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The Evolution of Visual Representation:
The elite art of Early Dynastic Lagaš and its antecedents
in Late Uruk Period Sumer and Predynastic Egypt

Volume One
Text

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by David Nelson Gimbel

Wolfson College

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167	33	Statue of a man	de Sarzec and Heuzey 1884- 1912:Pl. 21ter (4)
168	29	Statue of a man	Moortgat 1969:Pl. 99
169	None	Table of <i>Stilstufen</i>	Braun-Holzinger 1977:Tab. 2
170	None	Nested categories and Lupad's inscription	Illustration by the present author
171	14	Relief plaque inscribed by the priest Dudu	Conteneau n.d.:Pl. 9
172	4	Relief plaque of Urnanše showing an Imdugud	Conteneau 1934:8-9, Pl. 4a
173	5	Relief plaque of Urnanše showing an Imdugud	de Sarzec and Heuzey 1884- 1912:Pl. I (2)
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178	7	Stele inscribed by Urnanše, found at Ur	Börker-Klähn 1982:Pl. 15b
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180	16	Stele thought to be from al-Hiba, dating to the reign of Urnanše	Börker-Klähn 1982:Pl. 16a
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186	62	Mace of the priest Dudu found at al-Hiba	Hansen 1992:208 and fig. on 209 (far right, top)
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191	65	Mace dedicated to Ningirsu of the Strommenger 1964:Pl. 70 (lower Eninnu, for the life of Enannatum right) I, by Barakisumun, from Girsu
192	65	Mace dedicated to Ningirsu of the Strommenger 1964:Pl. 70 (lower Eninnu, for the life of Enannatum left) I, by Barakisumun, from Girsu
193	65	Mace dedicated to Ningirsu of the Strommenger 1964:Pl. 70 (upper Eninnu, for the life of Enannatum right) I, by Barakisumun, from Girsu
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195	10	Relief plaque depicting offering scene, from Girsu Vigneau 1936:Pl. 198
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210	85	Sealing from the Administrative Building at al-Hiba, Area C	Hansen 1987:Pl. 13, Fig. 15
211	87	Sealing from the Administrative Building at al-Hiba, Area C	Hansen 1987:Pl. 14, Fig. 20
212	89	Sealing from the Administrative Building at al-Hiba, Area C	Hansen 1987:Pl. 14, Fig. 22
213	75	Sealing from the Administrative Building at al-Hiba, Area C	Hansen 1987:Pl. 13, Fig. 9
214	76	Sealing from the Administrative Building at al-Hiba, Area C	Hansen 1987:Pl. 13, Fig. 10
215	95	Ring purchased by de Sarzec from a Turkish officer, said to be from Girsu	Caubet and Bernus-Taylor 1991:22 (middle, left)

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My choice to pursue the topic of an inquiry into the evolution of early complex systems of visual communication came out of a series of totally unrelated readings in theoretical linguistics, the cognitive sciences, philosophy of mind, evolutionary theory, and communications theory. I feel particularly fortunate to have studied at Oxford University. It is an institution which, in the case of my own personal experience, encourages an unparalleled measure of scholastic freedom, fostering a rich intellectual environment in which its students and faculty are allowed to pursue seemingly unusual topics of inquiry unhindered. I am also deeply indebted to many scholars and other friends for their help and support.

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Preface

I. About the text

The corpus of artifacts from the Lagaš state constitutes what is arguably the single largest cohesive body of elite representational display forms thus far discovered to have come from Early Dynastic (ED) Sumer. Unlike the equally extraordinary finds from ED levels of Ur, which consist primarily of grave goods and small finds (Woolley 1934; Woolley 1956), what is unique about the finds from Lagaš is that the majority of them are programmatic artifacts that were intended to be displayed to specific audiences.

Specifically, many of them are relief carvings or, to a lesser degree, statues that were carefully composed and executed in order to encode and transmit carefully constructed messages on the part of individual rulers, or the religious establishment. As such, the ED Lagaš corpus is a particularly important record of how one particular group of Sumerian rulers viewed themselves and how they wished to be viewed by others.

The objects with which this study is most concerned are those that demonstrate the development of rule driven systems for encoding and transmitting information visually. In fact, although this work also contains a catalog of all of the major, elite visual representations from the Lagaš state, that specific corpus is employed here primarily as a focal point towards a specific goal, namely an analysis of how humans evolved the cognitive ability to create highly structured forms of art. Because this is the primary concern of this work, the introduction is intended to provide the reader with a brief review of some of the basic ideas from the cognitive sciences that are germane to this thesis. It also briefly discusses some aspects of the earliest known human art, that of the Aurignacian period, which I feel are necessary in order to understand the evolution of

human semiotic activity. The four chapters immediately following the introduction are devoted to comparing and contrasting the development of writing and art in Sumer and its colonies and in Egypt at the end of the fourth millennium BCE, a period which marked a sort of explosion in new human cognitive abilities to encode and transmit information visually. The remaining chapters discuss first ED chronology and then the Lagaš corpus directly.

II. The types of objects discussed in the text and the contents of the catalog

The majority of the objects that are discussed in this work are either stelae, votive plaques, or performative and ceremonial objects—such as decorated weapons, or votive vessels. More specifically the catalog contains all known examples of the following ED objects from Lagaš:

- 1.) Ceremonial, religious and elite objects decorated with pictorial representations, including: stelae, votive plaques, statues, maces, votive vessels.
- 2.) Fittings belonging to ether musical instruments—or to the types of objects described above in no. 1. These include inlays and metal castings
- 3.) Items of personal use and adornment such as weapons, jewelry, or armor.
- 4.) Seal impressions belonging to the following categories: inscribed and uninscribed seal impressions belonging to rulers, members of the royal household, officials, or other apparently elite persons; sealings discovered in situ within official buildings.

Although all of the ED Lagaš statues are included in the catalog, this thesis is concerned primarily with pictorial representations. The statues are therefore discussed here only briefly and primarily in reference to other materials. Those interested in further

pursuing the subject of ED statues, however, may wish to consult either the individual references contained here in the catalog , or the more comprehensive studies by: Strommenger (1960), Garbini (1962), Spycket (1981), and Braun-Holzinger (1977).

Similarly, what are considered to be important sealings—those that were impressed from the seals of either rulers, members of the royal household, or other officials—are included in the catalog. These important artifacts should properly be discussed within the larger context of the state’s social and economic organization, as reflected in the cuneiform archives. Such a topic would clearly be the subject of a far more extensive study than is possible here. The seals are therefore discussed primarily in conjunction with other artifacts.

Generally speaking, the following types of objects are not included in the catalog unless they are, for some reason, discussed in the text:

- 1.) Undecorated stone and metal vessels, regardless of their inscription(s).
- 2.) Tablets.
- 3.) Pottery and other “common” small finds, such as terracotta figurines.
- 4.) Common styles of cylinder seals and sealings, for example, geometric, sealings or otherwise highly schematized forms of glyptic.
- 5.) Foundation figurines

Although the small “foundation figurines” commonly associated with temple deposits are entirely omitted from this study, readers interested in that specific topic may also wish to consult the very comprehensive catalog compiled by Rashid (1983); the major studies by: van Buren (1931), Ellis (1968) and Dunham (1980); the individual articles by authors such as: Falkenstein (1966b), Hussey (1931), and Rashid (1957-1971); and, finally, the inscriptions which are transliterated and translated in a wide variety of studies such as:

Thureau-Dangin 1907; Sollberger 1956; Sollberger and Kupper 1971; Steible 1982a; and Cooper 1986.

III. About the bibliography and citations:

In order to make the work more accessible to a wider audience, the bibliography has been “standardized.” Specifically I have completely eliminated the use of abbreviations for individual books and journals that are generally understood by philologists, archaeologists and other specialists who study the ancient Near East, but which are largely impenetrable to everyone else. In text citations and footnotes are formatted according to the author’s name, followed by the date of the publication.

In the bibliography, certain concessions have also been made to accommodate the ways in which computers now index data. In the case of last names that commence with titles such as: “le,” “de la”, “von,” “van,” or any other similar prefix, the in text citation, or footnote, will read for example “von der Way 1988:245-247,” but the corresponding listing in the bibliography will appear in the bibliography under the heading “Way, Thomas von der.” Additionally, I have attempted, whenever possible to convert any Roman numerals to their equivalent Arabic numerals, as this may allow them to be more easily indexed and searched as computers increasingly become the universal norm for the distribution of texts. Volume numbers, for example, particularly those belonging to periodicals, or to other series, are presented as Arabic numerals, rather than Roman numerals. The exceptions to this rule are either works in which the use of Roman numerals is necessary in order to prevent a citation from being becoming ambiguous, or

works in which Roman numerals form part of the original, primary—e.g., *Excavations at Kish, IV*—these do not change.

Finally, in certain instances it is unfortunate that footnotes do not appear on the same pages as their corresponding citation numbers—a nuisance which is clearly regrettable. In such cases, the specific credit for this uncorrectable peculiarity goes to the developers of Microsoft Office 2000™ (Macintosh™ Edition).

Chapter 1

Introduction:

Human cognition and early systems of visual communication and symbolic display

Each of the neural automata responsible for these constructions is the carefully crafted product of thousands or millions of generations of natural selection, and each makes its own distinctive contribution to the cognitive model of the world that we individually experience as reality. Because these devices are present in all human minds, much of what they construct is the same for all people, from whatever culture; the representations produced by these universal mechanisms thereby constitute the foundation of our shared reality and our ability to communicate. Yet, because these evolved inference engines operate so automatically, we remain unaware of them and their ceaseless, silent, invisible operations. Oblivious to their existence, we mistake the representations they construct (the color of a leaf, the irony in a tone of voice, the approval of our friends, and so on) for the world itself—a world that reveals itself, unproblematically, through our senses.

(Baron-Cohen 1996:xii)

The present work differs from many of the more traditional approaches to Near Eastern art, archaeology, and history in that, although it is first and foremost a study of the development of the earliest complex systems of visual communication in Sumer, it is, to no lesser degree, an inquiry into the nature of Sumerian cognition and metaphysics. Isaiah Berlin once wrote that, “history as it is normally written, usually represents ‘political’—public events;” by contrast, he suggested, “spiritual—‘inner’—events are largely forgotten: yet prima facie it is they—the ‘inner’ events that are the most real, the most immediate experience of human beings” (Berlin 1957:17). Although Berlin’s observation was intentionally limited to the “spiritual,” it could just as easily be applied to a great range of “inner events.” In the specific case of Sumerian historiography, the modern emphasis has been upon the reconstruction of “political” and “public” “events” while, by contrast, surprisingly little effort has been devoted to explaining

those equally important aspects that describe the “inner” lives of our ancient cousins¹.

In this thesis I attempt to explore a series of questions that have, historically speaking, been largely ignored, for example: how did the Sumerian elite think about and perceive the world around them; what did they view their role in that cosmos to be; and how did they attempt to project their own sense of self-identity. The primary concern of this investigation is an inquiry into the operative cognitive mechanisms that allowed human beings to evolve and construct increasingly complex systems for encoding, storing, and transmitting information visually from approximately 3200 to 2350 BCE. These mechanisms might be called “inner events” since they represent the experiences and motivations of human beings that are not immediately discernable from the archaeological record.

In particular, this study is concerned with exploring the structures and the evolution of mechanisms relating to Sumerian thought. In this sense it differs from more traditional studies of Sumerian history, which can be broadly divided into several general categories: macro-centric analyses of Sumerian society, settlement, and/or material history (e.g., Falkenstein 1967; Frankfort 1969; Adams, 1981; Mallowan 1990); micro-centric analyses, or translations that deal with discrete artifactual corpuses, for example written archives (e.g., Thureau-Dangin 1907; Steible 1982a; Steible 1982b; Selz 1990; Selz 1992a; Selz 1992b), or other stratified archaeological remains (e.g., Delougaz and Lloyd 1942; Nissen 1966; Moorey 1979; Glockel 1982); and detailed, theoretical models that attempt to describe specific social structures, institutions, and/or mechanisms (e.g., Falkenstein 1974; Zettler 1992, Selz 1995). If the present study seems unusual when compared to the standard types listed above, it is because it is an attempt to construct a history of thought and of communication in Sumer.

¹ Although for notable exceptions see: Oppenheim (1956), Jacobsen (1946), Jacobsen (1976a), and Damerow (1996).

This particular inquiry begins by considering the innovations in writing and visual communication that occurred during the Uruk IV/III phases in Sumer and by comparing and contrasting them to similar developments in Egypt that took place at approximately the same time. Unlike other studies, this work deals specifically with the cognitive constraints and mechanisms associated with the construction and evolution of early visual systems of displaying symbolically encoded information. As such, it incorporates a source of information seldom discussed in studies of the ancient Near East, namely the knowledge uncovered during the last three decades in the cognitive sciences—a newly evolving set of interlinked and interdisciplinary fields, which seeks to describe the biological, neurological, and otherwise structural processes that underlie human thought and expression.

Overall, the application of cognitive science to archaeology has thus far occurred mainly in the study of prehistory (e.g., Renfrew and Zubrow [eds.] 1994; Renfrew and Scarre [eds.] 1998; Mellars and Gibson [eds.] 1996). Whereas some studies have sought to explain generalized aspects of symbolic communication and/or consciousness (e.g., Jaynes 1976; Marshak 1991; Merlin 1991; Merlin 2001; Mithen, 1996), others have focused specifically upon the evolution of language (e.g., Deacon 1997; Bickerton 1995; Dunbar 1996). The present discussion applies many of the principles of the new cognitive sciences to a narrow field of discussion involving a later time period: the study of the development and the evolution of symbolic systems of representation, recording, and transmission in Sumer. These methodologies are utilized here in conjunction with ideas drawn from semiotics, linguistics, computing, communications theory, literary criticism, and other approaches in order to take apart and analyze what are among the world's first complexly governed systems of visual communication. By “complexly governed systems” what is specifically meant are systems

that employ complicated and strictly formed structural rules and properties such as iconicity, symbolism, indexicality, hierarchical ordering, framing, syntax, schematization, and conceptual blending, to name but a few discussed in the following chapters.

The present chapter is intended to provide an introduction to this work as a whole and to explain some of fundamental ideas from the cognitive sciences which are among the methodological approaches used in this inquiry. The following two chapters (chapters 2 and 3) compare and contrast the development of early visual communication systems in Sumer during the Uruk IV/III periods with the development of similar systems in Egypt during the Naqada III and Dynasty 0 periods (chapters 4 and 5). Those four initial chapters focus upon two separate issues: the evolution of the two earliest known systems of writing (chapters 2 and 4); and the evolution of structural codes and rule governed systems of transposition used to produce what is commonly referred to as “art” (chapters 3 and 5)—a term for which the Sumerians had no comparable word or meaning (see Winter 1992:15).

Chapter 6 provides a brief introduction to the chronology of the Early Dynastic period and the complex series of questions surrounding its composition. The remaining chapters (chapters 7-11) focus upon a specific corpus of elite artifacts constructed in order to encode, preserve, and transmit carefully conceived messages on the part of the rulers of the Lagaš state—a geopolitical entity that consisted of three principal cites: Girsu (modern Tello), Lagaš (modern al-Hiba), and, NINA (modern Zurgūl). Finally, the concluding section of this study (chapter 12), provides some suggestions for possible directions of future research.

1.1 Evolutionary and cosmological framework

The history of visual systems of representation in Sumer, Egypt, and their peripheries from approximately 3200 to 2350 BCE is also a cognitive history of how our species came to interact and communicate in the ways that it does today. Regardless of whether the communication systems of an individual species are based upon vision, sound, feeling, chemistry, electricity, or whatever other manner of transmission may be available, it is the ability to transmit and receive information that creates societies of living entities. The limitations of each and every animal's, or organism's, perceptual apparatuses, coupled with its ability to process and/or reason through the information collected by those same sensory input systems, defines the limitations of their worlds. In the case of human beings, we can make an even more unique claim, namely that the interaction of these cognitive and perceptual systems defines both our cosmological understanding and our metaphysics.

Biologically speaking, the physical transformation of our species into modern humans is already quite ancient; as Cann, Stonekill and Wilson wrote in the famous paper *Mitochondrial DNA and Human Evolution*, “The transformation from archaic to anatomically modern forms of *Homo sapiens* occurred first in Africa 100,000—140,000 years ago and all present day humans are descendants of that African population” (Cann, Stonekill and Wilson 1987:35). One can argue broadly that following that distant time when humans became—biologically speaking—more or less the same creatures that they are today, the remaining advances in our evolution have all taken place on the cognitive level. More precisely, they have occurred in terms of how we reason about the world around us, in terms of how we function as colonies of interdependent and communicative social organisms, and in terms of our self-reflexivity—our ‘consciousness’ of our own individual existence.

Early in the twentieth century, the theoretical biologist Jacob von Uexküll, explored the issue of an organism's perception within a broad context that might best be described as biological semiotics—since its concern was the description of how various animals and lesser organisms communicate with and perceive their worlds. According to him, the nature and identity of each and every individual object is based strictly upon the perceptual and cognitive abilities of the organism interacting with it. There are no objective environments, nor is there an objective cosmos. Each and every biological organism, or animal, regardless of its complexity resides within an individual *Umwelt*, or “subjective universe,” that is uniquely determined by biologically embedded perceptual and cognitive constraints (von Uexüll 1982; 1992). In one example, he explained it as follows:

The meaning of a forest is multiplied a thousand fold if its relationships are extended to animals, and not limited to human beings:

There is, however, no point in becoming intoxicated with the enormous number of *Umwelts* (subjective universes) that exist in a forest. It is more instructive to pick out an individual case in order to take a look into the relationship-network of the *Umwelts*.

Let us consider, for example, the stem of a blooming meadow-flower and ask ourselves which roles are assigned to it in the following four *Umwelts*:

- (1) In the *Umwelt* of a girl picking flowers, who gathers herself a bunch of colorful flowers that she uses to adorn her bodice;
- (2) In the *Umwelt* of an ant, which uses the regular design of the stem surface as the ideal path in order to reach its food-area in the flower petals;
- (3) In the *Umwelt* of a cicada-larva, which bores into the sap-paths of the stem and uses it to extract the sap in order to construct the liquid walls of its airy house;
- (4) In the *Umwelt* of a cow, which grasps the stems and the flowers in order to push them into its wide mouth and uses them as fodder.

According to the *Umwelt*-stage on which it appears the identical flower at times plays the role of an ornament, sometimes the role of a path, sometimes the role of an extraction-point, and finally the role of a morsel of food.

(von Uexüll 1982:29-30)

The general subject that von Uexüll described, how biological organisms perceive and understand their surroundings—a subject which is now often described as the “embodiment of mind”—has become an important area of inquiry in the cognitive sciences of the last decade. Various studies have attempted to show that the ways in which we communicate, as well as the ways in which we conceive of otherwise abstract concepts such as place, time, mathematics, and the like, are deeply embedded and related to the physical structure of our own bodies (e.g.: Lakoff and Johnson 1980; Turner, Varela, Thompson, and Rosch 1993; Redy 1996; Lakoff and Turner 1999; Lakoff and Nuñez 2000).

There are many different ways to approach history, and the present work is an attempt to incorporate a series of new approaches to its study. Specifically, it attempts to pose a series of questions concerning the Sumerians that have not yet been asked, while also engaging in a more traditional analysis of a specific corpus of archaeological materials. Some of the primary questions that the present study seeks to ask are almost completely new within the context of ancient Near Eastern studies. In particular this study seeks to explore what the *Umwelt* of the Sumerians was really like, how their cognitive and communicative abilities evolved and functioned; and the implications of those evolutionary changes have been upon us as a socially evolving species.

1.2 Modularity and relativism

In order to proceed with an investigation of Sumerian thought, we must first ask what aspects of human cognition we all share and what aspects are culturally, or otherwise, determined. We can assume that on a purely physiological and neurological level there is not a great deal of difference between ourselves and our ancestors who lived approximately four thousand to

five thousand years ago. From the standpoint of evolutionary biology, very few changes have occurred in that time period. Still, this is not necessarily an easy question to answer.

Neurologically and cognitively speaking, we probably have more in common with each other and with our Sumerian and Egyptian ancestors than we have differences that set us apart.

Nonetheless, our minds are to some degree individually shaped by cultural factors as well as by neurological factors, such as “long term potentiation” a type of neural plasticity in which cortical connections are actually shaped and reinforced according to our individual experiences of and interactions with, the living world (discussed later in section 2.4.1).

Currently, much of western culture exists in what might well be termed a ‘relativist’ age, by which is meant an epoch in which the prevailing philosophical standpoint is that all ideas may somehow possess equal value. This intellectual stance, whether one chooses the label of “popular culture,” “post-structuralism,” “nihilism,” or one simply considers this stance as a form of repackaged “existentialism,” dictates, for example, that all histories are constructions that must always be impacted, informed, or misinformed, by our own subjective positions—*ergo* concepts such as ‘truth’ or ‘validity’ may be reduced to simple expressions of viewpoint, or opinion.

This belief that ideas and cultural systems are in some way hermetically enclosed and therefore bound to self-governing, internal sets of perceptual and behavioral rules that cannot be validly judged, has served an arguably useful political and social purpose. One popular form of relativism is rooted in the linguistic fallacy known as the “Sapir–Whorf hypothesis” (see Sapir 1921 and Whorf 1956; and, more recently: Hoijer 1954b; Lucy 1992; Lucy 1996). Also known as the “linguistic relativity hypothesis,” this theory argues that because human

thought is governed by and predicated upon the use of individual language(s), all knowledge must therefore be culturally specific, or subjective:

Human beings do not live in the objective world alone, nor alone in the world of social activity as ordinarily understood, but are very much at the mercy of a particular language which has become the medium of expression for their society. It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The matter of the fact is that the 'real world' is to a large extent unconsciously built upon the language habits of the group. . . . We see and hear and otherwise experience very largely as we do because the language habits of our community predispose certain choices of interpretation.

(Sapir, as quoted in Whorf 1956b:134.)

In contrast to this belief, that 'reality' is linguistically constructed by separate communities, each possessing and utilizing radically different building blocks to do so, the cognitive sciences argue that language is only one very specific aspect in the mechanism of human cognition and that it does not constitute thought itself (see the recent rebuttals of the Sapir-Whorf hypothesis in: Boyer 1996; and Kay 1996). Most thinking does not, in fact, occur on the linguistic level. Individual languages simply represent generative tendencies that are culled, or translated, from deeper linguistic meta-structures (see Jaynes 1976:21-47; Chomsky 1980, *passim*; and Cook 1997).

The proposition that human thought takes place on the linguistic level, is simply false. Language is a method of symbolic communication and representation. As such it is also co-opted for use in very specific types of human thinking. Language serves, for example, as an inference and as an interface mechanism between what we term 'consciousness' and an extensive series of more deeply embedded cognitive processes, which either receive feedback from, or allow signals to, that area of the mind. When we perceive ourselves speaking internally (i.e., inside our heads) what we are doing is not thinking *per se*; instead we are

forming linguistic representations of deeper cognitive processes (Jackendoff 1997:179–206).

As Ray Jackendoff comments:

I am inclined to believe that thought per se is *never* conscious.... When we engage in what we call conscious thinking, we are usually experiencing a talking voice in the head, the so-called stream of consciousness, complete with segmental phonology, stress, and intonation. In other words, we are experiencing something that has all the hallmarks of phonetic form. For most of us, this voice never shuts up—we have to do Zen or something to make it quiet in there. But we know that phonetic form is not the form of thought, it is rather a consciously available expression of the thought. If we can catch ourselves in the act of thinking, then it is because the linguistic images in our heads spell out some of the steps.

Remember too that there are those times when an inspiration jumps into awareness... we have to assume that the brain is going about its business of solving problems, but not making a conscious noise about it; reasoning is taking place without being expressed as language.

(Jackendoff 1997:187–188)

If Jackendoff is correct, which I believe that he is, then language might be said to exist as a symbiotic expression of thought upon thought, capable of providing only limited input into cognitive processes. To some degree or another, humans utilize language as an interface between consciousness and deeper thought processes. For example, we might utilize language to ‘direct thought,’ albeit in a limited way, but thought and language are really two very separate things. Language may exercise a limited influence upon cognition, but it should not be confused with it; specific languages represent culturally specific variations in our communicative methods and behaviors that subtly affect aspects of our understanding, but languages can never entirely re-formulate the ways in which humans think.

In contrast to those cognitive faculties that are largely autonomous yet which are capable of accepting limited input from consciousness via language, perceptual domains are by contrast completely encapsulated and isolated from linguistic information. Sensory modules, such as touch, smell, taste and hearing, do not appear to accept consciously derived

input from the language faculty. As Jerry Fodor notes, “perception is smart like cognition in that it is typically inferential, it is nevertheless dumb like reflexes in that it is typically encapsulated” (Fodor 1983:198). This idea is perhaps best illustrated by the perplexing condition that occurs when we are consciously aware that perceptual information is being processed erroneously. In the case of optical illusions, for instance, cognition tells us that our ‘eyes are lying,’ yet no amount of directed reasoning can correct the distortion. For example, when viewing the well known optical illusion known as the Müller-Lyer arrows (Fig. 5a), we cannot reason away the perceptual fallacy that one line is longer than the other. Similarly, a close inspection of the Zöllner illusion (Fig. 5b) shows that the lines running diagonally through the square are absolutely parallel to one another, despite the fact that, regardless of how we look at them they appear to be curved.

Optical illusions work, despite the fact that we know that what we are seeing is ‘wrong’, precisely because the modules involved in optical perception and visual reasoning do not accept input from ‘conscious’ domains, or systems, such as linguistic reasoning. From an evolutionary standpoint, it makes sense that the types of perceptual systems that would be most favorably reproduced would also be entirely partitioned off from any input from conscious thought. As Fodor emphasizes, “The ecological good of this arrangement is surely self-evident. Prejudiced and wishful seeing makes for dead animals” (Fodor 1983:198). It would be dangerous to be able to perceive factors such as pain, heat, cold, or even seemingly hostile movements in one’s peripheral vision in any manner other than an immediate and a reflexive one.

The organization and construction of many modules are shared by all humans. Whereas many of these faculties are almost universally identical, or similar, certain non-

perceptual domains express greater levels of plasticity, receiving levels and types of input and output that allow them to be differentiated. Ultimately, we probably share more cognitive features with one another than we possess differences that individuate us from each other. Yet, it is those differences that mark us as unique. The cortical organization of human thought and behavior, the biological mechanisms that constitute our universal human heritage, bind us together as a species and set us apart from all other animals; but these very mechanisms also define aspects of our individual thought and behavior.

If we can accept that there is an important distinction between the organization of cognition and the individual products of human minds, then we might also begin to explore and to understand types of information that have not yet been written into reconstructions of Sumerian history. If a central problem exists in doing so, it is that we are only beginning to know what codes, structures, and other mechanisms to look for. These features are, however, deeply embedded within all visual representations and Sumerian artifacts and continue to transmit their purposefully encoded messages even if there is no receiver capable of decoding their content.

1.3 Modularity and languages

The new models and approaches to cognition that have appeared primarily since the 1970's all share in common the premise that, whereas many areas of the brain are hardwired to perform specific functions, the brain is also remarkable in terms of its plasticity and adaptability.² Specific areas of the brain that have developed to perform specialized

² The term "hardwired," was originally used to describe the operational features built into (i.e. wired into, or soldered together on) computers and other machines, as opposed to instructions given to these machines in the form of programming, or other additional input, subsequent to their construction. As it is used here, "hardwired,"

functions are described as “modules,” “domains” or “intelligences” (for modules, see: Fodor 1983; Fodor 1990; Karmiloff-Smith 1990; Sperber 1994, Samuels 2000; Hughes and Plomin 2000; Wynn 2000; Premack and Premack 2003:17-37; for domains see: Carey 1994; Cosmides 1994; Hirschfeld 1994a, and Hirschfeld 1994b; Mithen 1994; Gelman 1999; for intelligences see: Gardner 1983; Gardner 1993). Although throughout the present discussion, I use only the terms “modules” and “domains” these terms and the term “intelligences” are more or less interchangeable. Broadly speaking, it may be said that domains, or modules, represent evolutionary adaptations to specific problems and tasks; they perform highly specialized cognitive functions that are biologically predetermined as opposed to those that are learned.³

Specific modules, for example, appear to govern many aspects of linguistic behavior including: syntax, parsing, binding, and lexical ordering (see this section, below). Other modules govern a broad variety of perceptual and cognitive mechanisms, a few examples of which include: color perception and classification (Berlin and Kay 1991 [1969]; Mervis, Catlin and Rosch 1975; Witkowski and Brown 1977; Baines 1985b; Kay, Berlin, Maffi, and Merrifield 1997); shape and symbol recognition (Kolers and Smythe 1979; Kosslyn 1994, *in passim*; Kosslyn 1994; Solso 1994, *in passim*; and Peterson 1999); lexical and taxonomical classification (Hunn 1975; Brown 1984; Hoenigswald and Wiener 1987; Berlin 1992; Atran 1986; Atran 1990; Ellen 1993); and “mindreading,” also known as “theory of mind” (ToM), which may be roughly described as the ability to guess and interpret the reactions and intentions of others (Leslie 1994; Baron-Cohen 1996; Dunbar 2000).

should be understood to mean something like to “neurally connected”—i.e. “hardwiring” describes processes that are biologically built into the human brain.

³ The qualifier “broadly speaking” is employed here because there also exist modules that are designed to perform more general operations and which may possess greater levels of adaptability.

To some extent Noam Chomsky's investigation of language can be said to have provided a great deal of the stimulus for the "cognitive revolution" (e.g. Johnson and Erneling 1997). Specifically, the debate between him and Jean Piaget at the Abbaye de Royaumont in 1975 (Piattelli-Palmarini [ed.] 1980), seems to have marked a major paradigm shift in the way we now think about the human mind. The debate was arranged by Scott Atran in order to address the common paradox in the anthropological thinking of the late 1960's and early 1970's that, "most introductory courses and texts began by proclaiming the psychic unity of humankind," but they then proceeded "straight to the study of cultural variations" (Atran 1990:ix). As Atran, himself, phrased it:

Having so long combated the ethnocentric view of Western thought as innate or inevitable, anthropologists had largely come to renounce all appeal to nativism as scientifically absurd and ideologically pernicious. But in philosophy, psychology and linguistics the argument over universals of human cognition was being vigorously pursued. (Atran 1990:ix)

What set the Abbaye de Royaumont debate apart from previous symposia, such as the Conference on Language Universals held in 1961 (Greenberg [ed.] 1966), was its multidisciplinary approach to the broader issues of universality in human cognition, a fact that caused it to attract scholars working in fields as diverse as linguistics, psychology, epistemology, neurobiology, ethology, animal psychology, cognitive anthropology, artificial intelligence, and philosophy.

Piaget's model of the mind was predicated upon an assertion that the human mind lacks innate faculties. Instead it comes into being as a sort of *tabula rasa*. Children enter the world devoid of *a priori* cognitive processes and faculties. Gradually they develop and refine perceptual and cognitive models. As Piaget explained it:

In the first place, in the sensorimotor period preceding language one sees the relationship of a logic of actions (relations of order, interlocking of schemes, intersections, establishment of relationships, and so on) rich in discoveries and even in inventions (recognition of permanent objects, organization of space, of causality). From the ages of two to seven, there is a conceptualization of actions, and therefore representations, with discovery of functions between covariations of phenomena, identities and so forth, but without yet any concept of reversible operations or conservation. These last two concepts are formed at the level of concrete operations (ages 7 to 10), with the advent of logically structured “groupings,” but they are still bound to the manipulation of objects. Finally, around the age of 11 or 12, a hypothetical-deductive propositional logic is formed with a combinatorial lattice, “sums of parts,” algebraic four-groups, and so on.

(Piattelli-Palmarini [ed.] 1980:25).

In Piaget’s model, all mental processes are relegated to a single domain that is designed for the task of general purpose reasoning and general information processing. In contrast to this theory, Chomsky’s model stressed the innateness of what he has called the “language organ,” a cognitive module designed specifically to govern and generate linguistic aspects including, but not limited to lexical ordering, syntax, and grammar.

Another important aspect of Chomsky’s theory was the creation of a distinction between two different types of language, which he called “External (E-) language” and “Internal (I-) language.” Whereas I-language represents the language universals shared by all humans, E-language is specific to given cultures. E-language linguistics is therefore concerned with the study of the laws that govern the construction and use of specific languages. E-language linguistics focuses upon the study of spoken and written forms, rather than upon the relationship between those languages and more deeply embedded cognitive processes. I-language linguistics, by contrast, is concerned specifically with those deeper linguistic processes; it treats spoken languages as the product of biologically embedded and conceived structures, rather than as external, or culturally derived processes.

According to this model, a specific module, which Chomsky calls the “language organ,” or the “language faculty,” stores and controls I-language rules and information. This faculty is not really an organ *per se*, but rather a series of distributed neural connections and processes, the location and functioning of which remain largely unknown. It contains information constituting a “Universal Grammar (UG)” a set of deeply embedded rules and codes governing the syntactical relationships for all existing languages.

According to Chomsky, the existence of a UG must be proven by what he calls a “poverty of the stimulus argument.” Specifically, this argument states that since children do not receive enough linguistic stimulus to account for their fast acquisition of the extremely complex rules that govern language use, there must be a hardwired set of cognitive processes that govern the generation and use of language. In Chomsky’s own words:

The speed and precision of vocabulary acquisition leaves no real alternative to the conclusion that the child somehow has the concepts available before experience with language and is basically learning labels for concepts that are already part of his or her conceptual apparatus. (Chomsky 1988:24)

Children are able to learn languages quickly because I-language and UG are innate. Although E-language syntax is to some extent culturally specific, it is the result of an interface with UG. This theory also holds that I-language is re-encoded into E-language by means of a “transformational generative grammar”:

In studying the evolution of mind, we cannot guess to what extent there are physically possible alternatives to, say, transformational generative grammar, for an organism meeting certain other physical conditions characteristic of humans. Conceivably there are none—or very few—in which case talk about the evolution of the language capacity is beside the point. (Chomsky 1972:98)

If internal language UG and transformational generative grammar are, cognitively speaking, innately hardwired, then the aspect of E-languages that can be said to be culturally unique is

lexicon—i.e., the culturally agreed upon conventions that exist between sounds, or in certain cases visual signifiers, and mental representations. Grammar and syntax conform to seemingly different rules for different languages, but according to Chomsky, they must ultimately first adhere to the deeper, innate, set of biologically determined laws of I-language.⁴

The widespread acceptance of the basic framework outlined by Chomsky is echoed in a statement by Frederick Newmeyer, who observes that:

It is now taken for granted by every generative framework that there exists an autonomous linguistic competence, that is, at the heart of language lies a grammatical system whose primitive terms and principles are not artifacts of a system that encompasses both human language and other human faculties or abilities.
(Newmeyer 1996 [1987]:158)

If the existence of a language faculty is now taken as a given, what is still debated is how the cognitive domain is structured and how it interacts with other faculties (Newmeyer 1996:157-162). Whether this model will survive, or whether it will be replaced by more flexible alternatives remains to be seen.

One major criticism of Chomsky's model has been that, "Chomsky seems to favor a 'detailed wiring' point of view" and that "his discussion of universals of syntax stresses the detailed specificity of these universals" while rejecting any "attempts by others to account for language universals by appealing to very general learning principles underlain by very general neurophysiological wiring" (Witkowski and Brown 1977:427). This is indeed a valid criticism. Medical research into using CAT scans to study the areas of the brain activated during the process of second language acquisition has, in fact, recently shown that different

⁴ In anthropology, however, the role of UG and of generative grammar has sometimes been either misunderstood, or simply ignored. In Merlin Donald's widely influential book *Origins of the Modern Mind: Three stages in the evolution of culture and cognition*, for example, he argued that in the case of a patient suffering from aphasia caused by damage to Wernicke's area of the brain the effect of the injury was "the complete absence of language internal or external" (Donald 1991:85; but, see also: 89, 83). Because it is not clear, however, what processes might control the generation of E-language from I-language—or whether such processes can be individually damaged - it seems possible that a patient like the one described by Donald might still continue to process I-language, despite his inability to generate externally spoken, or visual, language.

areas of the brain are used to learn languages by adults and by children. The suggestion is that adults may utilize domains that are cognitively evolved for more general purposes and therefore possess a greater degree of neural plasticity, or flexibility, than the areas of the brain used by children to acquire first languages (Kim, Relkin, Lee, and Jones 1997).

