

THE CHINESE SCRIPT: AN ESSAY ON NOMENCLATURE (THE FIRST HECATON)

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GRAMMATONOMY (1), or GRAPHEMATICS (2), may be defined as the philological and linguistic discipline concerned with the study of the graphic forms of linguistic expression and communication and with the structural and historical analysis of a system of script, of its component units termed GRAPHS (3) (or “-GRAMS”, in binary compounds, symbol: /G/) and subsumed GRAPH-EMES /g/ (4), and of their relation to their phonetic and semantic counterparts treated in the allied fields of inquiry, PHONEMATICS (5) and SEMANTEM-ATICS (6). Within the general field of grammatonomy we may find useful to recognize the ancillary discipline of GRAMMATONYMY (7) devoted to the systematic development of a cogent nomenclature for graphs and graphemes and their structural characteristics. Somewhat facetiously, one might describe grammatonymy as a device enabling one to talk about graphs without writing them; or—to use one of Professor Y.R. Chao’s innumerable and justly celebrated *bons mots*—as a convenient supernumerary tool for the verbalization of passive experience by a “non-native non-writer”. The seemingly unique character and infinite graphic richness of the Chinese script have always excited the awe and wonder of the unsophisticated denizens of lands lying beyond the confines of the Sinitic oikoumene. The traditional alignment of the Chinese graphs in columns running from right to left is the first feature of the script to arouse the untutored curiosity of the westerner obsessed with the belief that the linear DEXTORSAL (8) alignment of the occidental atomistic alphabet is the only “natural” one. Little does he realize that the Chinese script, which looks to him all *à rebours*, possesses the truly unique virtue of VERTIBILITY (9) in that its graphs can be—and have been—aligned in any direction found desirable or expedient, including the linear dextrorsal (witness the Chinese articles in the present volume), a flexibility and versatility of which western scripts can hardly boast. Throughout most of their history, the Chinese have,

however, found it practical and aesthetically satisfying to array their graphs in the DEORSAL-SINISTRORSAL (10) sense and in AGMINAL (11) (from L. *agmen*, 'column on the march', a term better rendering Chinese *hsing~hang* 行 than 'columnar'), rather than in linear formation.

The occidental layman who is but superficially acquainted with the grammatonomic history of the Mediterranean world is a graphophonic atomist. While usually cognizant of the historical imperfections of the alphabets known to him, he often impresses non-Europeans as one deliberately cultivating the illusion that the alphabet is a 'progressive' form of writing approximating—as much as historical inertia permits it—the theoretical ideal of an efficient system of script, a one-to-one correspondence of grapheme to phoneme. He frequently displays some annoyance when confronted with grammatonomic evidence of the historical predilection of mankind at large for what might be termed MOLECULAR (12) or syllabic forms of writing with their "ba, be, bi, bo, bu" phonemes. Nor is he likely to give serious consideration to some of the advantages inherent in PHTHEGMATIC (13) (Gr. *phthegma*, 'word, utterance') or LEXIGRAPHIC ('word-unit') (14) scription, in spite of the demonstrable utility and efficiency of such scriptions in his own daily usage (e. g. '&' for 'and', 'X' for 'cross', '\$' for 'dollar', etc.). The introduction of purely SEMANTIC (15) and APHONIC (16) elements into a system of writing would seem to him unnecessarily cumbersome, if not subversive of what he believes to be an essentially "phono-graphic" apparatus.

Strange as it may seem to our atomist, the Chinese script, which possesses all these peculiar characteristics, differs from other forms of writing only in degree, and not in kind. In its structural evolution it shared many of the features of the homologous scripts developed, presumably a millenium or so earlier, in the two great centers of civilization in the Near East. Like Egyptian and cuneiform, the progressive phonetization of which eventually quickened the 'miracle' of the alphabet invented somewhere in the Eastern Mediterranean, the Chinese system of writing passed through three stages. I. The so-called PICTOGRAPHIC (17) (a somewhat unsatisfactory term) stage in which graphs were clearly recognizable as diminutive pictures of natural objects or human artifacts, each pictogram or ZODIOGRAM (18) (Gr. *zodion*, 'a small picture, painted or carved') being identified with its name (single or multiple). II. The rebus (punning, agnominative, paronomastic) stage where homonymy and homoeonymy were utilized not only to facilitate the represent-

