Basic Problems Underlying the Process of Identification of the Chinese Graphs of the Shang Oracular Inscriptions.

Paul L-M Serruys
University of Washington Seattle.

In humble homage to one of the 'Great Scholars' and in sincere gratitude to the inspiring teacher he was during my years at the University of California (Berkeley), this study is dedicated to the memory of the late Professor Chao Yüan-jen.

I. Introductory Notes.

In discussing the problems of identification of the Chinese graphs, we must exclude from the start all glyphic forms discovered in earlier pre-Shang levels which are sometimes claimed by Chinese scholars to fully warrant the term 'writing'. Such a claim should first provide some grounds by giving us a definition of true writing, namely what must be the minimum requirements to lable any number of incised or painted signs not as mere signs, glyphs or glyphic forms, but as true graphs. The graph is any kind of drawing or image, integrated in a system of writing, resulting in a visual representation of a language. As a system, writing is something complete in itself, yet open ended, capable of continuous, homogeneous readaptation, growth and development (according to its system); it must be apt to express anything with all the refinement of stress and focus. with all the unambiguous clarity of the language represented and remain so. Therefore, also the emblematic drawings found on early bronzes must per se be excluded. The earliest full fledged script is that of the Shang oracular texts on which numerous studies now exist, covering the successive efforts of scholars over a period of more than eighty years. Yet much remains to be done. Most of all, the basic principles for analysis and interpretation need to be refined and clarified. There is furthermore a painful need for phonological reconstructions of the words represented by the Shang graphs, so as to gain an understanding

of their entire constitution, their usages as loan graphs and their relation to other words/graphs in the vocabulary of Shang as well as that of later periods in the development of the language.

The graphic structure of the logographic writing units, the semantic and phonological aspects of the words corresponding to the graphic units constitute the three major facets that must be considered in the study of the earliest Chinese writing. These three facets are constantly influencing and conditioning each other, yet must as far as possible, be pursued and explained through different and separate approaches. From the point of view of graphic analysis, it has often been stated that all the script principles explicitly formulated or implicitly used in the Shuo-wen chieh-tzu already find full application in the Shang script. This claim assumes that the script principles (implicit or explicit) used in SWare clearly understood according to a generally accepted interpretation. This is far from being the case; deep going disagreements exist, not only in what the famous 'six principles' really meant for the SW author, but also how they apply in each individual graph. It would, a priori, be astounding if the principles discovered and elaborated by the scribes who created the writing system of Shang would be just the same as the principles discovered after the fact as a result of a study to trace back the writing to its origins after so many centuries have elapsed between Shang and Han time. Conversely, some basic script principles may be underlying the Shang script that are no longer of importance for the SW, due to time and resulting changes that occurred. Among the latter principles are mainly: 1) Polyvalence of early pictographs as representations of different objects, actions or situations and the words in language corresponding to them. 2) Convergence of originally distinct graphs. These two principles result in polysemy [multiples meanings, possibly but not necessarily related] and polyphony [multiple readings not necessarily phonologically related], and as a corrective principle to the two preceding ones: 3) Graphic diversification and total or partial substitution of certain already existing graphic forms by new ones.

1. Polyvalence. The representational function of the pictograph-logograph

is to refer to a word in the language. At a certain time a tradition comes to exist among the scribes, resulting in a tacit agreement whereby certain signs are solidly associated with certain words and their sounds. But the same graph may represent different words, in some way semantically related, by they cognate or not. A graph HAND can be used for words 'hand', 'hand over > give, receive', 'handle, manipulate', 'grasp (in hand)' > 'hold, have', etc. A graph EYE, used for 'eye', 'see', 'view', 'perceive', etc; a graph HEAD used for 'head', 'top', 'high', 'to be at the head, to lead', etc. As in the case of HAND the graphic form may lend itself to some variants whereby different words may be suggested and so used to distinguish f.i. 'pull up (by the hand), 'push (aside with the hand)', by reduplication (43), 'to hold up > offer', and other arrangement. The words thus represented may sometimes be cognates (f, i. 'hand' \cop' 'to handle)' etc.), and parallel phenomena from other languages will readily come to mind and will, of course, be helpful to throw light on how such cognate status is easy to understand and "natural" from point of view of human mind processes, but these do not by themselves prove a cognate status in any particular language. The cognate status between words can not rest on psychological or logical evidence only, but must be proved by evidence from linguistic research. It is here that phonology will play an important role.

2. Convergence. Polyvalence of graphs can also be the result of the convergence (not intended by the scribes) of originally distinct graphs; they are a result of simplification and reduction of totally distinct pictograps, as there is a natural tendency to simplify and reduce the concrete graphic shape to their most efficient representational simplicity or easiest graphic execution of lines. This too leads to polysemy and concomitant polyphony. Thus f. i. a graph \bigcup can stand for 'pot' or 'vessel > boat', 'pit' in the sense of 'pit dwelling' or 'pitfall' and 'to catch by means of a pit fall', 'mouth' > 'agape, abyss' etc. ² These

^{1.} This has been shown in some illustrative drawings by K'ang Yin 康殷 (1979, p. 81-4) (positions of the 'hand'), p. 85 ('two hands') corresponding to different kinds of actions performed by the hands.

^{2.} Already Shen Chien-shih 沈兼士 (1947) was able to prove this with a number of well argued and substantiated examples.

processes of polyvalence and the accidental convergence were happening from the very beginning of writing, and may have resulted in a number of simple graphs of which the origin and representational significance may have been lost forever or at least are extremely difficult to retrieve. We think here of graphs like \mp (= \mp : 'in, at, to, for'), + (= \mp), + (= \pm) or certain elements in graphs such as + and + in + (= \pm), sometimes changed in + or elaborated as in +; or the element + in the graph + (usually read +) and the graph + etc. 3

Diversification. At the same time as the factors of polyvalence and convergence cause confusing situations in the writing, various ways must be devised to obtain sufficient graph diversification to counterbalance the effects of polyvalence and convergence. The need for such diversification becomes greater as the number of graphs increases and the variety of topics, the differences in stress or focus, the refinement in expression puts greater demands on the writing system, in order to reflect adequately the language possibilities. This diversification may at the beginning have been of many sorts and may have involved different steps. Yet, it can perhaps be reduced to two basic methods: 1) Graphs that have become too easily confused with others are simply abandoned and new graphs are substituted for old ones. 2) The confusion is avoided by adding new elements to a graph or changing some elements, or partially rearranging the existing elements. In this way, slowly a more and more uniform system though in spite of uniformization, established and accepted old forms can still survive. Why certain graphs survive in spite of possible con-

^{3.} The explanations proposed for 乍 have been discussed in Serruys (1974), p. 77. Other solutions, which since have come to my attention, are Lin Tsu-t'ai 林祖泰 (1978), p. 11, explaining 乍 to be originally 阼, and K'ang Yin (1979), p. 525-7, who takes 乍, ৺ as the pictograph of the collar line of a jacket ❤️ continuing downward to the right, and thus representing the 'making' of clothing. For ♀ , to my knowledge no explanation has been offered so far; for ﴿ (Li Hsiao-ting, 1974; p. 1675) the reading 嘉, 妿 or 賀 has been generally accepted, with meaning' to be good, be favored, blessed (with good luck)', but no convincing argument has been proposed to show the passage from ✓ , 力 to 加→嘉 etc. in its phonetic-etymonic role and development. Chang Ts'ung-tung (1970), p. 256-7 has suggested that ✓ may have stood for 男 'male' and thus referring to a meaning 'be lucky in giving birth'. No phonological evidence for the reading is given.

fusion and others disappear to be replaced, is often not apparent to us because not only the mere graphic factor but also other details concerning meaning, idiomaticity of expressions, contextual occurence are unclear to us. When considering these factors [polyvalence, convergence, partial or total substitution and diversification] the task of solving the problems of graph identification can be described as a search for methods to unravel these factors and keep them distinguished in spite of their interacting roles, and to detect the cases of polyphony and polysemy due to convergence or to original polyvalence. Nothing but exhaustive monographic research in the history of each individual graph, graphic elements or sets of graphs will lead us through the maze of tangled lines of evolution. Though each graph may have its own history of changes in graphic rearrangement, in semantic and phonological aspects, in the long run, certain criteria can be expected to emerge which can lead to the proper method. Such criteria are necessary, for it would be too easy and in the end create more confusion, if, at any turn, the principles of polyphony or convergence can be invoked to solve any difficulty. The same will apply also for the cases of graphic diversification, where it is often difficult to distinguish graphic variations that represent merely free variants for the same graph or variants representing the same word but applied to particular, specific referents (common versus proper noun, etc.) from cases where different words are intended. 4

4. So far, the graphic aspect and its ties to meaning and phonology have been mentioned. The study of early Chinese graphs can be further complicated by the application of another principle, quite natural but still extraneous to the regular set of the threefold aspect, Graph-Meaning-Sound, viz. the principle of loan graphs. The loan graph is a process by which, though a graph was in its

