half-Work, Half-Study:' Mao directed that factories or farms should be established in schools to enable the students to work half-time and study half-time.
>
> 3) Engineering and agricultural colleges should enter into labor contracts with local factories and local agricultural cooperatives or communes respectively.
>
> 4) Teachers and students alike should participate in productive labor of one form or another, during both the school year and the holidays.

In March of 1958, at the Chengtu Conference, Mao criticized Liu for his wholesale transplantation of the Soviet educational system in China and called for a unique Chinese socialist educational system: an educa-

tional system that geared both to Mao's principle of "unity of theory and practice" and to the efficient and rapid production of "socialist builders." In other words, Mao had in mind an educational system that "wasted" no time on teaching students materials not directly related to their future profession — for example, a farmer does not need to know anything about Plato or Leonardo da Vinci to be an adequate farmer and a factory worker does not need to be acquainted with the quantum theory to be an efficient worker. Given Mao's fervent desire to transform China into a leading world power "within a very short period of time," Mao's theory of "Dialectic Materialism," and his conviction that elitism generates bourgeois decadence, it seems only natural that Mao had conceived such a "practical" system.

> Chairman Mao's sincere concern and important directive greatly heartened the revolutionary students and teachers in China. They actively joined the all-people's steel smelting movement and three-autumn movement, thus linking education to politics and productive labor. A new high tide emerged in the educational revolution (Chiao-yu Ko-ming 1967:30-31).

Opposition to Mao continued, however. At various meetings and in various speeches, Liu Shao-chi, Teng Hsiao-ping[10] and Lu Ting-i opposed the half-work and half-study education because it would not produce the necessary writers, scientists, educators, and other specialists they felt China needed. They criticized the lack of long-range planning in education, pointed out the possibility of setback in the quality of education and warned against hasty implementation of Mao's Program.

In June, Liu Shao-chi expressed the opinion that by engaging in half-work and half-study, "the quality of study may drop" and attacked

Mao's educational stance by saying, "in the past educational policy there is no clear purpose and it should be criticized" and by charging that in China's education "there is no clear long-range policy and it has failed to shape a Marxist-Leninist line" (Chiao-yu Ko-ming 1967:32-33). In his directive to the Hopeh provincial and Tien-tsin municipal party committees in July, Liu cautioned, "At present you have already launched some schools for half-work and half-study. Your experience is still insufficient and you must watch first and not try to develop them hastily" (Chiao-yu Ko-ming 1967:32-33).

In August, Lu Ting-i expressed the view that "The first duty of education is to teach and learn knowledge, the significance of the practice of coordinating education with productive labor is to enable the students to have broader and more comprehensive knowledge." He continued his criticism of Mao's policy in 1959:

> There are mistakes in the great educational development of 1958... due to feverish headiness and inept ideological methods... Speaking on the whole, it is a great leap; speaking scientifically, some have leapt, others not, and still others retrogressed. One may be a rightest politically but understand something academically... (Chiao-yu Ko-ming 1967:33).

Teng Hsiao-ping, in September 1958, while inspecting the Northeast, also brought the half-work and half-study system into question — "When students participate in labor, the basic courses must not be weakened under any circumstances. The most important task of education is to consummate the research and experiments on apogeal sciences geared to the contents of pedagogy" (Chiao-yu Ko-ming 1967:32-33).

Lu Ting-i and others not only felt that middle and primary schools

should teach the basic disciplines as a solid foundation for cultural and scientific knowledge, but that the educational revolution was being handled in a "chaotic" and "sloppy" fashion and was bound to collapse, that labor and political classes were being over-emphasized, and that teaching, in short, should be the "principle work" of the schools.

Lin Piao[11] began to emerge from the background around this time. He called on the "entire army" to study Mao's works and asserted, "It behooves school education to implement two principles: one is simple but essential, the other is brief and to the point. It is necessary to reform the curriculum..." (Chiao-yu Ko-ming 1967:33).

Despite his new ally, Mao encountered mounting resistance from the moderates. As a result, education in China during this period and the next (1961-65) suffered considerably from confusion.

E. THE PERIOD OF "FLUCTUATIONS" AND INTENSIFIED STRUGGLE BETWEEN THE MODERATES AND MAO IN EDUCATION (1961-65)

The "Great Leap" resulted in massive economic dislocation and chaos which was further complicated by the dispute with the Russians, the consequent withdrawal of Soviet aid, and a series of natural calamities. Mao, the father of the "leap" encountered opposition on all fronts.

In education, the moderates, taking advantage of Mao's setback, seemed to have gained the upper hand during this period. Criticism of Mao's educational reforms blossomed. On February 7, 1961, the Central Committee approved and transmitted the report of the Central Cultural and Educational Group which recommended that "The current cultural and

educational work must implement the policy of adjustment, consolidation, replenishment and enhancement, and emphasize the replenishing of contents, energetic enhancement of quality, and suitable control of development."

On July 20, 1961, the Ministry of Education issued "Opinions on Certain Problems Concerning Full-Day Schools" which criticized overemphasis on labor and political activities. Textbooks with less emphasis on politics were ordered to be compiled and the half-work, half-study system was dropped in favor of the full-day school.

> With a view to training bourgeois intellectuals, a handful of men in authority in the party who took the capitalist road such as Lu Ting-i and Lin Feng, stressed the importance of developing a group of regular (full-day) colleges and middle and primary schools, and of fostering some key schools to engage in the development of "little pagodas." They did everything to harm half-work and half-study, which had come as the fruits of the 1958 educational revolution. After 1961, almost all the colleges and middle schools with half-work and half-study launched since 1958 had been abolished and almost all the factories sponsored by these schools had been suspended (Chiao-yu Ko-ming 1967:46-47).

On August 2, 1962, Lu Ting-i charged that the pace of growth was too fast, that too much power resided in the lower echelons, that there was too much power resided in the lower echelons, that there was too much labor in the schools and not enough classes, that language courses was being taught as political courses, that standards had been lowered, and that chaos had hurt the schools. In the meantime, the Ministry of Education, then controlled by the moderates, designated Li-feng, Chang Chi-chun[12], and Chang Nan-hsiang[13] to draft the "Kao-chiao Liu-shih-tiao" (Sixty Articles on Higher Education) which was subsequently implemented. This immediately drew attack from Mao's followers:

> It "negated the achievements of the great educational revolution since 1958 and the leadership of the party;

> it obliterated the struggle between two classes and two roads; and it proselytized the revisionist view that politics should be realized in business, thus providing facilities for bourgeois intellectuals and causing the students to return to their bookish pursuits and to become detached from politics and labor" (Chiao-yu Ko-ming 1967:40-41).

Under the auspices of Chan Nan-hsiang and Yang Hsiu-feng, a selective admission system based on grade achievement instead of family-background priority scale (descendants of workers, poor peasants, "middle-class" peasants, petty bourgeois or capitalists) was reinstated.

This development did not, of course, meet with Mao's approval and he bluntly directed in 1962, that:

> The existing school system, curriculum, teaching method, and examination method must be revamped. This is detrimental to the people. The present methods are detrimental to talents and to youth and I do not agree with them. One has to read so many books, and examination is what one does to the enemy; it kills and it has to be changed. All foreign and native dogmas must be done away with...There are now too many courses that pose terrific pressures on students. The lecture methods are poor. The method of examination regards the students as enemies in carrying out sudden blitzkriegs. All three items are inimical to the training of youth so that they may develop automatically in intellect, morality, and physique (Chiao-yu Ko-ming 1967:50).

In spite of Mao's directives, however, the moderates continued their efforts to soften the impact of the abrupt changes brought about by the "Great Leap." The newly compiled textbooks were adopted, some Confucian Classics were again allowed to be studies, and attempts were made to introduce a more balanced and comprehensive science and humanities curriculum.

> The Ministry of Education, on July 31, 1963, issued the "Circular Concerning Implementation of the Teaching Plan for Regular Middle and Primary Schools" - this teaching plan was a potpourri copied from curricular patterns of the Kuomintang era, Soviet revisionist countries, and the imperialist countries...In it there were miscellaneous courses and the number of hours was increased, completely violating Chairman Mao's previous directive on curricular reform (Chiao-yu Ko-ming 1967:44).

In view of this, Mao launched, in 1963, an extensive campaign "to learn from Conrade Lei Feng,"[14] and issued a series of directives aimed to reasserting his dwindling influence which had resulted from the set of the "Great Leap."

> Chairman Mao grasped the compass of socialism and led the entire people to rout the counter-current of capitalism... An urban and rural socialist educational movement was unleashed to repel the frantic attack of the bourgeoisie and to consolidate socialist economic foundations and the proletarian dictatorship...Chairman Mao pointed out clearly that "class struggle, production struggle, and scientific experiment are the three great revolutionary movements to construct a socialist power; this forms the real guarantee for Communists to avert bureaucratism, revisionism, and dogmatism, as well as to become invincible. It is also a reliable guarantee for the proletariat to be aligned with the broad laboring masses and to implement democratic dictatorship[15] (Chiao-yu Ko-ming 1967:48).

> "...in many sectors the results of socialist transformation are still very scant. Many sectors are still dominated by 'dead people.' Though the economic basis of society has changed, the art sector, which is one of the superstructures serving this basis, still remains problematical." Under Chairman Mao's wise leadership, the people began to rout this counter-current of capitalist restoration and to insist on the socialist direction (Chiao-yu Ko-ming 1967:49).

To steer the Chinese youth to this "socialist direction," Mao emphatically and repeatedly enunciated the importance of developing "political consciousness" from real life class-struggle and the insignificance of academic achievements.

> Successors of proletarian revolutionary enterprise are produced in mass struggle and grown in the steeling amidst great revolutionary storms. It is then necessary to observe and distinguish cadres and to select and train the successors during the protracted mass struggle...Class struggle is one of your main courses. You should not emphasize grades, but must focus your energy on training the ability to analyze and resolve problems and must not be shackled by following the teachers. The crux of educational reform lies with the teachers; the pedagogical method of infusion of knowledge must be opposed; what is most important to study from practice" (Chiao-yu Ko-ming 1967:53).

Not at all convinced, the "Moderates" clung tenatiously to their educational reform in China. Liu Shao-chi, Teng Hsiao-ping and Lu Ting-i resisted Mao's Spring Festival directive.[16] On March 4, 1964, at a meeting of the Central Cultural and Educational Group, Lu Ting-i asked: "What to do when the curriculum has been cut by one half? We are now studying this problem of cutting one half and will do what we can, but it must be done carefully" (Chiao-yu Ko-ming 1967:50).

The "Moderates" regrouped in 1965, and appointed Ho Wei as the new Minister of Education. Ho, a trusted aide of Liu Shao-chi, wasted no time in his effort to motigate Mao's all-out attempt to change all schools back to the half-work-half-study system. He pushed for, in stead, a policy which permitted the coexistence of the full-day school with those of the half and half.

Mao was not satisfied with the compromise. He insisted that "political education is the center of all education" and that "educating youth is a big problem; if we should be negligent, the bourgeoisie will come to seize power." He further stressed that the "study load of the students are still too heavy and should be cut in half" (Mao 1965;32).

Lu Ting-i and Ho Wei disagreed and charged that the cause behind the unduly heavy burdens of the students was that "something has been launched excessively, such as the study of The Selected Works of Mao Tse-tung, emulation of the Liberation Army, military training, physical labor, etc." (Chiao-yu Ko-ming 1967;55-56).

The seeds for the impending "Great Proletarian Cultural Revolution" were sown. Mao directed that "schools should permit students to rebel."

F. The Period of Cultural Revolution (1966-1976)

And rebel the students did. For almost two years schools at all levels in all parts of China were virtually shut down. Youngsters of all ages roamed the country to conduct "Long Marches"[17] and to "make revolution."

Consolidation of political power and disposal of his bitter opponents, Liu Shao-chi, Lu Ting-i, et al. were only the immediate cause. The underlying motivation for Mao's unleashing the Cultural Revolution was his profound and consistent conviction of class-struggle, proletarian dictatorship, and uninterrupted revolution being the sole means to attaining a truly communist society. As early as 1942, Mao stated, "Classes have split society into many antagonistic groups; there will be love of all humanity when classes are eliminated, but not now. We can not love enemy, we cannot love social evils - our aim is to destroy them" (Mao 1965:91).