Despite many decades of work on UG and on generative grammar, Chomsky remains constantly plagued by the need to create exceptions to his rules in order to explain questions that cannot be answered by his basic theories. This has caused vitriolic debate throughout a variety of linguistic circles (see, *in passim*, Harris 1993; Huck and Goldsmith 1995). What can be reasonably said in this brief overview is the following. Although it seems unlikely that there exists an elegant and singular “equation” that describes the generation of language, or even of singular aspects of it such as grammar and lexicon, what do seem to exist are a very limited series of tendencies, or choices, that govern individual aspects of linguistic behaviors. It is very possible that ultimately there is no single faculty that is wholly responsible for the generation of language, but specific templates for grammatical structures do appear to be innate. The lack of variation in what should otherwise be an endless number of ways in which to structure human languages, also suggests that there must be specific modules that control the larger aspects of its generation and functioning. The discovery of this and the effect that it had upon strengthening the conviction of a younger generation of participants and observers—such as Scott Atran, Jerry Fodor, and Dan Sperber all of whom were present at the debate with Piaget—in the universals of human cognition has been one of Chomsky’s many important contributions.

1.4 Modularity vs. generalized computation

One of the most compelling arguments for the existence of modularity is that hardwired faculties and domain specific adaptations provide the obvious solution to the problem of processing extraordinary amounts of information. If one considers even just the staggering amount of perceptual information that the brain receives in the form of a constant sensory flow, it makes sense that something like modules that have been biologically evolved and adapted in order to favor and perform specific computational tasks should exist. Such specially evolved domains serve to decrease the amount of raw processing that would otherwise be necessary for even simple tasks and thus prevent the overloading of more generalized computational areas, which can in turn be utilized to perform other computations.

How many of these specialized modules or domains exist is uncertain. Howard Gardner, for example, has proposed that there are seven domains, which he calls multiple intelligences: “musical, bodily-kinesthetic, logical-mathematical, linguistic, spatial, interpersonal (for looking outward into society), and intrapersonal (for looking inward into one’s own mind)” (Gardner 1993:17–34). This type of solution, while conceptually compact and therefore perhaps aesthetically elegant and/or pleasing, is unlikely to be an accurate description.

In contrast to Gardner, Fodor has proposed a distinction not only between perceptual and cognitive processes (see, *passim*, Fodor 1983; Fodor 1990a; and 1990b), but has suggested that perceptual processes—i.e. touch, hearing, smell, taste—are modularly organized, but cognitive processes are not. According to this view, perceptual processes “tend to be input driven, very fast, mandatory, superficial, encapsulated from much of the organism’s background knowledge” and “largely innately specified” (Fodor 1990b:201). Furthermore,

perceptual modules are “characteristically associated with specific neuroanatomical mechanisms (sometimes even with specific neuroanatomical loci)” and “tend to be domain specific” (Fodor 1990b:201). Perceptual processes are driven only by input and operate more or less instantly. Modularity is an important evolutionary adaptation for these processes because it allows almost instantaneous computational speed. In contrast with perceptual processes, however, cognitive processes are decidedly non-modular and non-encapsulated. They are capable of both input and output, but are slow and ponderous.

Increasingly, rigid models, like those proposed by Chomsky for language, by Gardner for specific “intelligences,” or by Fodor for perceptual and cognitive processes, are being challenged by more flexible models. Witkowski and Brown, for example, write that “neither the information processing model nor the detailed wiring model alone sufficiently captures the richness and complexity of the human language faculty.” Instead, of generalized or detailed models that explain specific perceptual and cognitive processes they suggest “a ‘rich cognition’ model, one allowing for both possibilities, is warranted by the present evidence” (Witkowski and Brown 1978:444).

Dan Sperber has also suggested a model that emphasizes a high degree of modular specialization, one in which the architectures of individual modules are complex and diverse and highly varied, as are the means by which information is communicated between them. Sperber reasons that “evolved cognitive modules are likely to be answers to specific, usually environmental problems. Loosening the domain of a module will bring about, not greater flexibility, but greater slack in the organism’s response to the problem” (Sperber 1994:45). It therefore follows that humans, instead of developing less modularity, should as a complexly

evolved species be expected to actually develop more modules in order to efficiently address environmental and social issues.

Because the cognitive modularity of each species is “the result of a different phylogenetic history, there is no reason to expect them [the modules] to be built on the same general pattern and elegantly interconnected.” Hence, “though most if not all conceptual modules are inferential devices, the inferential procedures they use may be quite diverse” (Sperber 1994:46). Like Witkowski and Brown, Sperber suggests that evolution would dictate a greater degree of flexibility in modular evolution, wiring, and design, a viewpoint that is probably somewhat closer to the truth than the rigid models Fodor has espoused. It seems likely that humans should possess a very large number of specially evolved, or adapted, modules that interact with each other, as well as with more generalized areas of the brain, in a great many ways that cannot yet be fathomed (see also, *in passim*, Karmiloff-Smith 1992; and Karmiloff-Smith 1994).

1.5 Modularity, color perception, and categorization

The truth is that we do not really know: how many specialized domains might exist; how and to what extent these domains interact with one another; or how and to what extent they interact with more computationally generalized areas of the human brain. We can, however, at least begin to identify some of the very specific modules that are central to how we think.

In one seminal study, for example, two anthropologists, Brent Berlin and Paul Kay, analyzed color terms in 98 languages (Berlin and Kay 1991 [1969]). Their study showed that all humans utilize a limited number of identically patterned, non-experiential, categories and systems in order to classify colors, a result that indicates the existence of a domain that

contains hardwired information concerning basic colors and their hues. More specifically, it demonstrated that humans utilize only 11 basic color categories (i.e. central representations of basic colors): “red,” “yellow,” “green,” “blue,” “brown,” “purple,” “pink,” “orange,” “black,” “white,” and “grey” (Berlin and Kay 1991 [1969]:2). Any particular language may contain up to eleven basic color terms, which they termed “focal colors.” Spanish, for example, utilizes all eleven terms: “rojo,” “amarillo,” “verde,” “azul,” “moreno,” “violeta,” “rosado,” “naranja,” “negro,” “blanco,” and “gris,” as do the majority of Indo-European languages.

Given these eleven basic terms it is mathematically possible that any one of 2,048 possible combinations might exist in one particular language—in other words, one language might have only black and white as color terms, another one might have black, white and red... etc. Yet, despite the large number of possible combinations, their results identified that only twenty-two different combinations of color terms existed in the sum of all the languages studied. Each of these combinations was termed by them a “Type.” Type 1 languages, for example, contain only the color terms for white and black, whereas Type 2 languages contain color terms for white, black, and red, and so forth (for a table describing each of these basic types, see Berlin and Kay 1991 [1969]:3).

A secondary characteristic of human color perception, also discovered by Berlin and Kay, is that the foci of individual color terms appears to show a negligible amount of variation between individual speakers. For example, in a basic experiment, various individual subjects are shown a thick colored line that depicts a spectrum of colors that varies in hue from one end of the line to the other. Each individual is then asked to point to the portion of the color spectrum that she/he considers to be most representative of a particular basic color term. The subjects always choose approximately the same hue, regardless of his or her cultural

background. If asked to point to the area most representative of the color green, each subject chose approximately the same hue of green (Berlin and Kay 1991:7–13). A slight degree of variation does occur between individual test subjects, but this can be logically discounted as it is no larger between native speakers of the same language than it is between speakers of entirely different languages.

Since Berlin and Kay's original work, the study of other linguistic groups has led to the identification of additional color terms and have, more importantly, confirmed the consensus that color perception and color categorization among humans are biologically determined universals (e.g.: Heider 1972a; Heider 1972b; Mervis 1975; Catlin and Rosch 1975; Witkowski and Brown 1977; Baines 1986; Kay, Berlin, Maffi, and Merrifeld 1997; Kay 1999). The studies have also led to a reduction in the number of color-term systems that are thought to exist. These are now referred to as evolutionary "Stages," rather than "Types." It is also argued that there exist only six individual Stages and that any language must progress sequentially through each of these stages as its color vocabulary evolves. There also appear to exist only a limited a number of standardized color categories that can be derived from these six fundamental divisions. Kay, Berlin, Maffi, and Merrifeld have put it as follows:

... the temporal development of basic color-term systems should be seen not as a single process, but as two partially independent processes: (i) the division of composite categories into the six fundamentals, and (ii) the combination of fundamental categories into derived categories.

(Kay, Berlin, Maffi, and Merrifeld 1997:29)

To summarize, these revisions to the basic theory account not only for hardwired domains that have specifically evolved or adapted as mechanisms employed in basic color recognition and primary level categorization, they also account for subsets and nested categories that are derived from these universals (see, in particular, Kay 1999).

The patterning and uses of color terms suggest that, regardless of what specific neural mechanisms control the analysis and description of colors, those mechanisms seem to constitute some sort of specifically evolved, or adapted, cognitive domain. The only culturally unique aspects of color terms appear to be lexical features, which are culturally agreed upon semiotic conventions; for example, whether we use “black,” “negro,” “schwarz,” “aswad,” or some other term, to describe that particular color. Ongoing research into color perception and categorization may continue to result in what are becoming increasingly minor changes in our understanding of how color categories are ordered and defined. But, more than three decades after the publication of Berlin and Kay’s *Basic Color Terms: Their universality and evolution*, the basic ideas presented in that work have remained beyond any serious dispute. Their basic discovery, that color terms are encoded into languages according to specific patterns, remains one of the strongest and most longstanding examples of a cognitive trait that appears to reflect the interaction and operation of hardwired perceptual and computational modules.

1.6 Implicational universals: Evidence from color classification, and taxonomic folk-biology

A set of phenomena that are often described as “implicational universals” is used to explain cognitive occurrences such as why there are only a limited number of stages, or types, of color classification. The idea of implicational universals was originally used by Joseph Greenberg to describe a number of universal traits in phonology, for example, “that there are no languages which have back implosives but no front implosives is the implicational proposition that the presence of back implosives implies the presence of front implosives” (Greenberg 1969:476). Witkowski and Brown state this another way, “An implicational universal is

apparent when the occurrence of an item in languages implies the occurrence of another item or items in those languages, but not vice versa” (Witkowski and Brown 1978:428).

A good illustration of this occurs in Berlin and Kay’s study. They showed that if a language contained fewer than all 11 color terms, certain distributional restrictions (i.e., implicational universals) apply to which terms that particular language chooses to encode. For example, all languages contain terms for white and black (or “cool” and “warm”), but, if a language contains three terms, then red must also be one of them. If a language contains six terms, implicational universals dictate that one of them must be a term for blue (for the full list of distributional restrictions, see Berlin and Kay 1991 [1969]:2–3). A fundamentally universal pattern regulates not only the creation of basic color terms by different cultures, but the specific ways in which they are encoded into specific lexicons.

Implicational universals occur not only in the human uses of language and in our perception and description of colors, but in a much broader array of cognitive mechanisms and domains, some of which might appear to be truly unexpected. Studies of folk biological classification, for example, have convincingly demonstrated that implicational universals exist in the categories used by differing social, linguistic, and historical groups for the classification of flora and fauna. In his book, *Language and Living Things: Uniformities in Classification and Naming*, Cecil Brown explains that one of his principal findings is that “ubiquitously occurring life-form categories... are lexically encoded by languages in relatively invariant orders” (Brown 1984:23). Structurally speaking, there is a similarity between all of the taxonomic structures used by various human groups to describe and classify plants and animals. This is because implicational universals determine how taxonomic terms are encoded into specific languages. All biological classification, as Scott Atran put it, “emerged as an

elaboration of universal cognitive schema common to all folkbiological taxonomies” (Atran 1990:x).

The structural similarities between the constructions of taxonomy and color terms suggests that implicational universals must dictate the rules and constraints employed in the construction of categories (a subject that is discussed in detail in section 3.3). These universals are likely to be the products of how perceptual and cognitive domains and processes communicate information to each other, as they do the ways in which specific modules are, themselves, constructed. The end result is that for both floral and faunal systems of classification, limited sets of terms are employed by any given language. All of the studies mentioned here have in common the fact that they suggest that there must be some degree of interplay between perceptual and cognitive modules and processes. The existence of implicational universals in areas as disparate and varied as language, color perception, and taxonomy, is important to the study of visual representations, because implicational universals also help to explain how rule governed systems for transposing information evolved into cohesive visual display systems. The rules that govern the visual systems described throughout the following chapters evolved from the behavior and interaction of numerous perceptual domains and mechanisms that govern features of thought as varied as syntax, grammar, gestalt, depth perception, perspective, color, and tonality, to name but a few examples.

1.7 Adaptation versus exaptation

Although the subject does not yet appear to have been extensively studied, it is worth pointing out that we do not know to what extent the ways in which certain implicational universals are

manifested represent specific cognitive adaptations. We commonly assume that much of evolution is predicated upon the occurrence of mutations that are then either favored and replicated, or alternatively simply die out, either because they do or do not fulfill some important, or useful ecological, or otherwise environmental niche. This should not, however, be confused with the co-opting of evolutionary processes that have already long since occurred, but can be advantageously utilized for an entirely different set of purposes. This evolutionary process of co-opting mechanisms that have been favored and genetically replicated for entirely different purposes is known as “exaptation” (see, *passim*: Gould and Lewontin, 1979; Gould and Vrba 1982; Gould 1992).

One now classic example of exaptation is the use of feathers by birds in order to fly. As Stephen Jay Gould and Elizabeth Vrba pointed out, feathers were originally an adaptation that survived because it was critical in providing warmth to the ancestors of birds. At a much later evolutionary stage, however, feathers were exapted as a feature that would form part of the mechanism used for flying (Gould and Vrba 1982). The concept of exaptation, although relatively new, has now become a standard term not only in evolutionary biology, but also in evolutionary psychology (Gould:1991). It seems quite likely that it will soon become part of the general descriptive lexicon of a wide variety of other fields as well—e.g., ancient architecture (for which see: Gould 2002:1134-1135).

A great many of the types of mechanisms and systems described throughout this study are clearly the result of exaptation, rather than adaptation, which is to say that they represented the used of pre-existing perceptual and cognitive mechanisms which have been co-opted for different uses than those that favored their original evolution. This is fairly obvious, for example, in the ways in which implicational universals are manifested. Although the

perceptual and cognitive constraints related to color universals might make some evolutionary sense, it seems more likely that at least the patterning and classification of color terms represent exaptations of universals that were evolutionarily favored and reproduced for an entirely different set of purposes. Similarly, implicational universals as they are manifested in other areas such as cladistic and other forms of taxonomic classification, must also clearly represent exaptation from more generalized forms of categorical reasoning.

1.8 Memes and the epidemiology of images

Because, according to Sperber's model, the human mind deals with so many complex cognitive and perceptual processes "the actual domain of human cognitive modules is likely to have become much larger than their proper domain" (Sperber 1994:46). This has resulted in what he describes as an "epidemiology of representations," a pervasiveness of culturally agreed upon conventions, such as images, metaphors, and phrases (Sperber 1985 and 1994). Epidemiology appears to be part of the context within which humans produce images. The question of how and why specific types of visual structures and representations are spread and replicated has intrigued scholars of Near Eastern art for over half a century (e.g., Wittkower 1938-1939, Porada 1986). The epidemiological model proposed by Sperber does not attempt to explain the cultural stimuli behind the creation of particular images, but it serves as a convenient matrix to explain why image transmission is so readily adopted among certain types of communities.

Sperber's solution proposes that cognitive domains "far from being uncategorizable chaos" are "likely to be partly organized and categorized by humans themselves" (Sperber 1994:53). Because humans tend to categorize both the modules themselves and their

respective contents, they are able not only to “construct individually mental representations of information” but to “produce information for one another in the form of public representations (e.g., utterances, written texts, pictures) or in the form of other informative behaviors and artifacts” (Sperber 1994:53). Some of these public representations are communicated only between small groups of individuals, but the more successful ones continue to be communicated from person to person, until they become widely distributed throughout larger populations via an “epidemiology of ideas.” Indeed, a great deal of what we tend to describe as individual cultures, or communities—i.e., social groups bound together by common sets of social and metaphysical beliefs, rules, and behaviors—are also framed and defined by the inclusion of specific groups of contagiously transmitted representations.

A similar take on why certain concepts spread rapidly and become part of a common cultural currency was suggested by biologist Richard Dawkins in his popular book *The Selfish Gene* (Dawkins 1989:189-201, 322-331).⁵ According to this neo-Darwinian view, certain types of ideas, which in an analogy to genes he categorizes as “memes,” are considered to be good, interesting, or for some other reason compelling. These successful memes are propagated from person to person, within the larger “meme pool,” rather like a virus. Memeism is cited here primarily because of its increasingly pervasive impact in philosophical discourse (e.g., Dennett 1995:335-342, 352-369; Lynch 1996; Blackmore 1999, Lake 1999).

As Dawkins described it:

Examples of memes are tunes, ideas, catch-phrases, clothes, fashions, ways of making pots or of building arches. Just as genes propagate themselves in the gene pool by leaping from body to body via sperms or eggs, so memes propagate themselves in the meme pool by leaping from brain to brain via a process which, in the broad sense, can be called imagination. If a scientist

⁵ The original edition of Dawkins’ book appeared in 1976, predating Sperber’s theory by more than a decade. The revised edition (1989) edition of Dawkins’ work is cited here, because it contains several expanded sections specifically on the subject of memes.

hears, or reads about, a good idea he passes it on to his colleagues and students. He mentions it in his articles and his lectures. If the idea catches on, it can be said to propagate itself, spreading from brain to brain.
(Dawkins 1989:192)

Memes are therefore ideas that, for whatever (vague) reason, “catch on” and spread like viruses, or parasites, via a process of cognitive contagion, throughout human populations.

Perhaps the best example of a successful meme is perhaps the term “meme” itself, since it is rapidly becoming part of the philosophical lexicon, despite the fact that it is not clear that it is really a particularly distinctive idea. The main appeal of memeism seems to lie in the analogy between genes and memes, since the same process might be equally well explained in a variety of other ways such as simple cultural transmission.

Whereas Dawkins’ observation deals with a very widespread phenomena involving the spread of myriad human ideas, Sperber’s work has focused specifically upon the problem of what sorts of representations are epidemic, and why they are successfully transmitted. Public representations, he suggests, compete for “public space and time... for attention, internal memory, transmission, and internal storage” (Sperber 1994:55). Some representations are transmitted until they become culturally pervasive; others die out because, unlike the most widely held beliefs, which survive and continue to be transmitted, they fail to “play a central role in the modular organization and processing of knowledge” (Sperber 1994:55).

Ideas that either enrich or contradict “basic modular beliefs” stand “a greater chance of cultural success,” because they either adhere to or dramatically violate the content and expectations of specific perceptual or cognitive modules. Examples of concepts that violate “head-on module expectations” include “beliefs in supernatural beings capable of action at a distance, ubiquity, metamorphosis, etc.” (Sperber 1994:55). Interestingly, what is perhaps the world’s oldest known sculpture, an Aurignacian period (c. 40,000 to 27,000 BP) carving

discovered in Hohlenstein-Stadel and thought to be approximately 32,000 year old (Fig. 6), seems to have done exactly that.

We can assume that a strong craft tradition must have already existed before a statue of such representational brilliance could be created; this seems particularly true given the ever increasing corpus of plastic arts from the Aurignacian period (see, *passim*, Müller-Beck and Gerd [eds.]1987). The Hohlenstein-Stadel statue was also predated by a series of cognitively related traditions of semiotic usage—for example, the use of marks in counting (Marshak 1990, 1991a, 1991b) and the manufacture of beads, pendants, and other objects of personal adornment (Hahn 1972; White 1989; and White 1993). The statue appears to depict a composite creature with the body of a man and the head of an animal, probably a feline, an unusual blend of distinctly different animal forms must have transgressed head-on modular expectations by violating common categories of folk-biological knowledge. According to Sperber’s theory, such violations would have increased the salience of the image. On another level, however, it must be assumed to have also met other very specific cultural requirements—i.e., it may have represented a divinity, a masked human, or any number of other things at which we can only guess.

The composite nature of the Hohlenstein-Stadel figure also illustrates the human propensity to create metaphors and analogies that extend beyond specific faculties, or categories (see section 3.3) by incorporating and combining information from two, or more, separate domains by means of cross-domain mapping (see sections 2.4.2 and 3.4) and/or by conceptual blending (see section 8.2.3)—all processes which are explained in detail in the following chapters. To conceive of composite creatures like the Hohlenstein-Stadel figure, be they monsters, demons, or gods, requires the ability to assign attributes and to draw

comparisons, or, in this particular case, to think about animals in terms of humans and vice-versa and to integrate aspects of the two.

If the Hohlenstein-Stadel can be said to illustrate the basic point that even the earliest known human representations fulfill various aspects of the criteria set out by Sperber for cultural transmission, we can hypothesize that the many other “artworks” of that period, such as the remarkable paintings of the Chauvet and Cosquer caves (c. 27,000 BP-18,000 BP), seem also to fulfill fundamental, faculty specific, expectations. In the case of Aurignacian cave paintings, the vast majority of these representations are mimetic signifiers that fall into the basic taxonomic sub-categories of fauna. The few representations that do not fall into this category tend to represent humans, or their presence, such as handprints, or human figures. A quick inventory of images based on the photographs of Cosquer Cave (Clottes and Courtin 1996) and Chauvet Cave (Chauvet, Deschamps and Hillaire 1996), for example, reveals the presence of the following types:

At Cosquer Cave

(1) Animals

- Auks
- Aurochs
- Bison
- Cervids
- Chamois
- Felines or Bears?
- Horses
- Ibexes
- Megaloceroses
- Seals

(2) Other symbols

- Hand Stencils
- The “killed man”?

At Chauvet Cave

(1) Animals

- Bears
- Butterflies and/or Birds (?)
- Bison
- Felines
- Horses
- Mammoths
- Owls
- Panthers
- Reindeer
- Rhinoceroses

(2) Other symbols

- Hand stencils
- Hand prints
- Red dots (Bison?)

Steven Mithen, among others, has remarked that “much of the animal imagery within this art served to help to recall information about the natural world stored within the mind” (Mithen 1996:172). According to this theory visual representations served as external storage mechanisms that recorded information about the natural world (see also: Mithen 1999, Renfrew 1999; D’Errico 1995; D’Errico 1999; Lowe 1999). It is unclear to what degree such a theory might be true. At the very least, it seems plausible that even if such representations did not function as external storage devices in the strict sense of the word the act of creating them may have served as an extracortical means of organizing information into manageable units and categories (see sections 2.4.1 and 2.4.2).

It also seems probable that a primary intention of these paintings was to function as what I will call here “performative representations,” a term intended to describe the visual equivalent of J. L. Austin’s “performative utterances” (Austin 1975b:233–252; see also Searle 1995a, *passim*), meaning that they were visual statements that were purposefully executed in front of a specific audience, or audiences, as integral parts of ritual acts. This accords with

Clottes and Lewis-Williams (1996) opinion, for example, that the cave paintings at Chauvet, Cosquer and other Aurignacian cave sites were associated with shamanic rituals (see also Harris 1999).

Models like Sperber's epidemiology of representations, or Dawkins' memes and meme pools, help to explain why some representations succeed and others fail. Cultures appear to arrive at agreements, both consciously and by seemingly autonomic means, concerning the concepts and signs that they employ as part of their common currency. The generation of these ideas and signs is the product not only of adherence to existing beliefs and experiences, but can also result from violations of modular expectations relating to either knowledge and/or specific behaviors. Whatever the reasons may have been for the explosive-like occurrence of so many human-wrought visual images at some point during, or near, the Aurignacian period, what can be said is that this marked a major change in human semiotic usage. The ability of the human species to manipulate and to create visual signs of ever increasing complexity, must also have caused it to embark upon a set of cognitive changes that define a great deal of the behavior and intelligence that sets us apart from other primates (although see also Dunbar 1996). The changes discussed above, are presented as a means of discussing the cognitive *Grundstufe*, or "foundational materials," that were necessary before the emergence of highly regimented visual systems communication and display in places like Sumer and Egypt.

1.9 The replication of ideologies and the functioning of social groups

Regardless of how structures such as memes function, it is clear that human social groups are bound together by shared communities of ideas. These ideas function as a sort of common cultural currency that the members of a group can understand, utilize, and exchange because

their value is largely fixed. Some of the most basic ideas shared by groups, are simply communal decisions concerning the construction of and rules governing linguistic, visual, or other types of sign usage. In other words, human groups arrive at consensuses concerning what sounds, or what visual forms, will be used to signify specific concepts. Repeated failures to arrive at such agreements may eventually cause the disintegration of a particular group as a whole.

Ideas are therefore also social bonding mechanisms, they are part of the “glue” that constructs human communities. This is particularly true of larger bodies of communally shared ideas, such as languages. Beyond even concepts such as languages, however, there are also entire patterns of thought, and action that are specific to groups, such as religions, philosophies, and other ideologies. These concepts are central to the evolution of expanded social groups such as tribes, states, and nations. One of the things that theories such as Dawkin’s and Sperber’s help to explain is not only how individual ideas are spread, but how the parameters for entire systems of social behavior are replicated.

These larger systems might also be described as “Ideological State Apparatuses” (see Althusser 1971 [1969]:141-148, and *passim*), institutionalized ways of thinking that are continuously replicated via religious, state, educational, guild, and other similar institutions. This term ISA is generally applied to state contexts rather than to smaller scale societies. Presumably, in more compact communities and societies this concept would operate—or would have operated—in slightly different ways. The general principle, however, is that ISA’s play an active role in controlling and structuring how groups function, by bringing otherwise errant group members closer to the cognitive *status quo*. When ISA’s fail, it is usually the more physically repressive aspects of the state apparatus that step in and regiment

cognitive dissention by threatening, jailing, killing, or otherwise dealing with, mentally unique members of the community. Smaller societies may have lacked the thoroughly regimented and organized types of political and social apparatuses described in Althusser's theory, but similar types of mechanisms must have existed, even as they do in societies of different scales today, in order to regiment and control socially related aspects of cognition.

The history of visual representations described in the following chapters is in many ways not only an inquiry into the evolution of human communication systems, but an attempt to explain how some of the mechanisms that underlie human cognition have been purposefully and repeatedly exapted to serve the specific purposes of societal elites. It is specifically because the ideologies that are manipulated by governing groups are based to a great degree upon not only culturally specific but also biologically embedded mechanisms of thought and behavior that ideologies can constantly endure subtle forms of modification and, more importantly, can continually replicate without recourse to unacceptably excessive levels of physical coercion and force.

1.10 Evolving visual structures: Compositional rules, devices, and frameworks necessary for complex visual messages

Before the very complex types of ideological and social structures mentioned above could even begin to exist, however, human beings had to pass through a long period of learning to manipulate increasingly large groups of signs and their attendant rules of usage. The representations of the Aurignacian period (discussed in section 1.8) are often described as "abstract art," a peculiar designation when one considers that the images are mainly mimetic representations. This is because most modern viewers expect to encounter a series of pictorial

conventions that allow them to properly interpret the information being displayed. The human mind has specifically evolved in such a manner as to expect and to automatically decipher a wide variety of structural cues, elements, and sequences.

Most people—other than perhaps art historians—rarely contemplate the existence of the pictorial structures and cues, such as groundlines, register systems, frames, hierarchical ordering, and sequential ordering, that govern visual systems of communication and display (for which see, for example, *passim*: Arnheim 1969, Arnheim 1974; Arnheim 1988; Schäfer 1986; Schapiro 1994 [1969]). These formal and structural features, however, are responsible for the existence and the success or failure of each and every one of the now incessant barrage of socially conceived and manipulated images that assault us as a constant stream of movies, videos, television, advertising, the internet, books, museums, and countless other sources. The formal aspects of visual behavior that guide viewers toward the proper reading of such, are in no small part based upon semiotic innovations that were designed to record and transmit increasingly complicated forms of information by emerging complex societies during the late fourth millennium BCE.

The evolution of these structures may have been set in motion by the discovery of external forms of symbolic display during the Aurignacian period, but it was tens of thousands of years until the formal systems that are the central focus of the following chapters, evolved. Aurignacian humans had already evolved fully modularized ‘modern’ minds’ that were capable of at least limited abstract reasoning (Mithen 1996:70-73), but the majority of the visual structures that we take for granted were not invented until the Late Uruk and Late Naqada periods in Sumer and in Egypt (a subject that is explored in chapters 2-5) and

continued to evolve in both societies in the following periods.⁶ The ability to engage in these types of semiotic activity profoundly influenced humankind's mental evolution. In chapters 6-12, I will attempt to show not only how such are indicators of human thought, social organization, metaphysics, and ideology, but how they also record our path towards historical consciousness and self-reflexivity.

⁶ Although in this specific study those innovations are only discussed for Sumer.

Chapter 2:

The development of writing systems during the Uruk Period

If we consider what it means to be human, certain cognitive capabilities loom large—capabilities that subserve language, art, music, invention, and science. Precisely when these capabilities arose in the course of human evolution is unclear, but it seems likely they were well developed at least fifty thousand years ago, based on archeological findings of standardized stone tools and jewelry in East Africa. About forty thousand years ago, the Cro-Magnon people in southwestern Europe created magnificent cave paintings as well as statues and musical instruments, suggesting mental capabilities comparable to our own. We have been human for quite some time already. (Holyoak, Gentner, and Kokinov 2000:2-3)

Moreover the size of the brain has physiological limits—its high metabolic costs prevented it from simply getting bigger and bigger in human evolution. Hence when relying on the brain alone there have to be limits on human thought and these limits are most likely to be those exhibited most clearly by the Neanderthals. The earliest members of our species between 130,000 and 60,000 years ago were similarly mentally constrained by the brain, with a few possible exceptions. But by this date, and after the discovery of using material culture to extend the mind, humans escaped those mental constraints imposed by the brain. By extending the mind into material culture a new evolutionary trajectory was initiated. (Mithen 2000:217)

All animals and even organisms might be said to engage in semiotic activity either for communication or survival (see, for example, Uexküll 1982; Uexküll 1992 [1934]; Hauser 1992). The ability to record, retrieve, communicate, and manipulate information via an extensive repertoire of purposefully wrought icons, symbols and other signs, however, is part of what defines human thinking as radically different from that of other species. It may also be a part of what initiated a unique direction in our cognitive evolution. The ability of human beings to organize and manipulate information extracortically by means of various types of physical signifiers (see section 2.4), appears not only to have allowed not only us to overcome

some of the constraints of our neurological biology, it has radically effected the evolution of human cortical organization (see sections 2.4.1 and 2.4.2).

As humans learned to better convey information by means of visual display, image making began to develop into more fully representational and complex systems. Until the late fourth millennium BCE, however, the information transmitted and encoded via visual representations appears to have remained highly limited in complexity. This is not to say that this aspect of our cognitive evolution did not continue—in fact, quite the opposite is true—it is simply that the current evidence suggests that for tens of thousands of years visual representations lacked the ability to convey many specific types of ideas including: abstract concepts, complex mathematical and linguistic information, and complex narrative sequences. We should remain open to the possibility however that such conclusions reflect gaps in the archaeological record and that as newer evidence eventually emerges and fills these gaps it may become necessary to reconsider the chronology involved in the development of visual systems.

I believe that the two of the most decisive discoveries in humankind's ability to visually encode, store, and convey information occurred in Sumer and its colonies during approximately the Uruk IV and III phases (3500-3000 BCE) and in Egypt from the late Naqada II through middle of the Naqada III periods (approximately 3500–3050 BCE).⁷ These were the invention of writing and the creation of pictorial reliefs that structured information in regimented and complex forms utilizing standardized signs and tropes such as registers and groundlines to indicate relative location and temporal sequences.

⁷ Although it was for a long time generally believed that the Mesopotamian writing system predated the Egyptian one (Nissen, Damerow, and Englund 1993:7) the actual facts still remain uncertain (see Dreyer 1998:87, 181).

The ability to form links between individual units, or clusters, of information contained within distinct cognitive modules—i.e. ‘faculties’, or ‘domains’—allowed humankind to think of abstract concepts and languages in terms of artificially produced images. The process just described is referred to in this analysis as ‘cross-domain’ mapping. It is a cognitive ability that had already existed for many tens of thousands of years at the very minimum. During the late fourth millennium BCE, however, some form of catalyst(s) stimulated the creation of elaborate new methods for transmitting information visually that were radically different from anything that had preceded them. Such catalyst(s) may have included increasing societal complexity, the desire to record economic and other forms of data, and to transmit that data or other forms of messages in order to create and enact propagandistic and social statements relating to rulership and government. The exploration of specific societal and environmental pressures that may have driven the creation of new methods for presenting information visually remains the subject for a separate and different discussion. The major concern of the present study is the development of the systems themselves.

This chapter and the following one introduce the development of complex forms of visually transmitting information that developed in central Sumer and its peripheries during the late Uruk period. What are discussed here are the changes in the cultural output in Sumer, the ways in which the Sumerians constructed meaning via artificially wrought visual forms, and the bases of various ways in which meaning is conveyed—i.e., how signs are constructed and how they function. The observations expressed in this chapter are expanded upon in the following one in order to demonstrate that visual images are as much a system of communication as language and writing. Both written and ‘artistic’ systems of visual communication are intended to record, structure, and convey information; each system does so

in a manner different than the other, however, because the methods and structures of their transmissions are unique. Furthermore, the type of messages or data that the two systems can encode and convey are very different. We may also postulate that other, perhaps even older, forms of visual messages may also have existed which have been lost because they were elaborated on perishable, organic materials.

2.1 Structuring visual messages: How signs function

In examining the evolution of visual representation in Sumer, I focus both upon elements such as composition and style—familiar from art-historical discussions—and upon the individual parts that make up signs: signifiers and signifieds. I explain how relationships are formed between those basic building blocks of information and how they are used to transmit and receive information.

The most basic building block in visual communication is the sign, a unit composed of two basic elements: a signified and a signifier. The signified is a mental representation of a given thing, for example the mental image of a tree. The signifier is an external construction used to represent that signified. The signifier and signified are linked by means of a semantic or conceptual relationship in which one is mapped onto the other.

In visual terms, the signifier is an optical representation of the signified that is intended to represent a concept or object. It may be a drawing, sculpture, relief work, gesture, or other visual representation. In linguistic terms, however, a signifier is the set of phonemes, or morphemes, that are grouped together to represent the signified—for example “tree,” “arbre,” “arbol,” “Baum,” or whatever other sound(s) a community has agreed upon to represent that particular category.

Fully developed writing systems generally but not necessarily utilize signifiers that are visual representations which refer to the original linguistic signifiers—i.e. the sets of vocalized phonemes, or morphemes, that were grouped together to represent the signified in speech. For example, the written forms “tree,” “arbre,” “arbol,” or “Baum,” refer to actual sounds used in the English, French, Spanish and German languages; those sounds, or signifiers, in turn refer to the original signified. Writing therefore relies upon an additional layer of signification to transmit information. It demands more cognitive resources to convey or send each unit of information than either speech or some mimetic forms of visual representation. This is because in most written languages, the visual representations—i.e. the last layer of signifiers—must refer to secondary signifiers (the sounds of the words) which then in turn refer to the original signifieds themselves (the original objects or mental representations). Writing is therefore a systematically ‘top-heavy’ process of encoding and transmitting information because it requires an extra set of signifiers to successfully convey a message.

One school of semioticians argues that all signs are “arbitrary” because the association between signifier and signified is not always dictated by necessary correlation, but rather by social convention(s). What this means is that it is possible to choose any given sound or graphic depiction to represent any given concept or idea. This viewpoint argues that our ability as a species to communicate with one another is based solely upon the creation of and adherence to a series of culturally determined conventions. Such conventions are what formalize the strict mapping of specific associations between signifiers and signifieds.