^{4.} Perhaps the best illustration of the complexity of this kind of problems are the examples listed in Shima (1965) and Shima, Index (1980), p. 577, under the heading: 通用, 假借, 同義用例 (which I understand as 'graphic variants, loan graphic cases, synonyms'). This list is most useful in that it brings together, with examples of contrasted lines (culled from the oracular texts), some of the most frequent and striking instances of these three types. Unfortunately, Shima does not indicate where each of these three types is found, or whether instead of these three possibilities, other solutions might be proposed.

original representational function firmly associated with a given word (and a particular pronunciation), nevertheless, on a second level, this pronunciation is dissociated from the concrete graphic shape, so that it can be further applied to other words of identical or sufficiently similar pronunciation. Sometimes the loaned graph with its own meaning and the loaner [i. e. the word for which it is loaned] remain graphically the same. But in other cases, the loaned graph is replaced by a new graph, usually through additional elements, such as in the traditional classic example of 何, loaned for the interrogative pronoun, and replaced by 荷 'to carry'. It is to be expected that both types should occur in the Shang writing. Yet, the loan graph cases can not be explained with any degree of plausibility, unless we have sufficient knowledge of the phonology of the language (or a dialect of it) at the time the loan graph principle was applied. systems of phonological reconstructions of the Chinese graphs (as known from the classics and other traditional sources) which have been proposed on Old (or Archaic) Chinese, different as they may look from one another, are fundamentally derived from the same source materials; the difference be-tween them is that each evaluates in different ways the details and the importance of all the factual information found in the sources. But there is still a wide gap between the earliest classical source materials and the Shang inscriptions. Though reconstructions have been proposed, in a limited fashion, to earlier stages, even Proto-Chinese, very little has been said or is known about the question how these reconstructions relate to the Shang language as reflected in its writing. 5 In view of the existing gap it should not be wondered at if certain reconstructions based on the Shang materials only may not fully agree with any of the accepted systems

^{5.} Though we have now in the CWKL and in Kao Ming (1980) a fairly good amount of bronze forms, that can bridge the gap between Shang writing and later stages of writing, leading to the SW and the traditional graphic writing form found in the present accepted versions and editions of pre-Han literature, still no systematic research has been made of the bronze graphs where the graphic forms (their inner structure, showing phonetic or etymonic roles played by certain constituent parts) and their usages in loan graph application and rhyme positions have been surveyed, in confirmation or contrast with the phonology as based on the traditional forms.

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of Old Chinese.

Besides the phonology problems involved in the loan graph cases, one needs to know why no appropriate graph could have been devised for the particular word for which the loan graph was used. One can easily understand and it has been so assumed that in cases where abstract words ('if, not, and') and grammatical words or particles need to be represented, the loan graph process was the only possible solution. Still there are instances where the loan graph process did not involve abstract words, but quite ordinary words with easily concretized representation by pictographs (See 途, infra). On the other hand, the 'abstract' or 'grammatical' word could have been more concretely perceived than we would assume. It is not excluded that f.i. negatives could have been graphically expressed in more concrete fashion: 'stop laughing', 'quit complaining', 'cut it out, 'hell it's yours, put it back!' Often loan graphs have been suggested on mere superficial phonological similarities and without going into any detailed explanation. The rule requiring that there be sufficient similarity has not been described in any precise way, as there is no clear criterion what kinds of limits should be set to such sound similarity, or how it could be affected or bent by certain morphological factors in the language. Assuming that the general context points to a given meaning, the proposed loan graph solution is not always needed: in the Shang inscription line 王途羌, the graph 途 is said to stand for 屠: 'The king shall butcher > kill the Ch'iang (tribesmen)'. Though the loan can phonologically be defended, it is an unnecessary step, since one may as well assume that 途 stands for 除 'to eliminate, exterminate' and so remain within the same phonetic series of graphs with the element 余. The difference between 'butcher > kill' and 'eliminate' may be of some consequence, in view of other cases where different words are used, that seem to be mere synonyms, but may well imply clearly distinct meanings, as between 攻 'to attack', 伐 'to punish' and 正 'corrective expedition' or between 求 'to pray for something' and 匃 'to pray to avert something', 乎 'call upon' and 令 'to command'. It indicates that the Shang texts represent a highly diversified and specialized vocabulary which may easily escape

our attention.

In other instances, where the loan graph seems an obvious case of a loan for its sound only, still the loan may imply certain semantic ties with the loaned Can we exclude that f. i. | , 'misfortune' [graphically, 'the scapula bone (used for divination)+ | 'divination crack'] when applied as a loan for 禍, might not be based on an etymon: 'omen > ominous' and be understood as 'misfortune (i.e. foretold by the divination bone')? Many loan graphs then would in reality join the great group of the phonetic compound graphs. If so, we need to search further in this line to see whether a similar etymological hint is implied in the use of (三火) as a loan graph for 禍 'misfortune' (e.g. Ts'ui 1428; Shima, Index 579.1). If the equation 火=禍 (proposed by Kuo Mo-jo) will stand the test of Shang phonology, 火 instead of 禍 may then have been seen as a 'pyromantically foretold misfortune's. Then, also all other disaster terms, whatever their specific meaning, might have connotations of such nature.

Shang graphs compared to earlier and later materials.

If the Shang Oracle Inscriptions are taken as the first and earliest materials yielding a fulfledged writing system, it does not mean that earlier attempts towards writing, limited in scope and effectiveness, still unclear to us as to their true status and nature, did not exist. In fact, there are quite a number of Shang graphs that are almost perfect copies (with some simplification) of iconographic elements found in the early Shang bronze motives and ornaments, or on ceramic pieces, and in bronze emblematic drawings. Yet, these early 'pre-writing' drawings are not graphs until they are extracted and integrated into the writing system. These drawings, in the same way as sculptures in bone or stone (which surely are not writing) are helpful in reconizing some pictographic models, showing us how art technique and artistic conventions may have influenced the structure of some graphs. 7

^{6.} The loan graph connections between 火/禍/骨 may look quite convincing depending on certain reconstructions: GSR *xwâr / g'wâ / kw ət. Li Fang-kuei * hwrx < hmeərx / gwarx / kwət. Bodman (1980, p. 71) reconstructs 火 * hmeəy:, Yakhontov (1965) has * smâr.

7. See f. i. pictographs for 'bird', 'fish' and the graph for 'feather' (infra p. 449sq.). Among the conventions should be mentioned the ways in which the pictograph dealt with the problem of 'paragraphy' in decreasing by showing in flat lay out.

lem of 'perspective' in drawing by showing in *flat* lay out what was really meant as two towers facing each other at the opposite side of surrounding walls.

Similarly, comparison with later writing material will clarify certain aspects of the Shang writing. Indeed, it is in most cases impossible to come to any valid conclusion without taking into account a certain historical perspective in the development of Shang script down to the final uniformization of SW. In the first place, the passage from Shang to Chou, the early and later Chou bronze inscription materials are important phases in the evolution of the script, but they are also stepstones in tracing back the origins of the graphs. Even a source as late as SW has proved to be of great value, though often enough it is found also disappointingly lacking in solid or relevant information for a successful tie-in with the earliest graphs. Still SW cannot be summarily dismissed even when its analysis or interpretation is obviously in error. The real problem is in finding why and how the early tradition concerning graphic forms, their meaning and usages had been lost or corrupted. This breakdown in tradition may have occurred long before SW time, somewhere along the various phases in the evolution of the bronze graphs of Chou or even during the transition from Shang to Chou. 8 The most successful identifications are, of course, those where the continuity in graphic and semantic aspect, vocabulary and grammatical usage can be followed from Shang to the end of Chou. But it is natural that in the course of such a long evolution the continuity in the script tradition was often disturbed, broken off or only tenuously preserved. But when discontinuity is observed, it does not always affect all the aspects (graphic structure, semantic content, phonology) at the same time; graphic continuity may be found together with discontinuity in semantic content, i. e. wider extension of meaning, unusual shifts in connotations, even almost contradictory or unrelated meanings; graphic discontinuity may only be partial, affecting certain elements of phonological significance. Thus, in some way, enough threads can be salvaged to allow us to explain its change, when and

^{8.} Transition from Shang to Chou formerly only observable through comparison of bronze inscriptions, in Shang times, usually very short and often mostly consisting of clan or family emblems, hard to identify with definite graphs, is now supplemented with the Chou area (or Chou fief state?) bone inscriptions, still in many aspects imperfectly understood. When the post-Shang bronze forms corresponding to Shang oracular forms are missing, it is the ku wen 古文 variants of SW that may provide the best link with Shang. See infra p. 460.

how it happened.

On the other hand, the Shang graphs should be studied in themselves and within a systematic framework of Shang writing itself, regardless whether or not a certain graphic element can be followed up in later script forms. Thus, as the Shang graphs can be brought together in groups according to certain recurrent types of structural make up, these types should be studied to ascertain whether any general principle can be derived on the formation of Shang graphs in general, either in terms of phonetic, etymonic or semantic and graphic factors.