In 1957, he again pointed out:

> In China, although in regard to the system of ownership, socialist transformation has been basically completed and the turbulent class struggle among the masses during the revolutionary period has been basically concluded, nevertheless the remnants of the overthrown landlords and compradores continue to exist, the bourgeoisie still exists, and the petty bourgeoisie is being transformed. Class struggle has not yet been ended. Class struggle between prolitariat and bourgeoisie, class struggle among the political forces of the various parties, and class struggle in the ideological sphere between proletariat and bourgeoisie are still protracted, devious, and even very violent at times. The proletariat wants to transform the world according to its own world

> outlook; the bourgeoisie also wants to do the same. In this connection, the question of who will win between socialism and capitalism has not yet been resolved truly (Mao 1971:463-464).

Thus, "to ensure the dictatorship of the proletariat,"

> Politics should be the commander, the soul in everything. In all its work the school should aim at transforming the students ideology...Purely vocational viewpoint and other bourgeois ideology always tries to contaminate the worker, the peasant and students. If we lose sight of this and relax political and ideological education, there is a danger that the worker, peasant, (and) student too may be corrupted by the bourgeoisie ("Strive to Build a Socialist University of Science and Engineering" 1970:11).

The first important step taken by Mao in launching the Cultural Revolution in education was the removal of Lu Ting-i from office in March, 1966. On May 7, Mao issued a much-cited order which was later known as the 5:7 Directive instructing that the army should serve as a big school and reiterated that, "The length of schooling should be shortened, education should be revolutionized, and the phenomenon of bourgeois intellectuals controlling our schools should not be allowed to continue" ("shortening the period of schooling" 1968).

On May 16, a formal denouncement of the "academic authorities" was circulated by the Central Committee of the Chinese Communist Party:

> The whole Party must hold high the great banner of the Proletarian Cultural Revolution, thoroughly expose the reactionary bourgeois stand of those so-called "academic authorities" who oppose the Party and socialism; thoroughly criticize and repudiate reactionary bourgeois ideas in the spheres of academic work, education,

> journalism, literature, art, and publishing; and seize the leadership in these cultural spheres (Chairman Mao on Educational Revolution 1967:36).

Students were encouraged to criticize, repudiate and destroy the old:

> There is no construction without destruction. Destruction means criticism and repudiation, it means revolution. It involves reasoning things out, which is construction. Put destruction first, and in the process you have construction (Chairman Mao on Educational Revolution 1967:37).

On May 15, the first Ta-tzu Pao (Big Character poster) was hung up in Peking University slashing at the educational system in general and Lu Ping, the university president, in particular. This Ta-tzu Pao, written by Nieh Yuan-tsu and six others was personally endorsed by Mao, and was broadcast and published in all media. Posters criticizing the system, the "revisionists," the bourgeoisie, and capitalist "running dogs" sprang up like grass after rain in the summer, all over the country. The Cultural Revolution was on. Charges and counter-charges were made and considerable violence occurred, which was partially incited by the pro-Liu and Lu factions and partially resulted from misinterpretation of Mao's theory of destruction as a means for construction.

Liu Shao-chi, Teng, and Ho put up a last-ditch fight by sending out work groups to schools and universities to deflect the pro-Mao cultural revolutionarys' attack to the "bourgeois" on the surface, but in actuality to the Maoists themselves. However, Mao managed to gain the upper hand.

On July 12, 1966, at the height of chaos and violence, a "letter" from students of the China People's University in Peking was published in the official government newspaper, Jen-min Jih-pao (People's Daily):

> Respected and beloved Party Central Committee and respected and beloved Chairman Mao: We are revolutionary youth, born amidst the gunfire of revolution, nurtured in our growth by the Party and advancing in the brilliant sunshine of Mao Tse-tung's thought. Some people say that we always smell strongly of gunpowder. Yes, during this great cultural revolution, we will act in accordance with your instructions and, together with the masses of the workers, peasants and soldiers, resolutely, thoroughly and swiftly, smash the old educational system and open fierce fire on the lordly bourgeois "authorities" (Translated in Peking Review 1966:21).

They went on to list the "criminal defects of the existing educational system":

> 1) This system runs completely counter to Chairman Mao's theory of knowledge; it treasures book knowledge as all-important, despises practical work, isolates students from the workers and peasants and divorces them from the three great revolutionary movements of class struggle, the struggle for production, and scientific experiment. It leads inevitably to the emergence of revisionism or dogmatism.
> 2) The present system widens the gaps between the workers and peasants, between town and countryside and between physical and mental labor and trains successors for the bourgeoisie. Those lordly bourgeois "authorities" have only one worry: that the young people will stay for too short a period in college, will read too few books, will not be deeply enough influenced by the bourgeoisie and thus will not become its filial sons and grandsons.
> 3) The existing educational system stipulates six years for primary school, six years for middle school and in general five years for college and university. One first enters school at the age of seven or eight and at graduation from college one is 25 or 26 years old. Studying in school and college takes up the most valuable period in one's life. Seventeen years of hard academic study really wastes one's youth and leads the young generation astray.

4) The teachers and students in the schools bury themselves in books every day, study like bookworms, showing no interest in politics and ignoring the wide world outside.
5) The students now in college live in tall buildings, eat polished rice and fine flour, read ancient and foreign "masterpieces"; and, with ideas of seeking fame and material gain instilled in their minds, they advance along the road to becoming specialists without a socialist consciousness. If they keep on in this way, how can the children of workers and poor and lower-middle peasants prevent themselves from forgetting their origins?
6) The system puts too much stress on so-called systematic knowledge. In reality it spreads dogmatism, metaphysics and scholasticism.
7) The content of the study material is diffuse and repetitive. As a result, the longer students study the more middle-headed they become. Teachers indulge in trifling textual research and use the cramming method of teaching. Students bury themselves in ancient books every day of every month throughout the year. Consequently the young people lose their bearings and are physically weak and often ill.
8) The country needs trained people urgently but the time students take to complete their courses is very long. As the educational system requires too many years of schooling, the rate at which graduates are turned out and new students admitted is extremely low. It can neither satisfy the needs of the country in the quickest way nor enable great numbers of children of workers, and of poor and lower-middle peasants and large numbers of demobilized armymen to enter colleges.
9) There is a waste of teachers and manpower. If the period of education were shortened by half, teachers would be able to teach twice as many students as they are teaching now.
10) Because of their long isolation from practical work and from class struggle, many students build up a whole bourgeois outlook on life while at school and this is difficult to change. As a result, college students on whose training the state has spent so much money are not welcome. They are inferior to the functionaries in the basic units whose formal educational level is no higher than that of primary or junior middle schools but who have tempered themselves in the struggle for production or other practical work. They are still more inferior to the veteran revolutionaries who may have had only a few

> days' schooling or even none at all but who have seasoned themselves in protracted revolutionary struggles and practical work. And they are by far still more inferior to such outstanding people as Lei Feng, Wang Chieh, Ouyang Hai, Mai Hsien-teh, Chen Yung-kuei, Wang, "the Man of Iron," and Li Su-wen. It is obvious that real revolutionaries are not trained in schools and real heroes do not come from the classroom (Peking Review 1966:21-22).

The editor of the People's Daily wrote a special note regarding the "letter":

> ...It is a letter challenge, in which they demonstrate their resolve to break away from the old concepts of education and the old educational system, and their daring to topple completely all bourgeois "authorities." We warmly support their revolutionary proposals which give expression to their courage in desiring to temper themselves in practical work, and we warmly support their revolutionary determination in insisting on being graduated ahead of time. Chairman Mao teaches us: "The youth are one of the most active and vital forces in society. They are the most anxious to learn, they are the least conservative in their thinking. This is especially so in the era of socialism." In these revolutionary young people we see the rapid growth of the young generation, nurtured in the great thought of Mao Tse-tung; we see how they take over the great revolutionary banner dyed red with the blood of revolutionary martyrs and advance courageously along the broad highway of socialism. The future and hopes of our great motherland rest in them (Peking Review 1966:20).

The rebellious spirit of the youths in China was given a further lift when, on August 8, the Central Committee of the Chinese Communist Party officially specified the goals, the scope and the methods of complementation of Cultural Revolution:

> Trust the masses, rely on them and respect their initiative. Cast out fear. Don't be afraid of disorder. Chairman Mao has often told us that revolution cannot be so very refined, so gentle, so temperate, kind, courteous, restrained and magnanimous. Let the masses educate themselves in this great revolutionary movement

> and learn to distinguish between right and wrong and between correct and incorrect ways of doing things... At present, our objective is to struggle against and crush those persons in authority who are taking the capitalist road, to criticize and repudiate the reactionary bourgeois academic "authorities" and the ideology of the bourgeoisie and all other exploiting classes and to transform education, literature and art and all other parts of the superstructure that do not correspond to the socialist economic base so as to facilitate the consolidation and development of the socialist system ("Decision of the Central Committee of the Chinese Communist Party Concerning the Great Proletarian Cultural Revolution" 1966:6,8).

In line with Mao, the Central Committee also gave clear directions on educational reform, again stressing change from the "bourgeois intellectual domination of schools" to the "holding high" of the educational policy of Mao Tse-tung" and "of education serving proletarian politics and education being combined with productive labor, so as to enable those receiving an education to develop morally, intellectually and physically and to become laborers with socialist consciousness and culture" ("Decision of the Central Committee..." 1966:10). The Committee further recommended "shorter period of schooling", "fewer and better courses", and "thorough transofrmation of teaching material."

A few days after this directive was circulated, the "Red Guards" emerged, first in Peking, and then quickly gathered momentum throughout China as a spirited and formidable force. With Mao's Little Red Book in hand, they abandoned their schools to devote themselves to the task of destroying the "Four Olds" (old ideas, old culture, old customs, and old habits). They left their families and hometowns,

and roamed all over the country to conduct "Long Marches," to exchange "revolutionary experiences," and to see the "great helmsman Chairman Mao" in Peking. Eight enormous rallies in front of the Tien-an gate in Peking and many smaller ones, involving millions of youngsters took place. An example of one of these rallies was described by the New China News Agency (official government news agency) as follows:

> One million revolutionary people took part in a mass rally and parade in Peking's Tienanmen Square today to demonstrate the firm determination of the 700 million Chinese people to carry the great proletarian cultural revolution through to the end under the leadership of Chairman Mao Tse-tung, the great leader, commander, and helmsman. Wearing the uniform of the Chinese People's Liberation Army, Chairman Mao Tse-tung, the great leader, commander, and helmsman of the Chinese people, joined the revolutionary masses in celebrating the great proletarian cultural revolution in Tienanmen Square at 5 o'clock this morning. The square, a sea of red flags, seethed with joyful excitement. People jumped up and shouted: "Long live Chairman Mao!" at the tops of their voices. They sang with tremendous gusto "A Ship Can't Sail Without a Helmsman" and "Long Live the Invincible Thought of Mao Tse-tung!" To outbursts of cheering and applause Chairman Mao and Lin Piao came out more than once onto the wings of the Tienanmen to meet members of the Red Guards. These "young people," dressed in khaki and wearing red arm-bands, waved their red-covered copies of <u>Quotations from Chairman Mao's Works</u> and shouted "A long life to our most beloved Chairman Mao!" The fearless young fighters handed several hundred letters to Chairman Mao. They promised Chairman Mao that they would carry the cultural revolution through to the end and would be the red successors to take over the torch of revolution..."Red Guards," composed of the most active, the bravest and the firmest of the revolutionary students, backed the reviewing stands on both flanks of the Tienanmen gate and were scattered all about the square...These revolutionary students said that they were "Red Guards" for the defense of the Party Central Committee, Chairman Mao and Mao Tse-tung's thought. The giant Tienanmen Square today was ablaze with brilliant sunshine, with a multitude of flame-like scarlet flags and a

> vast sea or people. A huge portrait of Chairman Mao stood at the center of the square. Lined up in the middle of the front rows in the square, facing the rostrum, were the contingents of revolutionary students and teachers from Peking University, who initiated the cultural revolutionary movement in the capital. Right at the front, they held up a placard inscribed with the words of first revolutionary "big-character" poster written by Nieh Yuan-tzu and six others, which raised the curtain on the movement. After they had seen Chairman Mao, students from the various parts of the country began busily writing letters of determination and of pledges to the Party Central Committee and Chairman Mao, promising to listen to Chairman Mao's words, study Chairman Mao's works and become staunch red successors of the proletarian Cultural Revolution" and "Chairman Mao Joins Revolutionary Masses in Celebration of the Great Proletarian Cultural Revolution" 1966).

