Abstract: From the historiographic perspective of the *longue durée*, the history of the cultures of the ancient Near East appear to have been shaped by astonishingly durable forms of governance or structures of authority. Upon closer examination, however, it becomes clear that these essentially monocratic systems engendered highly divergent forms of authority, each oriented to a specific set of regional relations. This process produced a series of institutions which served to implement governmental authority in specific territories. In style and configuration, these types varied dramatically between the city state and the large-scale territorial state, yet at the same time (and this is the central thesis of our research group), processes of norming and standardization played a decisive role in generating spatial and societal identity in every type of early state. An awareness of the significance of such processes of normativity is reflected in the significance attributed for example to the utilization of texts and the application of metric standards in all ancient Near Eastern kingdoms. The relationship between local, regional, and supraregional regulations in the context of such standardizing systems and their transformations in the wake of changing political structures testify to the active deployment of commensurate knowledge in the assertion of territorial authority. A project on norming and standardization processes in the cultures of the ancient Near East, carried out in 2008/2009 in the framework of Topoi, was conceived as basic research whose initial objective was to generate a database that could be reconfigured in the context of the examination of subsequent issues. Investigated here is the relationship between the establishment of territorial authority and norming and standardization in the realm of cultural techniques, with a focus on metrology, primarily on the basis of reference objects bearing inscriptions pertaining to metrical units, and on a special type of writing, specifically Hieroglyphic Luwian.

Projects:
• »Metrical Norming« (Eva Cancik-Kirschbaum)
• »The Standardization of Writing with Reference to Hieroglyphic Luwian« (Jörg Klinger)
1 Issues and Results

The emergence of early states in the Near East is closely associated with the formation of text-based economic administration. The experiential horizons and epistemic processes which generated writing and textuality in the second half of the fourth millennium BCE can only be partially reconstructed on the basis of material finds; given the character and fragmented state of the early sources, the total complexity of the invention and implementation of this cultural technology nonetheless remains only partially comprehensible. Ever since the early phases, during the transition from a system of notation to a speech-based form of writing in the narrower sense (CANCIK-KIRSCHBAUM forthcoming c), cuneiform script was characterized by two phenomena, both long since well-known if however only sporadically investigated to date. These are first of all the high degree of intrinsic and structural uniformity of the inventory of characters (GLASSNER 2000; GONG 1993; GONG 2000; MITTERMAYER 2005), and secondly, and from a temporal perspective, the extraordinary dynamism characterizing the dissemination and implementation of (this form of) writing in other regions of the ancient Near East. Both phenomena presuppose a high degree of normativity – which they in turn also bring about: only once the inventory of characters and their contexts of use are removed from the realm of individual or arbitrary decision-making, and when at the same time changes on both levels can be (more-or-less) fully implemented is the social acceptance and usefulness of these tools guaranteed (NISSEN – DAMEROW – ENGLUND 1993; ENGLUND 1998; DAMEROW 1999; DAMEROW 2007). In the early societies of the ancient Near East, knowledge of writing and its systematic control was reserved for a small circle of individuals; it was a question of knowledge in the service of authority in a double sense: both control (knowledge) of writing as technique and practice, as well as the contents of writing were monopolized by an elite caste.

Against this background, it becomes comprehensible that writing/textuality in the ancient Near East assumed an important role as part of the instrumentarium that was deployed in order to safeguard hegemonial structures and to delimit authority in the spatial sense. Our research group devotes its attention to an area of central concern in this regard, namely administration, in whose context norming must be effective in order to allow authority and control to be organized temporally and spatially. Administration is conceived here in an all-encompassing sense: the term circumscribes not just the level of immediate political control through the creation of specific structures of authority\(^1\), but also refers to certain conditions which are operating behind economic and social structures – those which make possible the surveillance and steering of economic processes and the implementation of legal norms and their application in the first place. For the unification of legal norms, the application of specific document formats, the use of a common dating system, etc., presuppose the norming of absolutely fundamental processes at the foundational level of cultural technologies (CANCIK-KIRSCHBAUM forthcoming b). We regard such norming processes as forms for the organization of knowledge which at the same time represent an interface with the representation of knowledge. This becomes especially evident, for example, when metrological systems display not just quantitative, but qualitative differentiations as well (GREEN 1987; CANCIK-KIRSCHBAUM – CHAMBON 2006; CHAMBON forthcoming). The significance of norming processes is likewise evident in