To conclude these *Introductory Notes*: no stone should be left unturned in our examination of Shang graphs and their usages from the point of view of meaning and grammatical function as well as their graphic shape, structure or any detail that may reflect the pronunciation of the word intended by the graph. Any solution or theory that exclusively works with one aspect only is bound to fail or at some point to mislead. It is particularly the phonological aspect that has been most neglected. Furthermore, as is by now clear, the problems of rightly identifying the Shang graphs are overwhelming in their intricate and widespread connections and complications. A short study as this one can only in very inadequate fashion try to discuss them. In the pages that follow a number of specific examples will be presented.

II. Discussion of Some Individual Shang Graphs.

1. The simple graph and the complex graph. One of the devices used by the early scribes to distinguish one graph from another consisted in graphic elaboration or changes by adding elements in one graph, or changing graphic elements in one or the other. In this case, it is important to distinguish between simple and complex or composite graphs. The notion of simple graph has nothing to do with a greater or smaller number of strokes or lines. The simple graph is a graph intended to represent one whole, undivided and, in principle, indivisible unit of graphic representation. The complex graph is the graph that is intended to be recognized as having separate graphic elements, which play different roles for the recognition of the underlying word represented. Example: Graph

('bow' + a line at the curve of the bow); the added line is a graphic etymonic addition suggesting a meaning 'to pull', yielding a new graph, ancestor of {} (extend, extended'; 9 it is meant to distinguish from the simple graph = 'bow', in its various shapes: 33553, etc. On the other hand, 3 ('bow' + 'mouth') has the first functioning as phonetic, the second as a semantic element. usage of the element 'mouth' is one of the first and most regularly used elements, that can be called 'radical', used to mark proper names. This definition, for good reasons, does not by itself give any indication how the two types of graphs (simple or complex) can be detected. Other considerations and comparisons need to be brought in to decide for either of the two kinds of analysis. Perhaps an even simpler way for diversification of graphs is the upside down writing, such as the graph 'mouth' written in upward or down ward direction: down writing is constantly observed with other principles, such as the simple or complex structure. Besides the upside down writing, SW also resorts to a principle of reversed writing as in 乏 versus 正 (SWKL 726). But in oracular texts the reversed form is frequently of no importance, being the result of mirror writing depending whether a graph appears on the left or right side of a tortoise shell ($(\forall \text{ or } \forall = \dot{\vdash})$, or simply as free variant, f. i. $\forall \vdash \text{ or } \forall \vdash (= \dot{\forall})$. In Shang graphs, the upside down writing can (but does not always) carry a different reading than the ordinary writing. Examples of upside down writing are found f. i. in forms of (1) the graph 'mouth' and (2) the graph \forall (=在) and variants. Examples of complex graph structures (in spite of relative simplicity of lines) are (3) the graphs 年, 先 and others with the element 'foot' and (4) 下, 完,于.

(1). The graph 'mouth' is written in upward and downward direction as part of a simple graph (i. e. an indivisible pictograph), but also as part of a complex graph, where it is separate from other graphic elements, be it as semantic or phonetic determinant. In the latter role it can have more than one reading.

^{9.} The reading 弘 once generally accepted (Li Hsiao-ting, 1974. p. 3845) has been rejected by Yü Hao-liang 于豪克 (1977. p. 339-40) who instead argues for a reading 引. He has been refuted by Chang Chung-sung 張忠松 (1981), p. 519-20, & 560.

^{10.} On the 中and 上 (土) variants see Kuan Hsieh-ch'u 管變初 (1978), Wang Hsien 王 顯 (1980) and Tan Chou-yao 單周堯 (1980 & 1981).

Thus, we find 'mouth' in 辽 (舌), 'tongue protruding from the mouth', but also in downward position in Â, with variant \ (龠) 'flute', Â (令) 'command' and (命) representing the 'mouth turned downward over a kneeling figure', the mouth 'blowing down into a flute' (variant has only the pipes bound together) and 'mouth, 'reading a document'. In all these three instances 'mouth' is part of a pictograph. Though pictographs are concrete representations, yet many show already some degree of 'abstraction', for it is not the 'mouth' that commands or blows the flute, but the human person. This kind of attribution of human acts to body parts (hand, foot, mouth, ears) that are used to perform them, is a natural simplification process, which becomes clear when compared with some earlier emblematic drawings. (See, f. i. 2 infra). But 'mouth' also occurs in 1, 子 for 言 'to speak, word' and 音 'sound', and in 台(目) a proper name mu, where it is a semantic determinant with \checkmark , \checkmark (辛) and \exists as phonetics; in 日, 与 (咸) and the reading 音, 'mouth' is phonetic. 11 The simple graph structure in 引, 分, 分, 句 'to drink' (敏) (all pictographically quite concrete and detailed: man bending down, with protruding tongue over a vessel) is also found in a simplified form $\frac{2}{5}$ (Shima, Index 391.1-2) where the upside down 'mouth'

This fact that \widehat{m} and $\widehat{\Box}$ are variants of the same graph for the word 'flute', proves that the \widehat{m} form must be taken as a simple graph, where $\widehat{\triangle}$, 'mouth turned downward' is part of a pictographic representation without implying a phonetic role.

The graph 音 is analyzed (SWKL 1103) 从言含一'Derived from 'word', (pictographic element) 'holding in mouth' (as 'distinctive mark') a line —. The added stroke is to mark a different reading, intimated by the word 含 (instead of any other formula such as 从 ——). In 舌 we have the simple graph for a third word dz'iat for which SW has an analysis (SWKL 926) 从于从口,干亦聲. KYSH (p. 37) lists 舌 under 干 with a very small number of derivations with d-m, 1-m, s-m and d-t, s-t. This is a very confusing situation, yet the answer is that there were two words for 'tongue', 舌 and 上 *gom (KYSH. p. 1003) which is defined as 舌也 (SWKL 3031). It has a vulgar (俗) variant 肣, which leads us back to 今). The graph 'tongue' *gom has blended with other graphs 'quiver' [container (of arrows)] and 'cuirass' [(protective) envelope]

^{11. (}成) and (成) are often confused and when 可(成) is used as a presonal name, occurring together with other pre-dynastic and royal ancestors of Shang, some authors have assumed that it should be read 成, referring to 成湯. This has been criticised by Chang Ping-ch'üan who throughout his Yin-hsü wen-tzu ping-pien k'ao-shih 股虚文子丙編考釋 has preserved a 成 reading wherever the bone graphs so show, rather than confusing two possible distinct referents.

shows how the pictographic element slowly is changed into a phonetic-etymonic element: 今 * kjom. This reading is closely similar to 叡, 音 * 2jiom and to 凤 * grom. It shows the graph \bigcup * k'ug with a second reading in \exists and \exists , and in upside down position, in 叡 and \circlearrowleft . One and the same graphic shape is read as \exists and \exists . The first is * ngjan < * zng- (with phonetic \rightleftharpoons), the second is *2jiom; the two words are certainly cognates: 'word' 'sound'. This situation was already understood in SW (SWKL 1695, 2026) where \Box (expanded to \exists) is phonetic in \eth * kam and cognate with \exists * kam and \exists * kam and \exists * kam and \exists * kam and cognate with \exists * kam and \exists * kam * kam* and cognate with \exists * kam* and \exists * kam* and * k

(2). The graph 中文 (在), representing a 'spud or digging tool' for a word' 'to stick in, be stuck in, be at' etc., and (辛) a pointed tool for puncturing, piercing, are related; an upside down variant may be found in kand also in for 'boat, dug out' and in for 'to plow (a field)'. The graph 中 functions as phonetic in 中 (共) * tsəg, a graph curiously preempted for the name of a country or state, hostile to Shang, as against 中 (中, to destroy'); in the later graphic variant, the element 中 (生, * sreng) 'growing sprout, to begin' is probably to be interpreted as the 'sprouts first piercing through the earth.' Erh ya 爾雅 (late Chou) has in its very first entry, among others, the following synonyms defined as 始 * sthjəgw (less similar words left out): '初 * tsrag, 哉 * tsəg, ... 肇 * drjiagw, 祖 * tsag... In the series 辛 * sjiən, sjing, we observe a regular type of derivations, as in 辛一新 'new' (i. e. freshly cut wood?) * sjiən, contrasted with derivates like 字, 梓 * tseg.

年, 先 and other graphs with 'foot'. Non-pictographic arrangements in certain Shang graphs can be taken as indications of a complex graphic struc-They are graphic arrangements that, at first sight, would seem from the concrete representational aspect to be unnatural or at least difficult to explain, When we see that \(\sigma\) 'enclosure, surrounding (wall or fence)' mostly shows any additional pictographic element fitted *inside* the enclosure, such as $|\overline{\gamma}|$ 'prison, prisoner', 图 (=囡), 图 (因), 图 (=困), 卿 (=囿), etc., then the graph (邑) presents a striking exception. According to its meaning 'settlement, camp, town', it would seem quite natural that pictographically the 'squatter' or 'settler' be shown inside the enclosure, unless another arrangement be chosen on purpose to be interpreted as a hint that the graph is complex, where one part being semantic (enclosure), the lower part 'squatting figure' is phoneticetymonic; 邑 * 2 jiap (with phonetic derivate 俋 having initial * d-) may be related to (= 1) 'kneeling person' > 'to kneel, squat', knee joint', * tsiet, tsiek < * tsiep (?). It is clear that the phonological reconstructions of Shang pronunciation will be of decisive nature to provide a probable foundation to establish the needed connection between 邑 and 口, in order to support the graphic analysis proposed.