Anarchy reigned for the rest of 1966, and a large portion of 1967. Friction developed among factions of the Red Guards, and between the Red Guards and workers. "Headquarters" were bombarded and counterbombarded, power was seized by one group, only, in no time, to be seized by another.

These were, of course, far from Mao's original concepts of "bombard the headquarters" and "seizure of power." He decried the violence and chaos. As early as February, 1967, attempts were made to reopen school and to neutralize the explosive outburst of the repressed drives of the Chinese youths by reminding the Chinese that revolution must start in the schools: "it is first necessary to resume the lesson of class struggle and to carry out the great cultural revolution in schools to a further extent" (Re-Open School to Make Revolution" 1967).

Mao saw the Chinese army as a type of "cure-all" for the

chaotic distresses of his country. On March 7, he called on the army to restore order and help reopen schools: "The army should give military and political training in the universities, middle schools and the higher classes of primary schools, stage by stage and group by group...this should help in reopening school classes, strengthening organization, setting up the leading bodies on the principle of the 'three-in-one'[18] combination and carrying out the task of 'struggle-criticism-transformation'"[19] (Excerpt from "A Directive from Chairman Mao Concerning the Great Strategic Plan for the Great Proletarian Cultural Revolution" 1968:5).

In October, with the majority of the schools still remaining closed, the Central Committee of the Chinese Communist Party, the State Council (headed by Chou En-Lai), the Central Military Commission (headed by Lin Piao), and the Central Cultural Revolution Group (with Chiang Ching, Mao's wife, as an active member) jointly issued a circular, sternly ordering immediate reopening of schools:

> 1. Universities and secondary and primary schools in all places are to commence classes immediately without exception.
> 2. All schools must seriously carry out Chairman Mao's directive concerning the combat against self-interest and the repudiation of revisionism.
> 3. All universities and secondary and primary schools are to carry on teaching and study, while carrying on at the same time reforms. In the practice of teaching and study, Chairman Mao's thought of educational revolution should be thoroughly applied, and revolutionary plans for teaching and study systems, and teaching and study contents should be proposed step by step.
> 4. All the schools should obey Chairman Mao's directive of March 7, 1967, and should realize the revolutionary great alliance, and establish the leadership of revolutionary three-in-one combination, under the principle of revolution

> and according to the systems of classes, grades and departments.
> 5. Teachers and cadres of all the schools, for the most part, are good or relatively good. Except for landlords, rich peasants, counter-revolutionaries, bad elements, those who committed mistakes in the past, if only they can recognize and correct their mistakes, should be allowed to step up and continue to work.
> 6. All universities and secondary and primary schools should start immediately to prepare for the recruitment of new students ("Circular of the CCP Central Committee, the State Council, the Central Military Commission and the Central Cultural Revolution Group Concerning the Resumption of Classes and Revolution of University, Secondary, and Primary Schools" 1968:566-67).

Chaos lingered despite the Party's stern directive. A great number of youngsters continued to loiter about the country, challenging the authorities and destroying the "four olds." In March 1968, on the anniversary of Mao's "March 7" directive, the subject of reopening school again became the focus of the Party-controlled news media. The "handful of capitalist roaders in the Party and other reactionaries" were said to have "exploited anarchist trends which appeared to incite a number of people to oppose this new-born committee (the school's revolutionary committee)" ("Forge Ahead Victoriously Along the Course Opened up by the Great Leader Chairman Mao's 'March 7' Directives" 1968:17). Because "this hampered revolutionary mass criticism and repudiation and the revolution in education in the school," further study and interpretation of the "March 7" directive was demanded by the party. "The principal enemy was the handful of capitalist roaders in the Party headed by China's Khrushchov, (referring to the Liu Shao-chi) and that the general orientation of the struggle to be followed in the school was

to reopen classes and carry on the revolution and unfold revolutionary campaign of mass criticism and repudiation" ("Forge Ahead..." (1968:17). Thus, Liu Shao-chi and his followers were blamed for the delay and difficulties encountered resuming classes in school.

The Liberation Army was again called on to impart discipline to the school system. One recommendation made was the training of revolutionary teachers and students by army cadres. Through this training, it was hoped they could "learn politics, military affairs, the 'four firsts,'[20] the 'three-eight' working style[21] and the Three Main Rules of Discipline and the Eight Points for Attention,[22] and strengthen their sense of organization and discipline" ("Chairman Mao's 'March 7' Directive" 1968:11).

The implementation of Mao's educational policy was repeatedly urged whereby the "revisionist" concept of "putting academic study above everything else" was gradually eliminated. The old method of "teaching and studying by cramming" gave way to "teaching and studying through inquiry and reasoning things out". Both teachers and students began giving lectures (so they could teach and learn from each other). All that was "feudal, bourgeois, and revisionist" in content was thrown out and Mao Tse-tung's thought was "vigorously established," with his works used as "basic teaching material for the liberal arts courses" and his thought "put in command in compiling and editing new teaching material for the science courses" ("'March 7' Directive" 1968:11).

In September, as order was gradually regained, Mao launched a new

campaign to "re-educate the intellectuals" by stating, "The majority or the vast majority of the students trained in the old schools and colleges can integrate themselves with the workers, peasants and soldiers, and some have made inventions or innovations; they must, however, be re-educated by the workers, peasants and soldiers under the guidance of the correct line, and thoroughly change their old ideology ("Chairman Mao Tse-tung's Latest Directive" 1968:15). The "remoulding of the intellectuals" has always been viewed as a question of "major significance." To him, their "remoulding" in accordance with the proletariats outlook and the training of proletarian intellectuals to serve the working class was essential both for "consolidating and developing the dictatorship of the proletariat and preventing the restoration of capitalism" ("On the Re-education..." 1968).

Among the newly introduced methods of re-education, the following is typical:

> In order to fortify its students against bourgeois habits and enable them to maintain the fine qualities of hard work and plain living of the poor and lower-middle peasants, this school sets great store by education in labour in accordance with the opinions of the poor and lower-middle peasants. The school committee demands that every student walk to school and collect manure on his or her way to and from school. Changing the old-established system of giving winter and summer vacations as practiced in ordinary schools, it gives vacations in the three busy farming seasons of spring ploughing, summer hoeing and autumn harvest. This enables students to work alongside the other commune members. In order to assist the students in remoulding their ideology through productive labour, a summing up of their ideological progress is made at the end of each farming season. The school

> requires its students to do at least 90 days of collective labor every year and earn their quota of food grain by their work ("Running the School for Training Successors to the Revolutionary Cause of the Proletariat" 1968:9, 28).

In the latter part of 1968, Mao appeared to have gained full control of the situation. His arch-enemies in educational policy-Liu, Lu, and other moderates-were stripped of all power and denounced: "During the present great cultural revolution, the revolutionary teachers and students have written more than 100 articles repudiating the handful of Party capitalist roaders represented by Liu Shao-chi" ("Running the School..." 1968:9).

Victory of the Cultural Revolution was pronounced:

> Songs of triumph ring out north and south of the Tienshan Mountains, and the sun shines brightly over the Tibetan Plateau. At a time when hundreds of millions of armymen and civilians throughout the country are marching from victory to victory under the inspiration of Chairman Mao's latest instructions, revolutionary committees have been established simultaneously in the Tibet Autonomous Region and the Sinkiang Uighur Autonomous Region, China's southwestern and northwestern outposts in the battle against imperialism and revisionism!...In the great struggle during the 20 months from the outburst of the storm of the "January Revolution" in Shanghai to the establishment of the two revolutionary committees in Tibet and Sinkiang, armymen and civilians throughout the country have fulfilled Chairman Mao's great call: "Proletarian revolutionaries, unite and seize power from the handful of Party persons in authority taking the capitalist road," and they have won decisive victory in the great proletarian cultural revolution across the land ("Long Live the All-Round Victory in the Great Proletarian Cultural Revolution" 1968).

The instruments that brought about the "triumph" were the "Revolutionary Committees" controlled by the Chinese Communist Party and composed of armymen, workers, "progressive" teachers, and students:

> Revolutionary committees have now been set up in all the provinces, municipalities and autonomous regions of the country with the exception of Taiwan Province. This extremely magnificent spectacle--the whole country is red--is an important event in the seizing of all-round victory in the great cultural revolution. It indicates that the whole movement has entered the stage of struggle-criticism-transformation on a nationwide scale. This is a great victory for the invincible thought of Mao Tse-tung, a great victory for Chairman Mao's proletarian revolutionary line and an event of great joy in the political life of the 700 million people of our country ("Long Live the All-Round Victory..." 1968)!

The initial success of Mao's anti-West (Anti-"Capitalist Roader") and anti-science and technology "Cultural Revolution" was misleading. For it was during this period, deep, divisive, incurable wounds were created. Those wounds were to be sorely inflamed soon after Mao's death in 1976.

With Liu, and Lu, and other moderates out of the way and the Party apparatus and Revolutionary Committees firmly controlling the educational system at all levels, many policies which Mao had not been able to implement prior to the Cultural Revolution, were now put into effect. The following were the new major developments in education during this period:

1. School Administration: Prior to 1967, the schools in China were primarily operated by the intellectuals, who, as a rule, came from relatively well-to-do families (ironically, Mao, Liu Shao-chi, Lu Ting-i, Chou En-lai...were all from relatively well-to-do families and at one point or another had all been exposed to "feudalistic" as well as "bourgeois" education). Mao regarded this and teachers as the major problems confronting the educational system of the People's

Republic - "The formation of a contingent of proletarian teachers by combining the three forces - the workers, peasants and soldiers; the revolutionary teachers; the members of the original teaching staff - is vital to putting a complete end to the domination of our schools by bourgeois intellectuals" ("Strive to Build a Socialist University of Science and Engineering" 1970:7).

Proletarian leadership under the direction of the Communist Party was repeatedly stressed in school administration. The Enlarged 12th Plenary Session of the Eighth Central Committee (on October 31, 1968) called on "all workers, poor and lower-middle peasants, commanders, and fighters of the People's Liberation Army, revolutionary cadres, revolutionary Red Guards and revolutionary intellectuals and on the revolutionary people of all nationalities in the country to carry out resolutely Chairman Mao's teaching that the working class must exercise leadership in everything, to establish the dictatorship of the proletariat in the superstructure including all spheres of culture" ("Communique of the Enlarged 12th Plenary Session of the Eighth Central Committee of the Communist Party of China" 1968:vii). The committee further emphasized the need to re-educate the intellectuals; recommended that the workers' propaganda teams should stay permanently in the schools and colleges, take part in all the tasks of "struggle-criticism-transformation" there and always lead these institutions; and encouraged the management of countryside schools and colleges by the poor and lower-middle peasants.

The Central Committee's appeal was immediately echoed and

expounded upon, in Peking Review:

> Chairman Mao teaches us: "The fundamental question of revolution is political power." The revolution in education in the rural areas is also, first and foremost, a question of leadership. This is because "the proletariat seeks to transform the world according to its own world outlook, and so does the bourgeoisie." When the power in education is grasped by the capitalist roaders and bourgeois intellectuals, the schools will inevitably serve the bourgeoisie, educate the students in the bourgeois world outlook, follow the bourgeois orientation, and train successors for the bourgeoisie. When the power in education is grasped by the working class and the poor and lower-middle peasants, the schools will certainly serve the proletariat and the broad masses of working people, carry out the principle of "education must serve proletarian politics and be combined with productive labor" put forward by Chairman Mao, educate the students in Marxism-Leninism and Mao Tse-tung's thought, and train every student into a person who is truly "a worker with both socialist consciousness and culture," that is, a successor to the revolutionary cause of the proletariat ("Schools Managed by Poor and Lower-middle Peasants" 1968:12).