ation of notions and abstractions not amenable to pictorialization, but also to introduce the principle of economy into a situation threatening a chaotic proliferation of graphic signs. This great discovery constituted, in modern parlance, a "phonetic breakthrough" in that the triadic unity of the graph /G/ and the PHONO-SEMANTEME (19) /PS/ associated with it, a unity which may be symbolized by the trigram GPS, was broken through the use of the same graph to represent another complex: GPS' (same G, homonymous P, but a different S). Users of the script began to consider the stimulating possibility of operating with some graphs as dyads (GP, with a weak, dormant, or non-binding S). DESEMANTIZATION (20) became possible, but brought in its train what apparently was considered a dangerous ambiguity. This was avoided by recourse to an expedient which ushered in the third stage of development in writing: III. The stage characterized by the use of DETERMINATIVES (21). Treacherously ambiguous dyadic graphs were supplied with aphonetic-semantic determinatives, or SEMANTIC SIGNALS (22) that is a graph with a strong S was attached (as a supernumerary), whenever semantic specification was desired or needed, to an ambiguous GP so as to form a DIGRAM (23) in the form: GP (S) + G' (P') S'. Conversely, a G' P' (S') could serve as a phonetic determinative to a G (P) S.

At this point in its evolution, the Chinese script seems to have parted company with its two great counterparts. Egyptian and cuneiform, where the use of semantic determinatives remained optional and the determinatives themselves detachable from the graphs they determined, moved on apace towards phonetization. In Chinese, the determinatives, semantic or phonetic, were welded securely to their graphs so as to form one single graphic body; digrammatic structure became thus the dominant type of character building. This may have been caused by a more pronounced homonymy of the Chinese vocabulary, but it must have also been influenced by an aesthetic imperative in the Chinese which prompted them, apparently quite early in the development of the script, to enforce the principle of EQUIDIMENSIONALISM (24) or ISOMETRY (25) of graphs. Though natural enough in any environment, this demand for symmetry in spatial organization became triumphant in China, overwhelming any POLYMETRICAL (26) tendencies, and resulted in the confinement of all Chinese graphs, however simple or complex, into equal and equidistant celliform QUADRATES (27) of space in which they remain ensconced even when forming compound phonosemantic units. The possibility

of close SPATIAL JUNCTURE (28) of compound-components within an oblong rectangle was rejected, two component graphs being either telescoped together in one quadrate (in some palaeographic scriptions) or normally kept each within its own quadrate without any spatial indication of their binomial nature (cf. the English practice in compounding words vs. the German one). This SPATIAL FUNGIBILITY (29) of graphs and absence of ligatures must have to a certain extent predestined the invention of typography in Sinitic (Sino-Korean) milieu, the forbidding multiplicity of Chinese graphs notwithstanding. It is also interesting to note in this connection to what extent this tradition of confinement of graphs in quadrates affected the Koreans who, after the invention of their alphabet, a model of graphic simplicity and phonetic precision, insisted on enclosing these simple alphabetical symbols, in groups of two or three, in quadrates closely matching those of the Chinese characters instead of aligning them in 'unidimensional' files.

The old Chinese grammatonomic terminology exhibits great linguistic perspicacity in describing the structural GRAMMATOSOMATIC (30), Chinese *t'i* 體 (31), 'body', principles of the script. Graphs were distinguished as WEN 文 (32) and TZU 字 (33). The *wen* represent the old zodiograms in the GRAPHICON (34). They are whole, unsegmentable graphs (獨體爲文, 'a single body constitutes a *wen*'), and may thus be termed HOLOGRAMS /H/ (35), MONOSOMATIC (36) graphs, or MATROGRAMS (37), Chinese *mu* 母 (38), 'mother', being, so to say, mothers of compound graphs. Many of them were pictorially unambiguous and remained relatively stable in their phonosemantic contours throughout the ages, but in several crucial cases POLYPHONY (39) and POLYSEMY (40) may be suspected, a graph seemingly representing a complex of phonosemantemes. As such, these monosomatic graphs may truly be called LOGOGRAMS (41), rather than lexigrams, if several related or associated PS (PS+P'S'+P"S"...) be termed a 'logos', rather than a lexeme. We avoid using the traditional term IDEOGRAM (42), in view of its linguistic vagueness. Among the *wen* the Chinese lexicographers sometimes included the sub-class of *chih-shih* 指事, the so-called indicative graphs which are not pictorial zodiograms, but suggestive, inferential, directive signs or symbols (such as 'up' and 'down', numbers, etc.). These may be termed, in an attempt to approximate their Chinese designation, (H)YPODIGMATIC /Y/ (43) (Gr. (*h*)*ypodeigma*, from (*h*)*ypodeiknymi*, 'to intimate, show by tracing out, teach by indirection').