The graph (年) and 先 ($\[\])$ graphically show 'grain stalk' on top of 'man', and 'foot' on top of 'man'. This can hardly be intended as a concrete representation and this arrangement implies a phonetic role for any of the constituent parts of the graphs. In 先 'to be first, to put first, preceed' the top element 'foot' is the semantic determinant and the lower part \land can only be intended as phonetic. The same analysis applies to \nearrow . If this case is a simple one and

^{12.} On 兪, see Serruys (1962), p. 232-3. The bronze forms are taken from CWKL, fulu nos, 2116, 2117 and 2321. The Shang forms of 艅 are from GSR no 82 (form a.) and Chin Hsiang-heng (1959), p. 8. 14 under 兪.

happens to be supported by later forms, confirmed in SW and readily explained in accepted reconstructions (人 * znj-, 年 * zn-, 先 * sn- > ns- > s-) yet independently from any phonological systems, other similar cases can be mustered to show that a structural principle is involved that will allow other analyses of that kind, even if the existent systems of phonological reconstructions would not support it. For other examples of such graphic arrangement with the element 'foot' compare: (4) 'foot' on top of 'king', 'to go to, proceed to'; (4) 'foot' on top of 'snake' (the latter phonetic) 'to impede, step on', 'harm' (?); (4) 'footman, walk on foot' has 'earth' on top of 'foot' where a true pictograph would surely have the arrangement reversed. The graph (4), showing the vessel or pot (4) (functioning as phonetic (4), comparable to (4) '(4)) 'pujog) has a 'reversed foot' as semantic determinant; 'to return, to turn back'.

In contrast with (先), the graphs , (麦,後) are true pictographs (i. e. simple graphs) where 'foot' is a reduced representation of a whole person with a rope at his feet and two hands (also a reduction of a whole person) holding back or pulling back the other: 'to hold back, keep back, put behind' in contrast to 先 'to put first'. In one variant the two hands have been omitted, and in another variant , which is the ancestor of the SW form, we have an upside down form of \(\forall\). This can explain at once why the 'two hands' could be omitted, and why the upside down shape was used for the surviving graph. Probably the upside down form was meant as a contract with 先, and could thereby preserve the semantic content of 後 'put behind, keep back'. \(^{13}\) A similar opposition can be seen in the graphs \(\forall\), \(\forall\() (=\forall), 'to go (into the pit dwelling)' versus 'to come out (of the pit dwelling)'. In both, the upward and downward directed 'foot' is a pictographic element giving

^{13.} CWKL fulu, no. 3607 has a bronze form which Li Hsiao-ting identifies with CKWL 3.0275 以 (以), equivalent to modern 訊 'keep (prisoners for interrogation)'. By isolating the top part () from the lower 日, Li had to leave () unexplained and unaccounted for. Kuo Mo-jo however transcribes 繳 and reads it 拘 (which 句 phonetic) in the sense of 執 'to imprison, to hold as prisoner'. 繳 * kjug, kug and 後 * gug are probably related words. In inscriptions 訊 is a term contrasted with the enemies killed on the spot and refers to those 'held back' for trial and punishment when the army returns.

a perfect contrast. Then, perhaps $\stackrel{\mbox{}}{\cup}$ (西) can be explained in the light of 出 and 各. What could be the role of $\stackrel{\mbox{}}{\cup}$ (西), pictograph of a 'nest', but phonetic as has been stated long ago by SW? Perhaps, was either a reduction of $\stackrel{\mbox{}}{\cup}$ 'foot' or another semantic determinant of similar value.

(4). Graphs 下, 完 and 于. The graph ? 'man' appears in fi, fi (賓), * pjin with an additional horizontal line, also seen in a graphic variant of 人 (老), 人 14 representing a figure with a hat, leaning on a stick. Already Chinese scholars have explained the graph + as being a variant of 弁 'hat': + is probably a corrupt descendant of T. 15 The element T is found in doubled, mutually opposed arrangement, f(r) * pjer (used as a loan for 非 'not be', in later Shang periods). In the case of $\frac{1}{7}$, the element $\frac{1}{7}$ is indeed part of a true pictograph, but it is also etymonic-phonetic for 'hat wearing (guest)'. 弁, 卞 is related to 冕 and other words for 'cap'. SW (SWKL 3833) gives as variants 完 (見), 異 and 众, and defines it as 冕 'ceremonial cap', which in turn is defined: 大夫以上冠也 'It is whereby a grandee is given the ceremonial cap', analyzed 从免罄 'derived from and 免 phonetic.' (SWKL 3365). 日 itself (SWKL 3364) is defined: 小兒蠻夷頭衣也 'It is a head cloth (used for) children and barbarians.' (in contrast with the 'ceremonial cap'), analyzed 从口 二其飾也 'derived from 门; (the element) = is an ornament on it.' The latter part is an erroneous and ad hoc explanation. [=] is simply a further derivation of ((SWKL 3360), defined 重覆也 'double cover', the second stroke in (is added as a distinctive mark for basically the same word, with slightly different and specialized meaning. (=) became a 'radical' in graphs like 冕 and 冔. As to the phonetic of 冕, viz. 免, this graph itself with reading * mjon means 'mourner's hair dress' (a sort of turban?); it has a variant 統, for which Cheng Hsüan 鄭玄 in his Chou Li commentary offers an explanation through a pun on its being

^{14.} Compare Serruys (1957), p. 152-4. When mentioning the variant with the element 'hat' replacing the 'hair' in 人 (老), I was unaware that the 'hat' here too was playing a phonetic role for a word 'old', pronounced like 免 (CWKL 8.1100 分), also representing a person with a 'head cover', and as such related to 眉 * mjid 'old'.

^{15.} According to the Chung-wen ta-tzu-tien 中文大字典 (5.290) the oldest form of 卞 is the one found in the T'ung-wen chü-yao 同文擧要: 亡 .

a long piece of cloth rolled around the head. (冕延之覆在上是以名焉, SWKL 3365) For 岂 (弁) SW adds to the definition an explanatory sentence: 周曰岂, 殷 曰吁, 夏曰收 'Among the Chou it was called 是* bjian, among the Yin it was called 吁 * xwjag, among the Hsia it was called 收 * sthjegw. In connection with the Shang graph 飞, the SW term 吁 is of special interest. It is the same as the Shih ching word 鼻 (Ode 235.5), also written 詡 (Po hu t'ung 白虎通 and Tzu lin 字林). It is clear that the correct from is 尋, where the top element is 三, a semantic determinant as in 冕, and that 舄 is a later form, replacing 口 by 糸; it shows that 口 in 吁 and 冔 was no longer understood. The word 呼 * xwjag < * xmj- (?) may be cognate with $| \widehat{\ } |$ and $| \widehat{\ } |$ * $m endsymbol{o}g$ < * gmand with 兜 * tug < tw-, tm-, which also appears as part of a binom 兜 鍪 This being established, I suggest that the Shang graph \mp , \mp (= \mp) is to be explained as an extreme simplification of a pictograph 'man' + 'hat', almost identical with \mathcal{F} , \mathcal{J} , but for the slight change (the second stroke going beyond the vertical stroke, yielding 于), with a reading different from the type of 下, 晃 words for 'hat'. The graph 于 was preempted as a loan for 于, preposition 'to, in, at', etc., so that a further graphic element was added to distinguish the preposition from the graph for 'hat', (preserved in SW). The element 口 in 吁 can hardly be taken as 'mouth', but is most probably a pictograph for 'head' as in 兄 and other graphs. 于 ∞ 吁 illustrates the same process as that described for 何 ∽ 荷 above (p. 460).