A concrete example of how schools in Aihui county, Heilungkiang province (northeast China) were taken over and operated by the peasants of Aihui commune was presented as a model:

> In November of last year, the three production brigades set up leading groups for the proletarian revolution in education consisting of leading members of the brigade revolutionary committees, representatives of the poor and lower-middle peasants, leaders of the militia companies and representatives of the revolutionary teachers and students, thus ensuring that the power in rural education was held firmly in the hands of the poor and lower-middle peasants. The brigades' revolutionary committees put the work of managing schools on to their agenda and regularly discuss and study the work of the schools. Leading members of the revolutionary committees go to the schools personally to exercise leadership and take every school as a production team of the brigade and a militia platoon. The past state of affairs in which the schools and production teams had nothing to do with each other has been

> changed. Teachers and students say, "The production teams are our teams." And poor and lower-middle peasants say: "The schools are our schools" ("Schools Managed by... Peasants" 1968:12).
>
> Since taking over the management of the schools, the poor and lower-middle peasants have selected ten educated young people of poor and lower-middle peasant origin with proletarian consciousness and practical experience in production to become teachers. These young people have returned to the countryside and taken part in labor for at least a year or two, and some for as long as ten years. At the same time, 20 poor and lower-middle peasants have been invited to be part-time teachers and give regular lessons to the students. Old poor peasants who suffered most before liberation give lectures on class struggle. Activists in the creative study and application of Mao Tse-tung's thought give lectures on Chairman Mao's works. Revolutionary cadres give lectures on politics. Experienced old peasants give lectures on farming skills. Workers give lectures on farm machinery. Militia cadres give lectures on military affairs. Bookkeepers of production brigades give lectures on mathematics for the countryside. Rural health workers give lectures on medical knowledge. Penetrating and vivid, popular and easily understandable, the lectures given by these comrades are closely combined with practice in the three great revolutionary movement. The students have learned much they could not have learned in books. Mounting the lecture platform, the poor and lower-middle peasants have strengthened the ranks of teachers, brought in teachers of good class origin, fundamentally seized back power in education and ended the domination of schools by bourgeois intellectuals...("Schools Managed by...Peasants" 1968:12).

In the cities, the components of the school administration were different but the fundamental principles were the same, based upon Mao's "May 7" Directive. The following is an example of a school which implemented Chairman Mao's recommendations:

> ...the propaganda team members originated the teachers and students to do manual labor at the Lanchow Casting Plant and later they took further steps to put the school under the leadership and management of the plant. Furthermore, they linked up the school with a nearby rural people's commune and a P.L.A. unit. After a few months of putting this into practice under the leadership of the working class,

> the school's revolutionary teachers and students all agreed that it was good for urban middle schools to take the road of schools being run by factories...Acting on Chairman Mao's teaching, the plant's revolutionary committee set up a "three-in-one" leading group for educational revolution, which was composed of members of the workers' Mao Tse-tung's thought propaganda team and veteran workers, the Liberation Army men stationed in the school, and the revolutionary teachers and students, to exercise direct leadership over the educational revolution in the school. Later on, it gradually strengthened the school's revolutionary committee by appointing the chairman of the plant's revolutionary committee (a revolutionary cadre) to be concurrently the chairman of the school's revolutionary committee, appointing the leader of the workers' Mao Tse-tung's thought propaganda team in the school, as well as the responsible comrade in charge of military and political training, and the former chairman of the school's revolutionary committee to be vice-chairman of the committee. The plant's revolutionary committee also selected three veteran workers to be members of the school's revolutionary committee. In this way, the school's committee is put entirely under the leadership of the plant's revolutionary committee and unified leadership is effected ("A School Managed by Workers and Linked with a People's Commune and a People's Liberation Army Unit" 1969:3-4).

2. Social Backgrounds of Students and Enrollment Policy:

Entrance examinations were gradually abolished. Admission of students was based, instead, on recommendation from the factory or the commune where the student worked and the "class-element" of a student--that is, whether the individual under consideration was the child of a worker, a poor or lower-middle peasant, a martyr, a party cadre (high priority categories), or the child of a "petty bourgeois," bourgeois, ex-landlord or "counter-revolutionary." Descendents of these categories were generally barred from schools of higher learning). The training of new proletarian intellectuals was seen to be of "paramount importance and long-term interest to the consideration of the dictatorship

of the proletariat," as evidenced from Mao Tse-tung's statement that "students should be selected from among workers and peasants with practical experience, and they should return to production after a few years study" ("Strive to Build a Socialist University" 1970:7).

An "investigation" conducted by the Hung-chi (RED FLAG, a party magazine) pointed out the "superiority" of students from the ranks of workers and peasants. It argued, first of all, that "the worker and peasant students studied for a definite purpose":

> They (the worker and peasant students) said, "The bourgeois intellectuals yell at us: 'The workers and peasants don't know very much. They haven't learned their ABC's, so how can they learn designing?' We must follow Chairman Mao's teachings. The working people must be the masters of science and culture" ("The Revolution in Education in Colleges of Science and Engineering as Reflected in the Struggle Between the Two Lines at the Shanghai Institute of Mechanical Engineering" 1968:14).

Team cooperative efforts were stressed:

> Each team consisted of three students. The one who knew most would teach the other two, and they all helped and learned from one another. For instance, many students found it difficult to memorize the symbols for the elements in the chemistry course so they composed songs about the chemical elements which made memorizing easy ("The Revolution in Education..." 1968:14).

The second factor which the Hung-chi believed demonstrated the superiority of worker and peasant was their "high class conscious" as they dared "to look down on bourgeois intellectuals and bourgeois academic 'authorities'." However, these "remained as they had been" and power still rested largely in the hands of the bourgeois intellectuals. But, because "the worker, and peasant students made up more than 90 per cent of the student body, teaching staff and workers at the

school, this numerical superiority overwhelmed the bourgeois intellectuals and kept the old educational system under constant fire..." ("The Revolution in Education..." 1968:14).

The fourth reason given for superiority was the fact that "the object of the worker and peasant students was to apply in production what they learned":

> When they went from the school to do practical work in a factory in Wusih, Kiangsu Province, they immediately put on greasy overalls and worked alongside the workers, discussing technical production problems with them. The students quickly applied the theoretical knowledge they had acquired to production and made over 120 proposals for technical innovations in the factory. Over 30 of these were immediately adopted by the factory. In contrast, a group of students from a certain college in Shanghai, who were doing practical work at the factory at the same time, spent all day jotting down technical processes and regulations in their notebooks wherever they went and did nothing original ("The Revolution in Education..." 1968:14).

A long article in People's Daily summed up the "crimes of the entrance examination system" prior to the Cultural Revolution:

> The school did not consider the class origin and the character of the candidate, but admitted a candidate according to his score in the examination.
>
> The students cherished the idea of "studying in order to seek official positions," read the books and thought about their achievements the whole day, and did not take part in the three great revolutionary struggles.
>
> When a student passed the entrance examination, he felt elated, thought that he was "talented" and became proud. When a student failed in the examination, he was disheartened, thinking that he had no future and feeling depressed.
>
> The conditions of admission of students were not balanced. Some villages had a big number of their students admitted while some other villages had none. Through extensive exposure of facts and mass criticism and repudiation, the poor and lower-middle peasants unanimously held that the old system of entrance examination must be abolished ("'May 7' Agricultural Senior Middle School Set Up in a Commune in Honan" 1969).

It also described, in detail, the elaborate process of student selection:

> How should the students be selected? In accordance with a suggestion made by the poor and lower-middle peasants, the educational revolutionary committee of the commune first called a meeting of responsible persons of the educational revolutionary committees of the 22 brigades of the whole commume to discuss the matter conscientiously. Through democratic consultation, the number of vacancies for new students in the school was distributed among various brigades. Revolutionary committees of brigades organized junior middle school graduates and other youths who had been tempered through labor for a certain period of time to enroll themselves. Then, they published the lists of names of the candidates and called general meetings of poor and lower-middle peasants of various villages (a number of middle peasants were also seated in the meetings) to conscientiously rate and select the new students. The standard of rating and selection was that a candidate must be loyal to great leader Chairman Mao, to Mao Tse-tung's thought and Chairman Mao's proletarian revolutionary line, have good family background and be good in thinking, labor and study. The candidates selected were to be examined jointly by the brigade's revolutionary committee and educational revolutionary committee and to be examined and approved finally by the revolutionary committee of the commune. The brigade set up a rating and selection group, comprising representatives of the revolutionary committee of the brigade and the educational revolutionary committee, representatives of poor peasants, representatives of parents of students, and representatives of revolutionary teachers. This group was responsible for calling meetings to rate and select candidates and organizing such rating and selection well ("'May 7' Senior Middle School..." 1969).

In addition to enabling the workers and peasants to "grasp the power" of education, the new system of student selection was credited with the following "good points":

> Proletarian politics is brought to the fore, the Party's class line implemented and the door of school opened widely to children of poor and lower-middle peasants. The poor and

> lower-middle peasants know well which of the youths in the village are good or bad. They can recommend and select youths eligible for study in the school. This insures the political quality of the students.
>
> In recommending students, the political criterion is given prime importance and the idea of "examination scores come first" is eliminated. The students no longer cram themselves for examinations. Instead, they are pushed to take an active part in the three great revolutionary struggles.
>
> When a student has been selected, he is given a "certificate of admission" by the poor and lower-middle peasants. After two years' study, he returns to his village to serve the poor and lower-middle peasants. This makes sure that a student comes from the production team and returns to it ("'May 7' Agricultural Senior Middle School..." 1969).

The entrance examination system was, of course, not the sole factor that had caused the monopoly of the intelligentia by the well-to-do in pre-cultural revolution China. In old China, as well as during the first few years after "liberation," colleges and high schools were practically non-existent in the countryside. A peasant sending his child to the city for further study after primary school, not only had to incur an exorbitant amount of debts but also had to suffer the loss of a badly needed helper in the field. The Chinese method of agricultural production has always been, and still is, highly labor-intensive, rarely employing machinery. Remedies to this dilemma were, therefore, proposed and instituted. These included: 1) "adding junior middle school classes to primary schools so that the students (could) receive middle school education right in the villages"; 2) exempting peasant students from tuition fees and other expenses, "providing subsidies from the welfare funds of the production teams to students from families with special difficulties," and, for these

same students, "organizing mass activities of mutual aid among the poor and lower-middle peasants to voluntarily accumulate funds to buy clothing and stationery"; and 3) abolishing old rules and regulations that previously had "hampered the children of the poor and lower-middle peasants from going to school," including such hindrances as "examinations for enrollment and for going to a higher class, the six-year primary school system and the three-year junior middle school system" ("School Managed by...Peasants" 1968:15-16).

It is significant to observe, however, that as recently as December, 1974, "revisionism" concerning entrance examinations was still reported sporadically in the Mainland China press which clearly indicated that the problem was still farm from being completely solved. One noteworthy example was that of Chang Tieh-sheng who became well-known in China because "he criticized the pernicious influence of the revisionist line in education during a college entrance examination" ("Critic of Revisionism at College" 1974:22). In 1973, he was enrolled at the Liaoning Agricultural College (on the recommendation of the local poor and lower-middle peasants) and was recognized there "as an outstanding student from the ranks of workers, peasants, and soldiers." After graduation from middle school in 1968, Chang Tieh-sheng went to "temper himself" in agricultural productive labor in the Paita People's Commune in Liaoning Province "in response to Chairman Mao's great call." And two years later "he was elected leader of his production team." However, in 1973 at college entrance examinations, Chang "found the methods and questions were geared to rote-

learning from books" and believed they both "failed to reflect changes that had taken place in the Great Proletarian Cultural Revolution... and were unsuitable for testing the general knowledge of workers, peasants and soldiers who had rich practical experience." To demonstrate his criticism of the college entrance examination methods, Chang gave unique response to the questions asked:

> Instead of answering the questions on the exam paper, he wrote the leaders in charge a letter criticizing the manner in which the whole procedure was being conducted. Renmin Ribao (People's Daily) carried Chang Tieh-sheng's letter under the heading, "A Thought-Provoking Examination Paper" and in an editorial note pointed out that it "raised an important question in the struggle between the two lines and the two ideologies in education." People attached great importance to the letter and praised Chang Tieh-sheng for his revolutionary spirit in going against the tide which lent new vigor to criticism of the harm caused by the revisionist line in education ("Critic of Revisionism..." 1974:22).

His story had a happy ending for "the education department concerned accepted Chang Tieh-sheng's criticism and confirmed his eligibility for college on the basis of his high level of consciousness of class struggle and two-line struggle combined with his excellent work-record in the countryside. He was admitted on his own request, to the veterinary department of the Liaoning Agricultural College" ("Critic of Revisionism..." 1974:22).