The extreme viewpoint just described is correct only for particular types/categories of signifiers. There are two different types of semantic relationships between signifier and signified: “transparent forms” and “opaque codes” (Deacon 1997:60). Transparent forms

include highly mimetic visual representations commonly referred to as “icons”, which are not based solely upon convention (although the artistic style in which any iconic representation is depicted may be considered a “convention”). Opaque codes are usually “symbols”, signifiers that require explicit knowledge of conventions, or “indexes”, signifiers that require knowledge of pre-existing possibilities and circumstances like the relationship of signifier and signified as described above.

In English, for example, we commonly employ the word “elephant” as a signifier, or opaque code, that stands in for the mental image of an animal with a long nose and thick skin. In this particular case, the signifier acts as a symbol requiring knowledge of a culturally determined convention in which that particular set of sounds is semantically mapped to a specific signified, i.e., the mental representation of that particular animal. We could, however, use any other opaque code, whether a sound, gesture, or visible mark to signify exactly the same thing, as long as both the person transmitting the signal and the intended recipient of it agree in advance upon a standard correlation between signifier and the signified. In one of A. A. Milne’s books, for instance, Pooh, Piglet, and Christopher Robin agree upon the word “heffalump” to phonetically represent an imaginary animal with elephant-like attributes (Milne 1961:56–71). This particular convention, although adhered to by a selectively small group, works perfectly well because the members of that group accept it as a convention. Conventions and agreements that determine mappings between opaquely encoded signifiers and their respective signifieds are the basis for almost all lexical entries into a language —N.B., however, that this rule does exclude some linguistic signifiers that are based upon onomatopoeia). They are among the most defining attributes of individual culture(s) and

subculture(s), acting as the binding forces that both differentiate and construct social identities.

Charles Sanders Peirce divided all signifiers into the three basic categories that cognitive neuroscientists have adopted as one part of the basic vocabulary used for discussing mental representation; these consist of: icons, symbols, and indexes (e.g. Deacon (1997:63–101). Although most linguistic signifiers are arbitrarily derived and assigned, the same is not true of visual signifiers, especially those of the first category, icons. These are “transparent”, relying upon the mimetic correspondence between themselves and their respective signifieds to relay meaning. Peirce’s own example of an icon is that of a pencil stroke that is intended to represent a geometric line. Peirce’s example is included to reduce the concept, or definition, of iconicity to its least ambiguous form. More accessible examples might include representations based upon the outlines of common forms such as trees or animals. In examining objects, even if we claim to know nothing about the person or culture that created a particular icon, we can still understand the basic value of that particular sign because if the correspondence between signifier and signified is mimetically based then the semantic interpretation is more likely to be structurally explicit. Very early icons include mimetic representations of the animals painted during the Aurignacian and Paleolithic periods in caves at Chauvet, Cosquer, Lascaux, Altamira and elsewhere. Those representations still communicate their iconic values to the modern viewer, because they closely mimic the physical attributes of the animals that they were intended to signify.

Peirce’s second category of signifiers, symbols, are opaque codes that are based upon culturally specific conventions. Again they successfully transmit information only when both the sender and the receiver of the signal adhere to predetermined conventions. The cave

paintings may have communicated additional meanings to their original viewers through symbols we can no longer interpret. If such additional values were present, they are now inaccessible to the modern viewer because they were opaquely encoded. We cannot reliably decode the symbolic information that the paintings may once have transmitted because the conventions used by the original senders and receivers of those messages are unknown to modern viewers. We can read those signifiers only on an iconic level.

The brush strokes, pigments, and other traces of human involvement associated with the cave paintings, or with any other human endeavor, are naturally read as icons or symbols. But they are also indexes, signs which demonstrate the physical traces of events. All physical traces are indexical signifiers of the people, animals, or forces that caused them, as in Peirce's often cited example of a bullet hole in a pane of glass. The hole signifies the firing of a gunshot, its sound, the movement of the bullet, the explosive force of the powder ... etc., regardless of whether any observer was present when the action took place. Indexicality, at first glance, does not seem very important to the topic of how images convey information, precisely because indexical information is not purposefully encoded. All signifiers, however, be they icons or symbols, are also indexes, since signifiers are learned via a process known as "reference." For any signifier, the indexical aspect of the signified has to do with the actual process of having learned it.

Almost all signifiers transmit meaning on all three levels—the iconic, the indexical, and the symbolic. As Deacon has explained it, "No particular objects are intrinsically icons, indices, or symbols. They are interpreted to be so, depending on what is produced in response. In simple terms, the differences between iconic, indexical, and symbolic relationships derive from regarding things either with respect to their form, their correlations

with other things, or their involvement within systems of conventional relationships” (Deacon 1997:71).

2.2 The birth of writing during the late Uruk period

2.2.1 The archaeological context

A careful study of humankind’s ability to create signs would no doubt show a very slow period of evolution from the Aurignacian period until the late Uruk period in Sumer and the Naqada II/III period in Egypt.⁸ The later that a prospective researcher looked along this proposed timeline, the more he or she would find more examples of increasingly purposeful and structured semiotic activity. At some point during the late Uruk IV period, and the Naqada II/III periods, however an extraordinary series of semiotic innovations took place which centered upon structuring representations rather than simply imitating objects in the natural world. Drawing upon extant forms, humans invented highly regimented and canonical means for visually structuring and transmitting information in both writing and visual narratives.

The earliest known group of Sumerian texts comes from the central district of the Eanna precinct at Uruk—the precinct of Inanna’s temple.⁹ The texts, written primarily on clay tablets, were discovered scattered in different areas of fill, below the buildings of Archaic Level III (see plan, Fig. 7). The Uruk III buildings were built over the locations of Uruk IV constructions, and the pits of fill were formed when the old buildings were razed. This

⁸ No such study exists at the present time. For a general overview of some aspects of ancient Near Eastern symbolic activity, prior to the Uruk period, see Goff (1963). The glyptic of the ‘Ubaid period is discussed by: Amiet (1980:17–25); Buchanan (1967a and 1967b) and Holmès-Frederiq (1970); Wickede (1990).

⁹ Note, however, that two pictographic tablets found at Tell Brak are considered by their excavators to predate the tablets from Uruk. Their dating is based upon the pottery that was found to be associated with them, which dates to the Northern Middle Uruk period (Oates and Oates 1997:291; illustrated in Jasim and Oates 1986:359, Pl. 2a).

involved moving fresh and old debris of earlier administrative centers. The tablets were already discarded by the end of the Uruk IV period and were employed as part of the raw material used to fill in and to level the terraced area prior to the rebuilding of the precinct's edifices. We do not know, unfortunately, whether the tablets belonged to a series of brief episodes that were widely spaced, or (less likely) to a more contiguous span of time. Robert Englund writes that:

... trash heaps of shards, bones and discarded tablets were mixed with ancient excavations of still older debris and used to fill in holes and pits. It is not difficult to imagine the impact this mixing had on the original archival contents of the tablets concerned. (Englund 1998:34)

Because the tablets lack good stratigraphic context and because of the poor recording practices of the original excavators, the standard archaeological method—assigning dates to objects according to stratigraphic levels of find spots, and by extension to the periods that those levels are concluded to represent—is useless in situations like this. The accepted practice among philologists trying to periodize the texts has been to look at the individual written forms on the texts (forms which I will refer to as “graphs,” rather than as “signs”¹⁰) and to assign them to what are called “script phases”—a practice initiated by Adam Falkenstein (1936). According to this system, the tablets bearing the oldest looking, more mimetic, graphs are said to belong to the “Uruk IV phase,” a period that is generally considered to correspond to level IV a of the Eanna precinct, although Dietrich Sürenhagen has recently suggested that many of the

¹⁰ The word “graph” as it is used throughout this work agrees with the following definition: “A visual symbol representing a phoneme or a segment or feature of speech; esp., a letter, or one of its occurrent forms, or a combination of letters” (*s.v.*, Oxford English Dictionary *as*). It also corresponds closely to the definition given by Crystal *as*, “A term used by some linguists to refer to the smallest discrete segment in a stretch of writing or print” (1991:162). Although linguists such as Bolz (1994) have used this word to describe archaic characters written in early forms of the Chinese script, what I am calling “graphs” are more commonly called “signs” by Sumerologists. The word “sign,” however, is reserved throughout the present work to refer specifically to corresponding combinations of signifiers and signifieds. That word, “sign,” as it is used by Sumerologists is, within the semiotic terms employed here, actually a “signifier,” which is but one component of the complete sign.

pictographic tablets should be reascribed to Uruk IVc-b and that some of the numerical tablets should be dated to Uruk V (Sürenhagen 1999; see also Englund 1998:35–38).

The tablets of the Uruk IV script phase relate primarily to administrative functions. There are three basic categories: small transversely perforated clay tags or labels (Fig. 8a); small tablets inscribed with a combination of numerical and ideographic graphs that appear to contain a single unit of information (Fig. 8b); and larger tablets (Fig. 9) that are “characterized by the division of the tablet into columns and cases, each case containing one unit of information” (Nissen, Damerow, and Englund 1993:20). The tags differ from the tablets in that they contain “few ideographic signs [graphs] and no numerical notations” (Nissen, Damerow, and Englund 1993:20). Furthermore, because the graphs on the tags “do not belong to the well-known repertoire of symbols representing goods such as plants, animals, textiles, and metals,” it is thought that “the tags therefore carry personal names and were probably attached with a string to containers or other items, stating the proprietor or receiver of such goods” (Nissen, Damerow, and Englund 1993:20).

A slightly later group of tablets and a smaller number of tags or labels that were affixed to objects such as clay vessels and graphs are said to belong to the “Uruk III phase.” This phase has been proposed to correspond in date to the material from level IIIb of the Eanna precinct at Uruk (Nissen, Englund, and Damerow 1993:6–7). It is also sometimes referred to as the “Jemdet Nasr phase,” a name taken from another site that yielded tablets thought to be contemporaneous with those of level IIIb at Uruk (Green 1981:345).¹¹ It can be observed that although many Uruk III phase graphs are similar in appearance to those of the Uruk IV phase, even the most iconic of the Uruk IV graphs—those that are visually based

¹¹ There is some disagreement as to whether Jemdet Nasr can truly be said to represent a distinct period (see, Finkbeiner and Röllig [eds.] 1986).

upon the bodily parts of humans or animals, the forms of plants, or the shapes of cultic standards—developed into less rigidly mimetic looking forms by the Uruk III phase.¹² In general, the Uruk III phase graphs are slightly more geometric looking than their predecessors and are composed largely of straight lines rather than curved forms.

2.2.2 The origin of the Sumerian script

There is some evidence that the original inhabitants of the region may have spoken a different language, but this question remains uncertain and continues to be debated. Benno Landsberger, for example, argued that many of the oldest city names—*e.g.*: URIM, URUK, LARSA, ADAB, LAGAŠ, and ZIMBIR—are artifacts derived from non-Sumerian substrate language(s) which he called “Proto-Euphratic” and “Proto-Tigridian” (1974:9). Dietz Otto Edzard has pointed out, however, that Landsberger’s view—despite having been further developed in the introductory chapters of various works by Armas Salonen (1966, 1968, 1969, 1972, 1972, 1976)—has “not found much support” (Edzard 1997:159, No. 1). This agrees with the most recent and perhaps the most substantive and thorough study of the issue, that of Gonzalo Rubio who has concluded that no such substrate language(s) can actually be discerned (1999:1-16).

It is not clear whether any features of the Uruk IV script can actually be said to clearly indicate the defining aspects of verbal communication—*e.g.*, morphology, syntax, and grammar—clearly enough to allow a specific language, or even language family to be identified (Gelb 1963:63; Landsberger 1974:9; Green 1981:346; Englund 1998:42). Whatever the case may have been, most scholars now generally agree that the Uruk IV phase texts

¹² See for example the following graphs in Green and Nissen (1987): # 32 (=ANŠE), # 219 (=GIR₃), # 224 (=GIŠ+DIN+DIN), # 274 (=KA+GI), # 374 (=MUŠ₃), # 383 (=NAM, SIM), # 437 (=SAG), # 438 (=SAG+GEŠTU), # 519

probably represented the Sumerian language (e.g. Nissen, Damerow, and Englund 1993:117; Reade 1997:22; Rubio 1999:1-16) and both Benno Landsberger and Piotr Steinkeller have written that the script of the Uruk IV phase was indeed a Sumerian innovation. In Landsberger's words "if writing had been invented by a people other than the Sumerians, traces of its system would permeate the system" (1974:9). Steinkeller says of the Uruk IV graphs, "Apart from their importance for the history of cuneiform, these writings provide iron-clad proof that the language underlying the Uruk script is in fact Sumerian." (1995:695)

There is no absolute consensus concerning the origin of the script; there is also disagreement about whether Uruk IV phase graphs represent the product of a gradual evolution¹³ or whether the script was invented during the Uruk IV period by either a group or an individual. The evidence needed to answer this question has either been definitively destroyed or has not yet been discovered. The most plausible theory is argued by Englund, who believes that the script had no earlier phase and that its only structural precursors were the seals and counting devices, or tokens, that are represented in the earlier archaeological record at Uruk itself:

This conservative *argumentum ex silentio* can, however, be disregarded. The precursors to Uruk IV period proto-cuneiform are clearly found in the archaeological record from Uruk itself, as well as from nearly every major Late Uruk site excavated in the Near East. The increasingly evolved administrative tools employed by accounting offices of emerging urban centers in the 4th millennium BC included stamp and cylinder seals, counting devices and clay tablets, to name devices which remained intact in Near Eastern ruins. (1998:42)

Marvin Powell goes even further; he argues that the script was invented by "an individual ... certainly not a committee, and not a slow accretion of sign after sign from generation to

(=ŠEG₉), # 539 (=ŠUBUR), # 613 (=ZABALA).

¹³ The latter view is argued by Green (1981), Lieberman (1980), and Finkel (1984), as well as by Jeremy Black (personal communication).

generation.” This, however, seems to be a dubious assertion as he justifies it only via the observation that “there is not a single instance in the history of writing for a communal-evolutionary invention of a script” (1981:422).

Regardless of how many people were involved in the script’s invention, the probability that a complete system of writing could have evolved during a short period of time is supported by the a variety of ethnographic examples in which societies adopted a writing system within a single generation. These include the late nineteenth century creation of the Shumom writing system by the ruler of the Bamoun people of Cameroon (French 1997:2); the invention of the Cherokee syllabary in 1821 by Sequoya (DeFrancis 1989:129–30), the invention of the writing of the Vai people of Liberia in the 1830’s (Schreibner and Cole 1981; DeFrancis 1989:130); and the recent invention during the 1950’s and 1960’s, of the Hmong alphabet in Laos by a non-literate farmer (Smalley, Yang, and Vang 1990). With the exception of the Cherokee syllabary, which was derived from examples of other written systems, the rest of these scripts appear to have been unique inventions albeit ones created by groups that knew writing existed elsewhere. Be that as it may, there is little question that scripts can be created quite rapidly. It is therefore quite plausible that an individual, or a group, could have similarly invented and codified a system of visual signifiers to record and transmit similar information during the late Uruk period.

2.3 The structure and origins of Sumerian writing

2.3.1 Types of Uruk IV/III graphs: Pictograms and ideograms

Most of the Uruk IV and Uruk III graphs are logograms, graphs that are used to represent a specific word (or words). These graphs fall into two familiar categories: pictograms (icons)

and ideograms (symbols). Pictograms, such as KU₆, “fish” (Fig. 10—second row from the top), derive their meaning through their resemblance to their corresponding signifieds. Ideograms, on the other hand, tend to be symbolic forms such as the graph UDU, “sheep”, which is composed of a circle with an “X” inscribed inside it. Pictograms may also function as ideograms, since they are capable of representing “a number of different words related only in a conceptual—not a verbal—sense” (Powell 1980:420); as in the case of all ideograms, however, their reading requires knowledge of predetermined conventions.

Although one might expect that the iconic pictograms necessarily preceded the more abstract looking and symbolic ideograms, this appears to have been only partially the case. The evidence contradicting such a developmental scenario comes from two forms of encoding numerical information, clay *bullae* and numerical tablets. Both of these classes of objects utilized tokens, physical symbols in order to signify, store, and transmit information. As Pierre Amiet and Maurice Lambert first proposed, the *bullae*, the earliest of these predate the Uruk IV period texts by at least a century, preceded the later system of written graphs (Amiet 1966; Lambert 1966). In a sense, the tokens may be said to be the functional forerunners of the later graphemic icons and symbols of the Sumerian writing system. What is meant here is not that the shapes of the token evolved into those of the written system, but simply that they were, structurally speaking, the semiotic predecessors of many of the concepts embodied in the later writing system.

The tokens themselves, which varied greatly in size and in shape, appear to have been used as counters for several millennia before the invention of writing. They appear to have been used not only for representational purposes, i.e. accounting, they were also probably physically manipulated in order to perform mathematical operations, rather like beads are used

on an abacus. The tokens may be divided into fall two basic categories: simple geometric forms; and more complex abstract forms (Fig. 11 and 12). Often they were incised, or drilled, so that they could be strung together (Fig. 13a). Brandes observed that, during the Late Uruk phase, the tokens were used in two slightly different manners: 1) initially, they were enclosed in *bullae*, or clay balls, and covered in seal impressions to ensure their authenticity and integrity; 2) a second group of *bullae* (Fig. 13b), perhaps dating to an only slightly later period, or perhaps to the same time frame, were impressed not only with seal impressions, but with the actual shapes and quantities of the tokens that were enclosed inside them (Brandes 1979:55-59; Brandes 1980). Presumably this was intended so that their contents be more easily identified.

Numerical tablets, another category of similar objects from the late Uruk phase, differ from the *bullae* in that although impressions of tokens were embossed onto their surfaces and they were impressed with seals to verify their authenticity, they did not actually contain tokens (Figs. 8b and 9). The numerical tablets are therefore believed to represent an even later stage in the development of accounting systems, one during which the physical enclosure of the tokens inside the actual document was already considered superfluous creating and instead only the impression of the tokens was embossed on the tablets' surface.

In a strange twist of academic error and misunderstanding—mentioned here primarily because the theory has become widespread and has worked its way into so many non-specialist publications in which it is often accepted without the benefit of critical reflection—Amiet's and Lambert's basic idea was appropriated and subsequently modified by Denise Schmandt-Besserat. In a series of articles and books, she argued that the actual forms and shapes of many of the tokens evolved directly into those of the Uruk IV/III graphs

(Schmandt-Besserat:1977; 1983; 1989; 1992a; 1992b; 1996). This theory, interesting though it may initially seem, it is is universally regarded by scholars of the ancient Near East as false. Despite years of considerable effort, Schmandt-Besserat has been able to provide no compelling evidence for the transformation of the actual token shapes into the later graphemic forms of the Sumerian writing system. From an archaeological perspective, what has been particularly disconcerting has been her lack of any coherent methodology in terms of the collection and organization of her data. The catalogue of Schmandt-Besserat's major work (1992a and 1992b) was unsuccessful in dividing the tokens into any sort of reasonable chronology, nor did it show any attempt to analyze or group the tokens according to their original locations and stratigraphy. The collection of objects that formed the basis of her thesis forming was an incohesive data set that may be shown to span a period of approximately 5,000 to 10,000 years. Equally disturbing is that many of the objects that she claimed were tokens are in fact clearly beads or amulets and that the objects are constructed of a broad group of materials including clay, bitumen, and numerous different types of stones. The most poignant criticism of Schmandt-Besserat's work, however, has been from the philological and epigraphic standpoints of Sumerologists who have been largely unable to find sustainable correlations between the shapes of the tokens and the forms of the Uruk IV/III graphs (e.g.: Englund 1993; Friberg 1994; Lieberman 1980; Michalowski 1993; Oates 1993; Zimansky 1993; Glassner 2000:87-112).

Amiet's and Lambert's original suggestion, however, that early pre-literate archives were composed of tokens, has now not only been substantively proven by finds in Syria, but has been shown to date to periods many millennia earlier than they had assumed (see section 2.3.2.1; and also, *passim*, Ferioli, Fiandra, Fissore, Frangipane [eds.]1994). Although the

physical shapes of the tokens do not appear to have served as the basis for later written graphs, the process of manipulating tokens of different shapes and sizes may have played some role—of unknown extent—in thinking about and mentally representing information. In other words, although token usage is by no means a necessary precondition for the development of complex rule governed systems of visual, semiotic transposition—as evidenced by the known archaeological finds from cultures such as those of Egypt and Mesoamerica—in Mesopotamia token usage may have helped to direct human cognitive potential towards the creation of increasingly complex systems of visual representation.

2.3.2 Preliterate systems of symbolic communication and storage

2.3.2.1 The evidence from Tell Sabi Abyad

The earliest archaeologically stratified evidence of the token based archives, as well as the world's earliest known seal impressions, come from the Late Neolithic (sixth millennium BCE) levels of Tell Sabi Abyad in Syria. Three rooms, in two separate buildings known as Building II and Building V, contained what appear to have been token-based archives. Room 6 of Building II contained over 150 sealings as well as many tokens. The excavators write that this room “was not used for common domestic activities or storage in the usual sense but instead served as a kind of archive” (Akkermans and Verhoeven 1995:13). In Building V, Rooms 6 and 7 contained hundreds of sealings, tokens, and other small objects (Akkermans and Verhoeven 1995:15–16) and whereas in room 6 the majority of the objects were found on the floor, in room 7, many of them “appeared in the dark ashes and other room fill high above the floor,” leading the excavators to speculate that they had “originally been placed on shelves or

the like and had subsequently fallen” (Akkermans and Verhoeven 1995:15).¹⁴ If that interpretation is correct, one may imagine room 7 to have been an archive where groups of tokens were stored on separate shelves for future consultation; the use of room 6, however, remains unclear.

The finds from Tell Sabi Abyad show that by as early as the sixth millennium BCE, humans were creating signifiers that were designed for the purpose of transmitting information from one point to another in a verifiable and immutable format. Many portable man-made objects, including clothing, jewelry, weapons, and pottery can be both intentionally and unintentionally coded to transmit information. The messages such objects carry through many diverse factors—including the materials from which they are made, the level of craftsmanship, and iconography—pertain to a vast array of variables including rank or status of the owner, and place of origin or manufacture. Seals performed similar semiotic functions, although in addition, their impressions convey more deliberately intended messages. An individual seal’s impression was an indefinitely reproducible yet unique entity capable of signifying multiple variables such as: authenticity, integrity, origin, contents, quality, ownership, or other factors unknown to us. Because the seal could be impressed upon any clay surface, its message could be transmitted via a variety of portable media such as jars, bullae, and other containers. Sealings could also be attached to doors and their lintels with cord in order ensure the integrity of the room’s contents.

Among hundreds of clay seal impressions that were discovered in buildings II and V at Tell Sabi Abyad, not a single corresponding seal was discovered. This implies several possibilities: the seals were either kept in each individual’s possession or were stored in a

¹⁴ Less likely alternatives include the possibilities that the tokens were either stored on rooftops and eventually fell to the floor following the ceiling’s collapse, or that there originally existed a second story to the building.

different area, or the sealings themselves were transported with goods or other objects from separate locations where they had originally been attached to each other.

Whatever the case may have been, among the most interesting aspects of seal usage is that this form of transmitting information would have probably allowed members of separate linguistic communities to transmit ideas and information to one another despite the constraints of their individual spoken languages. Seals and sealings no doubt played an integral role in long distance communication because they often utilized signifiers that could be understood independently of any spoken language. A seal representing a certain form of spider, for example, might hypothetically be understood to represent the products of a weaving guild, or an individual spinner. Other signifiers would in turn be used to designate other groups, or concepts, related to ideas such as authorship, authority, ownership, or production. As long as both the senders and the recipients of these messages shared a common system of mapping the same concepts and mental representations via commonly understood set of signifiers, then the containers upon which the sealings were impressed could be filled with objects that might then be transported from one point to the other accompanied by unique and verifiable messages. These visual transmissions encoded in the sealings and intended to convey concepts such as source, destination, or authority, could theoretically be understood by members of entirely linguistic communities and the sealings themselves would help to ensure that the integrity of the containers' contents were not tampered with or violated.

2.3.2.2 The use of tokens: The later archaeological, philological, and ethnographic evidence

Prior to the invention of writing, tokens were used to calculate, manipulate data, and record data and transactions when in certain cases they were stored in archives. Additional information about how the preliterate token archives were used can be inferred from later archaeological finds and by analogy from more modern ethnographic sources.

We now know, for example, that “In Old Babylonian [c. 1850–1400] mathematical texts we find terms for procedures that suggest an origin in the manipulation of actual counters in a system analogous to but distinct from that used by the abacus” (Powell 1995:1949). We also know from the Old Babylonian (OB) list of professions known as the *LU-series* that during that period at least four groups of accountants specialized in working with wood, stone, and clay calculi. These groups or professions which may represent idealizations on the part of the OB scribe rather than inflexible categories included: a “man of (the) accounting board,” a “man of (the) abacus,” a “man of stone (s/weights),” and a “man of clay stones” (Lieberman 1980:350).

Further evidence of how tokens were utilized dates to the Mittanian empire. In Nuzi during the mid-second millennium BCE, a group of tokens was enclosed within an inscribed clay envelope that was recovered by excavators. A. Leo Oppenheim interpreted the purposes of the envelope and its contents as being the facilitation of the transfer of counters from one accounting office to another, while ensuring that the sum of the contents remained unchanged. Furthermore, they spelled out specific instructions for conducting that transfer. An accompanying description “was meant to tell the official to deposit 21 of the stones in the pot

for ‘ewes that have given birth,’ 6 in the pot for ‘female lambs’” (Oppenheim 1959:127).

Oppenheim also suggested that, on the basis of the clay envelope’s inscription:

...one can evolve a picture of how these “stones” moved around, i.e., were “deposited” in, “transferred” to, and “taken” out of a series of receptacles for the purpose of reflecting the movements of the animals they referred to. Whenever animals changed hands or spheres of authority, a corresponding number of stones changed receptacles. (Oppenheim 1959:126)

Thus, for many millennia after the invention of written graphs, humans continued to perform basic accounting tasks through the physical manipulation of symbolic objects. The process of performing calculations with these dimensional signifiers continued because certain types of thinking, such as counting, are not necessarily accomplished any faster by other means than they are through object manipulation. If one is counting people or animals, for instance, the most direct and efficient way of doing so might be to use physical signifiers in order to represent them. By placing one counter in a receptacle correlating to the specific thing being counted, a record is established with no need to think in terms of language or to know the names of the numbers. Such counting practices are to some extent independent of language to this day.

Such a system of symbolic usage operates through a simple one to one cognitive process that maps signifiers and corresponding signifieds. The use of external symbolic aids in thinking allows the user to entirely bypass the secondary set of signifiers that would be necessary if one thought of signifieds first in terms of visual icons and then in terms of the sounds of language (i.e. symbols). Such a process avoids incurring an overly large systemic drain and reduces complexity by eliminating the extra, unnecessary layer of signifiers that would be required to map the same information linguistically to the same concepts. To put it another way, when tokens are utilized to represent a signified directly there is only one level

of semiotic transfer or substitution: the mapping from signifiers to signifieds. When graphs, or other symbols or icons, are used to represent linguistic signifiers (i.e. words) that in turn correlate to signifieds, they introduce an extra step in what is essentially a serial chain of mappings and computations. Bypassing the extra layer of complexity introduced by linguistic signifiers is quicker and more efficient.

More recent non-literate cultures discovered the same solutions for processing and storing mathematical information as the Sumerians did many millennia ago. As early as the 17th century, census records in Dahomey were recorded by means of pebbles enclosed in sacks. During the reign of each king, a new census was conducted and new rooms were constructed in the palace to hold the sacks of tokens. Token-based census records existed as early as the reign of King Hwegbadja (d. 1680) and continued to be collected until 1892, when the kings of Dahomey were overthrown by the French (Herskovits 1932). Complex mathematical calculations involving tokens were still being performed in Northern Ghana at least in the 1950s and 1960s by the non-literate LoDagaa, who used cowrie shells in their computations (Goody 1986:12–13). These examples underline the same points, that symbols can be used to express and to enhance cognition, and that certain types of thinking occur most efficiently without a necessary recourse to language. Language is present at certain levels of thought, but more usually than not it is a recursive inference mechanism; or it can be used to send information to the conscious dimension of the mind, it can be used to structure that information within the conscious domain where it may also be utilized as an input mechanism to direct deeper mental processes and operations. Language, however, does not constitute thinking, it is a surface indicator of it, an aspect of what we consider “consciousness,” rather than part of the deeper mechanisms underlying cognition (see section 1.2). To return to the

previous example, after counting with tokens, most people utilize linguistic signifiers to discuss the results or to bring them to the forefront of their own consciousness, an area where many representations occur linguistically although the use of language represents only one of many possible cognitive processes.

2.4 Manipulating external symbols: Mathematics, metrology, and cognition

The system of using abstract symbols for counting and record keeping first attested from the sixth millennium BCE bears implications for understanding cognition, the evolution of human thought processes, and the later inventions and refinements of representational systems.

Token-based archives are one at least one remaining the ways in which our human ancestors produced and manipulate symbols. Presumably, many other forms of mathematically and socially related symbolic activity that are no longer attested to in the archaeological record either because they were destroyed or impermanent—e.g.: marks made on organic materials such as bark, wood, hides, or reeds, and painted marks...etc.—must also have existed.

Presumably, these types of semiotic activities changed how humans think, or at the very least served as a catalyst to realize the full potential of certain applications of thought. Signifiers not only served to record or display basic information, they also allowed humans to perform abstract forms of computation that would otherwise have been impossible.

In his 1995 article “Metrology and Mathematics in Ancient Mesopotamia,” Marvin Powell points out that the sexagesimal system of mathematics employed by the Sumerians was probably a direct outgrowth of the preliterate token system and that this derivation is supported by the possible etymologies of some Sumerian words for numbers:

... if we were able to analyze the basic meanings of the words in Sumerian for the powers of 60, we might find that they are nothing but names for

counters. It seems likely that the word šAR in Sumerian, which denotes the second power of sixty, actually referred originally to a disk shaped or ball shaped counter. In any case, the terms for the next two powers of sixty seem to point in this direction: “big šAR” is the term for 60^3 , and 60^4 means literally “big šAR that is not touched by the hand.” (Powell 1995:1949)

According to Powell, “a fairly elaborate system of calculation must have been in existence at the time writing was invented. The inventor (or inventors) of the script simply adapted it for recording on clay tablets” (Powell 1995:1953–54). The development of even larger abstract graphs, such as the “big šAR that is not touched by the hand (60^4)” occurred later, but by the fourth millennium BCE, “a system of counters running up to the equivalent of 60^3 [the ‘big šAR’] was already in use” (Powell 1995:1949). Selz suggests that “‘Sixty not touched by the hand’ may simply attest to mathematical operations beyond ‘manual’ manipulations” (Selz, personal communication).

The invention of numbers so large as to serve no imaginable pragmatic purpose, however, may also demonstrate how the production of external graphs and other signifiers not only facilitates and allows the recording and transmission of information, it permits humans to think in ways that would otherwise be impossible. Perhaps as interesting is the possibility that certain forms of semiotic activity direct the mind towards processes of thought that eventually seem to become an end in and of themselves. A reasonable explanation would be that cognitive activity becomes directed towards the thought process itself—i.e., towards the analysis of the mechanism itself and its theoretical effects rather than simply the towards the transmission of information. A further discussion of such matters would, however, require a greater insight into the realms of the origins of philosophy and the esoteric than can be provided here.

2.4.1 Neural plasticity and extracortical organization of complex mental functions

By building upon skills used in understanding and manipulating abstract signs, the Sumerians and other similar societies that created comparable systems for recording and communicating information actually changed the physiological structures in their own brains. One aspect of this phenomenon, referred to as “neural plasticity,” involves the basic biological process of strengthening the connections between neurons that had been previously ‘weakly linked’ by their interconnecting axons. Although the term neural plasticity is most generally used to describe the ability of certain areas of the brain to adapt and take on the functions of other areas that have been injured, it is used here to describe a more general level of adaptability related to cortical processes.

The types of changes to the minds of our human ancestors that occurred because of neural plasticity were not inherited and/or passed down genetically. Quite the opposite was true, and remains true, those changes occurred and were recreated or enhanced by the processes of interacting with and manipulating symbols in each and every successive generation. This process of cortical development, first postulated by Donald O. Hebb in *The Organization of Cortical Behavior* (1949), is based upon the following three postulates:

- (1) Connections between neurons increase in efficacy in proportion to the degree of correlation between pre- and postsynaptic activity. In neuroscience this corresponds to the “Hebb synapse,” the first instances of which were later discovered in LONG-TERM POTENTIATION and kindling, whereas in cognitive science this postulate provides the most basic learning algorithm in adjusting connection weights in artificial NEURAL NETWORK models.
 - (2) Groups of neurons that tend to fire together form a cell-assembly whose activity can persist after the triggering event and serves to represent it.
 - (3) Thinking is the sequential activation of a set of cell-assemblies.
- (Klein 1999:367)

To put this a different way, neurons that fire together—i.e. excite, or stimulate, each other at the same time—cause an increase in the strength of the synaptic connections that exists between them. This increase in the strength of the connections between neurons, also known as ‘long-term potentiation’ [LTP] causes them to form an integrated set, or ‘cell assembly’, that continues to exist for an extended period of time after the event that triggered its formation. ‘Thought’ itself is the product of activating sequences of these cell assemblies.

One way of triggering LTP is by means of manipulating of external aids to thinking—e.g., tokens and other objects, and written and pictorial forms etc. Russia’s father of cognitive neuroscience, A. R. Luria—borrowing a phrase from Vygotsky’s work—referred to this phenomenon as the “principle of extracortical organization of complex mental functions”:

Whereas higher forms of conscious activity are always based upon external mechanisms (good examples are the knot which we tie in our handkerchief so as to remember something essential, a combination of letters which we write so as not to forget an idea, or a multiplication table which we use for arithmetical operations)—it becomes perfectly clear that these external aids or historically formed devices are *essential elements in the establishment of functional connections between individual parts of the brain*, and that by their aid, areas of the brain which were previously independent become the *components of a single functional system*. This can be expressed more vividly by saying that *historically formed measures from the organization of human behavior tie new knots in the activity of man’s brain*, and it is the presence of these functional knots, or as some people call them, ‘new functional organs’, that is one of the most important features distinguishing the functional organization of the human brain from an animal’s brain.

(Luria 1973:31)

Tokens and eventually other signifiers, including written graphs, are exactly the types of external aids and historically formed devices that Luria believed established new functional connections between the brain’s constituent parts. These new connections—i.e., changes in synaptic weight—allow neurons to form integrated systems of cell assemblies.

The new forms of extracortical organization in Sumer, represented by tokens, graphs and other signifiers, knitted new networks between individual parts of the cortex that allowed increasingly complex mental functions to occur. These interactions fostered, or favored, functions that allowed the Sumerians to think in terms of numbers that were so large as to serve no imaginable pragmatic purpose but showed that they were conceptualizing and possibly manipulating numbers in a theoretical manner. New mathematical constructs became possible only because of the influence of the evolving system of visually representing numbers.

Experiments have long since confirmed both Hebb and Luria's hypotheses. One series of tests that provided confirmation of their theories was performed by William Greenough. Greenough compared the cerebral development of two groups of rats: one living in a rather spartan laboratory environment and the second living within the cognitively enriched confines of his own home (Green and Greenough 1986; Greenough, McDonald, Parnisari, et al. 1986; Greenough, Black, and Wallace 1987; Sirevaag and Greenough 1987; Black, Sirevaag, Wallace, Savin and Greenough 1989). In a 1999 article in *Scientific American*, Kemperman and Gage recount the work of Greenough and his colleagues as follows:

In the early 1960s Mark R. Rosenzweig and his colleagues at the University of California at Berkeley removed rodents from their standard, rather spartan laboratory conditions and put them into an enriched environment, where they luxuriated in very large cages and shared the company of many other rodents. They could also explore their surroundings (which were continually changed by the caretakers), take spins in running wheels and play with a variety of toys.