\(^{1}\) This level was thematized by the research group which includes Baltrusch/Bonatz/Cancik-Kirschbaum/Klinger (B-II-1 Political Governance and Governed Space).
the realm of institutionally-guided textuality as foregrounded in *diplomatics* (KLINGER forthcoming a and b). The point of departure for our research group is the assumption that *norming of cultural technologies* is associated with an array of different forms of knowledge. Günther ABEL (2004, 339) refers to the »self-evident familiarity« through which we have access to knowledge as presented visually, and this can be transposed directly to the specifically objectified character of *writing* and to the *standardization of measurement units*. It is the interplay between the (i) propositional and non-propositional, (ii) between the linguistic and the nonlinguistic, and (iii) between explicit and non-explicit forms of knowledge« (ABEL 2004, 340) which not only facilitates the functioning of these technologies, but also their operational feasibility in a number of different fields of application – and within the constellation under investigation here the interplay between these forms of knowledge also generates congruence between divergent technologies of authority.

By being structured in everyday life through routinized practices like calendars or the practical implementation of writing, both of the standardized systems of representation considered by this research group – namely *writing* (in the form of Hieroglyphic Luwian) and *metrology* – directly influence perceptions of space and time: directly or indirectly, they structure the knowledge that is conceptualized in or through these systems (HARVEY 2005, 102). The group’s historical focus is *first* on metrology in upper Mesopotamia during the 3rd and 2nd millennia, and *second* on Hieroglyphic Luwian writings as an epigonal writing system at the interface of a number of different textual cultures. Our choice of research object was motivated by a concern for the complexity and alterability of the regions of southwestern Anatolia and Syria, both of which are characterized by frequent changes of systems of authority and by a series of cultural transformations. Still in need of explanation, for example, is the fact that parallel to the disappearance of the territorial kingdoms so characteristic of the late Bronze Age, a medium which had remained in use for 2000 years – namely cuneiform – was subsequently abandoned by far smaller and even tribally-organized territories, while a system of writing that had apparently been developed primarily in order to serve the self-presentation of rulers came into use for some 500 years (HAWKINS 2003; VAN DEN HOUT 2006), although this system remained bound to a language, namely Hieroglyphic Luwian, which was only spoken by a gradually shrinking portion of the population and had ceased to play any practical role in the Levant (HAWKINS 2003; HAWKINS 2008; PAYNE 2006). Here, only a comparison of standardization processes for the respective writing systems – for cuneiform as well as for hieroglyphic and later alphabetic systems – is capable of yielding conclusions concerning the advantages and disadvantages of each system and the ways in which these processes conditioned the choice of a system.

Connecting forms of authority, economic structures, and systems of everyday life (including chronology and metrology, orthographics and *diplomatics*) are interrelationships which are accessible through a system of regulative knowledge which lies behind all of these. Although political systems are always identified and delimited from one another with reference to the above-mentioned cultural technologies (whereby the »equalizing potential« [OTTE 1994, 337–338] of such standardization processes have been exploited in cultural-historical terms), and although the historical evidence for normed systems almost self-evidently indicates that they belong to the sociopolitical reality of complex societies, the question of the knowledge associated with such systems has to date received little attention in the research into the cultures of the ancient Near East. A significant reason for this is the fact that although the concrete artifacts of such standardization processes
are available (standard weights and vessels, a range of metric systems including calendars, inscriptions and texts in Hieroglyphic Luwian), theoretical treatises about such systems have not survived from the ancient Near East. Knowledge of metrological systems and writing, however, were transmitted systematically, as shown in the relevant tablets bearing charts and curricula for scribes. That individuals were engaged in reflection on the systems themselves is indicated by a very special type of cuneiform text in which tables of measures are presented in the form of so-called lexical lists. Only through indirect evidence, however, is it possible to investigate the kinds of experience and knowledge that must have guided decisions for or against the implementation of a new system of time reckoning or a new writing system, for example.