3. Curriculum: curricula at all levels were geared tightly to politics and production with heavy emphasis on Mao's thought. The studying of Chairman Mao's works became the main subject in this new-type school: every new student got a copy of Selected Readings From the Works of Mao Tse-tung upon starting school and the "first lesson

given (was) Chairman Mao's "Serve the People" ("Running the School for Training Successors to the Revolutionary Cause of the Proletariat" 1968:9). Talks on the class struggle were given regularly to students in the classrooms or fields by old and poor peasants who would say to them, "In running this school, the poor and lower-middle peasants do not want you to aim at getting high marks but at grasping Mao Tse-tung's thought" ("Running the School..." 1968:9).

Of almost equal importance in the curriculum were physical labor in industrial and agricultural production. Under the leadership of a "workers' Mao Tse-tung thought propaganda team", teachers and students in one middle school began, in March, 1969, their activities of "learning industrial production" in nearby factories. All of the students in the first grade "went to a factory where they stayed for one month" gaining in production knowledge; "students in higher grades went to the factories twice and remained there for two months" ("Learning Industrial Production..." 1970:7).

The role of learning industrial production" is further clarified as follows:

> By "learning industrial production" we mean, first of all, learning what the working class thinks and feels, as well as its noble qualities. The factory is the front-line of the three great revolutionary movements: class struggle, the struggle for production, and scientific experiment. In factories, the teachers and students work, study and live together with the proletarian world outlook. The students who participate in "learning industrial production" are all teenagers. Although born in the new society and being brought up under the red flag, they lack personal experience with regard to the meaning of "classes" and "exploitation" and therefore have but a rather vague

> idea of class struggle. It is necessary to conduct class education among them in order to help them understand why there is the need to make revolution and to raise their consciousness of class struggle and the struggle between the two lines. After one group arrived at the Sian No. 2 Silk Mill, a veteran worker first of all gave them a report on his sufferings in the old society and described the happy life he is now living in New China ("Learning Industrial Production..." 1970:7).

As to the allotment of teaching time in various areas, below is a typical example:

> From the standpoint of the importance of curricula, in comparing politics with labor and a basic knowledge of culture, politics is the principal one and commander. However, in the arrangement of time, the proportion devoted to basic cultural courses should be larger: in middle schools, it should form about 60 per cent; in primary schools, it should be no less than 70 percent. As for the allocation of teaching time for the entire year, in middle and primary schools there should be 40 weeks of classes each year (including labor time), with some 35 days of recess during the busy farming season. This can be increased or diminished in accordance with practical local conditions and with the ages of the students ("Educational Program for Rural Middle and Primary Schools" 1969).

While curriculum contents varied from one locality to another, their purposes seldom differed: to train "common socialist workers."

1. Colleges and Universities: The higher educational system in China began to heavily stress practical knowledge (that which would further the socialist cause) and to eliminate purely theoretical fields of study. The Thought of Mao Tse-tung also became an integral part of each college and university's curriculum. Excerpts from articles which appeared in the People's Daily in March and April of 1969 effectively portray these trends:

In the past, the general curriculum was divorced from the needs of the "Three Great Revolutions," and was cumbersome and irrelevant. In accordance with the needs of "socialist revolution" and "socialist reconstruction," the old system must be simplified, combined, or expanded, as required. For example, in the old days, the Department of Biology did not render any services to industrial and agricultural production; it did not study cows, horses, sheep, cotton, oil, and foodstuffs. Instead, it specialized in abstract things. Parts of the department, therefore, should be merged with the College of Forestry, the College of Agriculture, and the College of Medicine. Another example is the Department of Journalism, which failed to train any "revolutionary and fighting newspaper workers"--it should be closed altogether.

Students in the Physics Department who studied electricity could not install electric lights; in the Chemistry Department, students did not know a thing about chemical fertilizers; in the Biology Department, students could not tell the difference between young rice plants and scallions; in the History Department, students only knew the emperors, kings, generals, and chief ministers of state; in the Chines Literature Department, students only knew brilliant novelists and beautiful women; in the Philosophy Department, students only learned the "two in one" and the complicated, abstract, and trivial things. None of them had special skill or knowledge; they did not know how to design, how to operate machines, or how to use simple tools or instruments. The whole university became just a tool for Liu Shao-chi to use--to restore capitalism.

The courses in Liberal Arts should include: a) Mao's prose writings and his poems; b) the history of the struggle between the two opposing lines within the Chinese Communist Party; c) basic techniques of writings; d) basic knowledge in industrial and agricultural production; and e) military training. Each department in the sciences and engineering should be integrated with industry, agriculture, forestry, or medicine, according to its nature, so as to run the department with an emphasis on work experience ("How Should Socialist Universities be Operated" 1969).

2. Primary and Middle Schools: An article appearing in the May 12, 1969 People's Daily listed the courses given in each:

> Five courses are given in primary schools: political literature, arithmetic, revolutionary literature and art, military sports, labor. Five courses are given in middle schools: Mao Tse-tung's ideological education (including modern Chinese history, contemporary history, the history of the two-line struggle in the Party), basic agriculture (including mathematics, physics, chemistry, economic geography), revolutionary literature and art (including language), military sports (including the studying of Chairman Mao's people's war ideology, strengthening of the concept of war preparedness, and the developing of military sports activities), and labor ("Educational Program" 1969).

3. Kindergarten: Most interesting and revealing concerning "the revolutionary kindergarten" system is an adjective-rich article entitled "Put Mao Tse-tung's Thought in Command of Kindergarten" in Kuang-ming Jih-pao (Bright Light Daily), published on March 31, 1969 in Peking.

> In 1960, when imperialism, revisionism, and reactionaries were singing in a big anti-China chorus and the air was thick with evil mist, the former Central Propaganda Department, headquarters of the bourgeois command for the manufacture of counter-revolutionary opinion, raised the banner of "reform" and produced a "Program for Reform of Kindergarten Education." This black program was a black fruit of renegade, traitor and scab Liu Shao-chi's counter-revolutionary revisionist line, a black specimen of kindergarten education produced painstakingly by Lu Ting-i and his herd of helpers. It represented in a concentrated manner the wishes of imperialism, revisionism and reactionaries, made use of all worn-out weapons used by the bourgeoisie against the proletariat in the fight for successors, and contained all known venom with which the bourgeoisie would poison children, in a vain attempt to do harm to thousands of children and struggle against the proletariat for successors...
>
> There were numerous targets in the black program, such as arithmetical target, language target, art and handicraft target, musical target, target of increased time for exercises, etc., etc. And there were also sub-targets under the major targets. Through these big and small targets people may see clearly that every one of them was pointed toward "intellectual development": a thoroughly black banner

of "intellectual development first." "Intellectual development first" and "knowledge first" are in fact the same thing. Lu-Ting-i, the big King of Hell of the former Central Propaganda Department, was a veteran trumpeter of the advantage of "knowledge." He once openly declared, "The object of education is quite clear: it is imparting of knowledge and learning of knowledge, that is, handing of knowledge over to others and acquiring of knowledge." Big traitor Liu Shao-chi's agents in all educational departments sang the same tune with Lu Ting-i. Breathing the same air and making a great deal of noise, they spread the evil mist of "knowledge" all over the positions of education, including the position of kindergarten education. The black program for kindergarten education was written with the poisonous ink of "knowledge"...

In accordance with the black program for kindergarten education produced by the former Central Propaganda Department, children had to be taught to "Watch the butterflies dance and listen to the chorus of the bees" and "Eat first pastries and then fruit, and let everyone sing and dance." The object was to teach children to enjoy leisure and hate labor, and to sow the seed of the exploiting classes' love for eating, drinking and playing, in the young minds of the children.

In accordance with the black program, children had to be taught to sing "Little Rabbit Opens a Store," "One Tickle Is Gold" and that sort of nursery rhyme. The meaning of "Little Rabbit Opens a Store" is quite plain. "One Tickle Is Gold" goes like this: "one tickle is gold; another tickle is silver. You are a good one if you do not laugh at the third tickle." There is a note to that, saying that the rhyme was usually sung when one was trying to make a child laugh. Even when tickling a child one had to think of gold and silver! It tried to stain the pure hearts of a child with filthy lucre. The heart of Lu Ting-i and his gang is really more venomous than that of a viper or a scorpion.

In accordance with the black program, children had to be told "Monkey Sun and Yang Erh-lang" and other such painstakingly rewritten stories. In the story Monkey Sun was made to "fight a good part of the day" with Yang Erh-lang before surrendering and, thankful to Yang Erh-lang for sparing him, becomes a "good friend" to Yang Erh-lang. The purpose of the story was to sow the poisonous seed of Liu Shao-chi's "pacificism" and "capitulationism" in the minds of young children...

Children in kindergartens, nurtured by the thought of Mao Tse-tung and like sunflowers in full bloom, have shown incomparable, earnest reverence and warm love for our great leader Chairman Mao. They are most obedient to Chairman Mao's words and firmly remember his teaching...They have also joined the fighting ranks, not only being active in the classroom, but also going out to the street to propagate Chairman Mao's latest directives and angrily denouncing renegade, traitor and scab Liu Shao-chi's towering crimes. We can also see in the children, who are full of revolutionary youthful vigor, the infinite power of the thought of Mao Tse-tung, the great achievements of the great proletarian cultural revolution, and the even more splended future of the proletariat. The conclusion drawn from living facts is that children do understand politics. "Children do not understand politics" is a lie fabricated by the bourgeoisie.

"Children do not understand politics" is a black statement. Its main purpose was to oppose acceptance of proletarian politics by children and to make them accept bourgeois politics. According to the requirements of proletarian politics, the first thing that children must know is Chairman Mao as the great teacher of the Chinese revolution and world revolution, the first thing that they must study is the glittering sayings of Chairman Mao that embody the highest wisdom of mankind, and the first song that they must sing is "East Is Red"...[23]

However, in Han Language Spelling Book, complied and published for tentative implementation of the black program for kindergarten education there were the sun, the moon, stars, mountains, rivers, grasses, trees, flowers, birds, insects, fishes, father and mother, grandma and younger brother, and also cigarettes, stamp pads, and nearly everything except our most revered and beloved great leader Chairman Mao, his sayings, the Chinese Communist Party, the five-starred red flag, the working mass, or the Chinese People's Liberation Army...

We should hear, amid cries of "intellectual development first," "knowledge" etc. from the black program, the sound of the enemy grinding his knife, and see the bellowing wild oxen of counter-revolutionary revisionism, under the cover of "intellectual development first" and such black banners, charging toward the cultural positions of the proletariat. Let us raise high the great red banner of the thought of Mao Tse-tung, thoroughly expose the reactionary essence of

> the black program for kindergarten education, and sweep to the rubbish heap such black stuff as "intellectual development first," "knowledge," and bourgeois moral development, as well as the system of kindergarten education, its program of teaching-learning, and the content of the education!
>
> ...All the superstructure, including the various cultural domains, must be taken over by the working class. Taking advantage of the East wind of the great proletarian cultural revolution, let us dispel the evil mist and poisonous dust that cover the positions of kindergarten education, so the incomparably bright and incomparably brilliant sunshine of Mao Tse-tung's thought may forever shine on the children, enabling them to grow vigorously ("Put Mao Tse-tung's Thought in Command of Kindergarten Education-Criticism of Black Program for Kindergarden Education Produced by Former Central Propaganda Department" 1969).

The article did not specify a curriculum for kindergarden, nor did any available literature from Chinese Mainland at the time, but one does not need to stretch his imagination too far to surmise.

4. Length of Schooling: The school system in China from 1905 to 1927 was modelled after the Japanese system existing at that time. The system consisted of 5 years of middle school, 3 years of higher school, 3-4 years of undergraduate college and 5 years of graduate school. In 1912, when the Ching Dynasty was overthrown, a modified system was established by the Chinese Republic (not to be confused with the Chinese People's Republic). It consisted of 4 years of lower primary, 3 years of higher primary, 4 years middle school 6-7 years of undergraduate college, and unspecified years of graduate school. In 1922, a new system (adopted from the United States) was introduced. It was not until 1927, however, that the system was extensively put into use. There were 6 years of primary school, 3 years of lower middle

school and 3 years of higher middle school. The undergraduate school was 4 years. Except localized experiments on 5-year primary school, the 6-3-3 system was, in most cases, retained in the Chinese People's Republic until the Cultural Revolution. It was then that the entire educational system was revolutionized with the expressed aim "to foster reliable successors for the proletarian revolutionary cause" ("Shorten the Period of Schooling and Revolutionize Education" 1968). Mao argued that "Successors in the revolutionary cause of the proletariat come forward in mass struggles and are tempered in the great storms of revolution: this was why he saw the need to have the period of schooling shortened ("Shorten the Period..." 1968). The revolutionists pointed to history to support this viewpoint:

> The history of China's revolutionary wars shows that commanders and fighters of our armed forces, who had never entered a school and had done very little reading, defeated the military academy graduates of the reactionary kuomintang, conquered the Japanese militarists who were armed to the teeth, and...(in the Korean War) out fought and overcame the American imperialists-number one enemy of the people of the world. The history of the development of China's science and technology also amply proves that young scientific workers, the revolutionary cadres... in a comparatively short period have successfully produced atom and hydrogen bombs, and at a speed far surpassing that the U.S. imperialists and the Soviet revisionists, by following the principles laid down by our great leader Chairman Mao and Vice Chairman Mao and Vice Chairman Lin, his close comrade-in-arms... ("Shorten the Period" 1968).