Rosenzweig's group and later that of William T. Greenough of the University of Illinois described amazing consequences of living under such improved conditions. Relative to animals kept in standard cages, those enjoying the high life ended up with slightly heavier brains, greater thickness in certain brain structures, differences in the levels of some neurotransmitters (the molecules that carry stimulatory or inhibitory messages from one neuron to

another), more connections between nerve cells and increased branching of neuronal projections. Moreover, they performed better on learning tests; for instance, they were more successful at learning to navigate mazes.

(Kemperman and Gage 1999:51)

The cognitively richer environment that one group of rodents inhabited fostered neurological enhancements that extended beyond simple LTP to include greater numbers of connections between neurons, or as Greenough, himself put it, “The neural basis of experience-dependant processes appears to involve active formation of new synaptic connections in response to the events providing the information to be stored” (Greenough, Black, and Wallace 1987:129). It also included other substantive enhancements both to the brain’s physiology and to its chemistry.

It has since been demonstrated that the changes in cortical structure and chemistry stimulated by richer environments affect not only younger, still growing subjects, but also older adult specimens.

Together the various results implied that the environmental changes had led to improved brain function. Since then, neurobiologists have become convinced that enriching the environment of mature rodents influences brain wiring in ways that enhance brainpower.... New findings have now confirmed that environmental manipulations do affect adult neurogenesis. Applying technology not available in the 1960s, our group demonstrated in 1997 that adult mice given enriched living conditions grew 60 percent more new granule cells in the dentate gyrus than did genetically identical control animals. They also did better on a learning task that involved finding their way out of a pool of water. Enrichment even enhanced neurogenesis and learning performance in very old mice, which have a base rate of neuronal production much lower than that in younger adults.

(Kemperman and Gage 1999:51)

While similar experiments cannot be performed on humans, it is commonly accepted that cognitively enriched environments also affect and enrich the development of our own species’ brains. Since these changes are not genetic but environmentally stimulated, they take place

over and over again to different extents, and in different ways, for every human being in accordance with his or her exposure to different environmental stimuli.

The reasons for which these processes and their effects are not more commonly understood by the general public should appear self-evident. The political and social implications seem, at the very least, non-egalitarian. The discovery of effects of environment upon LTP and improved brain function are clear indications of what education does for the educated. Members of societies that are consistently exposed to cognitively enriched environments should logically be expected to learn to store and manipulate data with far greater efficiency thus making more hardwired what is already experientially valid. Similarly societal members exposed to stimuli that have been purposefully manipulated to achieve specific political or social goals, e.g. advertising or propaganda, will develop enhanced neuronal connections that would facilitate their cortical manipulation by the dominant ideological and state agencies.

2.4.2 The implications of manipulating extracortical information for the development of cognition

It would be difficult to believe that the new forms of extracortical organization devised by the Near Easterners—e.g., the token-based archives, the invention of writing, and the development of complex forms of pictorial representation—would not have influenced the physical organization and brain chemistry of those who used these systems. For the Sumerians, the obvious purpose in developing forms of extracortical organization like the mathematical system of notation was to calculate and record data related to social and administrative needs. But when one considers the invention of astronomically large numbers,

such as the “big šAR” is the (60^3) and the “big šAR that is not touched by the hand” (60^4) it becomes clear that the development of these mathematical graphs eventually continued to develop as a pure and abstract intellectual pursuit, eventually taking on something like a philosophical dimension rather than simply a functionalist expression. Tokens continued to be employed for calculations long after writing as tokens were extracortical aids that helped to structure mathematical thought. Their employment, however, also effected new cortical connections and other changes in the brain’s chemistry and functioning that were eventually expressed textually. Arguably this led writing to become ‘scholastic’ in something like the medieval sense of the word. The development of structured writing systems occurred alongside the organization of educational institutions (EDUBBA) that were necessary to sustain such changes in semiotic activity. This is not to imply that scholasticism is unique to ‘literate’ cultures, it is simply an observation about the relationship of emerging systems of strictly rule governed systems of semiotic transposition to the establishment and growth of related social organizations.

The invention of writing may very well have been a transformation made possible by what the system’s structural antecedents may have been. The creation of writing represents the ability to associate linguistic and mathematical representations with visual forms and to utilize existing optical processes and visual knowledge to represent both mathematical reasoning and the lexical and syntactical categories of language and speech. Such processes represented enhancements of existing and evolving connections between neurons. Presumably LTP, the formation of new neuronal cell assemblies, and other biological changes in brain function allowed humans to map information between different (and sometimes newly created) cognitive domains. The creation of these cross-domain mapped structures also

allowed people to think in terms of new analogies and new metaphors that they used to construct and convey new interpretations of their surrounding world. Such cross-domain mapped structures were not necessarily dependent upon writing, however, writing made new forms of analogical structures possible.

The evolution of new rules used in structuring pictorial representations (see further Chapter 3) also represented the ability to transform optical reasoning and mental representations into static and cogent forms by utilizing knowledge contained in entirely separate mental faculties. Like the invention of writing, the new forms of pictorial representation allowed people to understand and express a wide variety of complicated concepts, some of them abstract, not limited to mathematics and accounting. All of these changes in the ways humans were able to conceive of and process information would have been unlikely without people first mastering the ability to manipulate and understand complex yet standardized groups of symbols like those represented by the tokens.

2.5 The role of spoken language in the Uruk IV/III graphemic messaging system

During the development of writing, the earliest texts did not represent many of the standard features of written language such as aspects indicating morphology, grammar, and syntax. Scholars like Igor Diakonoff (1975:101) have long assumed that “the function of writing was, initially, mnemonic.” The graphs utilized on the Uruk IV and Uruk III texts were indeed mnemonic insofar as they represented statistics, transactions, and other forms of information concerning past events. However, this does not mean—as many philologists assume—that the graphs they utilized were necessarily intended to represent thought formulated in linguistic utterances.

If we begin by assuming that the claim of these linguists is correct, that the graphs do represent language, or at least linguistic thought, it is still not clear exactly what it would have meant for people to be able to ‘read’ them. Stephen Houston remarks that “literacy” is often a subjective description of an individual’s ability to read and write; he asks:

What are the definitions of literacy? The more abundant data from the Old World reveal an enormous range of meanings. In the first place, the ability to read was not necessarily the same as the ability to write, since the latter often involved greater preparation and skill. Ironically, in some societies of Late Antiquity, a person could be regarded as "literate" or even be termed a "scribe," yet show minimal competence; that is, some people could write but not read! The scribes from Fayum, Egypt, barely able to scrawl their names or copy another's script, are notorious in this regard; yet witness their anger when characterized as illiterate, a situation that compelled the Emperor Justinian to avoid confusion in his notarial system by recognizing various degrees of literacy... The essential point here is that literacy was often defined in cultural terms and in ways that make it difficult to evaluate the meaning of ancient references to the numbers of people who could read or write. For this reason alone, we should adopt a flexible definition of literacy.
(Houston 1994:28)

The term “literacy” may not be appropriate to discussing Uruk IV and Uruk III phase texts and whether they are as linguistic representations. The same aspects indicating morphology, grammar, and syntax are the ones that would allow philologists to fully decipher texts and to determine with some certainty what language was represented. These are not present in the Uruk IV and Uruk III phase texts.

Sealings, however, probably allowed the encoding and decoding of specific messages between populations that did not necessarily speak the same language. Likewise, the earliest graphs may have been symbols and icons that directly represented objects and concepts, for instance animals, people, numbers, and natural features, rather than the sound patterns of any specific language. Those graphs that were iconic would have been immediately understood by people with little or no formal schooling in whatever semiotic system existed, or at the very

least could be quickly learned even if several hundred of them existed, because of their mimetic forms.¹⁵ The symbolic graphs, for example, the pictograms representing numbers, would have been memorized as needed. There would have been little reason for a semi-literate person to learn the value of any additional signifiers that did not relate to their immediate need to consult or construct documents.¹⁶ Although some individuals presumably understood the entire graphemic system, many others must have possessed varying familiarity with particular elements within it.

The assumption that the Uruk IV and Uruk III phase written graphs must represent a specific language says more about the perspective of the philologists, epigraphers, and linguists who have studied them than it does about the people that used them. In certain cases they no doubt did so, but in others they may not have done. When used linguistically, they could in fact refer to several languages from entirely different families, or as Miguel Civil put it, “the early [Sumerian] texts, largely logographic, could be read either as Sumerian or Semitic” (Civil 1997:92)¹⁷—which is to say more or less the same thing, except that what Civil calls “logographic” be more exactly be described as “graphemic.”

It is also possible, however, to think in terms of signifiers without employing language—as in the earlier example of how one might record the number of any given object by placing counters representing them into a container representing a particular category. The manipulation of signifiers in that manner does not demand recourse to the linguistic and auditory faculties of the brain, although those faculties can obviously be employed in conjunction with that kind of reasoning.

¹⁵ Probably a limited number of Uruk II and Uruk III phase graphs existed that functioned as phonetic indicators and must therefore have only been understood by Sumerian speakers (see Steinkeller 1995:694–695).

¹⁶ It is possible to do much the same thing today. Students enrolled in graduate programs, for example, routinely “learn to read” languages that many of them will never be able to speak. As often as not, they end up learning

A good analogy for the way in which humans may have interacted with and utilized signifiers, in the case of the tokens and the signs of the Uruk IV phase script, is the way in which modern humans deal with graphical user interfaces (GUIs) on computers. We do not think in computer languages when we manipulate the small pictures called icons that appear on the computer's display panel. In a GUI environment, files, folders, volumes, devices, and functions are represented by pictures that users manipulate to perform different tasks.

Dragging an icon representing a program, file, or written document onto an icon that looks like a garbage can causes it to be deleted from the system without needing to input any written commands with precise syntax and variables. Similarly, clicking on particular icons may cause the computer to either print a document, or to calculate mathematical formulas, or to perform other functions. Little, or none of the thinking that users do when they manipulate these icons occurs within the same linguistic system utilized by the computer, even though high-level thought processes are employed by the user. Beyond this, putting an icon or folder into the trash doesn't have to be thought of on a linguistic level by the user when he or she manipulates the graphic objects. The specific interactions are between visual forms.

It is unlikely that Sumerians thought in terms of language when they placed a token representing a particular animal, or plant, into a container unless perhaps they were following instructions or orders that were already linguistically encoded. We generally assume that the Mesopotamians of the Late Uruk period necessarily thought in terms of language when they inscribed and read the earliest "written" graphs, but it is also plausible that the cognitive level at which the interpretations of these signifiers were manipulated bypassed the language faculty entirely. If this were the case, then the rules governing syntax were either developed later in

only the limited grammar and lexicon that is necessary to read materials in their specific field(s) of inquiry.

¹⁷ Contents of brackets are this author's

conjunction with additional graphs that indicated morphological, phonetic, grammatical, and other aspects of spoken language, or such functions were exapted from other cognitive processes—the exact nature of which is not entirely clear—and were then subsequently refined.

Thinking in terms of language reduces the efficiency of the process of interpreting visual symbols because an additional signifier must be employed. Almost all objects and concepts have corollaries that occur in spoken language. If we see a picture we can obviously attach a form of linguistic signification to it, but we can just as well think of it in terms other than language and still understand it. Either way, a picture of a dog still represents the same animal whether we decode it (or encode it) into language as, for example, “dog,” “perro,” “chien,” “Hund,” “kelb,” or whether we simply understand the sign value visually.

The trajectory of the development of the Sumerian system of graphs makes sense once one accepts that the graphs may have represented signifieds (ideas and objects) directly, that is, once one breaks away from the preconception that the early graphs must have represented what are in fact only additional signifiers—i.e., spoken words. The problem in understanding this arises from the common misunderstanding that we think in terms of language, whereas language is but one form for consciously representing deeper cognitive processes. Language and thought are not the same thing; language more often reflects thoughts rather than constitutes them. The ability to use language serves as a mechanism that interfaces consciousness with deeply buried cognitive processes allowing us to direct their operation and query their results. What is missing in order for us to understand the Uruk IV phase documents, beyond the specific linguistic context surrounding the graphs, is the larger corpus of social and cognitive information that can no longer be recovered.

2.6 Divergent paths: The evolution of writing vs. mimetic visual representations

The Uruk IV and III phase graphemic systems may, or may not have represented actual language. Alternatively, they may have represented some components of language, such as specific words, but not others—in other words the question may really be one of extent. Whatever the case may have been, graphs and other signifiers can clearly be employed to represent the sounds of language via communally arrived upon rule governed systems of transposition. Such systems of one-to-one mapping between visual and oral signifiers to produce signs of roughly equivalent values made it practically inevitable that the type of nascent system of visual representation that existed in Sumer by the Uruk IV/III phases would eventually develop into what we consider to be real writing. Indeed, by the Early Dynastic period not only was the overall number of graphs reduced into a more cohesive body, but graphs were employed to indicate semantic, syntactic, and morphological aspects of the spoken language itself. This allowed sound patterns of language to be more accurately represented. One manner in which such enhancements improved the accuracy of the information being recorded during and after the Early Dynastic period was by reducing the polyvalency of ideograms. Aspects and rules governing, or indicating, information such as grammar eventually made the correct value of each ideogram more explicit. Graphs that functioned as phonetic complements, as well as semantic indicators known as determinatives also made the ideograms more explicit. Whereas the phonetic complements functioned as pointers that indicated the correct pronunciation of the ideogram, determinatives indicated what category the ideogram belonged to—e.g., wood, copper, divinity, bird... etc.¹⁸

¹⁸ In the Uruk IV and III script phases, semantic indicators were “used only sporadically...The only certain evidence is the use of DINGIR in divine names...” (Steinkeller 1995:695).

At the same time as writing was evolving, a second system of visually representing information was also evolving along a non-linguistic trajectory, and producing increasingly complex forms of pictorial and sculptural representations that were structured and codified by a different set of rules from that of the linguistic system. Both systems evolved from the same stream of human sign usage but the structures and codes employed by the non-linguistic system were differently organized and relied upon aspects such as size and other visual hierarchies, composition, orientation, color, etc. The processes of writing and of creating artistic works required many of the same cognitive processes, the most important of which were the ability to associate words with artificially constructed images and the capacity to associate images with previous perceptions and with ideas. Writing and what we colloquially call ‘art’ also shared at least one common impetus, the need to record actions, events, and ideas in order to communicate them to a social group. Writing and ‘art’ both developed from mimesis; but in Sumer the two systems evolved along separate trajectories into two entirely different systems of communication.

In Mesopotamia the divergence between the two systems of visual representation, ‘art’ and writing, was caused partially by differences in the messages they were intended to convey and in the way they structured meaning. Throughout this work, the term ‘art’ is generally displayed in single quotes. As often, it is replaced by terms such as “narrative, or visual systems of display.”¹⁹

¹⁹ Without elaborating in great detail the many reasons for these choices, it should suffice to say that the terms ‘art’ and ‘artist’ have come to be equated in modern usages with concepts of individuality and authorship, for which there may not have been any really parallels in ancient societies such as Sumer and early Egypt. N.B., this does not mean that writing is excluded from systems of visual display and visual narrative. Sometimes art and writing were displayed alongside each other. Hence, these terms are used to describe works that might normally be called ‘art’, but which were executed by social classes of people that were defined differently than we think of ‘artists’ today.

The physical means by which Sumerian graphs were written onto clay with a stylus was another catalyst for the separation of the two systems. Whereas the Uruk phase graphs were literally pictures etched onto the surface of the clay, that method of inscription was abandoned by the beginning of the Early Dynastic period in favor of wedge shaped indentations produced with a specially cut reed stylus. The use of wedges to produce the graphs appears to have amplified the growing abstraction of written forms to an extent that by the end of the Early Dynastic period few, if any, signs bore clear similarities to their predecessors of the Uruk period.

It appears that during the Late Uruk and Jemdet Nasr periods there occurred a period of experimentation during which linguistic graphs were integrated into pictorial representations and displayed within the image field as cohesive parts of the composition (see the discussion of the Uruk Vase section 3.2). Ultimately, written and pictorial based ('artistic') systems of visual communication were never integrated into a unified system in Mesopotamia, as they were in Egypt. Instead of evolving a system made standard use of signifiers that could simultaneously be interpreted as both written and as pictorial, in other words a visual system in which most 'pictures' could also be 'read', the major trajectory in Mesopotamia appears to have been on in which writing and pictorial communication ultimately diverged—this is not to say that no such interplay existed at all, simply that by the ED period it was an increasingly unusual, if not esoteric, feature. Whereas, by contrast, in Egypt 'art' and writing became inseparably integrated, in Sumer graphemic forms became increasingly abstract to the point that by the ED period it is unlikely that many of them would have been recognizable to the uninitiated. The writing system also acquired an increasingly large number of graphemic values. Mesopotamian 'art', on the other hand, remained

intensively mimetic relying upon outwardly iconic forms to relay meaning, although many of those signifiers no doubt also had symbolic values.

Chapter 3

The development of pictorial systems of representation during the late Uruk Period

3.1 Structures of visual representations during the Uruk IV and Uruk III phases

At some point during the late Uruk period in Sumer, which is to say the Naqada II/III period in Egypt, humankind appears to have developed newly complex forms of visual display capable of recording and transmitting acts, events, and social and political messages. The archaeological record may eventually demonstrate that such development(s) occurred even earlier, perhaps on organic media such as wood, reeds, or cloth that have since perished due to their fragile nature. At this point in our understanding, however, it appears that these developments occurred during the later portion of the third millennium BCE.

The evolution of these visual, artistic systems can be seen in a comparison of two objects from the Eanna precinct at Uruk, modern Warka (map: Fig. 7): the so-called Lion Hunt Stele (Fig. 14) and the Uruk Vase (Fig. 15 and 16). Art historians specializing in ancient near eastern artifacts have generally focused upon aspects of stratigraphic context, iconography, composition, and style,²⁰ beginning with the construction of a chronological matrix. Ideally, this framework is based upon stratigraphic criteria, but it often relies heavily upon observations and distinctions related to iconography, composition, and style,²¹ which have played a primary role in analysis because many of these objects were either acquired on the art market, or excavated from secondary archaeological contexts.

²⁰ See for example, Moortgat (1969), Frankfort (1939 and 1969), Porada (1948), Boehmer (1965 and 1975), Strommenger (1964), Parrot (1960 and 1969).

²¹ The fine-tuning of artifactual chronologies based on these types of criteria can be difficult given that changes in formal aspects of visual representation seldom occur on a uniform basis. What modern viewers consider to be older styles may actually also represent something entirely different, for example, simple lack of technical ability, or purposeful attempts at archaizing in order to express purposeful statements about politics, religion, fashion, and the like.

The Lion Hunt Stele was found in a small chamber (room 206) in level IIIb to the south-east of the ziggurat at Uruk; the alabaster Uruk Vase was found in level IIIa/II of the Treasure House. We do not know the original contexts of these objects. Presumably, the basalt stele was originally designed to be viewed in a more spacious setting by either the public or select groups. The Uruk Vase must have been intended originally for use within the confines of the cult and one assumes that it was moved to the Treasure House either for safekeeping or because it was no longer being used and could not be thrown away. One can thus infer that the two objects date to, or predate, levels IIIb and IIIa/II respectively. Dating them relative to each other, however, requires that we consider categories of information other than just their find spots—although the Lion Hunt Stele is often said to be older on the basis of ‘style’ and/or composition, it is clear that such an argument is neither entirely logical nor is it truly sustainable.

‘Iconography’ and ‘composition’, two of the individual components that define a ‘style’, are potential sources that can narrow down the ‘style’ of an object. For the purposes of this discussion, ‘iconography’ is used to describe virtually any of the specific signifiers in a visual representation, such as figures, motifs, patterns, or any other form of icons or symbols. We know, for example, that the representations of the bearded figure on the stele and the sacred cattle, standards and vegetable motifs, and other signifiers on the vase are common in the iconography of the late Uruk period. They appear on cylinder seals from the same period (Figs. 17–25), sculptures (Figs. 26–31), and on a basin thought to come from Uruk (Fig. 32) but purchased on the art market.

In contrast to ‘iconography’, ‘composition’ describes a system of proportions and relationships between the individual visual icons and symbols that act as ‘sign vehicles.’ The

term ‘composition’ also describes the relationship of sign vehicles to other aspects that may be present, such as the picture field, the register lines, and the frame. In the case of such visual representations as sculptures, stelae, and basins, ‘composition’ may also describe not only the internal relationships between the signifiers and other compositional elements such as field and frame, but also physical relationships to aspects of the external world such as landscape and architecture.

The concept of ‘style’ is more difficult to define than iconography or composition, which are only two of the many factors that it encompasses and different writers see it in different senses. Archaeologists have often used ‘style’ to signify only those aspects that I have called ‘iconography’ and ‘composition.’ A better definition of the word would encompass an entire system of forms and ideas, and include a wide range of formally and structurally related aspects such as: media, workmanship, modeling, material, intention, message, and narrative or rhetorical structure(s). Not all styles are clearly distinct, because successive styles are often impossible to separate from one another in discrete time periods; as Meyer Schapiro stated:

Styles are not usually defined in a logical way. As with languages, the definition indicates the time and place of a style, or its author, or the historical relation to other styles, rather than its peculiar features. The characteristics of styles vary continuously and resist a systematic classification into perfectly distinct groups There are, of course, abrupt breaks and reactions in art, but study shows that here, too, there is often anticipation, blending, and continuity. Precise limits are sometimes fixed by convention for simplicity in dealing with historical problems or in isolating a type.
(Schapiro 1994 [1953]:53)

Regardless of how one chooses to define an individual style, the definition should include all formal, structural, and ideological aspects that can be grouped together into something resembling a coherent assembly.

3.2 The Lion Hunt Stele

The Lion Hunt Stele (Nöldeke, Heinrich and Schott 1934:11-13 Pls. 12-13; Basmachi 1949; Amiet 1980:611, Pl. 20; Becker 1993:57-58, Pls. 36-38 [Nos. 783a-e])—also known as the Uruk Boulder—(Fig. 14) is usually assigned to an earlier date than the Uruk Vase (Heinrich 1936:15-16; Pls. 2, 3, 32; Amiet 1980:664, Pl. 644; Lindemeyer and Martin 1993:81, Pls. 19-25 [Nos. 226 j-k]). This determination is usually based upon assessments related to ‘style’. Several of the common arguments used by art historians to demonstrate why the creation of the Lion Hunt Stele must antedate the Uruk Vase include that the composition of the boulder is less structured—i.e. more ‘chaotic’ looking—and that the technical treatment of the relief forms and the pictorial ground are ‘rougher,’ or less carefully executed on the stele than on the vase. These observations are only partially valid. As demonstrated in section 3.1, the system of composition and message transmission utilized by the boulder’s creator(s) is complex and carefully planned. What may, or may not, be more important in terms of the relative dating of the two objects is the complexity, uniformity, and intelligibility or coherence of the messaging system. In all each of these aspects the Uruk Vase appears to be far more sophisticated than the Lion Hunt Stele. Such an evaluation must be treated with the utmost hesitancy, however, because it may: 1) simply reflect how we, as modern viewers, deconstruct visual systems of encoding and transmitting information and how we value those structures that we believe we see; or 2) ignore that the forms and structures of these visual compositions may reflect structural needs, or teleological concerns, related to the original encoding and transmission of these messages by their original authors. In either of these cases, concerns such as the evolution of style, composition, and/or form, would be completely invalid.

The basalt stele measures approximately 80 cm in height, 57 cm in width and 37 cm in diameter. The bottom left hand side of the boulder has been shorn off and was never recovered. The upper right hand side has been chipped in a manner that has resulted in no real damage to the composition. Unlike the Uruk Vase, the portrayal of various forms of lion hunting, or series of stages in one particular hunt, lacks any formal groundlines, although they are perhaps implied by the composition itself. It does not employ a register system, picture frame, or a prepared pictorial ground. The boulder was never hewn into a regular geometric shape, such as a square or rectangle that might imply framing as a formal element.²² Indeed, the spatial parameters and compositional boundaries of the picture field are dictated by the roughly oval shape of the boulder itself. The picture ground, the convex face of the boulder, contrasts with almost all later Sumerian compositions because it is unprepared. Later compositions, such as the Uruk Vase, utilize a perfectly flat surface that had been specially treated previous to the artist's work. The figures on the stele were worked in raised relief, first by percussion with a very hard rock and then with a series of finer tools. One can still detect small pock-like indentations and other tool marks all over the surface. This particular carving technique removed material from the areas between the figures themselves, thus it would not have made a great deal of sense to smooth the surface of the object before carving the pictorial program. If any part of the original surface remains, it is only those areas of the raised relief that project the furthest.

Since there are no clearly discernible registers, it is useful to speak of the composition in terms of two scenes: the top and the bottom. The top half depicts the profile of a bearded figure, now commonly accepted to represent the "*En* priest" (e.g., Schmandt-Besserat 1993;

²²As Roger Moorey points out (personal communication), the stone used by early Mesopotamian sculptors, including the materials used for the statues of Gudea of Lagaš, was derived from natural boulders rather than

scholars, such as Moortgat 1949 and van Buren 1939–1941 once believed this figure to represent Inanna’s shepherd husband Tammuz, but this view ultimately was ultimately refuted by Frankfort 1950). This same figure is widely depicted in statuary and glyptic from the late Uruk period (Figs. 16-23, 25, 26-31). The *En* priest wears a kilt, a thick belt, and a hat with a rolled headband, and raises his right arm to grasp a spear by the hilt. His left arm is lowered to grip the spear close to its head. He drives the point of the weapon into the chest of a rearing lion depicted in profile.

The scene on the bottom shows the same figure, or an identically dressed one, also in profile and facing the same direction. This time using his bow, the *En* priest has already dispatched two lions to their death. One lies behind him, while a second still rears to his lower right. He is about to kill a third, which is directly in front of him. His mastery of the bow is evidenced by the placement of the arrows and the way in which they are grouped.

3.3 Category structure, prototype theory, and basic level effects

One might argue that the above brief description is about as much as the modern viewer can observe without “reading into the image.” Strictly speaking this is true since the decoding of every transmission entails a subsequent re-encoding by the recipient—a process subject to distortions via interference by the recipient’s own base of referents which do not equate with those of the originally intended group of recipients. At the core of the problem lies the fact that we—as viewers displaced in time from the Lion Hunt Stele—appear to be able to decipher only its iconic aspects. The symbolic aspects can only be guessed at, since symbols derive meaning via knowledge of the conventions which link them to specific signifieds.

Fortunately, there are several additional ways in which we can attempt to decode symbolic

values by means of inference. The first way is to look at the specific syntactical relationships between signifiers—for instance, we can examine what contexts lions, sheep, etc. occur in and what other icons or symbols usually appear in conjunction with them. The second method is to infer information from what is known about the structure of cognition—that is, the ways in which the mind creates categories, and how aspects and members of individual categories are mapped onto analogues within other (separate) categories to construct meaning through structures such as metaphors or analogies.

Traditional theory held that categories are based upon similarity and that all members of a specific category are therefore roughly equal in value. In other words, “If the classical theory were both correct and complete, no member of a category would have any special status. The reason is that, in the classical theory, the properties defining the category are shared by all members and so all members have equal status as category members” (Lakoff 1987:40). Today, however, cognitive neuroscientists, linguists, anthropologists, and other groups working in the cognitive sciences believe the classical theory to be erroneous (see, for example, Lakoff 1987, Ellen 1993, and the essays in: Vosniadou and Ortony [eds.] 1989; Harnad [ed.] 1987; Hardin and Maffi [eds.] 1997). Instead, these researchers believe that categories are radially, or perhaps axially, organized. In other words, categories are constructed so that certain members of the set are considered to be more representative of it than others. Those central members of categories are known as “prototypes” or “basic-level” members.

This particular framework for understanding how categories operate, known as the theory of prototype effects, was developed by Eleanor Rosch. Lakoff summarizes her work by saying that, “Rosch’s research on prototype effect has been aimed at showing asymmetries

among category members and asymmetric structure within categories” (1987:40). Rosch’s theory aims to explain why not all members of a set are necessarily defined according to the same criteria, nor do they necessarily share the same status as members (Heider [=Rosch] 1971, 1972; Heider and Oliver 1972; Rosch 1973, 1975a-d, 1976, 1978a, 1978b; Mervis, Catlin, and Rosch, 1975).

Several of Rosch’s studies concentrated upon the categorization of colors among the New Guinean speakers of Dani, a language with only two basic color categories (Rosch 1973), as well as among three and four-year old children (Heider [=Rosch] 1971). In her research, when Dani speaking subjects or children were taught new categories for colors, they tended to choose the same focal colors as being most representative of individual categories, irrespective of which language they spoke natively (Heider and Oliver 1972). What Rosch discovered in such studies is that certain members of a category are more representative than others—a result in keeping with the work of Berlin and Kay (see section 1.5). For example, a certain shade of red is more representative of “redness” than other shades are. Such shades, or focal colors, are prototypes or cognitive reference points. Similarly, a category such as “chairs” might contain the following members: benches, three-legged chairs, stools, swivel chairs, four-legged chairs, thrones etc., but one particular member, for instance a four-legged chair with a back, might be considered more representative of the category than the other members; that member is then the cognitive reference point or prototype and is said to exhibit “basic-level” effects.

According to Rosch’s theory, basic-level categorization operates so that prototypes are central members of specifically hierarchical structures. Members of the category other than

the prototypes are ordered so as to indicate their degree of specialization or generality by means of their proximity to the prototype. Lakoff defines basic-level categorization as:

the idea that categories are not merely organized in a hierarchy from the most general to the most specific, but are also organized so that the categories that are cognitively basic are “in the middle” of a general to specific hierarchy. Generalization proceeds “upward” from the basic level and specialization proceeds “downward.” (Lakoff 1978:13)

The idea that categorical structure is modeled in this axial manner explains how we process information by means of first establishing global mappings that can be most closely related to basic-level categories and then later extending these mappings “upward,” or “downward,” in order to refine the search parameters.

The theory that the mind processes information by first identifying the basic-level categories is also known as “basic-level primacy,” a phenomenon that occurs at virtually every level involved in the processing of sensory inputs:

... basic-level categories are functionally and epistemologically primary with respect to the following factors: gestalt perception, image formation, motor movement, knowledge organization, ease of cognitive processing (learning, recognition, memory, etc.), and ease of linguistic expression. (Lakoff 1978:13)

For the purposes of the present study, basic-level primacy suggests that when we look at ancient visual representations we can attempt to extract the basic-levels of categories from the existing data. This is done by noting the frequency of occurrences for particular signifiers in order to estimate prototype effects. From the extremely high rate of occurrence for certain signifiers in the known corpus from a specific period—for example, the high occurrence in the Sumerian visual corpus of specific animals like the lion and the bull, isolated human figures like the man with the net skirt; standards like the pole with streamers that symbolized the goddess Inanna; or specific plants—we can infer that these signifiers represent basic-level

members of categories. In theory, the more that a signifier with a particular set of characteristics occurs, the more likely that specific signifier is closer to the prototype within a category. It is worth noting that although the examples cited above refer primarily to symbolic categories, taxonomic categories are similarly arranged (Brown 1984, Atran 1986 and 1990, Medin and Atran 1999, Ellen 1993).

3.3.1 Categories, hierarchies, prototypes, and basic-level effects in the Sumerian lexical lists and other sources

Categorization is essential to the way in which our species (and perhaps others as well) thinks about and organizes information. The Sumerians not only spent a great deal of time thinking about categories, from the inception of the earliest known writing stage—i.e. Uruk IV—they were actively engaged in recording categorically organized lexical lists (Englund and Nissen 1993:69-176; Englund 1998:82-105; and Nissen, Damerow, and Englund 1993:106), a practice that would continue to evolve in Babylonia and Assyria for several millennia (q.v., in *passim*, Civil 1975). The Sumerian lexical lists organize and divide graphs and their combinations into distinct groups according to specific attributes. At least 21 categorical list types existed by the Uruk III phase, of which only 3 can be securely attested to date even further back to Uruk IV phase.²³ The names of the Uruk IV/III lists and their descriptions are as follows (adapted from Englund 1998:88):

- | | |
|---------------------------------|--|
| 1. LU ₂ A (NAMEŠDA) | Types of persons—i.e. titles/professions |
| 2. LU ₂ E (DUB.ŠAR) | Types of persons—i.e. titles/professions |
| 3. LU ₂ ^X | Types of persons—i.e. titles/professions |
| 4. Vessels | |
| 5. Tribute | |
| 6. Metal | |
| 7. Wood | |

²³ i.e.: “LU₂,” “Vessels,” and “Metal” (Englund 1998:82-105).

8. Cattle A
9. Cattle B
10. Officials A
11. Officials E
12. Officials B
13. Fish
14. Cities
15. Geography
16. Grain
17. Birds
18. Plants
19. Pigs
20. Vocabulary
21. Unidentified

Knowing that categorization exists as a very basic property of human cognition, the Uruk IV/III lexical lists allow us to make some specific observations about how the Sumerians thought. The first three lists cited above demonstrate the explicit use of sub-categories coupled for the extracortical organization of complex mental functions. The general category LU₂, meaning “person”, is divided into a series of subcategories. The LU₂ E (DUB.ŠAR) list represents sub-categories of “scribes.” The exact parameters involving the sub-categories represented in the LU₂ A (NAMEŠDA) and LU₂^x lists are, unfortunately, not clearly understood—but they must have represented similarly important groupings.

Sumerologists have also discovered that many of the lists were purposefully and hierarchically ordered, an observation that also suggests evolutionary implications concerning extracortical organization. In the various LU₂ lists, for example, lexical entries appear to be ordered according to rank, with the first member of the list occupying the highest social position (Nissen, Damerow, and Englund 1993:111). The first lexical entry in the LU₂ A sign list—NAMEŠDA—for example, occurs in a second millennium BCE dictionary, where it was

“was translated into Semitic Akkadian with the word *šarrum*, meaning ‘king’” (Nissen, Damerow, and Englund 1993:111). Nissen and Damerow observe that,

This late translation tends to support our original position that the first entry referred to the highest ranking of the titles listed. That the Sumerian word for king, *lugal*, was not used in the present context suggests that the position and function of the highest dignitary had changed through time”
(Nissen, Damerow, and Englund 1993:111).

Later documents—like the one cited above by Nissen and Damerow and Englund—have helped to confirm the probable hierarchical ordering of the Uruk IV and III lists. The hierarchical ordering of these texts is particularly important because it is the clearest evidence that we have from the late Uruk period of prototypes and basic-level effects.

The Sumerians employed similar forms of categorical thinking in constructing visual narratives. In the Lion Hunt Stele, for example, three specific categories are clearly depicted by prototypes or basic-level members: 1) humans, or probably more specifically human ‘rulers’, as epitomized by the figure in the net skirt; 2) lethal objects, namely the spear and the bow and arrow; and 3) ferocious natural forces, as signified by the lion. Note that in the final case—i.e. that of the lion—that animal also bears prototypical associations with rank that would reinforce the prototype, or basic level, association of the figure in the net skirt as a ruler. Each of these signifiers appears to represent a central member of a specific category. The way to access deeper levels of information that might otherwise remain hidden is to examine what are other members of the categories of information represented by those signifiers? Thus, in the case of the Lion Hunt Stele, we can infer that the *En* priest has the potential to stand for any elite member of the community who is endowed with the power to rule, he is the paragon, or most basic-level member of the human category. Similarly the lion can represent by extension an entire group of dangerous forces, as well as reinforce the elite

status of the *En* by means of reference—in fact, the arrows that pierce the beasts body literally refer back towards the *En* in term of their implied motion; the arrow and spear are similarly connected to a category of technology designed by humans to overcome natural obstacles. Identifying basic-level categories suggests to us a means of pinpointing individual units of information that are central in terms of processing and interpreting information and ideas.