2. The graph 生. Obsolescence and Substitution.

This graph has been identified as standing for 有 'to have' as is clear from contrasted lines in the oracular texts which have 亡 'not have'. It has further the meaning 'and', mostly with phrases referring to numbers, as in *Ch'un ch'iu* dates 二十有三年 '23d year', with the difference that the oracular texts put the word yu 中 immediately after the counted item and before the remaining cypher or digit: 三十羌虫五 '35 Ch'iang (men)'. Such a structure indicates that in Shang texts of this type 屮 is still a verb 'to have' and has only begun to shift to the secondary, derived meaning 'and'; literally the line means '30 Ch'iang

(men) [have (in addition)] five.' Other instances of 生 'and' have passim been pointed out, f.i. between nouns, as in phrases like 袞 三羊虫一牛 '... sacrifice in holocaust three sheep and one bovine, ', but the context is not clear and could allow other translations, such as '... sacrifice in holocaust three sheep, sacrifice (method unspecified) one bovine.' If y is indeed also used in such fashion, it need to be further explained in contrast with other words for 'and', . y is also used as an adjectival, qualifying term before a noun as in the phrase 受坐又 'to receive abundant help', though this function of 坐 has been debated and differently explained as being equivalent to the the possessive pronoun' 'his, her' etc. 16 If one starts from a basic sense 'to have' 17 then the sense of 'abundant, ample' and as an adverb 'abundantly' can be easily derived; it is found in Shih ching lines such as (Ode 170.1): 君子有酒旨且有 'Your wine, lord, is both tasty and abundant' and (Ode 228.3): 其葉有幽 'Their leaves are very dark' (lit. 'abundantly dark'). Finally, a most frequent usage in the Shang texts is \(\psi\) 'to sacrifice'. Among the great variety of sacrificial terms, some are words that express the specific way in which the victims are killed (drowning, burning, chopping, dismembering, etc.), but others have more general meanings, such as the terms 登, 升, 'make ascend', the transitive leading to a sense 'to offer'. The sacrifical term $\underline{\Psi}$ belongs to the latter class. 业 after period I soon began to disappear and be replaced by 汉 (=有), with all the meanings mentioned above, including that of 'to sacrifice'. In the latter sense, it is different from the types 登, 升 'make ascend > to offer', for while 登, 升 have as objects mostly unbloody offerings such as grain, rice, etc., 业 (又) on the other hand, has as object nouns for animal and human victims;

On the usages and meanings of ⊥, see D.S. Nivison (1977), p. 1-17; K. Takashima (1978-9), p. 19-29; P. L-M Serruys (forthcoming).

^{17.} See K. Takashima (1980). 有 in SW has the unexpected definition 不亦有也 'It is what (one) ought not to have.' (SWKL 3003) and the Ch'un ch'iu quote 日月有食之 'Sun and moon are eclipsed.' The analysis 从月又聲 'derived from 月 and 又 as phonetic' and the fact that 有 is listed under the radical 月 (not 肉) reflects perhaps the view that eclipses are viewed as ominous events. The Ch'ing commentary by Wang Kuo-jui 王國瑞 tries to find to find some rationale in the words. 精, 辑, 鞘, 賄, 宥, 囿, 鲔 and 鮪 which all imply in 'color or appearance' an aspect that should not be present. The explanation is forced. (SWKL 6959).

therefore it refers to 'a sacrifice' in the true and narrowly understood definition of 'ritual disposal of victims by some bloody form of killing or destroying, distinguished from the ritual offerings that seem to be more offerings (food, grain, or even meat of already killed victims). It is however similar to the types 登, 升 in that 出, 又 (=有) was understood as a verb in causative mood: 'cause to have', while on the other hand, it differs from other sacrificial terms by expressing the notion of sacrifice without referring to any specific way of performing the sacrifical ritual. The Shang graph Ψ has been discussed in terms of meaning and various usages, but the graphic shape has not been explained. Thus, f.i. Chin Hsiang-heng (1959) (p. 6.8-9) has the form $\underline{\Psi}$ and some variants $\underline{\Psi}$, 里, 望, 里, 里 listed under SW equivalent of 止. Kaizuka Shigeki (1968, Index, p. 83 also lists as possible variant # without any explanation. I suggest that this graph is a pictograph consisting of 'meat' or 'slice of meat' lying on or around a sacrificial mound or altar.' \sqcup is then to be identified with \bigcup or ①, \wedge found in graphs \bigcirc , \bigcirc (=宜 and/or 俎) and 多, and with additional dots or strokes (representing blood?) in θ' 文 (=祭). This analysis implies that the simple lines \coprod (reduced from \boxminus \beth \nvdash and turned upward) form one pictograph with \perp , a sacrificial mound or stand, i. e. \perp being an upside down arrangement of \top , $\overline{\top}$ ($=\overline{\pi}$). This upside down arrangement is not unusual; it can also be observed for \perp (as distinctive mark for 'male' with graphs for animals), sometimes written 丁. When comparing 里 to the other graphs 多 (Shang form 呈), 宜 and 俎 (=), some striking similarities can be pointed out. (a) 祭 to sacrifice' * tsjad, tsriad T'\(\frac{1}{2}\) (or without the element T 'altar', \(\frac{1}{2}\)\(\frac{1}{2}\)) shows 'the hand proffering the meat offering'. Thus 祭 is graphically the same as the later form of 里 and 又 'to have' i. e. 有. (b) ② graphically shows 'sliced meat' displayed in two layers on 'a sacrificial stand'. Karlgren, GSR(1957) no. 21 gives the following pre-Han classical meanings: 'sacrifice to the deity of the Soil' (Li chi); loan for 'right, proper, beseem, approve' (Shih); 'adjust' (Shih); 'liable to'(Shih). But other meanings are further given f.i. Erh ya 宜, 肴也 'viands; make, 'prepare the viands'. The same $\frac{G}{G}$ form is also transcribed $\mathcal{H} * tsrjag$ (GSR. 46): 'small

sacrificial table' (Shih). The choice between the readings 宜 and 俎 (and even 房) has been argued back and forth by the Chinese and Japanese scholars. (Cfr. Chou Fa-kao et al. 1974 & 1977 (CWKL 7.0976) where the opinions are quoted in extenso.) Some scholars (like Jung Keng 容庚, Shang Ch'eng-tsu 商承祚) admitted both readings 宜 and 俎), while others (Sun Yi-jang 孫詒讓 and many after him) rejected the reading 宜, on the basis of the context in which the graph appears, or at least opted for 俎 as the most plausible choice. Scholars like Kuo Mo-jo 郭沫若 changed their minds more than once. Those who reject the reading 宜 do not explain what would then be the origin of the graph 宜. Karlgren (GSR, 21.) states: 'Many authors take these early forms to be 俎 'Sacrificial table' but I follow Shuo wen; it may be tsu in some cases (the same graph serving for both words, just as the same graph serves for both hsi 'evening' and yüeh 'moon'), but in a great many contexts it is undoubtedly yi. The graph shows the sacred (phallic) pole of the She altar to the soil, behung with slices of meat.' This the only passage where Karlgren, in so many words, subscribes to the principle of polyvalence of graphs. The SW definition (SWKL 3243) of 宜, followed by its analysis is: 所安也. 从一之下一之上. 多省聲. 'It is what (one) considers safe, (or wherein one feels safe). It is derived from [the element signifying the part] below the roof and above [the line of the ground]—. 多 (in reduced form \circ) is phonetic. ' Ku wen forms are $\overline{2}$ and $\overline{2}$ $\overline{2}$. The definition is curious for its choice of terms; 所安也 is probably a kind of punning phrase suggesting a reading comparable to * $srjag-\gamma an$ > # $sr-\gamma an$. If we follow the SW phonetic analysis, this 宜 * ngjar may go back to ** dngj-, zngjar, and 多 *tar to ** ?tar co t?ar. In that case the connection between 宜 and 多 implies more than a phonetic contact, but also a semantic relationship between cognates, the meaning 'many, much' being related to 'sacrifice'. A meaning 'many, abundant' may be found in some phrases in Shih ching f.i. (Ode 6.1) 宜其室家 'She will make abundant, florishing her chamber and house.' and 5.1 宜爾子孫, 振振 兮 'Making abundant your sons and grandsons, they will be numerous, indeed!' 223.5 如食宜 饇 如酌孔取 'If one feeds (them), they amply (=excessively) glut(themselves), if one gives (them) to drink, they greatly (=excessively) take(from it). 'This recalls the meanings of Ψ 'abundant', 'to sacrifice'.

On the other hand, 俎 (SWKL 6369) is explained 禮俎也从半肉在且上'It is the meats (prescribed by the sacrificial) rites. (The graph) is derived from 'meat' (of the victim) cut in half (commentary: 半體肉也) on top of the meat stand.' Though the graph is described as a simple pictograph, it is generally recognized that 且 plays a phonetic role. Besides the meaning 'sacrificial stand', 俎 also has the sense of 'sacrificial viands' (Yi li). The origin of the SW graph 俎 is probably from the earlier forms such as ② . 宜 can be explained from the SW small seal variant ⑦ which lead to ⑤ and 宜.

While 祭 * tsjad, tsriad, 宜 * ngjar < ** dngj-, zngj-, 俎 * tsrjag, tshrjag, all show the same type of initials, vowels, and, even in terms of finals, may well belong to the same group of cognates; the graph 史 * gwjog shows phonetically no relationship to any of these words. 史 stands alone and even in its usages as a general sacrificial term (with basic meaning 'cause to have, make (one) have') and its meaning extension 'having' > 'abundant', the semantic connection with either 祭, 宜, 俎 on one hand, and 多 on the other, is a superficial and tenuous one. In contrast to 祭 etc. the graph 史 did not survive, but was replaced by 又, which lead in turn to 有 but at the same time losing the meaning 'to sacrifice'. The only remaining vestige of 史 'to sacrifice' (<'cause to have') is perhaps 侑 in the sense 'encourage (to drink), 佑 'assist, wait upon' vaguely resembling a meaning * 'encourage to have'.