The bulk of the Chinese graphicon is composed, as we have said, of compound, segmentable graphs treated as digrams and normally analyzable as consisting of two HEMIGRAMS /h/ (44). These *tzu* (a word presumably originally meaning 'to bechild', 'to beget') may be considered as children or progeny of the matrograms or as TEKNOGRAMS (45) or TOKOGRAMS (46) (Gr. *teknon*, *tokos*, 'child', 'offspring'). In contrast to monosomatic graphs, they are TOMOSOMATIC (47) (with segmentable bodies) or SYSSOMATIC (48) (joint-bodied: 合體爲字 'a joint-bodied (graph) constitutes a *tzu*'). This contrast between the *wen* and the *tzu* was brilliantly formulated by Hsü Shen, the great founder of Chinese linguistics, in the very title of his extraordinary dictionary, the *Shuo wen chieh tzu* 說文解字, "Verbalizing the *wen* (monosomatic zodiograms) and dissecting the *tzu* (tomosomatic teknograms)".

At this point, one may well inquire whether this analysis does justice to the complexity of Chinese characters some of which seem to be composed of several graphemes and may number as many as thirty graphic strokes. Here again the Chinese script exhibits its essentially human sobriety and the operative economy of its grammatonomy. Some Chinese graphs are indeed TRIGRAMS (49), others TETRAGRAMS (50) or even PENTAGRAMS (51), but HEXAGRAMS (52) and HEPTAGRAMS (53) are exceedingly rare, while graphs consisting of more than seven graphemes are found only in the graphic museum of unviable monstrosities or in the peep-show booth of graphic humour. Among composite characters, multiplex graphs are in a class by themselves. There exist DIPLOGRAMS (54) (such as 多, cf. below (96) for a sub-type), TRIPLOGRAMS (55), with elements usually arranged in a triangle, as in 品, or linear ISOTRIPLOGRAMS (56), such as 𠂇, and TETRAPLOGRAMS (57), arrayed in a square: 𠔁. An occasional PENTAPLOGRAM (58) may be found in a list of obsolete graphs. Otherwise, a diachronic survey of the graphicon reveals that any graph made up of 'x' graphemes may be shown to be a digrammatic formation of a determinative grapheme and a residual graph of a complexity lesser by one $/xg=(x-1)g+dg/$ until we arrive at a digram proper composed of two primary monosomatic graphs. This analysis serves as a basis for the traditional classification of graphs which the Chinese have used, with slight modification, since Hsü Shen. In that system each graph is broken up into a digram consisting of a so-called RADICAL (59), better termed a CLASSIFIER (60) (/C/, a symbol which may serve equally well to render 'classifier', or L. 'clavis', French 'clef', and

CAPITULARY (61), a not too inadequate translation of Chinese *pu-shou* (62) 部首) and a residual graph. This in term can be subjected to the same process until all the 'children graphs' are traced back to their 'mothers'. Both descriptively and historically, therefore, the digrammatic formula ('graph /G/ equals graphic binom of two hemigrams /h.h'/) would grammatonomically apply to most Chinese graphs (excepting, naturally, the 'mother-graphs'), and should serve as a starting point for all GRAPHO-PHONO-SEMANTIC (63) /GPS/ analysis of what the Chinese called the *hsing-sheng-yi* 形聲義 or FORM-SOUND-MEANING (64) complex of their grammatonomy. Functionally, a hemigram may be an /s/, semantic or SEMATIC (65), i. e. a semantic classifier, or a /p/, phonetic or 'sound-bearing' PHONOPHORIC (66). Digrams may be analyzed as forming the following hemigrammatic combinations: /s.p/, the prevailing type of structure, /s.s'/, a relatively small but exceedingly important class of graphs, and /p.p'/, an aberrant and numerically insignificant group (e. g. *wu* 語).