3.4 The Lion Hunt Stele Reconsidered: Metaphorical structures, cross-domain mapping, and symbolic processes

Recognizing basic-level effects and prototypes allows us to go beyond the simple system of one-to-one correspondence between signifiers and signifieds. By taking our knowledge of this individual cognitive process and using it to dissect or “reverse engineer” systems of meaning, we can identify representations that are particularly salient for a cultural group. We possess a great deal of pertinent information because all visual representations are produced from the same mental images that create categories. We know that one of the central ways in which our minds analyze information and construct meaning is creating metaphors and analogies, structures that map information not only between respective members of the same categories, or domains, but also between separate categories or members of different categories.

Metaphors are essentially structures that reveal connections between discrete units of information dispersed between different groups. They are processes that enable one idea to be structured in terms of another (see, for example, essays in Ortony, ed. 1993; individual works by: Kittay 1987; MacCormac 1985; Lakoff 1987; Lakoff and Johnson 1980). The ability to create these structures is central to the way in which we think. Lakoff and Johnson write that metaphors are:

... not just a matter of language, that is of mere words. ... human thought processes are largely metaphorical. ... the human conceptual system is metaphorically structured and defined. Metaphors as linguistic expressions are possible precisely because they are metaphors in a person's conceptual system.
(Lakoff and Johnson 1980:6)

If metaphors are inherent to our conceptual system, we should expect to find them not only in our linguistic expressions but also in all other forms used to signify information externally.

The person or group of people who created the composition of the Lion Hunt Stele employed a series of metaphors to elaborate a central message which was a statement about the power of the ruler exemplified by his mastery over and defeat of dangerous opposing forces. In order to convey this, the designer utilized a variety of metaphoric structures, the first of which can be described as "orientational." Orientational metaphors derive their structures from the way in which humans perceive space. We view the world around us in terms of "up-down, in-out, front-back, on-off, deep-shallow, central-peripheral" and "these spatial orientations arise from the fact that we have bodies of the sort we have and that they function as they do in our physical environment" (Lakoff and Johnson 1980:14; for a fuller treatment, see also Johnson 1987).

One of the orientational metaphors utilized on the Lion Hunt Stele concerns three-dimensional space as implied by the interaction of figures. Another is based upon the primary forward moving direction of human locomotion and a conflation of this with temporality. Because we move forward through the world, we perceive the future as being in front of us and the past as behind. The designer of the stele also created orientational metaphors by using the distinction between "central" and "peripheral" aspects of human vision. Objects in the center of our visual fields are understood as being more important or immediate; those that are peripheral are considered to be less important or past.

The stele depicts four stages in the struggle between the lion and the *En* priest: the beginning of the battle, the period following the first decisive blows of the combat, the process of dying, and death itself. These four stages correlate with a larger overall ordering according to orientational metaphors:

- 1) Top half of the composition: the *En* priest is driving the point of a spear into the chest of a lion that is slightly below him, but within the direct line of his sight as it is indicated by the spear's trajectory.
- 2) Bottom half of the composition: the *En* priest has already shot two arrows into the nape of the neck of the lion which is directly in front of him.
- 3) Lower right hand portion of the stele: Three arrows are lodged in the nape of the lion's neck. The lion has moved to a position outside of the *En* priest's line of vision.
- 4) Bottom of the stele and behind the *En* priest (on the left side of the object): The dead lion, the head of which is depicted from above, lies sprawled on its chest with three arrows in the nape of its neck.

The use of orientational metaphors such as front/back and central/peripheral introduce a temporal aspect into the compositional frame that orders the sequence of the narrative, or at least the stage of the action. The further the lion moves from the hunter's field of vision, the later the stage shown in the visual sequence. On the Uruk Vase, a different set of formal conventions, namely framing aspects such as registers, were introduced, formalizing and standardizing the ways in which the narrative sequences could portray and structure time.

As mentioned earlier (see section 3.2), it is not clear that the execution of the Lion Hunt Stele necessarily predated the that of the Uruk Vase. The nature of its composition may also have been purposeful; it may simply reflect the requirements of a different type of statement, or message, that did not require a highly regimented narrative structure.

Alternatively it may also simply represent a different form of sculptural tradition. A third

possibility also exists—offered here mainly as speculation—which is that the form and execution of the Lion Hunt Stele is intimately tied to the physical material and to shape of the boulder itself, for it is interesting that the object has not been hewn into any regularized type of shape. Whereas perhaps every other example of a Mesopotamian stele has been cut into a formal shape, the Lion Hunt Stele retains its natural form. This may suggest that the boulder itself held a special significance independent of, and/or perhaps even previous to, its carving. In an area of the world where rocks of any form, or size, were exceedingly rare substances such a proposition does not seem unlikely. One cannot also help but be reminded that in many other ancient and modern cultures—for example India—boulders are viewed as sacred in and of themselves and are later carved with reliefs, painted, and otherwise adorned or even incorporated into the centers of architectural complexes for purely metaphysical reasons. This is not to suggest that this was necessarily the case with the Lion Hunt Stele, but simply to point out that there exist numerous possibilities that have never been discussed by either archaeologists or by art historians and which cannot be easily either validated or discounted.

On the Lion Hunt Stele, although chronology is implied, the teleological thrust of the narrative timeline, toward the actual death of the lion, is not the focus of the visual narrative. The death scene is arranged peripherally within the composition, behind the *En*, as an indicator of his eventual triumph. But the moment of greatest tension lies at the center of the composition—the scene in which the *En* fires his arrows at the charging beast. That portion of the visual narrative transmits a powerful portrayal of the *En*'s mastery, for the viewer is acutely aware that any mistake in the *En*'s aim would result in disaster. This type of narrative treatment may be related to actual narrative forms that were episodic, and in which any event in the middle of an epic work carried as much weight as any other. In Egypt, a similar

emphasis on the actual “doing” of an act has primacy, for instance, where the king is portrayed as about to strike a blow, albeit the blow’s effect is seldom if ever shown. The structure of the compositions on the Lion Hunt Stele and on the Uruk Vase might therefore say more about the nature of the types of messages transmitted by the Uruk IV/III elites than about the usual types of evolutionary frameworks that are generally presumed for the development of Sumerian art (e.g., *passim*, Amiet 1980; Frankfort 1969; Lloyd 1961; Moortgat 1969, Parrot 1960; Strommenger 1964), or the specific chronological place of these objects within such frameworks.

On the Lion Hunt Stele, the orientational metaphor that structures time operates in conjunction with a numerical symbolism in which the number three signifies the completion of a specific action. One of the structural premises that appears to guide the viewer through deciphering the representation is the idea that killing a lion requires three closely grouped arrows in the nape of its neck. The number three signifies metaphorically ‘completeness’ of action. This is further indicated by the fact that the arrow-riddled lion on the bottom portion of the stele is also represented three times. The following is an outline of how this metaphorical structure functions:

- 1) The rearing lion, directly in front of the loaded bow, has two arrows in its neck and is about to receive a third.
- 2) The lion on the lower right hand side is still rearing, but having received three closely placed shots in the nape of the neck, is already dying and no longer occupies the hunter’s field of vision or commands his attention.
- 3) The lion behind the hunter also has three arrows protruding from its nape and is sprawled on the ground already dead.

Looking at the boulder, a modern viewer might object to the specific reading that the three arrows protrude from the dead lion’s neck, arguing instead that they appear to have entered the

front of its face. The quills of the arrows face the hunter in a physically impossible manner because their placement is dictated not by strict mimesis, but by causality and association. It was necessary to show the directional relationship of the arrows in order to establish that the hunter defeated the dying animal via an orientational metaphor that established cause and effect: the quills of the arrows must always face a representation of the hunter. In the case of the lion with two arrows, the quills face the hunter at the boulder's top; the quills of arrows in the other two lions face the hunter on the bottom. Had the artist placed the arrows so that they protruded from the nape of the lion's neck, it would have been impossible to make them face the *En* priest. Confronted with two imperfect choices—placing the arrows in the nape of the neck, which would have caused the quills to face in the wrong direction, or showing them protruding from the lion's face in the direction of the hunter—the designer made the less visually comprehensible but more structurally intelligent decision. Ultimately, the conceptual structure of the message and the orientational and numerical metaphors employed in its formulation determined the nature of the composition and not vice-versa.

A modern viewer might also object that it is difficult to identify the representation of the dead lion behind the hunter. In Pierre Amiet's drawing of the stele, for example, the dead lion is misrepresented in an unintelligible form (Fig. 33). This is because the pictorial convention utilized is foreign to us. If we consider how the humans are situated in space, however, the rendering begins to make sense. We are looking at a Sumerian "aerial view" of the dead animal and we must imagine ourselves standing above the dead lion in order to recognize that the head is not rendered in profile, but *en face* and from above. Its eyes and nose are quite clearly represented, but not its lower jaw. The pupil of its right eye is even clearly defined by a slit in its center. The modern viewer's interpretation is further

complicated by the fact that the designer rendered the lion's legs as extended despite the perspective of looking down at the animal, or at the very least the feline's head. If the lion were lying on the ground we would expect the legs to be underneath its body: the ancient rendering violates the modern viewer's expectations. The construction of this "aerial view" defines or exhibits a symbolic convention signifying death or defeat. That connection is based upon an orientational metaphor, namely that when we look at a dead animal we generally look down at it.

Another metaphor employed in the stele is hierarchical ordering based upon relative size (compare Schapiro 1994 [1969]). In the scene on the top of the stele, the lion is roughly the same height as the man, perhaps suggesting that they possess roughly the same potential force. In the scene on the bottom, however the *En* figure is roughly double the size of each lion as if to confirm that, despite the potential force of the lion at the battle's inception, it is ultimately inferior to that of the hunter. In later compositions, we will see that hierarchical ordering becomes a standard way of conveying status and importance.

None of the metaphoric structures utilized in constructing and transmitting the stele's message such as orientation, hierarchy of size, or number of arrows, operates in isolation.

Although it is possible that some of these structures are consciously planned, it is unlikely that their overlapping was consciously planned. Here the metaphorical structures created, rather than simply transmitted meanings, interacting with one another in rhizome-like ways. In addition to those discussed, a further category of metaphorical structures was also woven into the stele's messaging system, "ontological" metaphors. These are structures that elaborate meaning because:

Understanding our experiences in terms of objects and substances allows us to pick out parts of our experiences as entities or substances, we can refer to

them, group them and quantify them—and, by this means, reason about them.... Just as the basic experiences of human spatial orientations give rise to orientational metaphors, so our experience with physical objects (especially our own bodies) provide the basis for an extraordinarily wide variety of ontological metaphors, that is, ways of viewing events, activities, emotions, ideas, etc., as entities and substances.

(Lakoff and Johnson 1980:25)

We use two types of ontological metaphors, called “entity” and “substance” metaphors in order to identify specific experiences or ideas in terms of distinct entities or things. On a linguistic level, these include expressions such as: “our love is a *rock*”; “the song is *hot*”; and “you are the *apple of my eye*.” In the Lion Hunt Stele, potentially lethal forces are identified with *the lion*; the concept of elite rulership is symbolized by *the hunter*; and the strength and wisdom of the ruler is directly symbolized by the *hunter's victory*.

Another series of ontological metaphors, called ‘container’ metaphors, is utilized by all visual representations to define structural concepts and features such as the frame and the picture ground. Container metaphors are based upon awareness of our own physical forms:

We are physical beings, bounded and set off from the rest of the world by the surface of our skins, and we experience the rest of the world as outside us. Each of us is a container, with a bounding surface and an in–out orientation. We project our own in–out orientation onto other physical objects that are bounded by surfaces. Thus we view them as containers with an inside and an outside.

(Lakoff and Johnson 1980:29)

Because we view the human body as a container with bounding surfaces and an in–out orientation, we employ that same metaphor to structure visual representations. Even if the Lion Hunt Stele does not utilize straight lines to construct framing elements, the events, actions, and ideas it transmits are structured and contained by the shape of the object. This metaphor works because “we conceptualize our visual field as a container and conceptualize what we see as being inside it.” This type of metaphor, “emerges from the fact that when you

look at some territory (land, floor space. etc.), your field of vision defines a boundary of the territory, namely, the part that you can see” (Lakoff and Johnson 1980:30).

The experience of how our own vision functions allows us to structure information visually by constructing frames and other bounded areas. We interact with framed visual representations of our own creation in ways that are very similar to those we use to perceive the natural world because these representations duplicate the container-like aspect of our visual field.

Just as identifying prototypes and basic-level effects allows us also to identify the processes used to construct individual categories, awareness of how metaphors operate allows us to look beyond those discrete processes and to analyze how larger systems create and transmit meaning. Central to this idea is the fact that metaphors are based upon the ability to map information from one domain or category to the other. Hence, the category that contains ‘elite members of society’, with the king as a prototype or central category member, may be cross-referenced with another category such as ‘dangerous natural and unnatural forces’. By means of cross-domain mapping central category members of the latter category, such as lions, bulls, or serpofelines, may be used as metaphors that either stand in directly for the other category’s prototype, namely the king, or directly oppose it.

Without such knowledge, modern viewers would be able to interpret only the iconically signifying aspects of many ancient representations. Metaphors, however, combine individual signifiers and use them to create a cohesive symbolic structure. Understanding how knowledge is categorized and how metaphors operate allows us to disassemble these structures and identify symbolic values by means of inference. This approach allows us to determine how time is elaborated in an otherwise obscure narrative. The lion is employed as a

substance metaphor that stands in for an entire category of dangerous and opposing forces and elements contained within that same category. By killing the lion, the hunter controls and defeats the forces and elements contained within that same category. The outcome of the drama establishes the power of the ruler (i.e. the hunter) via this metaphoric structure.

Being able to interpret such metaphors is dependent upon our mental constructs with which we interpret the world around us coinciding or overlapping with those of the cultures whose visual representations we are trying to interpret. Any aspects which remain indecipherable are due to differences in mental constructs that are the result of historical and temporal changes. Though we can begin to understand some of the metaphors used on these objects, there are other aspects which we cannot because likewise there are areas where the mental constructs of the person or culture who created an object do not correspond with ours. These mental constructs can be defined in terms of ‘schemata’ or ‘frames’.

Schemata were first introduced as a concept by the psychologist Sir Frederic Bartlett in order to explain an unusual yet reoccurring phenomenon of distortion associated with the process of recollection. In his experiments—which also included visually based tests—Bartlett had groups of subjects, including undergraduate students at Cambridge and graduate students in India read a variety of American Indian folk tales translated and collected by Boas (Bartlett 1932:118-176). What he found is that the various test groups all appeared to reduce many of the original elements of the text into more conventionalized structures with alarming regularity. These resulting distillations became even more pronounced during subsequent recalls—in such a manner that the folktales began to resemble something like highly structured, complex, culturally derived prototypes, which he called “schemata.”

In order to account for this class of memory errors, Bartlett proposed that human beings have substantial amounts of generic knowledge in the form of

unconscious mental structures (schemata) and that these structures interact with incoming information to produce schematized (conventionalized) errors in recall.
(Brewer 1999:729)

Schemata are more like a constellation of prototypes, metaphors, analogies, and cross-domain mappings that form default frameworks or generic models—larger constructs which bring all of these other theoretical concepts to bear upon the creation of a defined conventionalized mental space. The introduction of these spaces, frames, or schemata are important because they reduce the processing load on the mind, adding fluidity to thought as well as creating common cultural currencies among specific communities. If something like schemata did not exist, the processing load of daily incoming sensory stimuli might result in partial or complete disorder. It might also result in the construction of bizarre new schematae that process stimuli in a highly unconventional manner; for example, this type of condition appears to occur, on some level or another, in humans suffering from synaesthesia (see, for example, Luria 1998).

In his work on artificial intelligence, Minsky (1975) developed Bartlett's concept of schemata even further, renaming the same conceptual constructs frames. Brewer's distillation of Minsky's general theory provides us with a very specific example of what how a schema, or frame, might be structured:

Minsky's more specific proposal was to introduce the construct of frames to represent knowledge of ordinary aspects of the world (e.g., rooms). Frames are knowledge structures that contain fixed structural information. They have slots that accept a range of values; each slot has a default value that is used if no value has been provided from the external world. For example, if a person or a machine is trying to represent a particular college classroom the generic classroom frame will contain the fixed information that the room will have walls, a ceiling, and a door. The frame will contain a slot for type of lighting. If no information is provided about this aspect of the world (e.g., if an individual has just glanced at a room without looking up to see the lights) then the frame provides a default value (in this case, that the lights are fluorescent). Thus the frame construct can be used to give an account for why someone walking into a room without a ceiling will be surprised and why an individual might recall that a particular classroom had fluorescent lights when it actually did not. Note that in this example there is a generic

frame for classrooms in long-term memory, and to represent a specific classroom the generic frame is instantiated by a specific episodic representation. (Brewer 1999:729)

Although schemata or frames are only one of the many cognitive processes and models that humans utilize to construct meaning, they are critical cognitive enhancements without which it would be nearly impossible to process the vast quantities of ever occurring stimuli we receive into coherent mental representations. Frames act as basic sets of default parameters that can be altered by changing specific values in order to provide more finely tuned levels of specificity and understanding.

3.5 The Uruk Vase: Hierarchical ordering and semiotic transmission

All of the signifiers employed by the Lion Hunt Stele are iconic in their outward appearance but convey symbolic values as well by means of inclusion in extended categorical and metaphorical structures; this situation is normal, rather than unique. By contrast, in the Late Uruk Period, the colossal alabaster Uruk Vase (Figs. 15 and 16)—which measures approximately 105 cm in height and 36 cm in diameter—combines not only icons, but graph-like symbols in order to transmit information visually. It also employs a series of visual innovations such as groundlines, registers, and a prepared picture ground which represent a radical departure from the visual system of the Lion Hunt Stele.

The most important of these new features, the groundline and register system, probably grew out of the process of using cylinder seals. These were probably invented in Late Uruk Sumer and its colonies, although it is possible that they may have developed simultaneously in Naqada II/III periods in Egypt. When a cylinder seal is rolled onto a piece of clay, the carved-out elements are rendered in raised relief, whereas the uncarved surfaces are indented into the

matrix. A byproduct of this method is that the composition on the sealing's surface is framed on the top and bottom by the seal's edges, which produce a natural register line. The bottom of the register, the 'groundline', does not appear to have existed in 'art' previous to this invention, although register lines are also present in the Naqada IIc period paintings in Tomb 100 at Hierakonpolis in Egypt. The Sumerians took these important but accidental innovations and applied them deliberately to relief works such as the Uruk Vase. Registers and groundlines seem common to us today, but for the Sumerians they represented an important discovery, one that allowed them to structure visual information in a new and radically different way.

A secondary effect of the way in which information is presented by cylinder seals is that the pattern repeats itself so that the same information can be (theoretically) rendered over and over again indefinitely. This artistic device is employed to great effect on all of the Uruk Vase's registers, except for the top one. If you rotate the vase, the wavy lines representing water, the plants, the herd of animals, and the register of nude offering bearers appear to go on and on because these rows of elements have no discernible beginning or end.

Not all information presented on a cylindrical surface, however, needs to be structured in the manner described. Visual components need not render an infinitely continuous scene. The top register of the Uruk Vase exemplifies this possibility. The sequence of events portrayed, as well as the introduction of the split register, prohibit the visual narrative from fluidly repeating itself without interruption. A logical beginning and end and a direct sequence of events are clearly implied within the horizontal space.

The vase's importance as an elite, cultic object is clear from its iconography, the rarity of alabaster in Sumer, the fact that it was painstakingly repaired in antiquity, and the

representation of similar vessels on cultic seals of the period (Figs. 17-20, 22)²⁴. The relief surface is approximately 95 cm high. The vase is believed to have been one of a pair; a fragment of the second vessel was discovered during the original excavation (Heinrich 1936:15-17, Pl. 4 [No. VA 8792]; Lindemeyer and Martin 1993:81, Pl. 22, No. 227). This hypothesis is supported by the fact that representations of similar vases always depict them in pairs. The individual registers were created by a careful removal of the material from the negative spaces of the composition.²⁵ After removing the excess material, the raised relief elements were cut in order to produce a modeled effect and incised to provide details.

The composition is divided into four individual registers, each of which wraps around the vessel as a continuous strip. The registers widen successively from bottom to top. The bottom two registers are separated by a thin undecorated band. Two much wider undecorated bands separate the remaining registers from the others. It is highly probable that this vase—as well as its companion, since it was one of a pair—was painted in polychrome, a process that would have made the separator bands look quite different than they do today.

The register system used allows for utilizing relative heights and disposition of spaces to create order by presenting information hierarchically. The lower registers, depicting plants and animals, are the least tall of all the registers. The register composed of nude offering bearers is slightly wider than the one below it. The top register depicting the sanctuary and the central figures in the narrative is the tallest of all. The height of the registers serves as a cue, letting the viewer know which information is the most significant.

²⁴ Two of these seals (Figs. 17-19) were actually found within the Eanna precinct. Furthermore, the vessels that they depict show horizontal bands that probably represent registers of relief work.

²⁵ The other surfaces of the vase are at the same level as the highest points of the relief work. The plane of the relief does not extend above the rest of the vessel.

The bottom registers depict the natural orders that provide humankind with sustenance: water, flora and fauna. At the very bottom of the composition, a band of wavy lines representing water is below the ground line and delineates the bottom of that register. The wavy lines representing water oscillate and almost touch the groundline from which the plants above them rise, so that perhaps the water should be viewed as operating in conjunction with the flora. That these should be read as a single register also makes structural and metaphysical sense given the implicit role of water in agriculture. Immediately above the water, two types of plants are depicted alternating within a register that circumscribes the entire vessel: the first is a date palm, or a species of flax or linseed, the second is a variety of grain, such as wheat or barley. They may have also been intended to symbolize some aspect of rulership since, as Jacobsen has argued out, there is a possibility that the graph EN may have been derived from a mimetic representation of fan barley (Jacobsen 1991:113-121).

The two plants appear to have been standard aspects of the cult's iconography. They are also depicted on a separate stele fragment from the same temple precinct (Fig. 34), where they are shown alternating with each other in a regular sequence just as they do on the Uruk Vase. That sequence on the Uruk Vase may have been decorative, may have been an abbreviated representation for the way in which fields were actually planted, or may have served to indicate equality between the symbolism of the two plants. Equally likely is that the register depicts two central category members that stand in for the entire category of food plants. By alternating between the two plants, rather than stressing one type over the other, the register effectively merges the two prototypes.

Above a thin regular band atop the row of plants is a register of rams and ewes that face the right. Here the two sexes of a single animal are presented as a prototype value for a

much larger category of fauna, in this case domesticated animals, which like the plants represented were carefully cultivated, rather than wild. The two registers containing the plants and animals are not isolated from each other: they appear visually to be part of one distinct compositional space, a grouping which in Early Dynastic ‘art’ is sometimes referred to as a “double register.” The “fusion” of these two registers has several structural functions. From a compositional standpoint it creates a unified area of roughly the same width as that of the register depicting the men above it, enhancing the structural harmony of the composition. It also creates a spatial metaphor in which the water, plants, and animals stand for a larger category—things which provide sustenance. It thus logically follows that presents of these products are placed in vessels and delivered to the cult, whose deities ensure the well-being of the flora and fauna.

In the center of the vase, a register composed of nude men bearing offerings faces left, each figure with his right leg extended forward. Their nudity may have symbolized the sanctity of a ritual that required cleanliness and purity of physical form. The first three figures carry baskets, followed by two men with large food-filled beakers with thick overturned rims typical of late Uruk forms (Eanna Level IV, Nippur level XIV: Hansen 1965:207–208 and Fig. 34). The remaining figures carry baskets, except for the last two, who carry a spouted vessel (again of typical late Uruk form) and a large beaker filled with offerings respectively. The figures are undifferentiated so presumably they must all be members of the same category, presumably elite males.

Whereas the lower registers deal with generalities, nature and humankind, the uppermost register displays a higher level of specificity. It presents a number of different aspects of the cult including its central human and divine participants and details of votive

objects and offerings. The scene depicts the participants at the culmination of the procession, in part of a ceremony connected with the well-being of the flora, fauna, water, and human participants depicted in the lower registers. As Frankfort put it: "... the main subject, far from being submerged in a decorative scheme, merely crowns a design in which all its constituent parts reflect with a peculiar intensity the profound significance of the ritual which it depicts" (Frankfort 1969:11). The register system serves to delineate the constituent parts and to situate them within a hierarchical structure and spatial metaphor in which the cult occupies the most prominent position, the realm of men who serve it lies below, and the natural order which humans dominate and shape lies at the bottom. This same up/down hierarchy implies the temporal sequence: water irrigates fields to produce grain; the grain feeds and nourishes the sacred herd; men who have harvested the rewards of the fields and animals fill vessels with that produce; those commodities are then offered to the cult that is responsible for ensuring the continuance of this cycle.

The focal point of the narrative is in the topmost register. Two standards at the center of the register define the entrance to a sanctuary. The standards can also be read as the graph MUŠ₃/INANNA (see Steinkeller 1998:87; and, *in passim*, the following by Szarzyńska: 1987-1988; 1993; 1996b; 1997 [1993]). The shafts of the standards are composed of bundled reeds; single streamers hang loosely from rings at their tops. Similar standards are depicted both on seals of the period (Figs. 17, 19–23) and on a trough that is thought to have come from Uruk (Fig. 32). On these seals the standards are actually placed on both sides or on one or the other side of a cultic vessel whose form resembles the Uruk Vase (Fig. 17, 19–20, 22). Another seal in which the entire composition occurs on a boat depicts the standards rising from a platform-

like shrine mounted on the back of a bull (Fig. 23). The cultic basin, by contrast, shows the standards protruding from the sides of the reed hut that is presumably the goddess's sanctuary.

The scene to the right of the two standards on the vase's top register portrays a ceremony in which offerings are brought to the goddess Inanna, or her head priestess, a figure who wears a long robe that bares her right shoulder. Part of her headdress, a long horn at the back, is visible. The badly damaged depiction of the rest of the headdress probably showed a second horn, an iconographic parallel visible in a crudely cut seal from the same site (Fig. 19).²⁶ A nude male shown in profile with his left foot extended faces her, raising a large food-filled goblet similar to the ones in the register below. The missing area immediately behind the nude figure must have been occupied by depiction of a bearded *En* priest, one of whose feet is still visible, as is the lower portion of his skirt. A second figure follows him, clasping what appears to be the end of the priest's fringed girdle that is possibly similar to one carried by a naked bearer on the seal from Tell Billa in Syria (Fig. 24).²⁷

Behind the standards on the Uruk Vase, two skirted male statues stand upon a two-tiered architectural platform supported by a pair of rams. Strommenger (1964:384) states that the species of animal is a "Dinka sheep". The presence of the second ram is implied by means of an extra outline, a technique known as 'close layering'. The more forward of the two male statues extends his hands, holding what appears to be a stack of four bevel-rimmed bowls, possibly an archaic form of the graph EN, meaning "ruler, priest" which is also represented on the prow and stern of a boat on the Tell Billa seal (Fig. 24). The second statue clasps his

²⁶ Later, Early Dynastic iconographic parallels to this crown are discussed in Furlong (1987) and its review by Asher-Greve (1995).

²⁷ On the seal from Tell Billa, however, the figure in the net skirt has no beard. The closest parallels for the cult standard, often called a *Ringträger*, is found on artifacts from the Diyala Region (see Frankfort 1936:Pl. 54 A; 1955:Fig. 33). The standard is also attested as an archaic graph which Steinkeller reads NUN, the symbol of the Sumerian god Enki (Steinkeller 1988:88). Other suggested readings of the sign include AGARGARA (?) and ERIDU (Green and Nissen 1987:260 [#421]).

hands in prayer. A standard of Inanna rises immediately behind him, a feature known from other representations of a portable shrine (e.g., Fig. 23).

Behind the bull the register splits into two horizontal sub-registers. This form of composition is commonly referred to as a “split-register scene,” a feature which, like the “double register” scene at the vase’s bottom, is unusual, since there exist no other known examples of this compositional form previous to the Early Dynastic IIIb period. The sub-registers depict a variety of vessels, foods, and animals. On the right of the upper sub-register is a pair of vessels identical in shape to the Uruk Vase itself. These function metonymically, standing in for the actual pair of cult vessels themselves, of which the Uruk vase is one member.

To the right of the two represented vessels, a standing caprid faces left, followed by a lioness. Immediately below these animals are two vessels with ring bases, possibly containing grain. Whereas the top sub-register is defined by an imaginary groundline, the two large food-filled goblets on the bottom touch the register line below them. Between the two vessels a bovid head is depicted in profile. The object beneath the head and the two objects to either side of the vessel above are unidentifiable. All of these signifiers may have possessed both iconic and symbolic values. Like the stacked bowl-shaped objects held by the statue and the standards of Inanna, the bull’s head and the various vessels and goblets may have served as written graphs.²⁸ On a more immediate and purely visual level, however, these items appear merely to be token offerings to the cult.

²⁸ There is no clear reading for these symbols. That they may be graphs is suggested by the fact that many of the Uruk IV and Uruk III written forms resemble either ceramic forms, or the heads of either humans or of cattle.

3.5.1 Dialogism, intertextuality, and indexicality: The extended relationships of sign-bearing vehicles

Addressing the issues discussed above in a series of more general terms, two things can be said of all the individual pictorial components within the larger composition of the Uruk Vase. First, although all of them operate as icons, some of them may also be written graphs. Second, every visual aspect of the composition is an internal reference to some aspect of the situation, ceremony, or surroundings in which the object was employed. These internal references are structured not only by a system of registers that delineate hierarchical structures and time sequence, but by a series of dialogical structures.

Dialogism and intertextuality are interchangeable terms originally coined by Mikhail Bakhtin (1984; 1994), in order to describe the relationships shared between separate discourses, or other forms of utterances. “Dialogism” states that meaning or semantic value is dependent upon a series of relationships between pre-existing and contemporaneous texts, images, discourses, and ideas. Such relationships, or “dialogues”, may occur across various time frames or within the same period. As Tzvetan Todorov explains:

The most important feature of the utterance, or at least the most neglected, is its dialogism, that is its intertextual dimension...Intentionally or not, all discourse is in dialogue with prior discourses on the same subject, as well as discourses yet to come whose reactions it foresees and anticipates.

(Todorov 1984: x.)

No discourse can be wholly original except insofar as it highlights the relationships between itself and other utterances. Dialogism implies that absolute, or ‘fixed’, meanings for signs cannot exist because all values are generated by multiple relationships. Signs, discourses and all other concepts derive their conventional meanings by means of similarity to other ideas and

conventions; they also define their individuality by means of their difference from other discourses, or concepts.

The basic theory, developed in the context of linguistic usage, can be extended to the study of relationships between any other sign-bearing vehicles, including visual representations (Bal and Bryson 1991:206). In the case of the Uruk Vase, for example, the standard of Inanna (which appears three times) and the stack of bowls held by one of the small statues on the architectonic platform (which appears only once) resemble the graphs $MU\check{S}_3$ and EN . If this is so, then their iconic usage, or their use as a means of visual display, might bear an intertextual relationship to the linguistic contexts in which those written signifiers and their respective signified were employed. This would also be true not only for other graph-like icons—such as the bull’s head that may have a written form similar to GU_4 , meaning cattle or the iconic depictions of vessels that may also have functioned as graphs—but also for purely visual representations such as the figure of the *En* priest on the Lion Hunt Stele.

To put this another way, there is a potential relationship between all of the icons, indexes, and symbols which any system of communication employs and all other situations and contexts in which such signifiers have occurred, or may occur. In the case of the graph-like signs on the Uruk Vase, for instance, such intertextual links may have included: liturgies; economic texts; ‘art’ and other visual representations; conversations; past events etc. Some of these dialogues are known to us and some are not. We know for example, that the signifier that appears to be an archaic form of the graph EN , held by the statue depicted on the Uruk Vase, is paralleled by a similar representation on the prow and stern of the boat shown on the seal from Tell Billa (Fig. 24).

That same seal shares many other elements in common with the Uruk Vase; they both depict men holding fringed girdles and standing behind officials wearing net skirts; they show pairs of standards that may have been carried or otherwise formally displayed, but which also resemble graphs and presumably represent cults; and they depict cult sanctuaries, although the Uruk Vase shows the standards and the objects of the cult within an unspecified sacred location (i.e. either inside or outside the building itself), whereas the seal from Tell Billa shows the reed cult building from the outside. Other dialogical links to the Warka Vessel also include: those between the cult animals on the Uruk Vase and those on other Uruk period seals (Figs. 20-22) and on the cult basin said to be from Uruk (Fig. 32); the many representations of the *En* priest on various ‘art’ objects; and the representation of pairs of cult vessels and pairs of MUŠ₃ standards on Uruk period artifacts.

Dialogism (Bakhtin 1984; Holquist and Emerson 1994:84-258; Todorov 1984; De Mann 1986) is really a subtle rethinking of what Peirce called ‘indexicality’. As discussed in section 2.1, indexes are signs that derive meaning via their relationship to physical events. To some extent, all signs are indexical because they derive their values by means of reference to previous uses either of the same signifier or of other related signs. Similarly, dialogism assumes that all meaning is derived by means of reference to the occurrence of other ideas, or events. In the case of objects such as the Uruk Vase and the Lion Hunt Stele, dialogism is one of the many operative connections by which these objects derived and continue to transmit their messages. It is impossible to view these objects as isolated systems of information. The damaged figure of the *En* priest on the Uruk Vase bears an indexical connection to the similar depiction on the Lion Hunt Stele and vice versa. Knowing this, we must ‘read’ the two objects together while envisioning the figure of the *En* priest as the central participant in the

cult whose position in society is determined by his ability to dominate aggressive forces, such as lions. Similarly, although the Lion Hunt Stele appears to be older than the Uruk Vase, a modern viewer cannot avoid an intertextual reading in which knowledge of the Uruk Vase's imagery affects the understanding of the earlier object.

Dialogism is, therefore, a useful concept in the interpretation of difficult images and texts; it explains how relationships between signs can be reassembled to reveal concealed layers of meaning since semantic values are always determined by indexicality—that is, by the dialogue between past, present, and concurrent uses of signs.

3.6 The newly advanced structural and cognitive tendencies of late Uruk phase visual representations

The use of graphs, whatever their intended purpose may have been, is one of the factors that sets the communicative system of the Uruk Vase apart from that of the Lion Hunt Stele.

Whereas the Lion Hunt Stele relies upon iconicity, the elaboration of metaphorical structures, and the ordering of compositional elements that served to convey temporal and hierarchical sequences to transmit its message(s), the Uruk Vase employs more complex structural and semiotic devices including: graphs; metaphorical structures; fixed groundlines; and a strict register system that structured temporal sequences and hierarchical information about social and natural worlds.

Since many Sumerian graphs grew out of icons, it is sometimes difficult to distinguish which signifiers were intended as writing and which were not. One possibility is that some of these signifiers may have been what Gelb called “descriptive-representational devices,” pictorial forerunners of writing that were employed in order to communicate basic types of

information (1963:29–36). Other graphs, such as those resembling the cult standards, may have functioned as “identifying-mnemonic devices” (Gelb 1963:36–51), icons and symbols that communicated specific information regarding a person’s or a group’s identity.

As the graphs of the Sumerian script slowly evolved, they became more and more abstract, making the graphs of the Early Dynastic and later periods easy to distinguish from the signifiers employed in other forms of visual representations. If such a distinction was avoided during the late Uruk period, one explanation is that graphs and non-linguistic icons were intentionally conflated to elaborate polyvalent messages. Such a strategy would have allowed the sender of the visual message to transmit information that could be decoded and understood on different levels and in different ways by a variety of recipients with differing levels of knowledge and/or literacy.

By examining aspects such as categorization, metaphor, and dialogism, inherent in objects such as the Lion Hunt Stele and the Uruk Vase, we are able to decipher a larger amount of their original messages than is possible when the same objects are viewed in isolation or when their metaphorical structures are ignored. Dialogism allows us to examine the indexical relationships through which all signs derive at least some components of their values. To put this another way, sign value is dependent not only upon correspondences between specific signifiers and signifieds, it is also based upon the contextual relationships between different signs. Similarly, when we learn signs, we do not simply learn via a series of strict correspondences between signifiers and signifieds. We learn signs in context and context helps to determine meanings.