3. The Simple Graph 'Wing' and 'Semantic Specialization'.

The graph 'wing' in its earliest form is a fine example of the 'simple graph'. It has a number of variants, hard to classify into sharply distinct types, yet one can distinguish some graphic pecularities even if unable to cut off clearly the passage from one type to the other. Thus, we can list: 1. The curved tapering forms, 2. Curved not tapering, 3. Straight down, squarish or tapering, 4. Reduced shapes, 5. Double-wing (?) or angular shapes, 6. Upside down (?) [see insert] The simple graph structure is sometimes combined with additional



graphic elements 立,日 (翊,翔) and in Chou bronze forms with 立 and 日 together 弱. In the Shang texts this graph is used in two ways, (1) as adjective, before 日 or xy [cyclicals] 日, in the sense of 'next (day)' (day immediately following the divination day or an event mentioned before in the text), (2) as 'sacrificial term' (祭日), the true meaning and usage of which There are no instances of the graph 'wing' used for the word is debatable. 'wing' in the Shang materials. Consequently, the problem with this graph will be in showing (1) how the graphic shape is that of 'wing', (2) how the meaning 'wing' though not directly attested in the texts, still is basic in explaining the meaning 'next' and in defining the exact meaning of the 'sacricial term'. graph 'wing' has often been transcribed as A. Li Hsiao-ting (1974), p. 1225, lists various 'wing' forms under the SW equivalent of A but gives no direct Shang form for 刻, and has a separate entry for 翊 (p. 1239) and for 翔 (p. 2203), the latter listed under the SW equivalent of 昱. The CKWP (1965) no 0487, has Shang equivalents for All and for 'wing' listed together as correspondents of 羽. Sun Hai-po (1934) (4.4-8) has both the simple graph 'wing' and the forms 口管 and 公 (翔, 翊) together under the SW form 翊 but has no entry for 到. Chin Hsiang-heng (1959) (4.6) follows Sun Hai-po. Kao Ming (1980) clearly separates the graph 31 (p. 229) from the simple graph 'wing' and the 丽, 翊 types, listed under 砌, 昱 (p. 493). Li Hsiao-ting has summarized some of the analyses proposed by previous scholars. 18 For the ⅓ identification he quotes among others T'ang Lan who rejects the SW analysis of 翊, 从羽立聲 (same phonetic role of 立 as in 昱 (SWKL 2928) and 翌 (SWKL 6904); T'ang sketches

^{18.} Li Hsiao-ting (p. 2203) quotes at length (to finally reject it) a theory proposed by Yü Hsing-wu (1940. p. 20-21) which is at variance with all previously offered explanations. Yü states that the graph has nothing to do with 'feather' (利) but represents a knife; he gives an impressive list of forms where the knife is represented with a handle and a wide blade (marked with striae as ornaments) as in hand holding a knife' i.e. 力. The demonstration falls to ground where Yü tries to connect the word 刀 * tagw with the reading 昱. Li Hsiao-ting refutes Yü's theory, yet in CWKL fulu 2493 he follows him in reading 文章 as 柯 and differs again for CWKL fulu 2290 和 2310 文章 which he transcribes as 羽 and 翌 instead of 刀 and 孚 (with Yü). We must rather assume that in these early bronze forms a graphic confusion has occurred between 'knife' and 'wing'

a development of the graphs as follows 羽 → 蹋→ 最→ 昱 and argues that instead of 立, the element 羽 should be considered as phonetic. Indeed a phonetic role of \vec{x} raises problems as all the rhyme dictionaries show a final - iek, and only Yen Shih-ku mentions a reading 七入切, 音立. Chou Fa-kao (1954) has followed the suggestion of T'ang Lan and reconstructs a possible early reconstruction 3 However the phonetic series of 33 does not point to such a final. The only reason for a final-b is the assumption that 33 and 4 are the same The graph 37 'feather' and the graph for 'wing' must be strictly separated, standing for different words, with different prounciation and graphical features. The graphic shapes $\exists \exists$, $\exists \exists$, $\not\models \exists$ are obviously not the same as the types # 'wing'. There are some shapes #, # that may suggest a pictograph for 'feather', but the majority show a clear tendency towards a pronounced curving or angular angular shape, mostly tapering off in downward direction. This impression is confirmed by the Shang bronze forms H and B (doublewinged shape?) (Kao Ming, p. 493). Finally the 'feather' is one of the graphs that are copied from the art motives, as can be seen f.i., in the picture reproduced in Hayashi (1953, p. 189). The situation with 'wing' and 'feather' has been further confused by the fact that the Shang graph 'wing' has not survived and has been replaced by other graphs 翼, 翅 or 翄, 朝 (all under the radical 到) and that 到 has by extension sometimes obtained the sense of 'wing' or entered as part of a binom for 'wing' f.i. 羽囊, and was sometimes used as graphic equivalent for the element 飛 'to fly' (graphically 'bird in flight, showing the two wings) as in 翰 Bronze 記, 翼 Bronze 記. To assume that 羽 should be the basic word and become then phonetic in in and 22, fails to explain how the element \vec{x} got to be added at all. If we take the Shang graph at face value, can we consider that 立 is phonetic and that the SW still had this traditional analysis in mind? Is this vetoed by the ch'ieh-yün reading -ioh, precluding the existence of an earlier reading in -p? The solution proposed here is that the word for 'wing', written by the simple graph and the forms that and the forms that and the forms that are the forms that the forms the forms the forms the forms that the forms mere practical reasons transcribed as 羽, 翊, and 翔) was indeed pronounced

* glap (<* zgl-, the initials in this series, besides g', k'-, ng- also show instances of s-, t'-), but had other readings (dialectal or later developed) * glak (<* zgl-) reflected in the graph \mathfrak{F} (with dentals as well as velars initials in the phonetic series). Though Shu ching has some instances of \mathfrak{F} , the graph \mathfrak{F} has become predominant. The graphic form \mathfrak{F} became obsolete in early Chou times, and \mathfrak{F} , \mathfrak{F} , and \mathfrak{F} and \mathfrak{F} all with final -k took over completely. Yet even the derivate graph of \mathfrak{F} - $i \circ k$, \mathfrak{F} still preserves the final -p: * $-j \circ p$. This is confirmed in the Min dialect reading of \mathfrak{F} six p (Fu-an variety). (Norman 1982, p. 4).

From the point of view of meaning, the phrase 里辰 'next chia-ch'en day' in Shang texts, can be explained as derived from 'wing', seen as 'the folded, double, duplicate (limb)' applied as an adjective + 日, in the sense of 'repeated, duplicate > following (day)'. If the original word for 'wing' became obsolescent, cognates of it still survived, perhaps in the word 'leaf' 葉 * djap. 19

In fact, Ma Hsü-lun 馬敍倫 (Li Hsiao-ting p. 2205) already boldly stated that 日 should be analyzed as 从日葉聲 and explained the phonetic element as a pictograph of a leaf. Li Hsiao-ting (p. 1243) in an indirect way supports the idea that I is a 'wing', when discussing the Shang graph and more simplified "screen, fan'. Semantically, 'wing' and 'screen' have very congruous meanings; the etymonic role of 'wing' is quite plausible. The graph has an additional element 'two, three ψ' ' functioning as phonetic, equivalent to the later graph 能 siop < * srlop. The graph was later replaced by 要 * srap. Shima, Index ... the thousand ... to go to ...'. The 'thousand X' might refer to people conscripted or summoned from a fief or an area belonging to X. The radical is a strong indication that it may stand for a personal name and the area or fier where he was ruling, Yeh or Yi (?). Yü Hsing-wu reads this as 叨, which is defensible, but his identification with 叨 in Shu ching (To Fang) is less. 大順 has two lines two in 前 2.37.7 and 6.51.2: (1) 丁丑卜爭,令 大開挈子裔臣 干坐 'At ting ch'en day divination, (diviner) Cheng tested: command X [great X or Ta of X] to bring along the servants of Childe Shang to Shang.' (2) 庚午卜爭・貞, 令 大竹从冓... 'At keng wu day divination, Cheng tested: command X [Great X or Ta of X] to follow and meet...' The context clearly suggests this a proper name, most probably, it is a ho wen (合文) to be read as X (=Yeh or Yi) Ta i.e. Ta of Yeh (or Yi), or Ta X (=Yeh or Yi) i.e. 'the great Yeh (or Yi)'. Assuming the proper noun role for X, it is possible that the combination with 大 was already sufficient to mark it thus, and there was no further need to add a radical \cup as in \bigcirc . Comparing the phrase \neq \bigcirc 'the thousand X men' with \nearrow the preference would go to a reading 'Ta of Yeh (or Yi)'.

the has a phonetic series with velar initials as well as dentals, and the word 蝴蝶 'butterfly' (known for its thin and light wings; 葉, 薄也; 條僕, 輕薄 也) was a dimidiated binom: * g + d-, inversed sequence of * zg-. dg-. sense of 'double, repeat' is reflected in 習: 數飛也 'repeated flying>to practice, experienced' and 翊 and 曷 according to SW 'to fly'. The second meaning of 出 in Shang texts, expressed in the vague definition 祭名 'sacrificial term' should be discussed in the light of the previously established meanings of #. Tung Tsopin (1945, 上 3.14) explains the 翌祭 'Yi-sacrifice' by a Chou li quote (Ti kuan 地官, Wu Shih 舞師; Biot I, 268-9): 教羽舞 'He teaches (them) the plume dance'. Tung considers this 羽 sacrifice as identical with 望 'fan or feather dance' explained in SW as 樂舞以羽玀自翳其首以祀星辰也 (SWL 1503): 'It is the musical dance (in which), with feather fans, they screen their heads in order to sacrifice to the stars and constellations'. Tung analyses 望 as having 王 for phonetic, and read as 皇. However, the Chou li passage distinguishes the 羽舞 from the 皇舞, though the Cheng Chung 鄭眾 commentary says it is 蒙羽舞 'Dance in which they are covered with feather (fans).' If one follows Tung in taking the Chou li text, in spite of its late date of completion, as a reliable and decisive source to determine the meaning of a Shang sacrificial term, then concluding to a meaning of 'sacrifice with ritual feather dance', we do not know what kind of sacrifice it really is; moreover the relation between the same graph when used in the sense of 'next' and its basic representational sense 'wing' is totally lost.