The initial objective of our research group, therefore, was to compile a dataset on the basis of which processes of standardization could be examined within a spatiotemporal system of coordinates system. Concrete geographical spaces played a particularly important role in both the extension of the metrological systems documented in archival and archaeological materials as well as the expanding use of the Hieroglyphic Luwian writing system: in each case, the extension of each system through geographical space allows us to chart the spread of notational systems as well as the spaces of authority that they reflect (cf. also GIUSFREDI 2010). Even the question of the sources or origins of Hieroglyphic Luwian and its possible dependence upon neighboring systems of hieroglyphic writing continues to arouse controversy (YAKUBOVICH 2009; CASARETTO et al.). Taken up here for this reason was a widely neglected research perspective, one which qualifies as basic research in the best sense, and which requires an initial compilation of a foundational inventory of data of considerable scope before it becomes possible to turn toward interpretive aspects with genuine prospects of success. We still lack detailed investigations into the development of syllabaries of the individual school traditions of Hieroglyphic Luwian, as well as those dealing with orthographic regularities and special features. Still uninvestigated to date, moreover, is the question of whether there existed relationships between specific school traditions and applied metric systems – even the systems which form the basis of the metrical entries of the source groups of the various central and marginal Akkadian archives have never been comprehensively documented. Up until now, the primary focus has been on an understanding of individual entries (POWELL 1987–1990 is representative in this regard), but not the systems as wholes or the ways in which these conditioned one another reciprocally. The situation is no different in the area of hieroglyphic writing, where the need for further research is equally urgent; only recently have the numerous inscriptions – which are highly dispersed both temporally and geographically – become readily accessible, leaving questions of paleography, orthography, and the interdependency between the individual traditions for the most part uninvestigated.

At least initially, standardized measures and weights cannot be related to space in a straightforward way, as is the case with inscriptions. In fact, the achievement of an effective society-wide agreement concerning units of measurement and the guarantee of technical reliability this ensures is hardly a small step. On the contrary: residing within a fundamental social consensus, metronomics belonged to areas of the administration of justice which were accorded enormous significance. Not only do they receive comprehensive treatment in the relevant law codes and edicts; from the earliest time onward, they represented an institution that was invested with authority. At the same time, a high degree of structural homogeneity was achieved through the deliberate unification of the structures of everyday life, including weights and measures, chronometry and so on.
The ancient Near Eastern tradition offers multifaceted documentation of the theme of metrology for all epochs (CHAMBON forthcoming). Metrological artifacts (weights, measures, measuring devices, vessels, etc.) have received little attention in cultural-historical analyses, and the same is true for the measurement data which has been transmitted textually. In order to grasp the range and intensity of the penetration of metrical norming, it is necessary to confront concrete (i.e., with reference to artifacts) metrical conventions with the entries found in the textual sources. Under the heading of *metro-topology* we have developed an analytical instrument that is tailored to the issues and circumstances that we find in the ancient Near East. This method brings spatial information together with various levels of metrical testimony and allows the specific regime of measurement to be depicted on various scales. The basis for this approach is a sufficient inventory of data which has meanwhile been assembled into a specially conceived databank for which further development is planned.

The direct references to space found in Hieroglyphic Luwian are far more conspicuous than those found within the realm of metrology. In the form of either textual or image-based self-presentations of rulers, these played a decisive role in the demarcation of space – in particular in the otherwise open space of the landscape in the form of cliffside reliefs (SEEHER 2009). The history of Hieroglyphic Luwian also represents a special phenomenon in the history of Near Eastern textuality; astonishingly, this type of writing supplanted cuneiform writing in many regions, and served for around 700 years in southern Anatolia and northwestern Syria as the instrument for representing authority *par excellence* (HAWKINS 1995; HAWKINS 2000). Meanwhile, to be sure, we can speak of a far-reaching consensus regarding transliteration conventions (HAWKINS 2003); the paleographic dating of Hieroglyphic Luwian inscriptions, however, is still in its infancy – today, there are hardly any substantial investigations of the diachronic development of the characters or of the system as a whole, to say nothing of studies dealing with regional differences or with the various school traditions. In the past, and in the absence of a content-based approach to establishing dates, it has proven a drawback to evaluate inscriptions according to external criteria, for instance in connection with the dating of associated relief depictions, themselves established on the grounds of style history. As a consequence, most of the information on the style and age of the form of writing used for a specific inscription is not, for the most part, objectively verifiable, but instead resorts to subjective impressions such as »older,« »elegant,« or »simple« (NEUMANN 1992).

Because virtually without exception, Hieroglyphic Luwian texts take the form of representative inscriptions, the diffusion of this form of writing is relatively easily traced. Through an additional chronological stratification, as well as through detailed paleographic analysis of the respective form of writing in connection with orthographic idiosyncrasies, it should be possible to elaborate the formulae and stereotypes of these inscriptions into an objectively valid method, and one which functions as a corrective to the practice of dating inscriptions primarily on the basis of art historical classifications of the accompanying reliefs. At the same time, our approach should produce a typology of writing which – at least in terms of methodology – represents an alternative to the approach developed for researching metrology.
2 Publications


Klinger, Jörg. Forthcoming (3). »Suppiluliuma I. oder II. – über die Problematik der Datierung hieroglyphenluwischer Inschriften«.
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4 Citation