Although the above analysis implies a dichotomy of the fundamental unity of the phonosemanteme /PS/, the ancient Chinese have shown a remarkable linguistic acumen in insisting on the close relationship of thought and speech, inspite of the excellent excuse for soaring into the rarefied stratosphere of aphonic ideational speculation that their graphic conventions seem to have presented to them. This commendable habit of minding their linguistic p's and q's can be observed in countless meticulous discussions of the relationship of /s/ to /p/ and /S/ to /P/, and in awareness (not always clearly expressed in their terminology) that a /p/ hemigram might actually be ETYMONIC (67) or at least QUIDDATIVE (68) in the graphic complex, and not a mere *flatus vocis*. At the same time, the Chinese term *yi* 意 (69) that we lamely translate 'idea', 'thought' implies the existence of a Chinese theory of thought as SUBVOCAL SPEECH (70). This character, seemingly an /s.s'/ graph, is composed of 'sound' and 'heart' and is paronomastically equated by lexicographers with the homonym *yi* 抑 'to repress (as words about to come out)'. The other *yi* 義 (71), as in *hsing-sheng-yi*, used linguistically in our sense of 'meaning', has likewise interesting semantic implications. It is also an ethical term inadequately rendered in English as 'morality', 'righteousness', 'public duty', etc. Its etymological contour may be more accurately expressed by: Gr. *synētheia*, 'habitual and proper usage (including that of language)', IDONEITY (72), i. e. 'appropriateness and propriety', 'consuetude', 'congruence', or 'accom-

propriety'. 'Meaning' and 'semantics' seem to have connoted to the Chinese a SYNETHOLOGICAL (73) congruence or appropriateness (in the narrow sense, that of graph and sound; in the broad sense, that of their total ethos).

It may well be that this linguistic sophistication and insistence on the unity of the GPS complex constituted the stumbling block on the road of desemantization and phonetization of the Chinese script, in the manner it was so effectively partially accomplished by the Japanese in developing a syllabary through the KANAIZATION (74) of a set of Chinese characters. KATAKANAIZATION (75), that is the use of fragments of graphs or arbitrarily isolated graphemes, may have seemed to the Chinese an aesthetic violation of grammatonomic principles (witness the instinctive aversion to the modern *kuo-yin tzu-mu*). HIRAGANAIZATION (76), that is the use of cursive forms of whole graphs, could hardly be trusted to achieve the purpose of ultimate desemantization for, however abbreviated or TACHISTOGRAPHIC (77) the stenographic or 'speed-written' form of a character, it still carried proudly its semantic signal, an integral part of its structure.

We shall close with a few terms useful in a systematic description of the formation of graphs. Many of the classifiers (the traditional 214 radicals, C 001-C 214) appear in BRACHYMORPHIC (78) (*scriptio defectiva*) form, in addition to their AUTOMORPHIC (79) (*scriptio plena*) scriptions. The relative position of graphemes in a complex tomosomatic graph is not properly distinguished in international terminology which has neglected to translate the few terms current among the Chinese, Japanese, and Koreans. We propose the following simple code. The grapheme occupying the left section of a quadrate may be termed ARISTERIC (80) or ARISTEROGRAM /a../ (Gr. *aristeros*, 'left', 'on the left') corresponding to Chinese *p'ang* 旁 (81), J. *hen* 偏 (82). A grapheme forming the base of a graph may be called BASILARY or BASIDIODEGRAM (83) /b../, J. *ashi* 脚 (84). One 'crowning' its companion hemigram, CORONARY or CORONOGRAM (85) /c../, Chinese *kai* 蓋 or *t'ou* 頭 (86), J. *kammuri* or *kashira* (87), while a grapheme located in the right part of the quadrate may be appropriately called DEXTRAL or DEXIOGRAM (88) /d../, J. *tsukuri* (89). Thus the characters 顧 and 猛 may be structurally described as /cb.d/ and /a.cb/. An aristeric grapheme may extend in such a way as to serve partially as a basidiogram, becoming ARISTERO-BASILARY (90) /à../, J. *nyu* 繞 (91), as in 邏 /à.cad/. Coronograms may similarly extend into slopes to the left or to the right; they might, then, be designated as

CORONARY-ARISTEROCLITIC (92) /č.../, as in 雁 /cad/, and CORONARY-DEXIOCLITIC (93) /č.../, as in 气. The term ENDOGRAM (94) /e.../ may describe a grapheme encompassed by another, while FLANGE or FLANGIFORM (95) /f.../ would designate a reduplicated grapheme flanking another on two sides, as in 𠂔 /e:f/. An ISOGRAM (96) /i.../ is a reduplicated grapheme with the elements side by side (cf. No. 54), as in 歷 /cib/, but an addorsed reduplicated grapheme ('back-to-back' or 'Janus-faced'), such as 𠂔, would be termed JANIFORM (97) /j.../. A grapheme enveloping another is KALYPTIC or a KALYPTOGRAM (98) /k.../ (Gr. *kalyptos*, 'enveloping'), J. *kamae* (99), as in 困 /ke/. The kalyptic form of C 145 衣 deserves the special appellation of KALYPTIC-SCHIZOID (100) /k'.../, as in 裏 /k'e/.