In terms of our understanding of visual representations, the identification of prototypes, such as the *En* priest and the lion, allows us to more carefully analyze and

deconstruct metaphorical and analogical structures produced by cross-domain mapping and to better understand how prototypes are regularly mapped onto consistent metaphorical structures, or discourses, in order to create specific meanings—e.g. how powerful animals like the lion stand in opposition to prototypes such as the *En* who by defeating the lion defines and reifies his own supreme status. On objects such as the Lion Hunt Stele, powerful prototypes, or central category members, such as the *En* priest and the lion, are situated structurally within oppositional relationships that, because of their dynamic tension, emphasize meaning. On objects such as the Uruk Vase, prototypes representing entire categories are organized to an even greater extent by means of a spatial metaphors that relay their values within implicitly hierarchical systems of order.

As the production of such images progressed with time, the specificity and complexity of the visual messages also evolved and increased. In order to determine how much of this evolution is attributable to cultural change, it would be useful to compare these early Mesopotamian artifacts with those of the contemporaneous culture in Egypt. It is possible to show that many similar categorical prototypes existed in both places, resulting in works that make similar metaphorical statements. As we have seen, these similarities may be the product of the way humans' neurological structures process and map information to the brain. But we will continue to find that this is mixed with cultural factors—the transmission and inheritance of ideas.

Chapter 4

The development of writing systems in Egypt from the Late Predynastic Period to the end of Dynasty 0

The previous chapter argued that systems of visual display—i.e. ‘artistic’ images—are as much a system of communication as language and writing. During the late Uruk phase, ‘art’ and “writing” shared some fundamental similarities, for example the fact that there was often no clear distinction between icons and graphs, but they eventually diverged into two largely separate semiotic systems used to encode and transmit different types of concepts by means of differently organized sets of rules and requirements. An investigation of the development of writing and “art” in Egypt during a roughly contemporary period of its history allows us to chart another route along which visual communication evolved. Certain early aspects of writing and ‘art’ developed along similar trajectories in both cultures, exemplifying universal cognitive features of how humans understand, structure, and present information. Ultimately, however, the solutions which the two societies implemented suggest culturally specific decisions about how to transmit information, as well as the “hard-wired” cognitive features described in chapters 2 and 3.

In order to compare and contrast culturally specific materials it is important to consider whether interconnections between the two cultures existed and in what manner either may have impacted the other. It has long been discussed what effect, if any, Sumer and its colonies had upon the development of Egyptian civilization. In almost three quarters of a century of debates since Frankfort’s initial discussion (Frankfort 1924), numerous similarities and interconnections between the 4th millennium cultures of Egypt and Mesopotamia, Syro-

Palestine, and Iran have become evident including: iconographic and architectural parallels; the trade of specialized and exotic materials such as lapis lazuli and obsidian; and the exchange of goods such as pottery and wine.²⁹ It seems clear, however, that trade between Egypt and the ancient Near East, as opposed to invasion or colonization, was responsible both for the physical transfer of many raw materials and products and for a limited transfer of iconographic and architectural ideas from Sumer and its colonies to Egypt. Because cultural stimulus is rarely unidirectional, it is also possible that existed some transfer of ideas and influences in the opposite direction—i.e. from, rather than to, Egypt—even if such evidence remains absent from the archaeological record.

Since this chapter is concerned primarily with the development of visual systems of communication in early Egypt, rather than with that debate, it provides only a general resume of interconnections between the Sumerian and Egyptian worlds. It differs from other treatments of the same issues in that it focuses upon evidence discovered *in situ* and investigates the chronological significance of these finds in order to show that Sumer and its colonies exerted little or no influence upon the development of Egypt other than stimulus by means of the diffusion of ideas.

As Frankfort put it more than fifty years ago, “there is an immense difference between mechanical copying, on the one hand, and, on the other, creative borrowing in which stimulus from outside unchains indigenous inventiveness” (1941:329). If Sumer exerted any influence upon Egypt, it was probably only the knowledge that another culture was capable of constructing edifices of mud-bricks or representing language by means of pictures that

²⁹ The most significant general studies of these interconnections remain those of: Frankfort (1924; 1941), Kantor (1942; 1952; 1965; 1992), Moorey (1987; 1990; 1995) and Smith (1992); studies of more specific aspects involved in this debate include: Adams 1992; Adamson 1992; Boehmer 1974a, 1972b; Calwell 1976; Davis 1981; Holmes 1992; Frankfort 1951; Mark 1997; Pittman 1996.

sparked the desire in Egypt to find indigenous ways of accomplishing these same tasks. An investigation of the solutions that the Egyptians discovered and implemented to visually structure information provides contrasts which highlight the uniqueness inherent in each of the two cultures' use of semiotic forms. Important to this discussion is an understanding of what types of ideas may have been transmitted from one culture to the other.

4.1 Interconnections between Egypt and Mesopotamia during the Egyptian Predynastic period

4.1.1 The transmission of architectural styles and building techniques

In his 1941 article, "The Origin of Monumental Architecture in Egypt," Henri Frankfort pointed out the remarkable similarity between Sumerian mud-brick (*libn*) buildings and a repetitively ornamented structure with a façade of niched recesses (Fig. 35) discovered at Naqada (1941:334) and now thought to belong to a male member of the elite. He observed that, whereas mud-brick buildings surrounded by extensive bands of recessed niches were in use as early as the end of the Late Northern 'Ubaid Phase structure of Level XIII at Tepe Gawra in Northern Mesopotamia (i.e., the end of the 'Ubaid IV Phase in central Sumer, *c.* 3900–3800 BCE) (Fig. 36), Egyptian buildings with similar façades seemed to have no indigenous precedents (1941:335). Predynastic representations of buildings, such as the one portrayed on the top of the Hunters' Palette (Figs. 37 and 38), depicted constructions built of wood and woven matting rather than mud-brick structures (1941:331). The transfer of monumental mud-brick architecture may represent the only clear instance in which Sumer exerted more than a simple stimulus upon Egypt. The building at Naqada and a similar structure at Saqqara known as Tomb 3357 (Fig. 39) are dated by Werner Kaiser to the reign of

Aha of the 1st Dynasty (Naqada IIIc₂) and must have belonged to a high official (Kaiser 1985:25–27; for his chronology, see Kaiser 1990). Additional tomb structures such as Saqqara 3305 are known to date to as early as the beginning of the Naqada IIIc₃ period (Fig. 40) (Kaiser 1985:31).

This architectural borrowing from Sumer was incorporated into the ideological apparatus of the ruling classes. A representation of the niched palace façade was also utilized as a written graph called a *serekh*, which was employed as the written determinative for royal names.

4.1.2 Material remains from Buto

Newer evidence further supports Frankfort's hypothesis about the importation of architectural forms. The excavations undertaken since 1986 at Buto (Tell el-Fara'in) in the Nile Delta have produced three types of uniquely Mesopotamian architectural fixtures. These hallmarks of Uruk ritual architecture are: *Tonstiften*, clay pegs, about 6 cm long, the flat ends of which were originally colored; *Grubenkopfnägel*, larger pegs with hollowed out heads, and *Tonflaschen*, larger vessel-shaped ceramic cones (Fig. 41) (von der Way 1986, 1987, 1988, 1989, 1992a, 1992b; Faltings and Köhler 1996). In Sumer and its colonies, the *Tonstiften* and *Grubenkopfnägel* were originally inserted into the plastered faces of mudbrick walls in such a manner that their heads could be arranged to produce mosaic-like patterns (Fig. 42). The larger *Tonflaschen* appear to have served a purely structural purpose; larger objects were inserted into the faces of mud brick walls in order to counteract the forces of stress and erosion.

The transmission of these building fixtures to Egypt suggests that a group of people living in the Nile Delta required foreign styles of architecture for their cultic practices. The use of the three types of clay pegs is most commonly associated with the Late Uruk period (levels IVb–a) of the *Stiftmosaik-Hof*, a religious structure in the *Eanna* precinct at Uruk (Lenzen 1949:2; Brandes 1967; Brandes 1968; Hrouda 1971:87). All three forms of clay pegs were also discovered in Susa’s Acropolis near the area known as the “*massif «orange clair»*” where they must have adorned a nearby wall built of *Riemchen* bricks, the characteristic building material of the Uruk period³⁰. Similar architectural pegs were also employed as early as the ‘Ubaid period at Tell Mishmar in Syria (Schmidt 1978:12) and at Uruk they continued to be used throughout the IIIc-b levels of the *Eanna* precinct (Lenzen 1975:174). There, a small number of cone-mosaics were discovered *in situ* in the ED I period level I (Lenzen 1941:16–17). The clay nails at Buto were discovered out of context in various different levels. Since the objects were employed in greater Mesopotamia from the ‘Ubaid period to ED I, a context is lacking at Buto, the Egyptian clay pegs cannot be properly dated.

The stratigraphy of Buto is divided into seven primary levels, only three of which have a bearing on this discussion. The earliest two levels, Layers I and II, represent a tradition of the Chalcolithic Period that is specific to Lower Egypt and now called the Buto-Ma‘adi Culture (previously the Ma‘adi Culture). These two layers are marked by a ceramic tradition independent of Upper Egyptian norms. Layer I is considered to be contemporary with Naqada IIb in southern Egypt and Layer II is contemporary with Naqada IId (von der Way 1992a:217 and 1992b:5).

³⁰ Stève and Gasche (1971:145; Pl. 33, nos. 1–37; Pl. 56, 4). For a comparison of the nails at Uruk, Susa, and Buto, see Moorey (1990:64; Fig. 3).

Between Layers II and III is a “Transitional Layer” dating from early Naqada IId₁, at the earliest, to the middle of Naqada IId₂, at the latest. The Transitional Layer “is characterized by an increasing amount of pottery made in the Upper Egyptian tradition according to its shape and manufacture while pottery of the Lower Egyptian tradition gradually disappears” (von der Way 1992b:3). The presence of ceramic wares from both northern and southern Egypt in the Transitional Layer, followed by the disappearance of Buto-Ma‘adi ceramics in subsequent levels, suggests that the original inhabitants of Buto gradually became assimilated into the Upper Egyptian culture that spread through Lower Egypt and eventually dominated it. Layer III is dated from Naqada IId to Dynasty 0 and is marked by the complete disappearance of the pottery of the Buto-Ma‘adi culture and by the earliest evidence of mud-brick buildings discovered at the site.

Because Layer I lies beneath the water level and was accessible only through pumping, von der Way believes that the architecture from that period has been either destroyed or can no longer be recovered. He argues that the three types of Mesopotamian architectural fixtures discovered at Buto must be contemporary with Layer I and concludes with the following two points: first, since the architectural ornaments belonged to a niched, mud-brick building, this form of architecture began in Egypt at a far earlier date than had been previously thought; second, that the use of *libn* was an innovation that occurred first in the Delta, rather than in Upper Egypt (von der Way 1992b:5; N.B. following Kaiser 1985:33). The initial premise of von der Way’s syllogism, that the architectural fixtures must date to Layer I, is pure speculation. The pegs were found in various different levels and lacked any associated context. Since none of the layers were “sealed” by floors, walls, or similarly useful features, there is no evidence that would serve to determine whether these artifacts were discovered in

the levels with which they were originally be associated. Furthermore, there is no extant architecture at Buto previous to Layer III. Since von der Way's initial premise cannot be supported, neither of his two subsequent arguments is sustainable: we have no way of knowing precisely what sort of building(s) the fixtures were used in, nor is there any clear evidence as to where (and when) in Egypt mud-brick architecture was first utilized, particularly as cones and pegs are specific to only one specific form of monumental mud-brick architecture.

Even if the pegs at Buto could be shown to belong to Layer I, rather than to Layer III, this would show the use of mud brick construction techniques there to be no earlier than either the mud brick tombs at Naqada Cemetery T (Petrie and Quibell 1896; Baumgartel 1970; Davis 1983), which date to the Naqada IIc/d period (Adams and Ciałowicz 1988), or than Tomb 100 at Hierakonpolis (Quibell and Green 1902:20-22, 54, Pls. 75-78; Green 1951; Case and Payne 1962; Payne 1973; Kemp 1973), which dates to Naqada IIc (Kaiser 1990:296).

Ultimately, the Buto findings demonstrate contact with Sumer, but they do not demonstrate significant influence on Egypt by that culture. The finds at Buto cannot be said to provide any new evidence about the origins of mud-brick architecture in Egypt and until they can reasonably be shown to belong to Level I—making them roughly contemporary with Tomb 100 at Hierakonpolis—it can not be reasonably argued that contact with Mesopotamia provided the stimulus necessary for the diffusion of mud-brick architecture into Upper Egyptian society. Whatever the case may have indeed been and even if any such stimulus did occur, it is clear that if the Egyptian elite adopted the building forms from Sumer, they quickly reworked the 'idea' of mud-brick architecture into a uniquely indigenous form, changing it to suit their own physical and symbolic needs.

4.1.3 Additional evidence of interconnections: Ceramics and lapis lazuli

It is generally acknowledged that the Egyptians drew upon the iconography of Mesopotamian and Elamite cylinder seals in the decoration of Predynastic luxury goods, such as palettes and knife handles.³¹ An ongoing dispute has centered on through what regions such transfers may have occurred. Two alternatives for the route of Mesopotamian influence have been suggested. The first route was via the sea from Mesopotamia, around the Arabian Peninsula, and across the Wadi Hammamat (Baumgartel 1947:43-44; Frankfort 1951:110–111; Kantor 1952:250, 1965, 1992:16). The second route was across by river and the north of Mesopotamia to Syro-Palestine, and then either by land or by sea to the Egyptian Delta.

The route via Arabia has been discounted by most scholars because of the lack of direct evidence for Mesopotamian contact with western Arabia either via shipping or by overland trade. Ceramic finds demonstrate Mesopotamian contact only with Eastern Arabia. In addition, the clay analysis of sherds discovered in Bahrain—which was known to the Sumerians as *Dilmun*³²—and in Saudi Arabia shows that many of them were originally produced in Ur and later transported to the Arabian Gulf (Oates, Davidson, Kamilli and McKerrell 1977). Similar contact between Sumer and the Gulf occurred as early as the Haji Mohammed phase of the ‘Ubaid period (Burkholder 1972; Oates 1978; and Oates, Davidson, Kamilli and McKerrell 1977; Potts 1992:64; Kantor 1992:17) and continued throughout the Jemdet Nasr and Early Dynastic periods (Caspars 1971; Frifelt 1975; Potts 1992:66–67; Kantor 1992:17).

³¹This has been well documented in the following articles and will not be discussed here: Boehmer 1974a, 1974b, 1991a; Frankfort 1924; Kantor 1942, 1952, 1965, 1992; Smith 1992; Teissier 1987; Vertesalje 1992.

³²For more information on this toponym see Jaritz (1968) and Edzard, Farber and Sollberger (1977:30, 157-158). For textual evidence from the much later Larsa Period (c. 2000–1750 BC) documenting trade between

The more likely route of stimulus and diffusion was across the north of Mesopotamia to Syro-Palestine by land, and then either by land or by sea to the Egyptian Delta. Moorey (1990:67) argues persuasively that ceramic and iconographic evidence demonstrate Egyptian contact with Mesopotamian culture via Syro-Palestine and Iran, rather than directly with the Sumerian heartland. He suggests an initial sea route, from the Delta to cities such as Byblos (see also Prag 1986). Moorey's position is also consistent with the fact that Egyptian Naqada IIB pottery appears in Southern Palestine during the EB1a period, at such sites as Taur Ikhbeineh (Oren and Yeutieli 1992:368–371), Nizzanim (Amiran and Gophna 1992:357–359) and Lachish (Tufnell 1958:39–41, 144–155) but is largely absent from the archaeological record in Northern Palestine; this would indicate the short geographical limits of any overland trade routes that may have existed.

The sea-borne trade route between Egypt and Palestine was extended into Syria and further east by a second route that followed the course of the Tigris north to a series of interconnected waterways (Moorey 1990:67). Sürenhagen describes this network as follows:

... the Euphrates, so important from the beginning of ED III, did not serve as the main connection between Babylonia and Syria during the Uruk period. Trade was organized along the Tigris and possibly the Wadi Tharthar, crossed the Jebel Sinjar, and followed the Khabur and Balikh to reach the Euphrates near modern Deir ez-Zor and Raqqa. From there, trade routes continued to the northwest along the Euphrates, or even crossed the Syrian desert, touching el-Kowm. A third route, also starting from the Mosul area, ran along the modern Syrian-Turkish border and reached the Euphrates at Carchemish.
(Sürenhagen 1986:15)

Contact along such a trade route might have transmitted the stimulus for the architectural ornaments found at Buto. Since the material remains characteristic of the Uruk culture extend “across north Syro-Mesopotamia from Nineveh through Brak to Habuba-Kabira-South/Jebel

Mesopotamia and the islands of Bahrain and Failaka, referred to in the texts as *Dilmun*, or *Tilmun* (Oppenheim 1954).

Aruda” (Moorey 1990:67), the ornaments from Buto may represent contact with northern elements of the Uruk culture rather than the direct influence of the Sumerian heartland.

Further evidence of contact between Egypt and Northern Syria includes a rim sherd of Naqada IIc, Class N, “black incised ware” found at Habuba-Kabira-South (Sürenhagen 1986:22, Fig. 24; Moorey 1990:62, Fig. 1c) and examples of “spiral reserved slip” pottery distinctive of the Amuq F horizon that were discovered at Buto in the “Transitional Layer” (Naqada IIId1–IIId2) and in Layers III (Naqada IIId) and IV (Dynasties 0–1) at Buto (Köhler 1992:21, Figs. 1–4; von der Way 1987:247, Figs. 2:6, 3:1–4; von der Way 1988:248). During the Naqada IIc–d to IIc₁ phases there also appears to have been a “massive diffusion” of Palestinian EBI pottery into Upper Egypt (Amiran and Gophna 1992:357). Amiran also observes that the majority of Petrie’s F-Wares appear to be of foreign origin (1992:427–432).

Syro-Palestinian EBIb period pottery was diffused at least as far south as Abydos and Hierakonpolis. At Hierakonpolis, the foreign wares appear in Naqada IIc–d contexts (Adams and Friedman 1992), whereas at Abydos, those found date primarily to Naqada IIIa or Naqada IIIa₂ (Dreyer, Engel, Hartung, et al. 1996, and Dreyer 1993, 1992a, 1990, and 1998; Nakano 1998). In the Delta, Syro-Palestinian ceramics exist in Naqada II levels at el-Tell el-Iswid (south), Tell Ibrahim Awad, and Tell el-Farkha (Adams and Friedman 1992:322). In later, Dynasty I contexts, Syro-Palestinian wares appear at Saqqara, Abusir, Tarkhan, Lahun, and Abydos (tabulated in Kantor 1992:19–20 and discussed in Nakano 1998).

From the Tigris and its northern tributaries, the overland trade routes appear to have extended into Elam, which during the Uruk IV period was a virtual satellite of the Mesopotamian culture. These routes allowed the transport of precious materials such as lapis lazuli from sources much further to the east. Payne notes that lapis lazuli was present in at

least 11 early graves at Naqada. In one grave (T29), which she dates to Petrie's S.D. 40 (Naqada IIId2–IIIa1), "lapis lazuli beads were found strung together with an imported Mesopotamian cylinder" (Payne 1968:58; see also Frankfort 1939:293 and Pl. 44a; N.B., however, that the contents of tomb T29 are not cataloged in Payne 1993). In addition, a statuette, the body and head of which were composed of separate pieces of lapis lazuli from different sources, was discovered at Hierakonpolis (Quibell 1900:7, Pl. 18, Fig. 3; Quibell and Green 1902:38; Garstang 1906:135, Pl. 2, Figs. 2-3). Neither the head nor body of this object were found in datable contexts; on the basis of style alone, Porada dated the object to "before" 3000 BCE (Porada 1980). Although sources of lapis lazuli existed in Siberia in the Pamirs and around Lake Baikal, the most plausible source of this material appears to have been the mines of the Kerano-Munjan valley in Badakhshan, Afghanistan (Herrmann 1968b:21–29; Moorey 1994:87; Casanova 1995:15–16). The presence of this precious material at sites as far away from the mining source as Naqada and Hierakonpolis, therefore, provides an insight into the geographical distance that such along-the-line trade was capable of reaching (see also, *in passim*, Herrmann 1966).

In the scenarios described, materials traveled over long distances by means of exchange that included a succession of intermediaries rather than simply two groups in immediate contact. This same type of mechanism facilitated the indirect transmission from Sumer to Egypt of not only materials but of ideas. Such transmission probably occurred primarily by means of stimulus diffusion rather than by direct copying. What was once assumed to represent the direct influence of Mesopotamia upon the development of early Egypt may simply have been the result of the borrowing of ideas rather than a more conscious form of influence by Sumer, still less conquest.

4.2 The evolution of writing in Egypt

4.2.1 Tomb U-j at Abydos: General contents

If cultural forms can arise in response to a stimulus, one must ask whether systems of expression, such as writing were adopted from one culture to the next or whether knowledge that they existed may have inspired their creation in a different culture. As with the earliest known Mesopotamian writing, the oldest published Egyptian inscriptions (Figs. 43-44), which come from the mud brick tomb U-j at Abydos (Figs. 45-46), probably provide information about the ownership and contents of goods. The tomb is dated both by its artifacts (Dreyer 1992, 1993, 1998:21-172) and by radiocarbon to the Naqada IIIa₂ period (Boehmer, Dreyer, and Kromer 1993:65; Dreyer 1998:17-18). It is approximately 9.10 by 7.30 meters and is divided into twelve chambers, each of which connects to one or two of its adjoining rooms by means of small slits. The walls lining the chamber's interior have been preserved to an approximate height of 1.5 meters, more or less the entire height of the original structure, which had presumably been buried whole.

The tomb was constructed in two phases. In the first, a large burial chamber was built from north to south along the western end of the tomb together with nine chambers to the east of it. This initial phase appears to have replicated the plan of a domestic building that included a central hall or court (Dreyer 1992:295). The second stage consisted of erecting the two long chambers along the tomb's south wall.

The tomb owner's status as an elite individual—in Dreyer's opinion a king—is indicated by its contents, which included: the remains of a wooden shrine; a complete *hq3* scepter made of ivory; various wavy-handled pots that were originally filled with oil or fat;

beer vats; bread moulds; plates; more than 400 ceramic vessels from Palestine originally containing wine (McGovern, Hartung, Badler, et al. 1997:10); fragments of ivory sticks and other types of gaming pieces; and sherds from stone bowls including some made of obsidian (Dreyer 1992:296; Dreyer, Hartung, and Pumpenmeier 1993:39–56). Based upon the pots and sherds found in chambers 7 and 10, as well as sherds and depressions in the floor of chamber 12, it is estimated that the tomb originally contained some 700 Palestinian vessels, of no great size (McGovern, Hartung, Badler, et al. 1997:10; Dreyer, Hartung, Pumpenmeier 1993:49–58, Pl. 9a–h), which could together have held approximately 4500 liters of wine (McGovern, Hartung, Badler, et al. 1997:10–11). No exact ceramic parallels for the vessels exist, but they most closely resemble wares found in greater Palestine, “including Tel ‘Erani in the southern coastal plain, Lachish in the nearby lowlands, Megiddo in the Jezreel Valley, Jericho in the Jordan Valley, Bab edh-Dhra’ on the eastern shore of the Dead Sea and Lehun on the southern Transjordanian plateau” (McGovern, Hartung, Badler, et al. 1997:11). Eleven of the vessels, representing all of the major ceramic fabric groups found therein, were subjected to neutron activation analysis and eight of them were found to be “closely associated with southern Palestine (coastal plain and lowlands Shephelah), southern Palestinian hill country (Judean Hills), Jordan Valley, or Transjordanian groups.” The remaining three samples yielded no matches to known clay samples (McGovern, Hartung, Badler, et al. 1997:12).

4.2.2 Early Writing at Tomb U-j

Dreyer notes that the writing found at tomb U-j contains approximately 50 graphs including semographs (i.e. iconic and symbolic graphs), phonetic graphs, phonetic complements, and determinatives (Dreyer 1998:181, 183-187). Dreyer is of the opinion that the earliest vase inscriptions from el-Amrah, Naqada and Gebel Tarif date to Naqada IId (1998:87, 181).

Given this and noting the level of development of the Egyptian script by the time of tomb U-j, Dreyer argues that writing may have developed there as early as the Naqada IIc phase and certainly no later than Naqada IId. This would make the earliest writing in Egypt contemporary with the culture of levels IVb/IVc at Uruk, placing it before the earliest known Sumerian script.

Whether writing appeared first in Egypt or in Sumer, however, is beyond the scope of the present study and, in any event, seems impossible to determine given the evidence currently available. What can be said about the evidence from tomb U-j is as follows. First, that many of the “wavy-handled” variety of pots have combinations of graphs written on them in black ink (Fig. 44), which appear primarily to be iconically derived. According to Dreyer, the inscriptions most often include a representation of a scorpion, in many cases shown in conjunction with that of a plant (1992:296). Some examples also depict a third graph such as a fish, a shell, or the head of a bull. Dreyer believes that these inscriptions denote the content of the individual containers and/or the estate from which they came. Because “estates are often named after their royal founders,” he argues that the graphs are most likely to be read as “garden (plantation) of Scorpion (Fish etc.)” (Dreyer 1992:296) and, since the majority of the

inscribed pots show the scorpion graph, he proposes that a ruler named “Scorpion (I)” occupied the tomb (Dreyer 1992:296–297).³³

The tomb also contained approximately 150 pierced bone “tags,” each incised either with hieroglyphic graphs or vertical strokes symbolizing numbers (Fig. 43) (Dreyer 1998:113–145). Dreyer comments that inscribed numbers on the tags from Tomb U-j “in all likelihood indicate sizes of webs of cloth, the signs [graphs] presumably the provenance of different goods” (Dreyer 1992:297).³⁴ He believes that some of the tags are “‘readable,’ mentioning either administrative institutions known from later seal impressions, royal estates like those referenced by the ink inscriptions on the pottery, or localities such as Buto and Bubastis in the Delta” (Dreyer 1993:297).

John Baines argues that this assessment is too optimistic because the isolated nature of the graph-forms and their unusual grouping makes it difficult to determine what the graphs were intended to signify: “It remains difficult to read these inscriptions, which contain numerous signs [graphs] that are not attested in subsequent periods, as well as combinations and orderings of signs [graphs] that have no close later parallels” (Baines 1999 [original English text of]:1). Baines notes two additional problems: that in the case of the tags from Tomb U-j and all writing for hundreds of years afterwards, “Fully syntactical language was not notated” and that “most preserved writing presupposes a context with which writer and possible readers (who may not have always existed in reality) were familiar” (Baines 1999 [original English text of]:1). This situation appears to parallel that of the tags and tablets of the Uruk IV and Uruk III script phases, in which the graphs do not appear to have been

³³ Dreyer uses the Designation “Scorpion I” to distinguish the occupant of this tomb from the later king whose macehead was discovered in the Main Deposit at Hierakonpolis. A tomb at Abydos has also been ascribed to this ruler, although, as Baines puts it, “the evidence is rather tenuous” (personal communication).

³⁴ Few examples of Predynastic and Protodynastic textiles have been discovered (see Scamuzzi 1965:Pls. I–V for

intended to represent the syntax and sound patterns of language. As I argued for early Sumerian writing (see section 2.5), one interpretation of this situation is that the intention of the graphs may have been mnemonic, or semi-mnemonic, in which case, even if their correct readings were determinable, a contextual basis would have been required in order to understand what they referred to. The other possibility is that many, if not all, of the early signifiers represented concepts directly, rather than through words. It may have been only at a later stage, when syntactic, semantic, and morphological indicators were added, that the graphs were used to represent language directly.

4.2.3 The development and purposes of writing in Egypt vs. in Sumer

Bard points out that the earliest known Egyptian writing is used to identify goods and materials, rather than to record economic activities (1992:304). This underscores both similarities and possible differences between the development of writing in Sumer and in Egypt. Except for the fact that they are pierced, the bone or ivory tags from Abydos (Fig. 43; see Dreyer 1998) closely resemble the clay tags of the Uruk IV script phase (Fig. 8a) and they appear to have recorded similar information pertaining to ownership, origin, or contents. The Uruk phase tags, of which only seventeen specimens are known (Szarzyńska 1994:8), contain at least five different categories of information: “designations of persons or units who were donors or recipients of goods transferred;” “designations of goods;” “designations and quantities of goods;” the “consecutive number of the transaction;” and the “formula describing the kind of transaction” (Szarzyńska 1994:8; see also Nissen, Damerow, and Englund

the painted cloth from Gebelein), but as Ciałowicz and Adams observe, “it is obvious from later tomb scenes and grave goods that woven linen was economically important even as bales of cloth” (1997:33).

1993:19-20). The information encoded on the tags by both cultures appears to be quite similar.

One significant possible difference between the uses of writing in the two cultures is that the Sumerian tablets (as opposed to the tags) of the Uruk IV and Uruk III script phases seem to have recorded economic transactions related either to the state or temple economy, or possibly to individuals of high status. This highlights the decisive role of Sumerian bureaucracies in the development of writing. In Sumer, writing appears to have evolved directly out of the desire to keep records pertaining to the transaction of commodities. This may also have been the case in Egypt, but if similar economic texts existed there during the Predynastic and Protodynastic periods they have yet to be discovered. For the moment, the existing evidence suggests that the impetus behind the invention of hieroglyphic writing appears first to have been to identify goods and that, later—by the end of Dynasty 0—writing took on new functions, including its use as a form of monumental visual display that transmitted social and ideological messages to specific audiences (see below). An alternative possibility, however, is that if economic texts similar to those of Sumer existed in Egypt, they were written on papyri, or on other, perishable materials. This seems plausible since the cursive nature of the graph forms written in on many of the vessels found in Tomb U-j implies the use of papyrus during the Predynastic period.

The available information suggests that Egyptian writing evolved first out of the need to record the ownership and origin of specific goods, such as the cloths and the wine-filled vessels of Tomb U-j. If, however, papyri were the primary medium for economic record keeping in early Egypt, the deficiencies in the archaeological record would skew any interpretation of the material evidence for the development of writing: complex bureaucratic

record keeping could then have been a major impetus for the development of Egyptian writing, and the use of perishable media, rather than tokens, would explain why there is no evidence for preliterate accounting systems, in the Nile Valley.

4.2.4 Structural properties and stages in the development of the Egyptian writing system

Whether the images inscribed on the Abydos tags can be read, they pose a similar question to the graphs of the Uruk IV writing phase, namely, whether or not there existed an as yet undiscovered earlier phase in its development. As I mentioned earlier (see section 4.2.2.)

Dreyer believes that writing was indigenously invented sometime between late Naqada IIc and IIb. John Baines, on the other hand, believes that although “the societal and artistic developments of Naqada II may have laid the ground” for the development of Egyptian writing, there is “no persuasive reason why it must have been introduced before Naqada III” Baines 1999 [original English text of]:13).

John Ray (1986), among other writers, has speculated that the mere knowledge that writing existed in Mesopotamia—at a period when the Egyptians felt a need to record certain activities—probably served as the primary catalyst for the invention of the Egyptian system. He points out that Egyptian graph-forms were not borrowed and argues that some form of official agency was responsible for creating a system of written communication. This does not seem implausible; some well known examples of writing systems appear to have been invented in more or less this way, including: the late nineteenth century Shumom writing system, which was devised by the Bamoun ruler of Cameroon and was fully developed and in use by the end of his 32 year reign (French 1997:2); the Native American Cherokee syllabary; the Liberian Vai script (Scribner and Cole 1981); and the Laotian Hmong alphabet (Smalley,

Vang and Yang 1990). All of the above, unfortunately, represent ‘colonial’ situations, which would not have been the case in Egypt. Similarly, it is also commonly believed that the first linear alphabet, attested in Proto-Sinaitic and Proto-Canaanite inscriptions from c. 1700 BCE onwards, was also the product of a single person—who drew inspiration from Egyptian writing (e.g. Healey 1990:201–203, 210–211). None of the parallels above are perfect; regardless of when writing was invented in Egypt, however, it appears to have had no logical antecedent stages. Thus the concept of a natively invented script stimulated by the knowledge that writing existed elsewhere, namely Sumer, should not yet be ruled out.

Authors such as Walter Fairservis and William Arnett have argued separately that the origins of the hieroglyphic system are to be found in earlier forms of pictorial representation, such as the graffiti commonly inscribed on Naqada II D-ware pot sherds (Fairservis 1983; Arnett 1982). The latter author has focused even more specifically upon the signifiers present on later palettes and maceheads, particularly those objects belonging to King Scorpion and King Narmer. That the maces and palettes of the Naqada IIIc period include graphs, however, has never been disputed; what seems less likely is that the graffiti on the much earlier D-ware sherds demonstrates anything more than preliterate attempts to manipulate symbolic forms in order to record and/or transmit very basic types of information. The D-Ware sherds contain fixed combinations of signifiers, but they seem to represent only a very general cognitive step towards the development of writing.

Art and writing have in common that they seek to convey information by means of elaborate systems of signification. In order for either of them to do so, the correspondences between signifiers and signifieds need to be agreed upon by entire communities of potential message senders and receivers, because without such agreements information cannot be

successfully transmitted. While there is a very fine line between the earliest writing and strictly pictorial representations, the use of symbols is merely a prerequisite for the invention of writing; not all signifiers are graphs, nor do they necessarily develop into graphs.

Can a system of visual communication truly be said to be ‘writing’ unless it successfully encodes words of language? The answer depends upon one’s definition of writing. The ‘scripts’ of the Late Naqada and the Late Uruk periods are not writing in the comprehensive modern sense. Rather, they are something for which no precise term exists, although some good terms might include “proto-writing” and/or “alternative literacies.”³⁵ The early ‘scripts’ of Sumer and Egypt represent intermediate points in the evolution of writing. They did not yet indicate grammar, syntax, or word morphology and seem not to have represented the sound patterns of language. The signifiers utilized in these “proto-writing” systems were probably capable of expressing all of these linguistic aspects with a limited degree of modification, but they were not yet utilized to do so. As such, the “proto-writing” systems still retained many structural elements common currency to both pictorial art and writing. Most of all, however, these “alternative literacies” were still primarily mnemonic systems in that they required specific contextual knowledge in order to be successfully used.

4.2.5 The fully developed Egyptian script

By some time during the 2nd Dynasty, the Egyptian texts demonstrate a fully ‘written’ language; a number of important innovations had occurred, not least of which was the introduction of a number of semantic determinatives and uniconsonantal graphs into the writing system that aided the reader to establish what specific word was being signified. The

³⁵ The term “alternative literacies” is taken from Boone and Mignolo (eds.) (1994), which assembles papers on pictorial and other forms of information storage and transmission among societies such as the Aztec, Mixtec,

semantic determinatives signified the class of word utilized, whereas the uniconsonantal graphs added phonetic information that served “either to anchor the ideograms to specific values and meanings, or to add grammatical or other elements which by definition cannot be present in the ideograms themselves” (Bard 1992:314; for a more comprehensive study of the Egyptian writing system from of Dynasty 0 through Dynasty 3 see, *passim*, the study by Kahl 1994). Both types of new graphs helped the reader to determine the correct readings for otherwise polyvalent signifiers and the determinatives also helped to segment sign sequences. The extra elements described above were “already present in writing by some time during the 1st Dynasty,” but “are not attested as writing syntactic language before the late 2nd Dynasty” (Baines, personal communication).