A nine year system therefore was implemented which consisted of five years of primary school, two years of junior middle school and two years of senior middle school. Upon graduation, all students were required to participate in "socialist construction," either in a commune

or a factory, for at least three years, before qualifying as applicants for entrance to college. In practice, however, students were usually "sent" to colleges through recommendation of the factory or the commune instead of individual application. The duration of time a student spent in college was not to exceed two to three years in a science and engineering university, one to two years in agricultural colleges and a liberal arts university, and one to three years in medical school ("How Should Socialist Universities be Operated" 1969).

5. Teaching Methodology: The guiding theoretical framework of Pedagogic methodology consisted of "dialectical materialism" and "theory with practice" heavily oriented to politics. Teaching methods became "a question of principle" and not merely a question of which specific method outdid another. The "bourgeois" teaching method was viewed as centered on books and teachers, with theory divorced from practice: "The teacher crams the students with his lecture throughout the class while the students follow him mechanically" ("Strive to Build a Socialist University of Science and Engineering" 1970:14). It was feared that these methods, by "violating the law of knowing the truth" would only "bring up bookworms who divorce themselves from proletarian politics, from the masses and from production" ("Strive to Build..." 1970:14).

The foundation of the teaching methodology itself was again "the thought of Chairman Mao":

> In line with Chairman Mao's teachings "Uniting theory and practice," "The standpoint of practice is the primary and basic standpoint in the dialectical materialist theory of knowledge" and "Practice, knowledge, again practice, and again knowledge," and in conformity with the characteristics of the worker, peasant and soldier students, we applied the teaching method of going from the shallower to the deeper step by step, in combination with typical projects, products, technological processes and technical innovations in the tasks of production and scientific research. We correctly handled the relations between giving prominence to the key points, studying first what must be urgently applied and learning while doing on the one hand, and systematic teaching on the other, between the specific and the general, and between the basic courses and specialized courses. ("Strive to Build a Socialist University of Science and Engineering" 1970:14).

6. The "May 7" Cadre Schools: Another major product of the Cultural Revolution, the "May 7" cadre school, derived its name from a pilot study commenced on May 7,[24] 1968, at Liuho in Chingan County, Heilungkiang Province (northeast China). High-level cadres were sent there from the cities by the provincial revolutionary committee to take part in manual labor--to repudiate the traditional Confucian idea that "those who labor with their minds govern; those who labor with their hands are governed." This method of re-educating the cadres was found to be so successful that Mao issued a directive in People's Daily on October 5, 1968, stating, "Going down to do manual labor gives vast numbers of cadres an excellent opportunity to study once again; this should be done by all cadres except those who are old, weak, ill, or disabled. Cadres at their posts should also go down in turn to do manual labor."

"May 7" schools were immediately established all over the country,

and were hailed as an excellent measure for achieving "the revolutionization of organizations and cadres" and for "opposing and preventing revisionism" ("What Kind of School is the 'May 7' Cadre School?" 1968:9).

> Chairman Mao teaches us: "Class struggle, the struggle for production and scientific experiment are the three great revolutionary movements for building a mighty socialist country. These movements are a sure guarantee that Communists will be free from bureaucracy and immune against revisionism and dogmatism, and will forever remain invincible. They are a reliable guarantee that the proletariat will be able to unite with the broad working masses and realize a democratic dictatorship." Following this teaching of Chairman Mao's, the "May 7" Cadre School, instead of shutting up its students in buildings to "cultivate" themselves behind closed doors, puts them in the front lines of the three great revolutionary movements of class struggle, the struggle for production and scientific experiment. In the course of practice, it enables them to temper themselves, creatively study and apply Mao Tse-tung's thought and thoroughly remold their world outlook. In this way, large numbers of new men with communist spirit are trained and brought up, men who are always loyal to the Party, to Chairman Mao and to the revolution, who serve the people whole-heartedly, can work both at higher and lower levels, both serve as "officials" and remain one of the common people, engage in both industrial and agricultural production, and both acquire knowledge and study military affairs...The students have come to this gully from the big cities; they have moved from their multi-storeyed buildings into huts; from being "officials," they have become ordinary people. All these changes have not failed to touch everyone to the depths of his being and have greatly shaken their old outlook. Students have said: "Here in the 'May 7' Cadre School, no matter how high your official post is, once you take up a sickle or hoe, most of your official airs go." The problem, however, lies not merely in getting rid of official airs. What is more important is to wipe out the ideas of becoming an official and overlord ("What Kind of School..." 1968:9-10).

The "May 7" schools also served to allevaite one side effect of the Cultural Revolution.

> Some cadres who in the past had assumed very high and mighty official airs were sharply criticized by the masses during the great cultural revolution. Their official airs turned into a bellyful of grumbling complaints. Through the revolutionary mass criticism and repudiation, they lost all the "laurels" that they prided themselves on, and, complaining turning into throwing up the sponge, they simply lay down on their jobs. After entering the "May 7" Cadre School, however, they have enhanced their consciousness in remolding their world outlook and discovered in their old world outlook the causes of the mistakes they committed. As a result, their complaints and despondent mood are replaced by courage to correct their mistakes and vigor to continue making revolution ("What Kind of School..." 1968:10).

G. The Post Cultural Revolution Period (1976 - Present)

The pendulum of China's educational policy is slowly swinging back after the 1976 ousting of the "gang of four," who, "posing as Leftists and using the power they had usurped in education and the media, distorted Chairman Mao's instructions and did serious damage to our education" ("What's Happening in China's Education?" 1978:2). However, China's educational revolution did not end with their overthrow. On the contrary, the revolution has merely changed its character, emphasis and interpretation of Mao's thoughts. Westernization of the Chinese education system, interrupted during the Cultural Revolution, has rapidly been resumed.

The call to revolutionize education by Mao in the early fifties included the fundamental principle that "education must serve proletarian politics and be combined with productive labor" (Teng 1978:6). According to Teng Hsiao-ping (presently No. 2 man in the Chinese

Government) the "gang of four" willfully distorted and trampled on this principle and led the educational revolution astray" with such statements as "We'd rather have workers without culture than intellectual aristocrats." "This kind of talk put being made cultured and being a worker with social consciousness in opposition to each other and roused much confusion among the people." ("What's Happening in China's Education?" 1978:2).

During the Cultural Revolution it was thought that choosing students for college entrance based upon their entrance test scores would lead to the emergence of a privileged class. The "gang of four" was accused of being the proponent of this view. Chang Tieh-sheng, the hero who challenged the entrance examination system during the Cultural Revolution mentioned earlier, is now an object for ridicule.

> Chang did it because he didn't know the answers to the questions. But the gang called him a "hero who dares to go against the tide" and moved him swiftly into high positions. Such examples made a lot of young people think there was not much use studying. ("What's Happening in China's Education?" 1978:2).

Because of the elimination of entrance examinations, according to those currently in power, during the Cultural Revolution "classroom study practically disappeared and the quality of education dropped" ("What's Happening to China's Education?" 1978:6).

The current trend in Chinese university entrance policies is to enroll only the best students. This is seen as the only sensible practice because "it is not possible to have universal higher education in the immediate future and only a portion of the young people will be able to study in colleges" ("Educational Policy: Questions

and Answers" 1978:14). In admitting the best, priority is given over others "to workers, peasants and their children when qualifications are roughly the same," as well as to certain minority groups. In addition, "some colleges and universities or specialties (specialized institutions) admit students directly from the rural people's communes who after graduation (will) go back to their respective communes." This is viewed by the new Chinese educational policy makers as viable means of raising the overall educational level of the Chinese people.

Current qualifications for higher education in China include that the applicant "must be under 25 (extended to 30 for special cases), unmarried, in good health, with a schooling of or equivalent to senior middle school" ("What's Happening in China's Education?" 1978:6). Activists in agro-science, "barefoot doctors" and rural school teachers, however, have an edge on others, in that agricultural, medical and teachers' institutes give them top priority. Admittance is based on an all-round appraisal of would-be students (politically, intellectually, and physically), but where the other areas are equal, preference is given to those who do best on entrance examinations ("What's Happening in China's Education?" 1978:8).

Examinations are not only used to determine university entrance, but are also "an important method of checking on studies and on the efficacy of teaching, just as checking the quality of products is a necessary system for ensuring factory standards" (Teng 1978:8). Teng further argued that Chairman Mao was never opposed to examinations as

such; "the kind of examination he opposed was one in which the students were regarded as the enemy and were subject to 'surprise attack', having to answer odd and catch questions." Though examinations need to be made more effective and are not a cure-all for evaluation dilemmas, they have "contributed to a general atmosphere in Chinese schools of hard work in studies, more attentive listening in classrooms, and fewer idlers after school" ("University Entrance Examinations" 1978:10).

Returning to the question raised earlier, would choosing students for college entrance based upon their entrance test scores lead to the emergence of a privileged class? The new Chinese leaders do not think so, for students are educated with the idea that their schooling will help them "wholeheartedly" serve the people.

> They (the university educated) will be like any other members of the working people after graduation, no matter what job or post they take. No one is allowed privileges or prerogatives. Post-liberation college graduates who have been working the longest get, on average, a monthly wage not exceeding 100 yuan, while recent graduates receive 40 yuan or so. Their wages are almost the same or a little higher than workers with the same seniority. Facts prove that with our superior social system and educational system, we can prevent the emergence of a privileged stratum ("Educational Policy: Questions and Answers" 1978:14).

With the rigorous competition to enter universities and the small percentage of applicants who are actually accepted, a logical question is, "What happens to those applicants who, regardless of their apparent scholastic achievements, are not chosen to enter the university? Are there other ways for those who did not get admitted to get advanced training?" A spokesman for the Ministry of Education points out the possibilities:

> There are the Communist labor colleges for training agro-technicians, the factory-run "July 21" colleges for training technical personnel from among industrial workers, the commune-run colleges for training rural cadres and specialized personnel. There are also television, radio and correspondence courses. TV courses now being offered jointly by the Ministry of Education and the Peking Television Station are in mathematics, electronics and English. Many factories, rural communes, and government organizations provide counselors to help enrollees of the TV courses. Formal enrollees will take examinations and receive graduation certificates ("What's Happening in China's Education?" 1978:8).

In 1971, the "gang of four" had developed the concept of "two estimates" regarding the intellectuals: 1) In the 17 years from 1949 to the beginning of the Cultural Revolution in 1966, "the bourgeoisie exercised its dictatorship over the proletariat in education" and 2) The majority of teachers and students trained in that period were "bourgeois intellectuals" (Fang Yi 1978:15-16). Those affected by the "two estimates" are now no longer labeled as "enemies of the revolution in education" ("What's Happening in China's Education?" 1978: 3).

Today fewer "laymen", "Revolutionary" or "Proletarian" teachers are "called to the rostrum" as compared with the late 1960's and early 1970's when soldiers, peasants and factory workers played an active role in the school. Teng views the professional teacher as having an extremely important role in determining what the next generation will be like. "Teachers hold the key to school's success in training qualified personnel for the proletariat, i.e., training workers with both socialist consciousness and culture and who are developed morally, intellectually, and physically" (Teng 1978:11). He sees

the need to "raise the political and social status of the people's teachers" and this can be done by "their (the teachers) commanding the respects of students and society as a whole, by giving commendations and rewards with wide publicity to outstanding educational workers, and by improving the material life of teachers somewhat" (Teng 1978:11-12). To remedy the deteriorated quality of education during the Cultural Revolution, Teng directed that "the departments of education at all levels must strive to raise the ability of existing teachers and improve the quality of teaching... The Ministry of Education, as well as local education departments, must try to implement effective training measures. These would include full use of radio and television, the running of various types of training classes and advanced courses, a comprehensive compiling of teaching reference material, and so on" (Teng 1978:12). The amateur teacher is gradually being replaced by the professionally trained teachers.