Chang Ping-ch'üan (1954, p. 243-50) has carefully listed the usage of the different graph variants according to the periods of the Shang oracular texts, indicating which ones are used in the sense of 'next' (A), and which ones for 'sacrifice' (B):

羽 A	В		翔 A	В	翊 A	В
+ .	_		-	+		
	+		_	+	-	-
+	1.	S	+	+	+	+
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With the variants 羽 and 翊, the examples always show a phrase as Per. II. 金 6. 王室中丁爽妣癸羽日亡尤 '... the king shall, in guesting Ancestress Kuei, wife Chung Ting, when repeating the (previous) day (sacrifice), have no misfortune.' Per. III. 佚 315:... 翊日酒 ... 受又... 'performing the (previous) day (sacrifice) and making wine libations, ... (one) will receive help.' This is the formula found in all the examples quoted by Chang for the variants 烈 and 翔. One exception is 契 106 羽大甲... '... yi (i.e. to repeat (日 probably omitted) the previous day (sacrifice) to Ancestor Great Chia.' On the other hand with 翻 there is never the complement 日. F. i. Period II 粹 288 羽乙酉腳于小 乙亡老 'Next day yi-yu, when repeating the previous day sacrifice to the Lesser Yi (Ancestor), there will be no impeding (influences).' 獸 1.17.22 王... 网 亡\(\(\frac{1}{4}\) the king repeats the previous day (sacrifice), there will be no disaster.' One exception seems to be in 甲編 2124, (27) ... 禱翔日于祖乙 (28) 勿翔日虫 (祖) 乙. The opposition between 27 and 28 shows that 閉目 should mean 'next day': 'Make prayers on next day to Ancestor Yi' and 'Do not next day perform sacrifices to (ancestor) Yi.' In this context, we still can legitimately suppose that in some instances the graph 回 might be used as a ho-wen (合文) for 羽日. The term for sacrifice, we conclude, is really a phrase 羽日 'to duplicate, repeat the (previous) day (sacrifice)'. Chang Ping-ch'üan rejects T'ang Lan's theory that 羽日 and 膨日 jung jih are the same Yet jung 叁, 炒 has also been explained as 'to continue, repeat'. No detailed study on the usages of 33 in contrast to 4/2 seems to have been made.

We have shown the graphical analysis of to be a true pictograph of 'wing' in contrast with if 'feather', and that the 'wing' was etymologically 'the folding, doubled, duplicate (limb)', yielding a meaning 'repeated, duplicate, next'. The same word, when occurring as a *verb* had as object the word 'day'. This sacrificial term is an extreme narrow and specialized application of the basic sense: 'to repeat the (previous) day (sacrifice)'.

4. The Complex Graph 🌋 (岳): a Phonetic Compound.

This graph for 'mountain, mountain peak' is an example of an unsuspected phonetic compound known through the Shang graphic shape only. It has been studied by a great number of scholars in full length studies or occasional short notes. The main line of argument proposed by them has been reviewed in Li Hsiaoting (1965. p. 2915-25) and partly before him by Ch'en Meng-chia (1956. p. 342), Chang Ping-ch'üan (1949), Shima Kunio (1958. p. 223-6), Akatsuka Kiyoshi (1958) and Ch'ü Wan-li (1960), to mention only the most important The graph has an unusual amount of variants as can be seen among them. from those listed in the CKWP, no. 0512 and the Hsü CKWP, 4.13, and which are reproduced in a appended sheet and rearranged according to four types, regardless of the sucessive periods to which they belong, viz.: I. Type with upper part in the shape of (boxed froms (a) with lower part reduced, (b) with lower rounded rather than flat); II. Type with upper part in shape of 💢; III. Type with upper part showing 🐺 , 🌣 , 🌣 , 🗘 ; IV. Type with upper part simplified as \operator or \operator. Even this list is probably still not complete. Akatsuka Kiyoshi has a list of variants arranged according to periods (see figure 2); so does Chang Ping-ch'üan (1949, p. 229.), but copy obtained was too small to reproduce exactly.

The difficulty with the graph is that it is always used as a *proper* noun so that from the point of view of meaning in the texts, it will make no better or no worse sense, if this proper noun refers to a predynastic ancestor of the Shang, a spirit, a nature god, or a diviner or scribal functionary. It is not certain that all these variants really belong under one and the same graph. The variations supposedly attributable to different periods or slightly different usages in the successive periods, and in certain instances, the uncertainty or impossibility for any assignment to a particular period have greatly added to the confusion. ²⁰

^{20.} Chang Ping-ch'üan (1965) among his more than 200 quotes admits to a considerable number of them as impossible to assign to a period with any certainty. He also notes a small number of instances where 实 must have the function of a verb, viz. performing a sacrifice, but without specifying what kind of sacrifice. Probably these are cases where 岳 should be simply understood as 'to perform the Yüeh sacrifices', thus directly transforming a proper noun into a verb. According to Kuo Mo-jo Ts'ui 73, it should stand for 字, perform a rain sacrifice'. This reading is not possible unless one is ready to follow Kuo's reading of 岳 as 芸 (= 並) (cfr. infra p. 32)

So far, all authors have assumed that the solution they propose or consider most plausible should apply to all the variants listed, with exception for Ch'en Meng-chia (p. 342) who quotes 甲 788, 掇 2.159: 火又兇目 羊 羊 (目, 羊, 羊 short for 目, 苦, 羌) and therefore must take 芏 and 芏 as referring to two different recipients of the sacrifices; yet, Ch'ü Wan-li in his Chiapien k'ao-shih differs in his reading 电见目掌 羊 i.e. 'to sacrifice to (a number of) sheep'. Unless sufficient evidence be adduced from graphic, phonological and semantic sides to propose one specific reading applied to all the supposed variants listed under one word (a proper noun), it cannot be excluded that certain types among them would correspond to different names, some to 岳, other to 丰, (as a loan for 冥), and others to 羔 (as a loan for 昭 of 昭明, or for 嚳 of 帝嚳). Arguments have been based on distinctions between proper names referring to living persons (diviners, scribal functionaries) and to others no longer living (predynastic ancestors), or proper names for gods (of nature) Yet, there is a priori no objection that a graph with one or for places. specific reading be used for a proper name of living persons (f. i. 河) and in other contexts for a river, which in turn may refer to the concrete river where sacrifices are made or to the spirit of the river. The argument that when a proper noun (f.i. 河) is used in one and the same line or in parallel lines with the same grammatical role (f. i. object of verb) together with other names known to refer to predynastic ancestors, it must necessarily also be referring a predynastic ancestor, is devoid of any foundation; and α fortiori so, if such a predynastic person is unknown from any other source. Nor can it be argued that predynastic ancestors might not be identified or at least associated with gods of All this shows that the method of collating all the available passages together in order to let the facts speak for themselves hardly will shed any light on the problems, because all the variants in context point to proper nouns. Only the graphic or phonological evidence remains. Any phonological argument cannot be built up without some solid graphic evidence. If one starts from certain graphs, f.i. , as the basic form to argue a reading related to that of the graph * mjid and thus comparable to 冥 * miang [KYSH, p. 443-4 shows derivate

