

The Shape of Script: How and Why Writing Systems Change. *Stephen Houston*, ed. Santa Fe, NM: SAR Press, 2012, 303 pp. \$34.95, paper.

This volume is the outcome of an SAR Advanced Seminar, and the third part of a triptych. Pursuing a format that has led to significant new insights on the early stages of writing systems (S. Houston, *The First Writing: Script Invention as History and Process*, Cambridge: Cambridge University Press, 2004) and on their obsolescence (J. Baines, J. Bennet, and S. Houston, eds., *The Disappearance of Writing Systems: Perspectives on Literacy and Communication*, London: Equinox, 2008), the present collection of studies addresses the “middle years,” exploring how, and why, writing systems change during their often millennia-long lifetimes.

The innovative nature of the topic can hardly be overemphasized. Tied to the practical needs of reading or dating texts, previous discussions have mostly concerned aspects of paleographical change, descriptively and in individual academic fields. Meanwhile, little attention has been paid to other parameters along which scripts may change, let alone to identifying more general principles and factors of change (as well as of stability). The study of scripts has thereby often been characterized by a “synoptic fallacy,” with the ultimate effect of “dehistoriciz(ing) systems of writing and set(ing) them apart from human input and intention” (p. xiii).

In the book under review, writing is addressed in a broad perspective, not so much as a technology (for representing speech) but rather as a “mode of communication that is socially learned and culturally shaped or transmitted” (p. xiv). The individual contributions present an impressive wealth of data and analyses that it is impossible to review here in detail. Rather, a few broader themes recurring across the book are selected for a brief presentation. That such recurring themes abound is in itself a witness to the carefully carried-out process of writing, discussion, and rewriting of which the book is the product.

First, paleographical change can occur in multiple ways, as demonstrated by the detailed typology drawn up by Saloman (with rich examples from Indian scripts; see also Lurie for the Japanese kana systems). Such changes are typically incremental, responding to usage-based factors such as ease of execution, requirements of distinctiveness, or changes in the technology of writing. Against this background, various studies emphasize other factors also at play, notably in inscriptional contexts. Steinke demonstrates how variation in the shape of script in Bronze Age China is determined not solely by usage-based factors (thereby relativizing a classical proposal by Qiu) and must be analyzed in relation to aesthetics and writing’s display function in elite contexts. Similar factors, as well as indexical ones, are discussed by Baines (for Egyptian scripts) and Bodel (for the often-overlooked “para-graphs” in Latin inscriptions). That scripts may resist cursivization altogether is demonstrated by the Mayan case, which Houston suggests had to do with a conception of glyphs as essentially distinct entities. The author further discusses how changes in the general appearance of Mayan signs (as distinct from individual paleographical change) may relate to changes in how inscriptions were intended to be seen

in their physical contexts.

Veldhuis analyzes a case of sudden paleographical change in a non-inscriptional script. In a profoundly altered political and cultural context that was accompanied by an “explosion” in the uses of writing, Old Babylonian cuneiform underwent significant cursivization. In contrast, the “semi-monumental forms” in the slightly earlier Ur III cuneiform are remarkable all the more so since writing was then used frequently, mostly in mundane contexts. Rather than some intrinsic trend toward simplification, the author argues, it was only the loss of the link of writing to officialdom that brought about cursivization after Ur III. Veldhuis, Steinke, and Baines collectively demonstrate that the shape of writing can be determined in no small manner by the fact that it “mattered to the state.” Veldhuis and Baines both argue that administration, rather than being separate from display, can itself imply a strong display component, reflected in the shapes of writing.

A second recurrent theme is that writing systems not uncommonly present themselves in differentiated registers, defined on various levels. Monaghan discusses the coexistence of pictographic and alphabetic registers on the same document in colonial Mexico and analyzes how the respective functions of these registers changed dramatically after the late sixteenth century when competence in the native script was lost.

For Middle Kingdom Egypt (ca. 2000–1750 BCE), Baines discusses how different registers of writing defined by the shape of script were associated with diverse high-cultural contents and modes of circulation of texts. (Of particular interest is the author’s inclusion of the rarely discussed uses of writing on seals, internally differentiated in terms of shapes, functions, and sociology.) The Middle Kingdom configuration of registers of writing, part of a broader cultural code that also has to do with decorum, was to remain normative for centuries to follow, strongly acting against “internal” tendencies in script change manifest elsewhere.

A contrast of logographic vs. phonographic registers of writing is afforded by pre-modern Japan (Lurie). Against the background of a complex history of borrowing from Chinese writing, the author emphasizes the continued importance of logography in different settings in Japanese written culture and discusses the phenomenon of *kundoku*, a transpositional technique whereby a logographically written text could be read as either Japanese or Chinese. (A broadly similar phenomenon of linguistic indeterminacy in some early Akkadian texts is evoked by Veldhuis, who also discusses the coexistence of different registers, more or less logographic, in cuneiform).

More broadly, flexibility is a major theme in Gruendler’s discussion of practices in supplementing or not supplementing vowels and inflectional endings in Arabic writing. Such supplementation was carried out selectively only, depending on types of texts and contexts, while the mastery of correct supplementation was a factor of cultural distinction and led to the development of a rich metalinguistic tradition (the rise of a metalinguistic tradition in relation to practices with a written system is also discussed by Lurie, for Japanese *kundoku*). Again, relating to flexibility, Houston proposes that the increasingly common syllabic spellings in Mayan writing after 650 BCE may relate to the aestheticism of Mayan court and reflect “a wish for variety in the form of virtuosic conflict with legible,

conventionalized formulae” (p. 193).