After the liquidation of the "Gang of Four" drastic changes have also taken place in the area of school curricula. Mao's Little Red Book which once occupied a prominent place in studies of all levels has given way to Western science and technology. "The Ministry of Education is organizing personnel from all fields of study to compile a new set of standard textbooks for the whole country. Thus, the latest scientific and technical knowledge will be imparted to young people" (Fang Yi 1978:17). The focus removed from academic subjects in the early 1970's is returning once again ("Educational Policy: Questions and Answers" 1978:13).

The prime mover behind the renewed emphasis on Western science and technology is Teng Hsiao-ping who feels the threats posed by the advanced "Imperialistic" (U.S.S.R.) as well as the "Capitalistic" (U.S.) nations and therefore the urgency for the People's Republic to catch up with these countries' levels of science and technology. This will call for "setting of strict standards, taking a serious attitude and having a close knit organization, firm labor discipline, exacting demands, and rigid training in China's future education system at all levels - secondary and elementary schools included: (Teng 1978:7).

Politics, which was the dominant subject for studies during the Cultural Revolution has not altogether been pushed aside however. Teng Hsiao-ping reiterates another type of "education" he feels must be fostered from childhood: that of revolutionary ideals and communist virtues.

> We should work hard to inculcate in young minds the revolutionary style of learning diligently, observing discipline, loving physical labour, taking pleasure in helping others, working hard and daring to fight the enemy so that they will be trained to be fine and competent personnel, loyal to the socialist motherland, to the revolutionary cause of the proletariat and to Marxism-Leninism-Mao Tse-tung Thought. Then, some day when they take up a post, they will become workers with a high sense of political responsibility and collectivism, firm revolutionary ideals, the work style of seeking truth from facts and following the mass line, will be able to observe discipline strictly and will work wholeheartedly and actively for the people (Teng 1978:9).

To forestall the possibility of reversion to the "radical lines" in education during the Cultural Revolution. Teng warns his anti-

science and technology enemies that strict measures will be taken against those who "seriously undermine revolutionary order and discipline and refuse to mend their ways after repeated education" (Teng 1978:9).

The list of recent changes in China's educational system continues. The postgraduate program has now been restored ("Educational Policy: Questions and Answers" 1978:13). "The Party Central Committee has decided to set up a state scientific and technological commission which will take charge of overall planning, co-ordination, organization and administration of the country's scientific and technological work... And programs for the development of the country's science and technology and that the education are being mapped out" (Fang Yi 1978:16-17). Leading bodies of many universities, colleges, and scientific research institutions, have been "reshuffled and strengthened." A series of science conferences of outstanding scholars and a series of academic conferences, both of which had not occurred for the past ten years, have been organized. Technical, scientific and academic personnel have had their titles restored (during the Cultural Revolution, all titles and ranks were eliminated).

China presently is looking for Western models to improve her cultural and technological development: "We should strive to learn advanced science and technology from foreign countries, actively enhance international academic exchanges and master as soon as possible what is best in the world's science and technology and make it the new starting point of our advance" (Fang Yi 1978:17).

FOOTNOTES

1. The "Three-antis" were directed: 1) against corruption, 2) against waste, and 3) against bureaucratism. The "Five-antis" were directed mainly to the merchants and manufacturers (at that time, private ownership of enterprise was still allowed): 1) tax evasion, 2) theft of state property, 3) cheating on government contracts, 4) stealing economic information for private speculation, 5) bribery of government workers.

2. A coalition governing body composed of elements other than the Communist Party whose major thrust at this time was "United Front" and "Common Program."

3. Ma Hsu-lun was Minister of Education, 1949-52; Minister of Higher Education, 1952-54; Vice Chairman of National Committee of Chinese People's Political Consultative Conference, 1965; member of Department of Philosophy and Social Sciences, Chinese Academy of Sciences. Criticized as bourgeois reactionary in 1966.

4. Refers to the "old revolutionary bases in Shensi" in general and Kangta in particular.

5. Liu Shao-chi was vice chairman of the Chinese Communist Party Central Committee (CCPCC); CCPCC Politburo member since 1927; became chairman of the Government of People's Republic of China and chairman of National Defense Council in 1959. Highest-ranking target of the Great Proletarian Cultural Revolution, dismissed from CCP and stripped of all official posts in 1968, as a revisionist, principal person in authority taking the capitalist road, and "China's Krushchev."

6. Lu Ting-i was an alternate member of CCPC Politburo; Director of CCPC Propaganda Department, 1946-53, 1954-66; Minister of Culture, 1965-66. Labeled by Mao in 1966 as "King of the Palace of Hades" and removed from all posts.

7. Lin Feng was a specialist in cultural and educational affairs. President of Higher Party School, 1963-66; member of CCPCC, 1945-66. Criticized and dismissed from posts in 1966.

8. Hsi Chung-hsun was Member of CCPCC, 1956; director of CCPCC Propaganda Department, 1953-54; secretary general of State Council, 1953-62 (officially removed in 1965); vice premier of State Council, 1959-65. Criticized in GPCR, had been close associate of Liu Shao-chi and Peng Te-huai.

9. Peng Te-huai was CCPCC member, 1947-59; alternate member of CCPCC Politburo, 1945-54, full member, 1954-59; Marshall of People's

Liberation Army, 1955; Minister of National Defense, 1954-59. Policy conflict with Mao in 1959, removed from all offices; replaced by Lin Piao as Minister of National Defense.

10. Teng Hsiao-ping (1902-) was secretary general of the Chinese Communist Party and was purged during the Cultural Revolution. However, he was reinstated as Vice Premier and member of the Politburo of the Chinese Communist Party in late 1973, and elected First Vice Premier and Minister of Defense in 1975, thus became heir-apparent to Mao or Chou. In 1976, however, he was purged again with all official titles stripped. He emerged as Vice Premier after Mao's death and the purge of the "Gang of Four."

11. Lin Piao was named Mao's chosen successor at the Ninth CCP National Congress, 1969; Vice premier, 1954; member of CCPCC Politburo, 1955, and Minister of National Defense, 1959. He was allegedly killed in a airplane accident en route to U.S.S.R. after an aborted plot against Mao.

12. Chang Chi-chun was a CCPCC member, 1956; deputy director of CCPCC Propaganda Department, 1954; director of Culture and Education Staff Office of the State Council, 1959. Criticized as revisionist in GPCR.

13. Chiang Nan-hsiang was an alternate member of CCPCC, 1957-66; member of Communist Youth League Central Committee, 1957-66; vice minister of education in the State Council, 1960-65; minister of higher education, 1965-66; president of Tsinghua University, 1952-66. Dismissed from all offices in 1966.

14. A member of the Liberation Army, Lei Feng has since been worshipped in China as a martyr, an emulation model of selfishless dedication to the socialist construction of China. Lei died on duty, and allegedly left a diary in which he recorded his "tireless" effort to study and practice Mao's thought.

15. "Democratic" dictatorship is often used synonymously with proletarian dictatorship in Mainland China.

16. The "Spring Festival" directive was issued by Mao during the Chinese New Year celebration of February 13, 1962. Following is an excerpt based on the "Tsai Chun-chieh Tso-tan-hui Shang Ti Chang-hua" (Talk at the Spring Festival Forun) in Chung-kung Chung-yang Kuan-yu Jenchen Hsueh-hsi Ho Chien-chueh Chih-hsing Mao Chu-hsi Lun Chiao-yu Ko-ming Ti Tung Chih (Announcement by the Central Committee of the Chinese Communist Party Regarding the Earnest Study and Resolute Implementation of Chairman Mao on Education), (Peking: People's Press, 1965).

> The educational system can be shortened. After the educational system has been shortened, graduates of middle school will be only fifteen or sixteen years old; while not old enough to be soldiers, they can lead military lives. Not only male students but female students as well can form red women's detachments. Girls of sixteen or seventeen can spend half a year to a year in the armed forces. At present there are too many courses, and this is harmful. Middle and elementary school children and university students are subjected to great strain. Half of the courses can be dropped; it is not good to have students spending all day reading.... The present examinations use methods appropriate for one's enemies; attacking in ambush, bringing up a lot of strange subjects and slanted subjects before the student. This method is a kind of eight-legged [classic Chinese composition] essay, and I do not approve of it. It must be completely changed. I recommend that problems be studied collectively, researched by the students, and answered from their books....Heads and ears should be used in an examination, and if a student does not understand something, let him ask another student. Understanding is the important thing; why should one strain his memory and cramp his back? If someone else has answered and I copy from him, that is also permissible. It should be tried out. The old educational system wasted human resources, wasted youth, and I do not approve of it....Li Shih-chen of the Ming dynasty used to go into the mountains to collect herbs and eventually wrote the Pen-tsao Kang-mu [Chinese classic on medicines]. Earlier there was the inventor Tsu Chung chih who also never attended any middle school or university. America's Benjamin Franklin was an apprentice in a printshop and sold newspapers. He was the great discoverer of electricity. England's James Watt was a laborer; he was the great inventor of the steam engine. Gorky's knowledge was entirely self-taught, and it is said he attended school for only two years....True understanding is acquired slowly in actual work....One does not need to read many books. Read a few books on Marxism and then digest them, and you will be walking backward; you will become a book-idiot, or doctrinaire, or a revisionist.

17. To symbolically simulate the Long March conducted by Mao and the Red Army from Kiangsi to the Northwest (Yenan, Shensi) in 1934-35 which has been glorified as a great epic of courage and dedication of the early revolutionaries.

18. A leading body composed of members of the Liberation Army, members of the working class (in the case of rural schools, peasants), and representatives of the revolutionary teachers and students.

19. This was later known as the "March 7" directive.

20. The "four-firsts" are: "First place must be given to man in handling the relationship between man and weapons; to political work in handling the relationship between political and other work; to ideological work in relation to routine tasks in political work; and, in ideological work, to the living ideas in a person's mind, as distinguished from ideas in books. That is to say, first place to man, first place to political work, first place to ideological work and first place to living ideas" (Peking Review March 15, 1966: 11).

21. The "three-eight" working style is described as: "The Chinese P.L.A., under the leadership of the Communist Party and Chairman Mao, has fostered a fine tradition. This fine tradition is summed up by Chairman Mao in three phases and eight additional characters, meaning firm, correct political orientation; a plain, hard-working style; flexibility in strategy and tactics; and unity, alertness, earnestness, and liveliness" (Peking Review March 15, 1966:11).

22. Mao laid down the following rules of discipline for the P.L.A.: The Three Main Rules of Discipline are: a) Obey orders in all your actions; b) Do not take a single needle or piece of thread from the masses; and c) Turn in everything captured. The Eight Points for Attention are: a) Speak politely; b) Pay fairly for what you buy; c) Return everything you borrow: d) Pay for anything you damage; e) Do not hit or swear at people; f) Do not damage crops; g) Do not take liberties with women; and h) Do not ill-treat captives (Peking Review March 15, 1966:10).

23. The words for the song can be translated as follows: The East is red. The sun rises. China gives birth to Mao Tse-tung. He works for the well-being of the people.... He is the savior-star of the people....

24. On May 7, 1966, Mao issued a directive which, among other things, instructed that members of the Party and government should not only study politics and military affairs but should also engage in industrial and agricultural production and repudiate the bourgeoisie.

CHAPTER V

CONCLUSION AND RAMIFICATION

To this day, most scholars still maintain that the highly developed pre-Columbian cultures of the American Indian are the result of independent evolution. Findings from this study indicate that the oldest pre-Columbian culture in the Americas, the Olmec, borrowed heavily from the cultures of the Shang and Chou Dynasty of China. Diffusion rather than indigenous evolution was the cultural learning process through which the first civilization of America was born and perpectuated.

In the first part of this study, a significant amount of highly stylized, refined and developed Olmec art motifs have been collected, analyzed, seriated and successfully correlated with those of the Shang and Chou China. Results from micro and macro area synthesises manifest a related pattern of geographic distribution of traits on the two sides of the pacific: eastern China and western Mexico and Guatemala. Synchronic and diachronic temporal correlations of the two cultural configurations buttress findings from area synthesises.