graphs 瞑 miong and mien, 摄, 粮, 瞑 mien, 帜 miek, 甌 miět] the difficulties become apparent; aside from the phonological aspects, a next step is needed must take all graphic variants as being reducible to a basic 2 form. The only additional evidence is a quote from Kuo Yü 國語 (Lu yü 魯語) where 冥 is mentioned with a parallel in T'ien wen 天間 where we read 昏. (Ch'en Mengchia). If one starts from graphic forms like x and reads it 羔 as a loan graph for 昭 (in 昭明) or for 嚳 (in 帝嚳) or for 羹 (as a fusion word of 昭明), the same problems will arise as in the hypothesis of 冥. The graph 羔 * kagw is known to us from bronze inscriptions (Kao ming, p. 191) as well as from SW where it is defined (SWKL 1560) as 羊子也 'lamb' and explained as having 照 (reduced to 火) as phonetic. This SW analysis implies a contact between velar and dental initials and cognate status with words 挑 * drjagw, 输 (GSR This contact is further confirmed in 糕 (KYSH, p. 262; 218 * diu), * rug. SWKL 3114) read both kuok and tsiak. This 糕 is a place name (Ch'un ch'iu) also written 郜 (Kung Yang) and 告 in turn has phonetic derivates like 造. The SW analysis is evidently in some way significant for the explanation and history of the word 'lamb', but the details have to be worked out so as to show it can be used in connection with Shang texts, viz. in what way the Shang graph 💥, if indeed to be read as 羔, may be identified either with 昭 or 嚳. Graphically the confusion of 火 and 山, mostly in cases where 火 or 山 is combined with other graphic elements, is well known. Though it is argued that the graph Ц usually has a flat, square shape as against a rounder shape for 火, sometimes with additional dots (representing the fire sparks), there are still many exceptions. If the Shang graph was indeed 羔 'lamb' one should expect it to occur in texts where 'sheep' are mentioned as sacrificial victims, and one should be able to explain why there is always mention made of 小羊 or 小军 (small, young (penned) sheep) but no 羔. A great number of authors concluded that the lower part in this graph cannot be 'fire' but is 'mountain'. On this basis some have decided to read all the variants as 羊 on top of Ц. Akatsuka (1958) sees it as originally a pictograph of a 'mythological animal' on top of a mountain, later simplified and reinterpreted as ② or ② (probably phonetic) referring to the 常山 or 崇山. The phonological aspect of this hypothesis is not dealt with in sufficient detail. Shirakawa (1955-62) transcribes ② as 岳 (i. e. 嶽) and stresses the relationship that existed between the 羌 tribes and the 羌 state and the sacred Yüeh mountain(s). These theories contain several interesting elements concerning the mythology of animals and mountains, specifically the mythology of the Ch'iang tribe and the worship of the god of the Yüeh mountain(s), but the arguments often rest on tenuous connections.

Ch'ü Wan-li shows that (to quote freely from his abstract) the terms ssuyüeh (四岳) or wu-yüeh (五岳), 'four or' five mountains' cannot be much earlier than the beginning of the Warring States' period, and when the character yüeh occurs in pre-Ch'in texts generally refers to the Huo shan 霍山, also known as the T'ai-yüeh 太岳 in the Southern part of Shansi. Ch'ü supports the reading of Sun Yijang, pointing out that the Shang people offered sacrifices to the Yüeh [i.e. the T'ai-yüeh mountain or its deity], believing that it could give good harvest, give rain or stop it, or send misfortune. He further adds that the 'Yüeh had rocks'. This statement is his conclusion concerning Shang texts, 龜 141.1 口午卜, 口貞取岳石 'At x-wu day divination, x diviner tested: (one) shall make a 取 -sacrifice to the Stone of the Yüeh mountain. '前 4.53.4 (a): 丁亥卜, ☑ 岳石业从雨(b) 貞, 🖸 岳石业从雨, 戊戌雨 'At ting-hai day divination,... (verb understood, probably 'sacrifice'), if one performs a sacrifice to the Stone of the Yüeh mountain, one shall have ensuing rain. 'Tested: '(same as in a), on day wu-hsü it rained.' This 'Stone of Yüeh' may very well indicate that not only did the Shang go to the mountain to sacrifice, but also took stone slabs or rocks from the sacred mountain, and worshipped them, at places away from the mountain itself, as representing the deity of the mountain.

Kuo Mo-jo has proposed a reading for $\stackrel{\sim}{\searrow}$ equivalent to $\stackrel{\rightarrow}{=}$ or $\stackrel{\rightarrow}{=}$ referring to the Hua mountain 華山. The top part $\stackrel{\sim}{\times}$ is a graph for a double pronged spade (later written $\stackrel{\sim}{\Longrightarrow}$, $\stackrel{\leftarrow}{\sharp}$ according to dialect forms in Fang Yen 方言, 5.27) but

here taken as phonetic. In 粹 73 this graph is interpreted as a verb standing for 掌'to perform a rain sacrifice' Kuo, however, explicitly admits he does not exclude a 岳 reading as proposed by Sun Yi-jang. In that case the top element should be differently explained, f. i. as graphic representation of vegetation. In Sun Yi-jang's theory, is explained as a pictograph of a mountain with the top part representing 'its high and craggy peaks'. With great insight Sun noticed that while the Small Seal form 嶽 is a complete substitution, the Ku-wen form is in fact a vestige of the simplified Shang form . This is an imporant characteristic of the ku-wen graphs of SW, worthwhile further investigating, namely, that they in some cases provide the only and needed link between the Shang writing and later forms. 21 However the purely pictographic analysis of Sun Yi-jang is not entirely satisfactory, for this top part is often represented as a tree 💢 , as Ch'ü Wan-li (p. 63) has pointed out (象山上有樹,樹上有高 峯的樣子). The 'tree' element fitted together with the lower part du, may have partly merged to become to become \text{N}, and this may have been the origin of the confusion with 羊、🏏 'seep'. On the suggestion of Chu Fang-p'u (1962. I, p. 23)22 and a note of Yeh Yü-sen (see Chang, 1949, p. 179) the top part of yüch should be explained as a phonetic element, written in SW # and interpreted as follows (SWKL 1114) 掌,業,叢生艸也象業嶽相竝出也. 'Ts'u < * dzuk: it is a bushy, thicket-like vegetation; it depicts how in dzuk-nguk fashion, they stand out, aligned next to each other.' The binomial descriptive word 至嶽

21. Compare Serruys (forthcoming 2) on other ku-wen cases such as the ku-wen form for 羌 and its relationship to the Shang graph 前.

^{22.} Chu Fang-p'u further comments on the SW texts under 幸 saying 象辛燃燒時光芒上射之形 'Graph 芊 represents a picture of the 辛 (=薪 'wood') which when burning shoots off a shining brilliance'. Chu takes 芊 and 葉 as words to be seen together and graphically the same in origin. (羊與業爲一字之分化). For the latter he quotes SW: 業大版也所以飾縣鐘鼓, 捷業如鉅齒象其銀鋙相承也, [Yeh is the big board; (it is) whereby they adorn and suspend the bells and drums. Ts'iap-ngiap fashion, it is like the teeth of a saw. It depicts how they (the boards) in uneven fashion (like teeth) fit into each other.' If as Chu claims, 芊 and 葉 are cognates, they should besides the binomial alternations in final -k or -p, * dzuk-nguk codiap-ngiap, also graphically be representing the same kind of even or uneven protruding form of things. Yet he adds to the SW text his own interpretation, which contradicts the first assumption.

ABBREVIATIONS

BIHP: Bulletin of the Institute of History and Philology, Academia Sinica.

Nankang. Taiwan

CKWP: Chia-ku wen-pien

CKYW: Chung-kuo yü-wen

CWKL: Chin-wen ku-lin (see Chou Fa-kao)

GSR: Grammata Serica Recensa (see Kattgren)

KYSH: Kuang-yün sheng-hsi (see Shen Chien-shih)

SW: Shuo wen, short for Shuo-weng chieh-tzu quoted from SWKL

SWKL: Shuo-wen chieh-tzu ku-lin (see Ting Fu-pao)

Shima, Index: see Shima 1980

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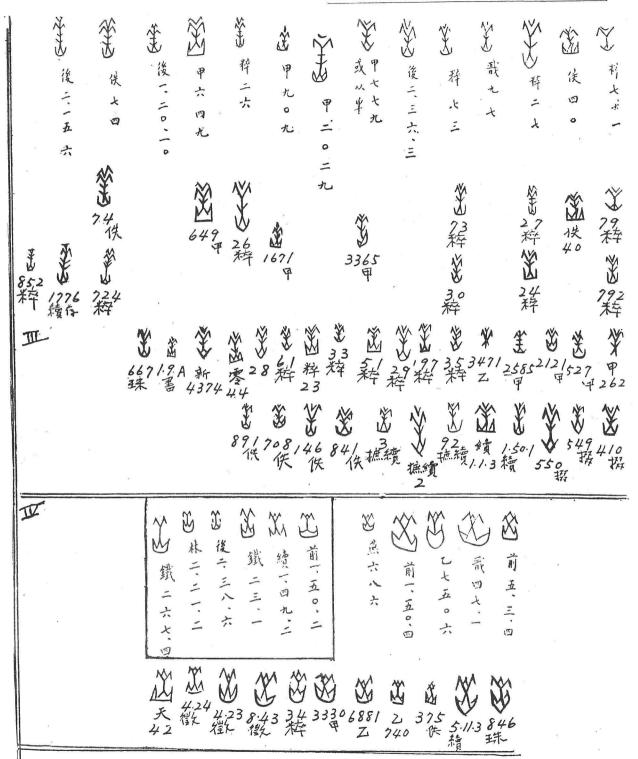
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