Third, in a paper of general scope resonating into several other contributions, Salomon contrasts two types of changes: paleographical and systemic. The first is typically incremental and due to internal, usage-based factors; the second would occur more sporadically and be triggered by external factors such as the adaptation of a writing system to a new language. The contrast is phrased as a strong general tendency by Salomon, and well borne out at this level (compare, e.g., the chapters by Lurie, Gruendler, Bodel, Veldhuis, Chrisomalis).

All the more interesting are then the much rarer cases in which paleographical and systemic change may influence each other. For numerals, Chrisomalis thus notes how ligaturing led in Egypt from a cumulative-additive system in hieroglyphs to a cyphered-additive one in hieratic. Another case, also from ancient Egypt, may be briefly mentioned here. The hieratic script and the demotic one (which historically derived from the former by around 650 BCE) represent the same language, Egyptian. On an extremely general typological level, both scripts are logo-phonographic, and shifts at this level may indeed be limited to contexts of adaptation to another language (a further instructive case being the rise of the Meroitic script, an *abugida*, out of the phono-logographic Egyptian scripts). Yet, systemic differences between demotic and hieratic remain profound, as can be seen for instance in the fact that most “back-transcription” of demotic into hieratic would result in artificial word-forms, often illegible according to the conventions of hieratic. The rise of demotic is traditionally described in terms of far-reaching paleographical changes (cursivization, abbreviation, extensive ligaturing). These in turn triggered a profound restructuring of the system itself.

A further issue is how far systemic change in writing can be induced by linguistic change. This appears to be only limitedly the case in general: Steinke argues that linguistic change played no major role in the early development of Chinese writing (thereby taking issue with a classical proposal by Boltz). On a broader level, Baines, Houston, and Lurie variously emphasize how a linguistic model of writing may not always be fully adequate to the object, a point also made indirectly by Bodel and Chrisomalis when they show how change in graphic units not representing linguistic segments (numerals, “para-graphs”) can fruitfully be studied within the broader frame of writing systems. Ramesside Egypt (ca. 1300–1100 BCE), on the other hand, affords one case where linguistic change did effect some systemic change in writing. Groups of signs, instead of individual signs, were then increasingly used to represent phonetic and semantic units. This is analyzed as a response to a partial suspension of previously valid sign values, in a language that had undergone massive change since these correspondences had initially been defined, nearly a millennium earlier. Even in such cases, however, change is by no means deterministic: that systemic change occurred only in the late second millennium, rather than before, demonstrates the importance of the particular Ramesside cultural context, allowing such change to happen.

A fourth recurrent overall theme of the book is the nonteleological nature of change in writing systems. Writing systems do not in general change from logography toward higher

phonography, even when a full set of phonograms is already developed and available (e.g., Lurie for Japan; similarly in Egypt, where phonograms were already well-developed in the early third millennium BCE). Nor does paleographical simplification necessarily occur, even when sign forms are highly complex (e.g., Veldhuis for Ur III Mesopotamia, Steinke for Bronze Age China). The studies in this volume thereby collectively point to the shortcomings of narrowly functionalist accounts of change in writing systems. Ease of learning (somewhat overemphasized in past debates on literacy) and ease of production and of reading are not the main factors in how and why writing systems change (or remain stable). Rather, the type of writing in use is determined by a multiplicity of factors, among which prestige (compare, e.g., Grunedler's discussion of the stability of the Arabic script across multiple languages to which it was adapted, in relation to the community of faith), aesthetics and display (see the first theme mentioned above), or flexibility in relation to differentiated cultural functions (the second theme). In as much as it comes with versatility, complexity is an asset.

In addition to the above, social contexts and agency play a major role. Houston examines "domains" in which changes in Mayan writing may be sited, such as the execution of texts and the transmission of glyphic knowledge. In analyzing the latter, he points to major episodes of population reduction or relocation, and to the shifting political constellations of Mayan states, both with effects on the sign inventory, the spread of signs and sign variants, and the innovation of new phonetic spellings. Veldhuis's microanalysis of the spread of new signs in Shu-Su'en's third year (ca. 2030 BCE) relates these changes to major administrative reforms that implied the relocation of many individual scribes who brought along their own conventions. These reforms, rather than themselves acting in a directly prescriptive manner on writing, provided a context in which actual changes were then carried out by individual agents (one of whom can even be identified by name: Lukalla).

That script history does not lend itself to teleological accounts is shown perhaps most spectacularly with numeral systems, for which claims on teleology (toward cyphered-positional systems such as the Arabic/Western one) have traditionally been strongest. Chrisomalis shows such claims to be an effect of the "functional fallacy that numerals exist primarily to facilitate computation" (p. 252). Against the background of a discussion of commonalities and differences of numeral notation and writing, the author presents an impressive array of examples of how numeral systems may undergo both paleographical and systemic changes, or resist such, depending on spheres of use, social settings, and indexical intents. Although a general trend toward cyphered-positional systems is observable, there is no determinacy in this respect: multiple factors, most of which have nothing to do with ease of computation, play in the history of numerals, just as they do in the history of writing systems themselves.

Finally, unlike linguistic change, which has long been a vibrant domain of study, change in writing systems had not so far been discussed in any concentrated manner. As this book demonstrates, writing is a highly complex phenomenon, linguistically determined and usage-based in some respects, yet also deeply embedded in culture and society. The study of writing systems in use has a high relevance to anthropology, just as, conversely, a

cross-cultural perspective such as the one presented here will enrich studies conducted in individual (philological) fields. This very important book delineates what amounts to a new domain of scholarly inquiry.

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