These additions to the writing system were of seminal importance since written Egyptian did not indicate vowels. Like many Afro-Asiatic languages, Egyptian possessed a triconsonantal root system in which numerous words were derived from the same root. This meant that, although the individual meanings and pronunciations of words were often quite different, they were derived from the same consonantal sounds, and could therefore be written using the same graphs. John Ray gives the following example for the root *ḥ-t-r* “words involving these three consonants are known from later Egyptian, with meanings such as ‘twin’, ‘tax’, ‘imposition’, ‘necessity’ and ‘horse’ ” (1986:313). He explains that, “there is a tendency for all words from a single root to be written with one pictorial sign [graph], or ideogram, apparently chosen from the range of words available from this root. The vowels are apparently ignored for this purpose” (1986:313). The addition of semantic determinatives and uniconsonantal graphs reduced the ambiguity of the writing system by specifying values for otherwise polyvalent signifiers.

The Egyptians also eventually developed a cursive (i.e. hieratic) form of writing that was both faster to use and more abstract in appearance than the formal system. It is unclear when the hieratic script was invented. John Baines (personal communication) points out that ink and cursive forms exist from the period of Dynasty 0 and hence the forms must have existed from the beginning of writing onward. By the period of Dynasty IV, hieratic was widely employed for bureaucratic and administrative purposes, including the keeping of estate records (Davies 1990:93). The simpler hieratic sign forms were quicker to use, but its employment differed from the hieroglyphic writing; it was reserved for use in non-monumental contexts and was not utilized for formal display before the 1st millennium.

4.3 Relationships between writing and ‘art’ in Egypt and in Sumer

By the end of Dynasty 0, the Egyptians had adopted writing for use as a means of visual display, utilizing it in conjunction with representational ‘art’ in order to transmit ideological messages on monuments (see e.g. Fischer 1986; Baines 1989, 1993, 1995b; Wilkinson 1992). Examples include the Libyan (Fig. 47), the Hunters’ (Fig. 38-37), the Battlefield (Fig. 48) and the Narmer (Figs. 49-50) palettes, as well as the maceheads of Narmer (Fig. 51) and Scorpion (Fig. 52). It was possible in Egypt to merge writing and ‘art’ into a fully integrated system of visual display primarily because written and artistic signifiers continued to resemble each other. Although Egyptian writing quite quickly adopted many graphs that were phonetic and symbolic in value, these graphs still imitated the forms of the natural world even if their semantic values were no longer indicated by direct correspondence to those forms. This continuing use of mimetically derived graph-forms had the advantage that it aided the forging of this relationship between writing and art.

Although texts and images were sometimes displayed together in Sumer, the ‘artistic’ and written systems of that culture diverged from each other by the end of the Uruk period and became two isolated systems. Certain iconographic features of objects such as the Uruk Vase (Figs. 15-16) the seal from Tell Billa (Fig. 24) point to a brief period of experimentation in which visual imagery and writing overlapped. The standards at the entrance to Inanna’s shrine, for instance, were used to represent her name in the archaic script; the stack of bowl-shaped objects carried by the statue on the Uruk Vase may have represented the archaic graph EN, a graph also portrayed at the prow and stern of a boat on a Tell Billa seal. Sumerian graphs then evolved into abstract forms, the vast majority of which ceased to be iconic by the ED period (Fig. 10).

This divergence between the graphs and other signifiers may have been due to the mechanical fact that the Sumerians wrote on clay. Whereas the earliest written graphs were literally drawn, or etched, onto clay tablets in a linear fashion, during the Uruk IV period a quicker system was devised in which a reed stylus was utilized to impress graphs composed of wedge-shaped indentations. The adoption of this cuneiform system may have naturally led to the abstraction of the original forms. This distinction between linguistic and “artistic” graphs could have been purposeful. In other cultures, for example China, the abstraction of originally mimetic graph forms does not appear to have been driven by issues connected to the mechanics of writing. The earliest known Chinese inscriptions date to the Shang dynasty (about 1200 BCE) and were executed on pottery, stone, bronze, and organic materials. The largest surviving group of these writings were oracle inscriptions (OBI), engraved onto bones and shells that had been used for of divination (DeFrancis 1989:91–92). Although they “were not yet standardized as to shape and size, most of the OBI graphs were icons” (1989:92–93).

These early graph forms evolved into characters that were so “stylized, abbreviated, distorted, and otherwise modified” that it is difficult to discern their relationship with their later equivalents. (DeFrancis 1989:95) (Fig. 53). The evolution of mimetic graphs into more abstract, non-mimetic forms took place despite the fact that by the time of the succeeding Zhou dynasty (c. 1045 BCE) most writing was done with a brush on bamboo, wood, or silk.

Hence, unlike Sumer, the materials chosen for writing could not have hindered the reproduction of the earlier, more directly mimetic graph forms. Nonetheless, in China, the movement towards abstraction occurred despite a lack of mechanical forces. It is impossible to judge why in Sumer graph usage diverged into two clearly distinct systems (i.e. ‘art’ and writing) whereas in the Nile valley, the ongoing resemblance between linguistic graph-forms and the features of the natural world allowed the continuing creation of ‘art’ works containing double-plays between linguistic graphs and artistic forms. Perhaps the reason was due to the mechanics of writing on clay or alternatively, as in China, it was not the medium used for writing but some other influence that caused the graphs to evolve into symbols from icons.

Chapter 5

The development of pictorial systems of representation in Egypt from the Late Predynastic Period to the end of Dynasty 0

In Chapter 2, I discussed how in order to create full writing it was first necessary to forge fixed associations between icons or symbols and specific words or sounds. Such associations between images and words might at first appear to be a natural extension of the language faculty since verbal representations are often attached to mental images, but this is only partially valid. Abstract concepts and grammatical features, for instance, usually lack any corresponding mental representation. The presence of fixed associations between specific images and words is an important component of all systems of visual communication, because in linguistic sign usage, the relationship between the signifier and the signified is arbitrary. For writing to develop, a consensus was required about which symbols would represent which specific words, morphemes, phonemes, or syntactical and grammatical elements. This parallels the consensus among users of spoken language which is necessary in order for speech to not disintegrate into random and meaningless sounds.

In both Sumer and Egypt, the creation of pictorial ‘art’ predated writing. The ability to create iconic and symbolic representations acted as the semiotic cornerstone necessary for the subsequent evolution of writing and was possible only because of the human ability to map connections between different categories of information. Icons represented visual objects by means of mimetic representation. A bull, for example, might be represented by a graphic depiction of that animal. Symbols, on the other hand, represented concepts that were usually abstract, by means of an associated image. Symbols could be abstract forms, but could also be

mimetic forms that stood for concepts. For example a drawing of a bull might represent symbolically an idea closely associated with it, such as power or virility. In other instances seemingly iconic graphs represented not the actual thing being depicted but symbolized actions associated with the mimetic referent. The graph DU, for example—which is a visual representation of a foot “never represented the word ‘foot’, but all sorts of actions made by foot” such as, “go, stand, take away...etc.” (Selz, personal communication). Long before writing had become a stable and fully functional system, graphic representations were already being employed to construct and to disseminate ideological messages. In both Egypt and Mesopotamia, writing appears to have been a high-level—i.e. more complex, rule governed, and specific—system that developed out of viable, but lower-level and polysemous methods of visual communication.

Baines has pointed out that although it is impossible to study early Egyptian history, “What can be studied is the king's embodiment of the ideas of order and royal action, and how they were mobilized in monuments and iconography” (Baines 1995b:128). Such a study must, by necessity, concentrate on elite artifacts, on “powerfacts” (Hoffman 1979:316), objects whose visual imagery includes and stresses metaphors and other structural tropes that define and express the qualities of the ruler and/or the elite. Such objects included cosmetic palettes, maceheads, knives, combs, and many other similar objects that are missing from the archaeological record because they were made from organic materials or recycled into new objects, or were not deposited in locations from which archaeology can recover them. The ruling elite utilized the visual arts for rhetorical purposes such as the formulation and display of ideological messages. Smaller objects such as knives and combs were prestige items intended for personal use and display that conveyed messages about the status and other

attributes of their owners. Palettes and maces were often elaborately decorated, while their often non-utilitarian scale shows that they were ceremonial or votive objects.

5.1 Early Egyptian art: Styles and systems of representation

The elite ‘art’ of the late Naqada and Dynasty 0 can be divided into three basic styles which, for lack of a suitable terminology, I will refer to as “Style I – III.” The bases for this division include: the technical methods of carving, the structure of the compositional system, the types of metaphors employed in the elaboration of the object’s message, and the types of semiotic systems utilized. I use this division for convenience. As discussed earlier, styles have the tendency to overlap and it is often impossible to delineate clearly where one ends and the next begins.

I describe one of the earliest of these objects, the Two Dog Palette, as belonging to Style I. It was discovered in the Main Deposit at Hierakonpolis in conjunction with one of the latest objects in Style III, the Narmer Macehead. Since objects of several styles were found in the same deposit, it is possible that although they were buried together, they were either laid down or collected over a long period of time. The probability that these were either heirlooms or sacred objects no longer in use, makes it difficult to date them precisely. However, nothing in the Main Deposit dates stylistically earlier than Naqada IIIa₁ (3200 BCE). Narmer ruled around the end of Naqada IIIc₁, c. 3000BCE (Kaiser 1990:289). The changes in style to be discussed here must therefore have occurred quite rapidly.

5.2 Style I

With Style I objects we begin to see carefully composed relief works with multi-figure scenes executed on ceremonial/larger than utilitarian objects. The archaeological evidence up through the end of Naqada II has yielded objects that are much simpler in program and relatively unadorned. This suggests that Style I objects should be dated to the beginning of Naqada III. The style is exemplified by the Two Dog Palette (Fig. 54), the Four Dog Palette (Fig. 55), and the Hunters' Palette (Fig. 37-38) which exhibit similar compositional and technical attributes that distinguish them from later objects. The earlier Style I objects are also characterized by the absence of graph-like signs. The palettes have often been described as having a "chaotic" appearance, perhaps because they do not employ a system of formal registers. Groenewegen-Frankfort asserted that such objects "show such a chaotic lack of grouping that one might assume a complete unconcern with anything approaching questions of space" (Groenewegen-Frankfort 1951:18), a position also supported by Ciałowicz who wrote that these objects are marked by "*une disposition apparemment désordonnée des figures placées à la surface de l'objet, créant une impression de chaos*" (Ciałowicz 1992:247). I argue rather, they were very carefully composed and any impression of "chaos" that they convey serves to transmit messages via carefully constructed metaphors. (I refer to the broader end as the 'top,' and the thinner, tapering, end as the 'bottom.' The side with the indentation for grinding cosmetics is generally referred to as the 'recto' and the other side as the 'verso'.)

On a technical level, the Style I objects share a 'scratchy' quality displaying an apparent lack of concern with finishing individual surfaces smoothly; even the edges and outlines of individual forms lack the crispness and precision that is characteristic of later Egyptian 'art'. Another common characteristic of the Style I palettes is hollowing out of the

eye sockets (which may or may not have been inlaid)³⁶, a feature generally uncommon in early Egyptian ‘art’. They also share an iconic repertoire which includes not only common animals but exotic and mythical beasts, such as giraffes, lions, and griffins.

In terms of composition, Style I artifacts also adhere to general principles of hierarchical and bilateral ordering; the sizes of individual figures suggest their importance and there is some concern with symmetry. These compositions are cohesive ideologically as well as stylistically, all of them transmitting similar ideological messages. Perhaps the most important of these messages was a statement about the ruler’s ability to control. On each palette elite humans, or symbols that stand in for them, surround and contain forces of nature that appear to be potentially chaotic and destructive.

The Style I artifacts can be divided into two sub-groups: ‘Style IA’ and ‘Style IB’. The primary difference between the two groups is that Style IA objects, such as the Two Dog and the Four Dog Palettes (Figs. 54-55), employ compositional principles including the bilateral arrangement of ‘global’ (individual signs that present themselves visually first as a group) and sometimes of specific forms as well as hierarchical ordering based upon relative size, but do not employ a system of registers. Style IB artifacts, on the other hand, use informally structured registers that affect narrative structures, as in the case of the Hunters’ Palette (Figs. 37-38). Style IB objects also utilize graph-like signifiers, a feature not present in the earlier works.

³⁶ This technique was common in Sumerian sculptures during the Uruk and later periods. It is also a common feature of the “*série ancienne*,” or “intercultural style,” steatite and chlorite vessels that were probably exported from Elam to Sumer and Dilmun during the ED III period.

5.2.1 Style IA: The elaboration of metaphors and the transmission of ideological messages

5.2.1.1 The Four Dog Palette

On both the Four Dog and the Two Dog palettes, individual forms are executed in the ‘scratchy’ style. The eye-sockets of animals are hollowed out and there is a tendency to indicate the outlines of ribs and of muscle groups by means of incised lines. Feathers and manes are similarly indicated by incisions.

The Four Dog palette (Bénédite 1903; Capart 1905:233–236, Figs. 173–174; Vandier 1952:583–584, Fig. 383; Asselberghs 1961:Pls. 72-73, Figs. 129–130) is the less complex of the two in execution and composition (Fig. 55). The four dogs represented appear to be African wild hunting dogs (*Lycaon Pictus*; Fischer 1958). Their bodies and faces are aligned inward, acting as an heraldic framing device for the rest of the composition. One of the bottom two dogs’ heads has been significantly damaged, but like the other heads they would have been positioned at roughly the object’s corners, were it a rectangle. The dogs are depicted in an identical manner on both sides of the object, and their relief is higher than the rest of the pictorial field. Their treatment has been correctly described by Fischer as “three-dimensional in concept” (Fischer 1958:66).

The sculptural illusion that the dogs are three-dimensional serves an important structural purpose. Because the dogs physically contain the other elements within the composition, they act metaphorically as mediators between the real world—i.e., the space outside the palette occupied by the viewer—and the symbolic plane of natural forces, represented by the iconic representations in the palette’s center. This metaphorical construction, in which the dogs define a liminal area, utilized a model founded upon the

natural relationship of the African wild hunting dogs to their physical environment.

Traditionally such dogs inhabit the low desert and their physical position in the real world is between the civilized world of man and the uncivilized realm of the desert. On a secondary level, the dogs might also be said to occupy a similar position between the actual object and the viewer. By means of a physical metaphor, the dogs carved along the edges of the palette serve as intermediaries between the civilized world of the viewer who stands outside of the palette and the animal and mythological realm portrayed in the palette's center.

The metaphor may also operate ontologically; hypothetically the dogs might also be viewed as entities or substances that stand in for the ruler. As guardians they help to ensure the harmony between flora and fauna to ensure the fecundity represented by the trees and grazing giraffes on the verso. They accomplish this task by continuing the realm of adverse and dangerous forces symbolized by the lioness and the serpopeline depicted on the recto.

The verso of the Four Dog Palette is completely symmetrical in composition; The palm tree at its center, sandwiched between two giraffes, serves as an axis dividing the two identical sides. Herringbone-shaped incisions on the relief surface of the palm tree indicate its fronds. The upward slanting incisions, grouped to either side of a raised vertical line that has an incision down its center represent the trunk and its surfaces. Similar slanting incisions decorate the manes of the giraffes to either side of the tree and the neck of the mythic serpopeline on the palette's recto. The incised lines act as a reference point, based upon similarity, between all of the tall elements on both the verso and recto of the palette: the tree, the giraffes, and the potentially tall serpopeline.

On the recto, immediately above the circular grinding area, stands a lioness below a crane-like bird whose feathers are incised with chevron-shaped incisions similar to those on

the palm leaves. The placement of the bird at the very top and center suggests that its function is both iconic and symbolic. It appears to be a heraldic motif, an interpretation that is reinforced by a reading of the Two Dog Palette and the later Battlefield Palette (Fig. 48). On the Two Dog Palette, a bird with a similar beak, but with spread wings, occupies a similar position at the top of the recto immediately below the paws of the dogs and between the heads of the serpopelines. The Battlefield Palette depicts a similar bird on the finial of the standard furthest to the left. The Two Dog Palette and Four Dog Palette do not provide clues to the bird's meaning as a symbol, but its reappearance upon the standard depicted on the Battlefield Palette suggests that it may have identified either the owner or a social group related to him.

Rotating this side of the palette 180 degrees allows one to view the serpopeline as upright. The creature faces right, twisting its neck into an 'S' shape so that it appears to be dominated and subdued by the dog facing it. The significance of this gesture is clear; the dogs again serve an allegorical purpose in which they symbolize the role of the ruler whose status is derived from his ability to subdue natural forces and to maintain and create order. All of the animals depicted within the 'frame' of dogs on the Four Dog Palette are in some way remarkable: the giraffes are unusual because of their height, the serpopeline because of its mythical character, and the dogs and the lioness are noted for their mastery as hunters. The dogs additionally occupy a unique position and relationship to both the human and to the natural worlds. Although the *Lycaon Pictus* are in fact "wild" they appear to stand in for a larger category of canines, which may have included royal domesticated examples. Regardless of whether or not that were so, the uniqueness of each of these animals and their special qualities convey by extension a special status to the palette's owner, reinforcing the ruler's prestige by means of metaphorical and symbolic display.

5.2.1.2 The Two Dog Palette

Similarities between the Four Dog Palette and the Two Dog Palette suggest that they belonged to a corpus of objects that employed a common group of icons, symbols, and metaphorical structures. All of the animals depicted on the Four Dog Palette— dogs, giraffes, lions, birds, and serpopelines— are also portrayed on the Two Dog Palette from the ‘Main Deposit’ at Hierakonpolis (Fig. 54; Quibell and Green 1902:41, Pl. 18; Capart 1905:230–233, Figs. 171–172; Vandier 1952:579–583, Figs. 381–382; Asselberghs 1961:Pls. 70-71, Figs. 127–128; Davis 1992:75-79, Figs. 26-27; Baines 1993:Figs 1–2). A dialogical analysis of the two objects allows us to arrive at a better interpretation of the Four Dog Palette than would otherwise be possible, because whereas the Four Dog Palette portrays very little physical action, the Two Dog Palette more clearly depicts a conflict between two opposing sets of forces: horned animals, symbolizing nature; and powerful natural and unnatural beasts that metaphorically stand in for the ruler.

As in the case of the Four Dog Palette, the large canines on the Two Dog Palette serve as a frame that contains the action in the center of the object. On the recto, the viewer is immediately aware of a roughly bilateral arrangement of static forms in the top two-thirds that changes on the bottom third, which is characterized by rightward movement. The serpopelines on either side of the grinding area are familiar from the Four Dog Palette, but here the two representations are practically mirror images of each other.

Between the heads of the serpopelines stands a bird similar to the one on the Four Dog Palette—probably a crane—but this time with its wings extended. Again, its placement implies that it is the heraldic, or identifying, feature of a particular group. A wild hunting dog

is depicted behind the first bend of each serpopeline's neck. Each dog extends its front paws so as to practically touch the mythic animals. Fischer has observed that there is always a "degree to which the component elements of the composition ... are isolated" and that "it is not until the First Dynasty ... that the jaws of an attacking animal are represented actually closed upon the prey" (Fischer 1958:75–77). It is therefore plausible that the dogs with the extended paws are attacking, or dominating, the two serpopelines, which in turn, appear to be licking the horned animal crouching between them in a position suggesting submissiveness.

The overall arrangement suggests both a chain of causality and a hierarchy of power. The wild dogs subjugate the wild and supernatural forces symbolized by the serpopelines which in turn dominate the horned animal. Below the grinding area a third wild dog inhabits the axis of the palette. Unlike most of the other animals, it faces left, a feature that may create a compositional tension between it and the horned animal above the grinding area. At the top of the hierarchy is always the ruler, whose invisible presence is implied by his association with the wild dogs, the central players in the metaphor in which various wild forces are brought under his command.

These ideas are reinforced throughout the Two Dog Palette. At the bottom of the recto, domesticated dogs that wear collars and presumably act on the hunter's commands also chase the horned animals. On the verso, various types of horned animals are chased by dogs, lions and mythic beasts including a serpopeline and a griffin. The portrayal of these animals parallels depictions included on the verso of the roughly contemporaneous gold-leafed handle of the ripple-flaked knife from Gebel el Tarif (Fig. 56; Quibell 1905:237; Capart 1905:60–61, Fig. 33; Asselberghs 1961:Pl. 33-35, Figs. 47–48; Baines 1993:62). In the center of the palette a leopard is shown attacking a horned animal. A similar representation is found on the

uppermost register of the knife's verso. Both objects also show griffins and lions attacking caprids as well as dogs exerting dominance over exotic animals—although the canine on the second to the bottom register of the knife is probably a domesticated species because of its short ears. Just as there is a dialogical relationship between these palettes and the knife handle, no doubt a great many other intertextual linkages strengthened and added cohesion to the larger system of visually transmitted ideology.

A final important aspect of the Two Dog palette is that the metaphorical linkage between animals that are subdued and presumably controlled by the object's owner and the owner himself is reinforced by a single figure on the verso side. This animal, probably a dog, assumes an upright, human-like posture and plays a flute. Alternatively, this may also be a human disguised/masked as an animal. Regardless of whether we are dealing with animals personified as humans, or vice versa, this type of cross-domain mapping, creates and cements a series of metaphorical structures in which either humans take are defined in part in terms of animal properties, or animals stand in for and symbolize humans and/or aspects of human behavior—a practice that has been widespread among hunter-gatherers throughout history and survives among some aboriginal groups³⁷. The early Egyptian elite were not unique in their appropriation and depiction of such metaphors, only in the ways they utilized them for specific ideological purposes.

5.2.2 Style IB: The depiction of humans, the public display of writing, and the elaboration of visual narratives

³⁷ E.g. Lévi-Strauss (1962; 1966:35–74)—a simple example of how animals are often employed are totems, metaphors involving animals and humans that define the quality or nature of an individual or class.

Both the Style IA and Style IB artifacts share characteristics including the ‘scratchy’ execution of forms and the hollowing of eye-sockets. The Style IA objects established the ruler’s ability to govern by means of an elaborate set of metaphors in which animals symbolizing his power subdue threatening natural and mythological forces. Style IB marks an important shift in the structure of the metaphors used to transmit ideological messages. Pictorial representations of humans were introduced into the composition for the first time and portrayed as active participants in the conflict.³⁸ Additional innovations included the introduction of graph-like signifiers into the composition³⁹ and the use of registers, albeit without groundlines, to structure narrative sequences.⁴⁰

The Hunters’ Palette is ordered by means of three informal registers (Figs. 37-38; Bénédict 1903:107; Capart 1905:229–230, Fig. 170; Vandier 1952:574–579, Fig. 380; Asselberghs 1961:Pls. 65-67, Figs. 122–124; Tefnin 1979:221–230; Davis 1992:93-118, Figs. 31-32). The two main groups are arranged in registers along the two longer sides of the object. The figures’ feet all point toward the center and all of them face the top of the palette. The composition is not entirely symmetrical, but it adheres to general principles of bilateral order and balance (see Tefnin 1979:223–230). Where these elements of order and balance are violated, it is done purposefully to emphasize action and conflict in the areas where the lion is attacked and the horned animal is roped.

The ‘primary’ orientation of the palette was undoubtedly with the tapering end pointing downward, as is true of all other ceremonial palettes, so that the graph-like signs

³⁸ An earlier palette, the “Ostrich Palette” (Vandier 1952:573, Fig. 573; Asselberghs 1961:Fig.120; Ciałowicz 1991:42–43, Fig. 10, Davis 1992:72–73, Fig. 25), which dates to late Naqada IIc/Naqada IId, also depicts a human participant.

³⁹ A small fragment of schist palette in the Metropolitan Museum of Art depicts a falcon perched on top of an uninscribed *serekh*—the symbol graph of the royal titulary, and probably belongs with the Style Ia palettes (Fischer 1958; Asselberghs 1961:Pl. 96, Fig. 170; Hayes 1990:28–29; Ciałowicz 1991:48–29, Fig. 13).

⁴⁰ The oldest known groundlines however, are found at Tomb 100 at Hierakonpolis—i.e. Naqada IIc.

along its shortest side were properly oriented. But in this discussion I refer to rotating the object (at least mentally) to three different orientations in order to better describe the visual narrative. The sequence of reading proceeds from bottom to top along both long sides of the object. This sequence is structurally reinforced, not contradicted, by the circular grinding area at the object's center, which functions as a compositional cue directing the viewer's eye from one side of the object to the other.

When the palette is viewed with the tapering end to the left, the emphasis is upon the lion hunt whose human participants are garbed in short kilts with flint knives slung from their belts. The hunting party faces right. Feathers that protrude from their hair presumably identify them with a specific group. The majority of the figures carry either a throw stick or a bow in their left hands, and a mace, arrows, or spears in their right hands. Three of the figures stand out as different from the rest. The fourth figure from the left carries a partially coiled rope. The second figure from the right hand side wields a knife or a mace in his right hand and with his left fist clenches an upright standard that, like the feathers, signifies the group's affiliation. On the extreme right, a solitary figure inserts an arrow in his bow perhaps and draws it back. The final hunter fits within the register line just described, but his body is perpendicular to the other figures—i.e. the palette's tapering end must face down in order to view him as standing upright.

While in its 'primary' orientation with the tapering end down, the palette's uppermost register is dominated by the figure of the aforementioned hunter. Next to him, two signifiers that appear to be written graphs provide the viewer with information about the owner's status. The first graph represents a building façade, perhaps a shrine, the presence of which may have paralleled the practice of later rulers who signified their status by inscribing their names

within a *serekh*. A second graph representing a two-headed bull, may have signified a particular office or locality. Three ivory amulets (Fig. 61), also in the shape of two-headed bulls, or “double-bulls,” are known to have come from Abydos and may have been badges of office (Capart 1905:195–196, Fig. 154). Fischer argued that this motif “served as the ideographic component of the verb *hns*, meaning ‘move back and forth’” and may also have served as a cue to look back and forth between scenes (Fischer 1987:15). Baines (personal communication) points out that Fisher’s sign reading is “pretty anachronistic,” however, so it seems more likely that these signs were semantic indicators that served to transmit social information about the hunter/ruler.

Viewing the palette in its ‘primary’ orientation, with the tapering end down, completes one way of reading the narrative action. The archer is aiming at a lion, whose slaying is the composition’s visual and metaphorical focal point. The hunted animal has already been wounded. Two arrows protrude from its head and it appears to ravage a fallen archer while protecting the cub or lioness immediately behind it. This image is indeed striking for we would seldom expect to see a member of the elite, ‘home’ group mauled. Such a scene is difficult to interpret. Perhaps it was intended not only to demonstrate the power of the lion, but more specifically to further affirm the leader’s status by demonstrating his unique ability to defeat a beast that other men apparently cannot. Whatever the intention may have been, the solitary hunter and the two lions are the only living figures on the palette that are oriented along the informal horizontal register. In a sense, the narrative scene across the top of the palette provides a summation of the palette’s entire message: the conquest of the wild beast is the central metaphor that conveys the power of the hunter and his ability to rule.

In the area where the conflict between the lion and the hunter occurs, the carefully ordered system of registers loosens and the composition appears superficially less ordered. The changes in composition seem to be intentional. They imply by means of a spatial metaphor a necessarily phased process in which the conflict between man and nature results in a ‘moment’ of chaos before order is again asserted. By extension, there is the implication that the hunter, through his prowess and eventual mastery can defeat the confrontational forces of nature and restore harmony and order.

The metaphor of ‘skilled hunter as worthy ruler’ and the structural logic of the palette’s narrative remind us of the narrative, metaphorical, and structural devices employed on the Uruk Boulder. The most striking similarity entails the way in which the arrows are used to indicate intervals within temporal sequences involving the same types of animals and humans. In the case of the Hunters’ Palette, just as on the Uruk Boulder (Fig. 14), it appears that it is necessary to shoot a lion three times in the head or neck to kill it. When the object is positioned upright, the viewer’s eye is drawn to the combat at the object’s top in which the lion is shown still fighting with two arrows sticking from the front of its head. Presumably the arrows should be in the lion’s neck, but the spatial metaphor dictated that their fletched ends must face the bowman to show causality—another similarity to the Uruk Boulder.

As on the Uruk Boulder, the defeated lion also faces away from the narrative action. It is placed behind the hunter and no longer commands the attention of any of the human figures. Its defeat is marked by visual banishment to the periphery of both the image field and the narrative composition. On the Hunters’ Palette, the defeated lion may also be observed to be metaphorically “thrown down” to the absolute bottom of both the object and its

compositional hierarchy; it is cast out from the circle of men and into the periphery of both their vision and that of the palette's audience.

This dying lion is, more or less, identical to the hunted lion except for its tail position and the presence of three additional arrows that protrude from the nape of its neck. This signifies its place at alter stage in the narrative sequence. It also confirms the animal's identity—i.e., this is the same lion that already had two arrows in its neck. Here, narrative time is expressed additively, by the accumulation of physical objects—or more precisely by the addition of icons that are also, semiotically, indices of human action—namely the three additional arrows.

Thus far, I have concentrated upon only one of two intertwined narrative sequences. When the palette is viewed so that the tapered end faces to the right, the focus is upon a second scene in which the hunters are shown roping an antelope. This is the continuation of a narrative that begins in the central register—which from the viewpoint just described would be shown upside down. A number of semiotic cues indicate that this column of hunters belongs to the same overall narrative and simply depicts a different moment in the sequence. The men in this column are the same ones shown hunting the lion; they have the same short kilts, flint knives in their belts, feathers in their hair, and carry similar weapons. Furthermore, the figure at the head of this column carries the same axe and standard identical as the leader of the lion hunting column.

If again we rotate the illustration of the palette so that the central register faces upright and the tapering end faces left, we see, at the far left, a dog chasing a deer-like animal toward the right. In front of it, and to the right, another horned animal of uncertain species runs and cranes its neck backward, perhaps to view the pursuing dog. Next in line we see an ostrich.

Finally, at the front of the column we see an antelope, which the central participant in the other portion of the palette's narrative.⁴¹ The antelope rears and turns its head backward towards a figure holding the end of a rope that will eventually be used to lasso it on the other side of the circular grinding area. The antelope's leaping action might also be said to lead the viewer's eye past the grinding area in order to view its capture. The leaping motion also parallels the animal's posture as represented when it is finally lassoed.

In the upper register—i.e. the register with the column of lion hunter's, when the illustration of the palette is still viewed with the tapering end to the left side—the rope-wielder is the fourth figure from the left. He raises the lasso by its loop in preparation for throwing. The loose end of the rope that forms the coiled lasso actually points in the direction of the end of the rope on the opposite side of the palette. The circular form of the grinding area between the two representations also helps to cue the movement of the viewer's eye; it leads the gaze between two representations that have been equated to show one antelope at two different moments.

As if to dispel any doubt that the animal finally roped is the same one shown in the earlier scene, the dog that has been chasing it appears again just above the back of the captured animal. The compositional scheme, however, arguably serves two different functions. By depicting the same animal being hunted in a series of different scenes or stages, it breaks down the temporal component of the narrative into a series of different frames; at the same time, however, these redundant 'snapshots' showing the same antelope have a secondary function of conveying the impression that many animals are being hunted.

⁴¹ Tefnin's identification of the animal as an antelope (1979:225), appears uncertain. Baines (personal communication) points out that, whether or not this is an antelope it is indeed a desert animal and therefore symbolizes the realm of disorder

I have at certain points described the Hunter's Palette with the tapering end oriented towards the left. I should re-emphasize that this is really only a matter of convenience since, after all, the reader of this text is free to turn the illustration in any given direction. The Hunter's Palette, however, was not a utilitarian object, but rather an immensely oversized ceremonial version of a cosmetic grinding surface. As such would have been extremely unwieldy to rotate. In its primary orientation, with the tapering end facing down, the viewer would have probably first 'read' the images upwards along one side of the palette and then would have returned his or her gaze to the bottom of the object again before progressing visually upwards again along the other side. The eye would also be led back and forth between the two sides by the direction of the antelope's action around the circular grinding area and the direction of movement of the lion with two arrows.

To put this another way, when viewed according to its 'primary' orientation, one would begin the visual journey of the hunt on the lower left hand side, following the procession to the point at which the lion is shot and two arrows that protrude from his head. That segment would tell the main story of the hunt. In order to confirm or deduce the outcome, one's eye would need to jump to the bottom of the palette where the defeated lion is depicted with not only the two original arrows, but with an additional three protruding from the nape of the neck. Proceeding from the point of the banished and defeated lion at the bottom tip of the palette and moving across its center, one would then pick up the thread of the narrative pertaining to the antelope hunt.

At the circular grinding surface a series of cues—i.e. the rearing antelope and the tail of the rope held high as a lasso, by a member of the lion hunting party—would cue the eyes' movement back around the grinding surface to the other side of the palette. Thus the two

individual narrative strands, the 'lion hunt' and the 'antelope hunt', are fused into a larger unified whole. On the one hand, the action of the palette is in one sense unending because the narrative can be traced over and over visually by means of the rope. At the same time, however, there is a well defined narrative direction that is a temporal metaphor based on the spatial movement from down to up. As one reads upwards, one progresses in time. This may be based on acquired aspects of how we visually perceive the natural world. Within the human frame of vision, the physical spaces that are furthest from us in terms of our own locomotion are furthest from us spatially and therefore temporally, and are higher in our visual fields—closer to the horizon. Those spaces that are spatially and therefore temporally closest appear further down in our vision. The defeat of the lion at the bottom, although it logically comes at the end of the hunt, is not stressed as the endpoint of the narrative action and time, because if it were, it would be at the top of the palette. Instead it is separated at the bottom, emphasizing its conceptual meaning; it is in a space that is reserved for statements about defeat, conquest, and banishment to the realm of disorder.

If the composition is viewed as a whole, it is apparent not only that a complex narrative sequence is present, but also that it transmits a specific ideological message. The world of man, represented by the hunters, graphically and metaphorically encircles that of nature, containing and subduing it. This conflict between human and natural forces produces subtle disharmonies represented by the violations of the register system and its otherwise bilateral symmetry as the visual narrative progresses and the hunt becomes more active. The deliberately chaotic placement of the animals in those particular areas serves to enhance the spatial and ontological metaphors, since the hunter's ability ultimately to temper the ensuing chaos of the hunt adds to the visual demonstration of his power. As on the Uruk Boulder, the

warrior's prowess and skill force even natural enemies to surrender when they are defeated, like the lion on the palette's tapering end, so that chaos disappears and order is created.

5.3 Style II: Advances in systems of formal display

Like the Style I objects, Style II utilizes a series of metaphors in order to transmit messages. If the physical execution of Style I artifacts may be said to be 'scratchy,' Style II is marked by its careful and precise technical execution. It also employs innovations in the compositional structure allowing even more complex portrayals of time and narrative sequences. Most significantly, the style introduces a new type of signifier, complex symbols known as "emblematic personifications" which Baines describes as "hieroglyphs and related symbols, or groups of symbols, which are given human and animal limbs and sometimes a human body, in order to make them capable of action." (1985:41). These emblematic personifications stand somewhere between pictorial representation and writing. Although they may once have signified precise meanings, they lacked the type of precise captioning that would cement those individual values or readings for the modern viewer.

Like Style I, Style II should be divided into two categories: IIA and IIB. Although the two differ, it is not clear if they were contemporaneous or whether they represent different stages in the evolution of the visual system. The major difference between them is that objects of the Style IIA such as the Battlefield Palette (Fig. 48) employ an informal system of registers, whereas Style IIB objects such as the Bull Palette and the Libyan Palette (Figs. 57-58 and 47), utilizes groundlines to formally separate individual registers. Style IIB also employs not only emblematic personifications but a variety of other signifiers that appear to be

intentionally polyvalent insofar as they could be viewed as both visual icons and written graphs.

5.3.1 Style IIA: Advances in spatial organization and symbolic representations

Style IIA is exemplified by the Battlefield Palette (Fig. 48), sometimes also called the Vulture Palette, which is preserved in two major fragments in the British Museum and the Ashmolean Museum (Capart 1905:238–242, Figs. 177–180; Vandier 1952:584–587, Figs. 384–385; Asselberghs 1961:Pls. 85–89, Figs. 151–154; Ciałowicz 1991:53–54; Davis 1992:119–144, Figs. 33–34). A third fragment in the Kofler-Truniger collection in Lucerne may or may not have also belonged to this palette. The verso of this palette depicts two giraffes on either side of a date palm tree, a motif familiar from the earlier Four Dog Palette. The resemblance between the two artifacts may have extended further since it is also probable that the top of the Battlefield Palette originally portrayed a pair of animals arrayed in its upper corners—possibly canines or bovines, like those on the Bull Palette.(Fig. 57–58).