The sudden emergence of the highly advanced Olmec culture without traceable precedence suggests the possibility of cultural contacts from the Old World. That the Olmec culture possessed extensively stylized and highly complicated motifs and motif-combinations unique only to the Olmec and the ancient Chinese, supports the hypothesis of cultural learning between the two cultures. That these Olmec motifs and motif-combinations can be spatially as well as temporally correlated to those of the Chinese, renders improbable the theory of independent evolution of pre-Columbian American culture.

Examination of Chinese history from an unorthodox perspective reveals that even in China proper, diffusive cultural learning played an important role in the development of the Chinese culture. The Olmec-Chinese cultural learning phenomenon is the extention of this total diffusive process which appears to be as natural and inevitable as the passage of water from high to low.

The chain of diffusive cultural learning process, as a rule has been activated and propelled by internal as well as external conflicts. In the case of the Olmec-Chinese cultural learning, the process is closely related to the alternating ascendancy to power in China between the Chinese and the "barbarians" (non-Han ethnic peoples). This has two implications. First, unlike the later Spanish conquistadores, these early cultural diffusers from East Asia were not well equipped and organized. They arrived in the Americas practically empty-handed, in small numbers and battered condition. Secondly, an inference can be made that the Chinese culture was learned by the Olmec voluntarily without direct coercion. What, then, motivated the Olmec to learn? The answer can be found in the second case of this study: The Chinese-West cultural learning.

In mid-Nineteenth Century, the Ching Dynasty of China made several feeble attempts to Westernize her culture. Resistence from the traditional confucian orthodoxy which was still powerful at the time, prevented any significant progress in that direction. After the collapse of the China Dynasty and the birth of the Republic of China in 1912, further efforts were made to Westernize the Chinese educational system and to acquire western science and technology. It was not until the founding of

the People's Republic in 1949, however, that any extensive change occurred. The change was modeled after the Soviet Union, traditionally in Chinese history, the homeland of the most powerful "barbarians": the Northern Ti and Western Jung. The cultural learning process was interrupted from 1966 to 1976 by the Cultural Revolution. Westernization not only was at a standstill, but actually regressed. After the death of Mao (who ironically was educated in the traditional Confucian mode and had never been directly exposed to Western culture) and the regaining the power by the "Moderates" (the leaders of which were all educated outside of China), Westernization has been resumed dramatically.

Mao's educational policy during the Cultural Revolution was a reaction against rote learning as compared with meaningful, practical learning in which learners actively participate in and involve themselves with a total learning experience. To him learning should be a toughening process both mentally and physically. This process has value in and of itself, and is more valuable for the youths of China than the outcomes of education: accumulations of a sequence of unrelated abstract concepts bearing little relevance to real life situations of the Chinese youths.

Viewed in this light, the educational tenets of the Cultural Revolution manifests striking similarities with a number of Twentieth Century educational innovations in Europe and America.

John Dewey who was one time a professor at Peking University and had lectured extensively all over China between 1919 and 1920 was concerned, for example, with the development of the "whole child in a total situation." He contended that "the only true education comes through the stimulation

of the child's power by the demands of the social situation in which he finds himself" (Dewey 1940:202).

Mao is a proponent of dialectic materialism and Dewey, of biological evolutionism:

> Experiencing, means living; and that living goes on in and because of an environing medium, not in a vacume... The human being, has upon his hands the problem of responding to what is going on around him... He is obliged to struggle. That is to say, to employ the direct support given by the environment in order indirectly to effect changes that would not otherwise occur. In this sense, life goes on by means of controlling the environment... Its activities must change the changes going on around it; they must neutralize hostile occurrence (Dewey 1917:8-9).

The Gestalt learning advocates, like Mao and Dewey, also stress experience and its relationship to the meaningful total configuration which a learner formulate prior to the occurrence of learning under a given situation.

The emphasis on attitudinal (affective) in addition to conceptual (cognitive) learning approach (Bruner 1960), and the differenciation of "significant" learning from "instrumental learning" (Beatty and Clark 1972) also bear similarities to Mao's emphatic insistence on the priority of "fostering proper socialistic attitude and revolutionary emotion" in the education of the Chinese.

The Winnetka, Dalton and the "Contract Plan" experimental methods appear only a few steps short of Mao's experiment in closing schools in China and urging students "to make revolution" on their own, "using the society as one big school", "be your own revolutionary teacher, going down to the country to learn from the peasants, workers and soldiers",

"holding high the principle of self-reliance and self-criticism, actively involve yourself with the total process of socialistic education and construction."

Both Mao's Cultural Revolution and the recent educational innovations in the West, provoking and stimulating as they are, have failed to gain the upper-hand over the "moderate", traditional approaches to learning. Both have been unsuccessful in obtaining extensive acceptance because their incapacities in coping with the practical needs of their respective societies.

In the case of China, the society demands highly trained technicians and scientists to compete and survive in the modern world. Revolutionary attitude and feeling alone will not be sufficient to save China from domination by the technologically and scientifically advanced superpowers. In the case of the West, the industrialized societies, with pecuniary gains as their major goals at all levels, require efficient technicians and scientists which can be produced most economically under the existing traditional educational systems. Individuals who are free to express their feelings, pursue their natural impulses and potentials, with balanced and comprehensive educational experiences, are not as much in demand as "controlled" and "disciplined" individuals with objectives and highly specialized skills and knowledge.

Here lie the crucial elements for successful implementation of cultural learning: first, the presence and demonstration of a superior culture; second, the presence of need and therefore third; the motivation for cultural learning.

The Olmec would not have emerged as the first civilization in pre-Columbian America, had it not been for the presence of a more advanced culture, the Chinese culture. China would have remained the confucian China which it had been for over two thousand years, had it not been for the presence of the western science and technology. As discussed at the beginning of this paper, "a homogenous society faced by no new circumstances sufficiently drastic to disturb its balance, transmits its culture generation after generation" (Benedict 1943:723). The arrivals of East Asians in Mesoamerica bearing knowledge of the more advanced Chinese culture (astrology calendric system, agriculture, art and architecture) startled the uncouth native food gatherers and hunters. These Asians presented a better alternative solution to the problem of survival to the Mesoamericans, who at the time, lacking civilization and subsisting totally at the mercy of nature, adapted the new knowledge readily.

The process of cultural transmission took place because of the need to survive and the psychodynamics of growth underlying each individual, tribe or society. The innate human drive to excell one another, one family to surpass the other, one tribe to outdo another, one nation to dominate other nations also might have figured prominently in the cultural learning process.

Modern China is a glaring example. The four thousand years old "inscrutable" "stagnant" and "infinitely continuing" Cathy once known to the westerners, has, within the span of less than one hundred fifty years, undergone several Schizoid cultural convulsions vacilating between the

the poles of confucianism and the "New Culture movement" between sovietization and the "Self-reliance movement", and between the "radical Gang of Four" and the pro-westernization "Moderates". The underlying cause and process is the same: 1) the intrusion of superior cultural elements, 2) the need to survive and surpass, 3) motivation and momentum for cultural transformation.

It can be predicted that the diffusive cultural learning process in China will proceed rapidly in the foreseeable future. Differing from the West, where the individual and individual achievement transcend all else, the Chinese, despite the Cultural Revolution, still and will always cling to the belief that the individual is inseparable from his family and his family inseparable from the nation. When the survival of China is at stake, which is presently the case with her long time "barbarian" enemy holding the "hegemony" in the world arena and allying Mongonia in the north, Afghanistan and Vietnam in the southwest, Chinese will tolerate and undergo any cultural transformation necessary to safeguard their national interest. The success story of cultural learning in Japan, whose people possesses similiar family and national identity and were subjected to similiar threat for national survival, is a living example. The superiority complex of the Chinese culture which has been, Maoism included, a major stumbling block for westernization of Chinese culture is disintegrating swiftly in the space era, in face of the neutron bombs and inter-continental missile with nuclear warhead.

Examining the cultural learning problems of the minority blacks in America in light of the findings of this study, the black sub-culture

will remain underprivileged unless stronger identity and motivation can be generated internally. The present social and educational system in America, liberal and equal as it claims and tries to be, involuntarily continues to perpectuate the sub-cultural status of the blacks by over-protection from hostile environment, thus weakening their identity and sapping their motivation and drive.

The welfare system heads the culprit list of cultural complacency. It permits the sub-cultural member to "get by" without exerting serious efforts to change their own fates through active participation in cultural transformation. It encourages and reinforces dependency of the sub-cultural groups on the more-advanced and privileged culture by arbitrarily placing them in a relatively shielded environment, lacking in primal needs to change, to adapt and to struggle for existence. Rather than developing an ethnic culture of its own right, sustaining on its own internal drives, the blacks, dazzled and softened by the pompous facade of the white culture, aspire to become an extension of it without digesting fully its cultural contents. A flamboyant cadillac means more to some blacks than a college education.

The school system is another culprit. Take the latest example "busing", instead of seeking to drastically improve the quality of the learning environments, curricula and teachers in the black neighborhoods, it chooses to "bus" the black children out of the context of their natural environment in a forced and arbitrary attempt to "improve" their cultural assimilation. This attempt is not only wasteful but will in the long run generate more problems than it is proposed to solve.

The alient, pre-dominantly white learning environments which the black children are placed, immediately become an agent of cultural discontinuity. Unrelated to their activities at home, the information, skill, and peer learning acquired in these arbitrary environments often receive little or no reinforcement by their peers and families in their home surroundings. Worse still, the sudden exposure to the more-affluent settings and schoolmates usually generate illusions and expectations which, when found consistently impossible to fulfill, will result in apathy, disappointment, frustration and bitterness. Under the circumstances, there is a likelihood that they will develope more intense cultural inferiority complexes and thus will be more inclined to renounce instead of fostering stronger pride for and identity with, their own culture.

Cultural identity, as discussed earlier is crucial for successful cultural learning. The ethenic Chinese and Jewish sub-cultures in America have experienced little problem in their cultural learning and assimilation process. This is largely due to the keen identity, pride, and drive they have traditionally cherished for their respective cultures.

Over a substantial period of time, therefore, arbitrary intervention on the part of the government to coerce cultural learning and cross-fertilization is not a sound answer to the problem of the under-privileged blacks. The root cause of the problem lies in the deficiency of cultural identity, motivation and dynamic.

To achieve more than a momentary token treatment, federal state and local government, including the school administration, should launch an

integrated effort to deal directly with the underlying cause of the problem: the individual, the family and the society at large. Perhaps the Confucian Ta Hsueh will afford us some insights in dealing with the dilemma:

> Acquisition of knowledge is consisted in the investigation of things. Things having been studied, knowledge could be obtained; knowledge having been obtained, their thoughts became sincere; their thoughts being sincere, they could purify their heart; their heart having been purified, they could cultivate themselves; having cultivated themselves, they could organize their families; their families having been organized they could order their country; their country having been ordered, they could bring peace to the world. From the Son of the Heaven (Emporer) to the man on the street equally, self-cultivation is the basis of everything (Confucius: Ta Hsueh).

Now may be the juncture in the development of the American society when more attention should be directed toward the inculcation of the virtues of self-cultivation and of harmonious, ordered relationship between the individual and the family, the family and the society.

Conceivably the welfare system can be abolished, if not totally at least a larger portion of it. Throughout the four thousand years of her history, China has never instituted any kind of governmental welfare system and yet she has been and still is the most populous nation in the world. Natural struggle for survival remains the best means for inducement of self-motivation and cultural drive.

Funds derived from the elimination of the redundant welfare programs, can then be rechanneled to improve the quality and opportunity of education, especially in the ghetto areas. Learners regardless of cultural-economical background will be allowed to enroll at any school of their choices so long as they demonstrate abilities. Side by side with

this, free boarding school system can be implemented to provide an integrated and cohesive environment for a harmonious early life orientation of the youngsters, especially those from deprived cultural and economical backgrounds.

Resources, once used to nurture social dependency and cultural stagnation, can also be re-allocated to create a free higher educational system devoid of socio-economical barriers and thus effective encourage cultural learning.

The salvation and growth of a culture hinges heavily on diffusive cultural learning. This applies not only to ancient, but also to modern China; not only to ancient, but also to modern America, the melting pot of cultures.

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