As is the case with all palettes later than Style I, the Battlefield Palette's picture ground is smoothed to perfection, as are all the relief surfaces. A concern with accuracy and quality pervades the rendering of all forms. For instance, whereas the surface and fronds of the palm on the Two Dog Palette were indicated by means of abstract diagonal lines, on the Battlefield Palette they are elaborately depicted, as is the plant's fruit cluster. This painstaking attention to characterizing details is also visible in the portrayals of the giraffes and the lion on the recto. These same animals were depicted with roughly gouged eyes on the earlier palettes, but on the Battlefield Palette the eyes, snout, and mane of the giraffes are superbly carved. On the

recto, similar attention to detail is apparent on the eyes, feathers, and hair of humans and animals.

There is an increased emphasis on spatial organization; animals and humans are grouped into a series of specific scenes that are interrelated in time, action, message, and theme. Whereas the verso side of the Battlefield Palette appears to depict a stationary moment, the recto presents an elaborate narrative structure in which a series of different moments in time are portrayed by means of a series of informal registers which lack baselines. Roughly a third of the object is missing and the remaining sequence of the narrative is fragmentary.

Directly below the palette's grinding surface a naked, Asiatic-looking man is depicted being mauled by a lion. A second nude figure to the left of the beast flees while turning his head to look at the beast. Here the ontological metaphor substitutes the figure of the lion for that of the king—an association which is not surprising given that it is so culturally and historically widespread. The viewer is aware of the dialogical link between this representation and those in which dogs or hunters subdue or kill lions. The use of the lion here makes sense when one first realizes that the operative principle employed in this substance metaphor is that any animal that has been defeated—such as a lion, or a serpopeline—may then be used to symbolize or to stand in for the presence of the victor. Through victory, the man absorbs the attributes of the conquered beast that exemplify positive characteristics, such as strength or virility. The operative principle behind the use of this particular substance metaphor is confirmed by the depiction of a tied captive who is led by a robed figure who acts as his temporary warden. The captive is placed to the right of the lion that has presumably defeated him.

Below the horizontal area depicting the lion, an informally structured register shows the king's fallen enemies being ravaged by birds. One bird, in the bottom left corner of the composition, closely resembles the one portrayed in the relief on the verso. It feeds upon the flesh of a man whose bloated-looking stomach may simply represent a contorted pose. The bird appears at least four times, moving upwards and to the right in relation to the viewer's gaze: first it feeds on the foot and then the arm of the same corpse; next it picks at the calf of the enemy being mauled by the lion; finally, it feasts upon the eye of a bound captive who lies on his stomach. An alternate interpretation of the image is that these are four different birds. Both readings may be correct and the intention of the message's composer may have been to allow two alternate readings. The bottom of the palette contains a compositional 'cue' that 'unlocks' the temporal sequence suggested in the interpretation that portrayals of the small bird represent individually segmented timeframes. The 'cue' is the descent of a carrion bird, or perhaps a bird of prey, from the left of the register. The bird of prey's actions are clearly sequential: first, it soars through the air with spread wings; next, it approaches the corpse; finally, it lands, folds its wings, and feeds upon the victim's eye. Temporal movement is carefully structured and portrayed by means of sequential representations of the same bird. This structuring is similar to that employed on the Hunters' Palette. To this observation may be added that the fact that the alighting bird of prey is shown three times may also represent a significant ordering principle—a numerical metaphor in which the number three (like the number of arrows necessary to kill the lion on the Hunters' Palette) signifies the 'completion' of an act.

The most significant semiotic innovation visible on the Battlefield Palette is the use of the emblematic personifications composed of ornamented standards with protruding human

arms, which lead a pair of bound captives away on the left of the grinding area. The personifications are differentiated and were endowed with individual sign-values by their finials, which acted as signifiers. The bird finial mounted at the top of the left standard resembles a crane. It is similar in form to the birds adorning the tops of the Two Dog and Four Dog Palettes which appear to act as heraldic/identifying motifs. The finial on the standard to the right appears to represent a hawk. The pair of standards also appear to be identical to a group shown on the left of the bottom register of the Libyan Palette (Fig. 47), where they attack a city with hoes. The value of these signifiers is no longer evident. It is possible that these standards originally represented specific groups of people linked by geography or social/political affiliations. Perhaps the palette even commemorated a specific event, or events. The standards may also have symbolized different roles, offices, or aspects of the ruler's personality that were brought together in his role as a warrior.

5.3.2 Style IIB: The introduction of formal registers and the emphasized use of written graphs

The Bull Palette (Capart 1905:242–248, Figs. 181–182; Vandier 1952:592–94, Figs. 389–390; Asselberghs 1961:Pls. 93, Figs. 166–167; Davis 1992:143–144, Fig. 37) is too badly damaged for it to be possible to establish which side was the recto and which the verso (Figs. 57–58).

All that remains is one of its upper corners in which a bull, personifying the king and signifying his power and supremacy, defeats a bearded man. This image is on both the recto and the verso and is intertextually linked to the similar representation on the Battlefield Palette. The practically three-dimensional treatment of the bull parallels the treatment of the

canines on the corners of the Two Dog and the Four Dog Palettes in that it is more sculpturally worked than the other relief areas and because it forms part of the object's frame.

One side of the palette displays a series of personified emblems grasping a rope that must have originally been tied to one or more enemies. It is possible that the emblems were attached to the upheld arms of the person whose head and upper body are visible at the bottom corner of the fragment. The meaning of the rope is dialogically linked to the Hunters' Palette where the prowess of the elite is symbolized by the roping of a wild animal. In all likelihood, this side was originally the recto—i.e. the grinding area—because conflict is, more often than not, represented on that side of the object (Four Dog, Hunters', and Battlefield Palettes; but not the Narmer Palette).

The other side depicts a compound graph, directly below the gored man, that is composed of a plan of a city wall enclosing the profiles of a lion and a pot. Presumably the graph signified the name of a particular locality. Below it are visible the remains of a horizontal register line and a similar graph with a bird in it.

The Libyan Palette (Fig. 47; Quibell 1905:233; Capart 1905:235–238, Figs. 175–176; Vandier 1952:590–592, Fig. 388; Asselberghs 1961:Pl. 92, Figs. 164–165; Davis 1992:229–233, Fig. 53), like the Bull Palette, is too damaged to determine which side was its recto or verso. More than half of the object is missing, but we can assume that at the top it must have had animals like those on the Bull Palette's upper corners. What are visible are the city graphs placed below a register line with a row of human feet above it. Unlike the ones shown on the Bull Palette, these city graphs are attacked by emblematic personifications, animals and standards who wield hoes to break down the city walls. Some of these personifications are familiar: the two standards on the bottom left are similar, although perhaps not identical, to

those shown on the Battlefield Palette; and the lion, on the far right of the same register, is similar to the one portrayed on the city graph from the Bull Palette. A dialogic reading of the two artifacts suggests that these standards were either distributed representations, or aspects of the ruler himself or that they represented the allies of the ruler.

The opposite side of the Libyan Palette depicts four separate registers, separated by baselines. From bottom to top, they depict rows of trees, rams, donkeys, and bulls. The bulls are unusual since in Egyptian 'art', animal herds are usually portrayed with animals of both sexes. It is unclear what a herd of a single sex signified, but certainly it must have had a specific meaning. Another unusual feature occurs to the far right of the trees, where the graph *Thnw* which is identified in later texts as Libya, is depicted. The arrangement of the registers implies a hierarchy of order on the portion of the object that is now missing similar to that of the Uruk Vase, in which flora occupies the lowest level, fauna comes above that, and humankind occupied the highest level.

Style II objects also mark a change in the way in which metaphors involving animals are utilized. The Style IA objects, such as the Two Dog Palette and the Four Dog Palette, depicted confrontations between dangerous forces, such as lions, serpopelines, wild dogs, and other animals that in some way symbolized or stood in for the power of the ruler. The Style IB Hunters' Palette utilized a similar metaphorical structure involving the ruler's mastery over natural forces, but employed new narrative structures and introduced representations of humans into the picture field in order to clarify the structure of the message. In contrast, the Style II objects, such as the Battlefield Palette and the Bull Palette, returned to the use of potent animals such as bulls to signify the presence of the ruler, but portrayed them in direct

conflict with human enemies in scenes which gave the appearance of commemorating actual events, whether or not they really did so.

5.4 Style III: The elaboration of frames, split registers, and other innovations in communication

Objects such as the Narmer Macehead, the Scorpion Macehead, and the Narmer Palette, all of which date to Dynasty 0 (Figs. 51-52 and 49-50 respectively), marked the arrival of a new form of representation in which the innovations of the formative styles were canonized into a strictly governed system. The hallmarks of this “fully developed” style included the use of a formal register system, sub-registers, the elaboration of structural hierarchies based upon size and order, and the transmission of sometimes polyvalent messages by means of icons that could also be read as graphs. In addition, Style III utilized both registers and groundlines in a new manner that allowed more complex narrative sequences to be displayed by creating formal divisions of the picture field which contained individual portions of a larger narrative cycle.

5.4.1 The Narmer Macehead

The Narmer Macehead (Quibell 1900:8–9, Pls. 25-26 B; Quibell and Green 1902:40–41; Capart 1905:249–250, Figs. 186–187; Vandier 1952:602–605, Fig. 394; Asselberghs 1961:Pl. 5, Figs. 177–179; Ciałowicz 1987:40–41; Millet 1990, N.B. with the illustrations reversed; Bard 1992:297–299) not only utilized register lines to structure the narrative, but also employed what may be the earliest ‘artificial’ frames. These frames are sculpted in relief form on the surface of the macehead, an innovation that contrasts with earlier

styles in which the ‘natural’ frame was that was formed by the edges of the object itself. On the Narmer Macehead, two perpendicular lines stretch from the groundline toward seemingly arbitrary points of termination. These lines act as left and right borders and divide the visual representation into two distinct units.

The frame on the left of the drawing of the Narmer Macehead (Fig. 51) depicts three animals within a circular walled area. They are positioned below a shrine surmounted by a heron, which is similar to a representation found on a bone tag from tomb U-j at Abydos (Dreyer 1992:Pl. 6, Fig. 3), where it is certainly a written graph. It has been argued that the signifier on the macehead might possibly have identified the shrine as being that of the town of Buto (Schott 1950:25; Millet 1990:96; Williams 1988:48), in which case its curved roof and elongated courtyard would identify it as the *Per-nu*, or “House of the North” (Williams 1988:48). Baines, however, writes that “The Buto interpretation of the Narmer macehead is based on very doubtful arguments and probably to be rejected; Hierakonpolis is a much more likely location” (Baines, personal communication). The shrine itself and the general setting of the scene depicted on the macehead may have been similar to a late Predynastic ceremonial complex discovered at Hierakonpolis (Hoffman 1986; Hoffman 1987⁴²; Friedman 1996) (see Figs. 59 and 60). Friedman writes that:

The salient points of the Narmer macehead’s depiction of the ceremonial appearance of the king for the reconstruction of the complex at HK29A are the stepped and canopied throne dais from which Narmer views the festivities and the small building surrounded by the low courtyard wall. Within the court stands a pole supporting an image now lost and a jar on a potstand. In the scene immediately below, horned animals cavort within a walled oval courtyard, perhaps the court shown immediately above it. The thick wall on one side,

⁴² According to Friedman (1992), Hk29 was published by Hoffman in a report referred to here as Hoffman 1987. I requested that document under a “Freedom of Information Act Request 98–22” from the National Endowment of the Humanities, to which it was purportedly submitted. Juan Mestas, Deputy Chairman of the NEH (personal communication), responded that no such document exists.

carved as a raised band, and the sinusoidal wall on the other are strikingly similar to arrangement at HK29A [sic]. (Friedman 1996:33)

The shrine and the enclosure on the macehead seem to indicate the setting of the narrative portrayed in the adjoining frame. The frame with the shrine is a temporal denoting geography, whereas the other frame is event-specific.

The other frame of the Narmer Macehead (depicted on the right in the drawing here), is divided into various differently sized horizontal registers. When combined, smaller registers, “sub-registers,” occupy approximately the same amount of horizontal space as the larger register scene depicting the king on his throne. The sub-registers add to the complexity of the visual narrative by defining limited actions, or scenes, within the composition. In addition, they refine the message structure by defining hierarchies of internal order and value based upon relative size.

In the center of this frame, the king, represented in profile and wearing the red crown and a long robe, holds a flail as he sits beneath a canopy. The throne is situated on a dais flanked by two fan bearers at the base. Above the canopy, a bird, either a falcon representing Horus (Quibell 1900:9; Baumgartel 1960:114) or a vulture representing Nekhbet (Vandier 1952:602, Fig. 394; Emery 1961:47), covers it with the protective span of its wings. The spaces to the left and right of the ruler are broken into sub-registers, three in front of him and two behind. The king, his throne, dais, and the protective bird, span the vertical length of all of the adjoining registers; by utilizing the entire plane of the picture field, they emphasize the ruler’s supremacy and centrality.

The identities of the king and his important retainers are indicated by tags placed near their heads that act as written captions. The function of the tags is known to semioticians as

anchorage—‘anchors’ are groups of, or single, signifiers that point the viewer, or reader, to a correct interpretation of sign values. The anchors serve to reduce the ambiguity of uncertain signifiers since as Barthes explained:

... all images are polysemous; they imply, underlying their signifiers, a ‘floating chain’ of signifieds, the reader able to choose some and ignore others. Polysemy poses a question of meaning and this question always comes through as a dysfunction... Hence in every society various techniques are developed to *fix* the floating chain of signifieds in such a way as to counter the terror of uncertain signs; the linguistic message [anchorage] is one of these techniques.
(Barthes 1977:38–39)

On the Narmer Macehead, anchors identify all of the major participants in the scene. Behind the bird hovering above the canopy, the ruler’s name is written within a *serekh* surmounted by the Horus falcon. The register beneath his name depicts a male garbed in an animal skin and followed by two attendants with what appear to be staffs, or standards, but may also be ‘shorthand’ depictions of fans.⁴³ His identity is indicated by a consonantal hieroglyph in the shape of a rope-like graph directly above his head. He appears to be the same person who precedes the king on the verso side of the Narmer Palette (Figs. 49-50). On the register below the man, the same sandal bearer as on the Narmer Palette is identified by two written graphs in front of his head: a flower and a club-like signifier.⁴⁴

The vertical space in front of the king is broken into three registers. The top register depicts the same four standards and bearers that are shown on the top of the Narmer Palette’s recto, though here they are portrayed in a different order. The central register shows a figure who has been suggested to be the king’s daughter (Petrie 1939:79; Emery 1961:47; Millet 1990:56). She sits on a litter facing the king. Above her, two animals are depicted within an

⁴³ Baines (personal communication).

⁴⁴ Baines (1995:132) explains that sandals “are a potent symbol because they separate the king’s purity from the polluting ground—and so are removed inside temples—while they represent aggression because he tramples his enemies with them or with the bare soles of his feet.”

enclosure. Behind her, three figures, probably prisoners, run between two sets of triple lunate markers.⁴⁵ The scene resembles the ritual of the *sed*-festival⁴⁶ (Vandier 1952:602; Ciałowicz 1987:40), except that in later periods the pharaoh himself is the runner.⁴⁷

Behind the second set of lunate markers, the register line ends and the space flows into the lower register, forming a recumbent ‘L’ shape. In the space where the register line would have continued, a bound captive squats. Below him, three oversized graphs indicate the number 120,000.⁴⁸ Even larger numbers describe the quantities of animals portrayed on the bottom register and to the right of the king's dais: large cattle 400,000; small cattle 1,422,000 (Bard 1992:303; Ciałowicz 1987:40). It seems unlikely that these quantities were intended to be taken literally. Instead, they must have been gross exaggerations, or at the very least, artful combinations of writing and representation intended to convey the king's wealth and power.

Frames and complex register types clarify the message being transmitted separating Style III from its predecessors. The individual scenes present specific aspects of the narrative, including place, time, the specific role of the king, and the participants involved. If the frame on the left of the Narmer Macehead may have identified the setting—i.e., as Hierakonpolis, or less likely as Buto—then the central register to the right of the king in which the prisoners run between the sets of lunate markers, may also have reinforced the designation of the specific place and time.⁴⁹ The pharaoh's centrality is signified by his dominant position *vis à vis* all of

⁴⁵ Kemp believes these to be “territorial cairns” (1989:60).

⁴⁶ Millet writes that the ceremony depicted is the *hat-bity*— the “Appearance of the King in Lower Egypt” (1990:56).

⁴⁷ See, for example, the IIIrd Dynasty reliefs in the step pyramid at Saqqara, which depict King Djoser running between similar sets of lunate markers (Altenmüller 1975:284–285, Pl. 240).

⁴⁸ Both Bard (1992:303) and Ciałowicz (1987:40) consider this enormous number to refer to a specific quantity of prisoners— i.e. the bound captives.

⁴⁹ Millet (1990:57) has suggested that the numbers on the bottom register identifying quantities of captives and livestock represent census numbers that indicate a specific year date. This argument is based upon the much later (2nd Dynasty) year names recorded on the Palermo Stone. Since the numbers represented on the artifact appear to be idealized such an interpretation seems highly unlikely.

the surrounding space—i.e. his pavilion and person overlap all of the horizontal registers. His clothing signifies that he is serving in his role as *bity* king later identified as king of Lower Egypt. The scene to the left of the king further explicates the ruler's role or office by identifying the officials associated with it. The identities of these officials are signified by the standards that they hold, and the emblems that surmount them.

5.4.2 The Scorpion Macehead

The same basic methods of transmitting information as those on the Narmer Macehead are used both on his palette and on the Scorpion Macehead⁵⁰ (Fig. 52; Quibell 1900:9–10, Pls. 25, 26 c; Quibell and Greene 1902:41; Capart 1905:250–251, Figs. 188–188; Vandier 1952:600–602, Fig. 393; Asselberghs 1961:Pls. 97–99, Figs. 172–176; Gautier and Midant-Reynes 1995; Ciałowicz 1987:32–37; Davis 1992:224–229, Fig. 52). Complex registers, metaphorical structures, hierarchies based upon size, and the use of graphs as ‘anchors’, all serve to elaborate the king's message.

On the Scorpion Macehead (Fig. 52), the figure of the king, wearing the White Crown, occupies the central register and spans the height of all the sub-registers—i.e. three behind him and the two in front of him. The graphs to the right of his head, a rosette and a scorpion, probably spell out his name; they act as ‘anchors’ that supply additional information to literate viewers. The king's power is directly denoted by his size relative to the other human figures, but the metaphors related to his supremacy are different than those of the Narmer Macehead. One metaphorical structure uses emblematic personification to construct the familiar theme of conquest, in this case symbolized by the *rhjt*-birds that hang from the standards and animals

⁵⁰ A second monumental macehead that may have belonged to Scorpion was found almost completely destroyed remains were “among a lot of limestone chips” at the northern end of the Hierakonpolis temple enclosure

that may have represented the subjugated inhabitants of lower Egypt. But the primary metaphor demonstrating the king's power is an ontological one in which his control over agriculture—or perhaps more specifically over water and irrigation—represents his power and ensures Egypt's fecundity and prosperity (see Gauthier and Midant-Reynes 1995).

5.4.3 The Narmer Palette

The most famous of the Style III objects and the one that perhaps epitomizes that style is the Narmer Palette (Figs. 49-50; Quibell 1900:10, Pl. 29; Quibell and Green 1902:41–43; Capart 1905:250–251, Figs. 183–184; Vandier 1952:595–599, Figs. 391–392; Asselberghs 1961:Pls. 94–95, Figs. 168–168; Fairservis 1991; Davis 1992:Figs. 38-45; 161-233). On its verso, the king's size establishes his hierarchy within the visual, social and natural orders. His name is inscribed within a *serekh* centered between two bovine heads with human faces at the top of both sides.⁵¹ The operative metaphors of the king's power again deal with the conquest and defeat of both his human enemies and his ability to exercise control over mythic beasts including the roped serpopelines whose intertwined necks form the grinding area on the recto side of the palette.

In the center of the verso, the king grasps a captive by the hair. He holds a mace in his right hand, a gesture that underlines the dialogical link between this object and the monumental Narmer Macehead. Intertextual references operate internally as well. The belt worn by the king has a bull's tail hanging from the back and the four tassels in the front hang from miniature bovine heads; these aspects of his regalia act as internal references to the

(Quibell 1900:8–9, Pl. 26A; Quibell and Green 1902:39–40; Adams 1994a:Nos. 1-2).

⁵¹ It is not clear what these two faces represent. Vandier (1952:595) believed that they represent Hathor. Another possibility is that they represent the goddess Bat who, at least in 6th Dynasty texts, is represented as having “two faces” (Fischer 1962:11)—which would correspond to the heads on the Narmer palette if one views them as

human faced bovines on the upper corners of the palette. The king's sandal bearer also appears to wear an elaborate belt. These aspects of the king's and his follower's regalia are duplicated on both sides of the object. They confirm the ruler's identity by association with a cult for which the bovine was heraldic or emblematic. On the verso he wears the white crown and holds a mace, and on the recto he wields both a mace and a flail and wears the red crown, though both sides depict the same bovine-related regalia on his dress. The bovine-related items cement the metaphorical link between the king and the bovine heads at the top of the palette and the bovine who is depicted in the bottom register of the verso as trampling an enemy and destroying a fortified structure or city, a symbolism that is also related to that of the Bull Palette.

Additional animals symbolize the king's power. On the verso side, immediately above the victim's head, a sub-register depicts a Horus falcon. The bird functions as a symbolic personification of the king, employing a human hand-shaped talon to grasp a rope that is attached to the nose of a signifier—a compound, emblematic symbol with the head that utilizes a geometric figure with papyrus umbels growing from it to form a body. On a pictorial level, the symbol appears to represent inhabitants of the Nile Delta's marshes. Like the signifier composed of the falcon with the human hand, the symbol with the human head's value lies somewhere between pictorial representation and writing. This emphasizes the fact that the Narmer Palette appears to have been designed to transmit polyvalent messages of varying complexity to different audiences, both literate and illiterate. Whereas an illiterate viewer would have interpreted these symbols as simple—albeit monstrous—pictorial representations depicting metaphors or events related to the king's power and rule, those who could read the glyphs would have had access to more specific information.

having double-faced heads that represent a single face on each side of the object.

This type of polyvalent message transmission is also present throughout the composition in the form of ‘anchors’. Both the sandal bearer and the captive on the verso side of the object have graphs next to their heads that provided additional information to literate viewers. In the case of the sandal bearer, a single graph resembling a flower with the club-like shape descending from it—which Fairservis (1991:8) calls a “lotus rhizome”—provided the additional information. In the case of the captive two written graphs were used as ‘emblems,’ either a notched pin or a fisherman’s line-hook (Fairservis 1991:11) and a pool of water. Similarly, on the verso the defeated enemies on the bottom register have graphs next to their heads representing either an enclosure or a city, with niched walls and a “girdle knot” with “a papyrus head motif.”

On the recto, the sandal bearer has the same ‘anchor’ in front of him as the one behind his head on the verso. Above him is a rectangular slab with an object that has never been successfully explained, although Fairservis suggested that it is a float used for hippopotamus hunting (Fairservis 1991:13). The king’s anchorage is provided by the catfish and chisel in front of his head that spell out his name. Directly in front of the ruler, a man, wearing a leopard skin and holding two papyrus stems, is anchored by a signifier resembling a ‘U-shaped’ rope with a loop at each end. In front of the four bearers holding standards with various birds, a jackal, and an uncertain circular symbol, lie ten decapitated corpses arranged in two rows with their heads placed between their legs. They are arranged below a boat that has two signifiers above it: a swallow and a harpoon. On the deck of the boat, in front of its cabin is a symbol of uncertain meaning composed of crossed elements. Finally, in the bottom register, the trampled enemy and the city also appear to have identifying anchors which may represent ‘city blocks’ (Baines, personal communication) and which are composed of three

rectangles and an irregularly shaped graph which is “probably a sign identifying a foreign place or people” (Baines, personal communication).

5.5 Some conclusions about the development of Egyptian pictorial forms in early Egypt

It is uncertain how long the period between Style I and Style II was, but during that time Egyptians devised and refined a sophisticated system for transmitting ideological messages via visual representations. All of the objects discussed so far relied upon prototypes in order to transmit messages that were encoded utilizing metaphorical structures. However, Style Ia objects, such as the Two Dog and the Four Dog Palettes, were based upon confrontations between heraldic animals that symbolized the ruler’s power, specifically wild dogs and dangerous and mythic forces like lions and serpopelines. Style Ib—i.e., the Hunter’s Palette—introduced subtle refinements into the system of message encoding including: sequential narrative structures, representations of elite humans in the picture field, and written graphs. By utilizing graphs within the picture field, Style Ib allowed polyvalent messages to be read ‘differently’ by individuals with varying degrees of literacy. This differentiation of audiences may have evolved yet further in Styles II and III. Objects including the Battlefield and the Libyan Palettes, the Narmer Macehead and Palette, and the Scorpion Macehead conflate pictorial representations with graphemic writing in order to transmit messages that can be deciphered on different levels. The understanding of the content of these levels is dependent upon the viewer’s knowledge of how iconic forms are utilized as graphs.

The melding of graphs and mimetic narrative representation reveals a distinction between the development of Egyptian and Sumerian systems of representation. Following the Uruk period in Sumer, the system of visual communication evolved along a divided trajectory:

visual narrative and written graphs separated into two distinct systems. In Egypt, the written and pictorial systems remained permanently fused, even though some of the solutions that the Egyptians utilized to enhance visual messages were similar to those derived in Sumer during the Uruk IV and III periods, such as the use of baselines or registers, and the employment of metaphoric structures such as spatial, container, and substance.

Although the Egyptians may have borrowed some basic iconographic forms, such as the serpopeline, from Mesopotamia, the solutions just described appear to have occurred independently. In his study of human language origins, Terrence Deacon has written that:

... the proper tool for analyzing language structure may not be to discover how best to model them as axiomatic rule systems but rather to study them the way we study organism structure: in evolutionary terms. Languages are social and cultural entities that have evolved with respect to the forces of selection imposed by human users.

The structure of language is under intense selection because in its reproduction from generation to generation, it must pass through a narrow bottleneck: children's minds Language operations that can be learned quickly will tend to get passed on to the next generation more efficiently and more intact than those that are difficult to learn. (Deacon 1997:110)

With the exception that children are not the intended audience for the message systems discussed here, Deacon's observation fits the study of pictorial representation as well as it does language. Each generation that encounters a system of communication needs to be able to encode and decode new information with it. Clumsy or unwieldy aspects of messaging systems are unlikely to be successfully transmitted from one generation to the next because they fall under pressures of selection. Mutations, or innovations, in the communication systems occur with each new generation of users. These innovations are tried out and some of them succeed and are eventually reproduced again by the next generation of users, while others fail.

The similarities between the visual systems of Sumer and of ancient Egypt probably

say as much about cognitive and perceptual functions that all humans share as they do about anything else, while the differences reveal cultural aspects; such as the types of messages to be conveyed, the utility of types of signification, and the intended audiences and their “alternative literacies.”

Against the background of what we have seen was possible with early visual communication in Egypt, as we turn to visual representation in Lagash during the Early Dynastic period, we will continue to see that there are universal aspects in how visual statements are constructed and understood, determined in part by cognitive/neurological functions that have been consistent through history and across all geographic regions. We will also continue to see cultural aspects develop, as the use of communication in Mesopotamia shifts from the idealized, ahistorical representations of the Uruk period to the desire to contextualize and represent specificities while recording historical events.

Chapter 6

The Early Dynastic Period: Chronology and the historical setting of Lagaš

Following the pronounced structural divisions between written and artistic systems that occurred during the Uruk III phase, those visual systems continued to evolve. The following chapters utilize the corpus of ED Lagaš art to illuminate and to demonstrate a series of structural discoveries and developments in which images and writing were elaborated as distinctly separate entities; they were also combined on objects, however, in order to define new strategies for structuring visual expression. These new strategies included a variety of new structures such as “relay systems” (discussed in section 7.2.1) that provided additional information to literate viewers as well as more fully elaborated narratives that could be read in conjunction with programmatically structured visual representations. Lagaš has yielded one of the largest, distinct corpora of visual art from the ED period as well as one of the most extensive archives, making it “the best documented site for the period” (Cooper 1986:3). The Lagaš corpus provides a distinct body of work which is both elite, or “royal,” and which is constrained to one cultural and geographic context in the heart of Sumer. This particular chapter provides the chronological and historical background necessary to analyze the developmental stages in rule-driven, canonical systems of elite ‘art’ that evolved during the ED I to ED IIIB periods.

6.1. The Lagaš state and its principal cities

The state of Lagaš was a geopolitical entity that once occupied an area within the southern province of Iraq that is now called Nāširiya. It included the three principal cities of Girsu

(modern Tello), Lagaš (modern al-Hiba)⁵², and Nina (modern Zurgūl)⁵³, as well as a number of smaller settlements (Fig. 62). These were situated along an effluent that branched off, just to the north of Umma, from the *Iturungal* an ancient tributary of the Euphrates (Jacobsen 1969a:103) The uppermost portion of this effluent leading eastward was known as the *E-Kisura* and the principal cities of the Lagaš state were located on a branch that flowed south from that body of water known as the *NinaDUa* (Fig. 63).

6.1.1 The etymology of city names

Very little information about the origins of Lagaš' three principle settlements can be derived from the city and state names. Jacobsen hypothesized that the etymology of the name *gir-su*—which is widely attested in ED texts (for a brief summary of which, see Falkenstein 1957-1971)—should be read as “the naked captive(s).” As he put it: “that the city of Girsu would thus appear to have been called from its beginnings merely ‘the naked prisoners’ suggests that it was originally founded as a settlement of prisoners of war. Such settlements of prisoners were presumably not too unusual in Ancient Sumer...” (Jacobsen 1969a:100). From an archaeological standpoint, it seems unlikely that the name could refer to the original political conditions of Girsu's its settlement, regardless of etymology. This is because de Genouillac's excavations conclusively demonstrated that the original settlement must date at least as far back as the period contemporary with Uruk level VIII, a time at which the types of large centralized political entities that one would expect might create penal settlements are unlikely to have existed. More recently, Selz has argued that Jacobsen's etymological reasoning is

⁵² A great deal of confusion exists in the literature for several reasons. The first is that the name Lagaš refers to both the Sumerian state and to the ancient city of that same name. The second is that the city of Tello, ancient Girsu, was originally misidentified as the city of Lagaš and is often referred to as such in many publications.

incorrect and that “Girsu” originally meant something like “the place of scorpions” (Selz: unpublished, personal communication). Presumably, his final arguments, when published, will finally settle this question.

Insofar as the name “Lagaš” is concerned, this sign group can also be read as ŠIR-BUR-LA^{ki}, Jacobsen conjectured that this name might have been purposefully derived from the word BUR₄ (Akkadian=*aribu*) meaning “raven” (Jacobsen 1969a:101-102) and that some particular species of bird might have originally been the totem of the city’s inhabitants. As Jacobsen explained, “the presence of a determinative for place, *ki*, makes it clear that ... not a raven but a place connected with a raven is aimed at”, to which he added that “by an association of ideas not clear to us the place Lagash is suggested to the reader's mind and is then confirmed by the presence of a phonetic complement L a -.” (Jacobsen 1969a:103). Selz notes that additional attestations in the Lagaš texts such as SHIR.BURA.LA.MUŠEN.KI “actually prove the connection between bird and the place-name” through their use of “double determinatives”—i.e. MUŠEN (the determinative for birds) + KI (the determinative for place names). This type of totemic association may well have been the case not only for Lagaš, but for a number of other cities as well. Unfortunately, little more can be said about these place names based upon the current philological literature (see also Bauer 1980-1983).

6.1.2 The excavations at Girsu/Tello

Two of the ancient mounds, modern Tello (Girsu)⁵⁴ and al-Hiba (Lagaš), have been partially excavated while the third, Zurgūl (Nina), remains largely unexplored.⁵⁵ The artifacts from

⁵³ For a summary of the textual evidence for this identification see Krecher (1978). For this and the other cities of Lagaš see also Selz (1995:3-4).

⁵⁴ Other summaries of the architecture and finds from Tello/Girsu include: Opficius (1957-1971); Hansen (1980-1983); Parrot 1948; and Matthews 1997.

these sites were unearthed by a number of different expeditions during a period of just over a century. The vast majority were discovered at Tello, during the twenty seasons of excavations carried out by the French between 1877-1933 and directed by the archaeologists Ernest de Sarzec (Sarzec 1899, and 1884-1912), Gaston Cros (Cros 1904, and 1910-1914), Henri de Genouillac (Genouillac 1930a, 1930b, 1934, and 1936), and André Parrot (1932, 1933, and 1948).⁵⁶ Almost all of the important Early Dynastic finds at Tello were discovered by de Sarzec during his excavations at Tell K, an area of the mound that contained both the temple of the city god, Ningirsu, and an enormous structure known as the Massif d'Entemena.

De Sarzec came to Mesopotamia in 1877 as French Consul at Al-Basrah and was not trained as an archaeologist. His excavations at the site, which began in 1878 without the necessary formal permission of the Turkish government, might well be described as an artifact mining operation.⁵⁷ The objects acquired during the first field season were sold to the Louvre for a sum of 130,000 francs (Fossey 1904:50; Budge 1925:198), thus beginning a longstanding series of financial dealings with the institution that would continue throughout his excavations.⁵⁸ In addition to de Sarzec's own illegal work at the site, a series of other large scale clandestine excavations were also carried out during the same period by the agents of various Baghdad dealers. Perhaps the single most extraordinary achievement of this second group was the theft of an entire archive containing approximately 40,000 ED cuneiform

⁵⁵ Because many older articles and books reports misidentified Tello (also sometimes written "Telloh" or "Tell Loh.") as the city of "Lagaš", rather than as "Girsu", "Lagaš" is employed here strictly to describe the state of that name, which included the three cities listed above. The individual cities mentioned will be described using the following names: (1) Girsu/Tello (2) al-Hiba; and (3) Nina/Zurgul.

⁵⁶ Brief historical summaries of the work taken on by the various individual excavators include: Pallis 1956:360-362 and Parrot 1948:14-33.

⁵⁷ Any appearance of "scientific" legitimacy that de Sarzec's work may have had appears to have been due mainly to Leon Heuzey's attempts to record and later write up the results of the work.

⁵⁸ In addition to ending up where one might expect these stolen items to appear at that time, namely Paris and Istanbul, many also ended up in countries such as Russia (e.g., Selz 1989) and the United States (e.g., Selz 1992a and 1992b).

tablets, which were subsequently sold on the open market (Budge 1925:200). Because of the considerable damage done by the many competing armies of illegal, profit-driven excavators, as well as because of de Sarzec's almost complete inability to identify and to excavate unbaked mud brick architecture, the majority of Early Dynastic artifacts uncovered at Tello are almost completely devoid of any meaningful archaeological context. Whatever context(s) can be determined are discussed in the following sections.

6.1.3 The excavations at al-Hiba

The archaeological site of al-Hiba, the largest in current day Iraq, still remains largely untouched, and will no doubt eventually yield extraordinary and critical information about the ED period, including further refinements to the chronological sequence. Very limited excavations were undertaken in 1887 by a team from the Königlich Preussische Museen (Koldewey 1887) and six additional seasons of excavation at al-Hiba were conducted from 1968 to 1990 under the direction of Donald Hansen (Hansen 1970, Hansen 1973, Hansen 1978, Hansen 1980-1983, Hansen 1990, Hansen 1992), as part of a joint project between the Metropolitan Museum of Art and New York University's Institute of Fine Arts. The expeditions under Hansen's direction yielded a number of significant buildings, including an administrative structure (Bahrani 1989) and two important temple structures known previously only from texts: the BA.GARA₂ of the god Ningirsu and the IB.GAL of the goddess Inanna. The excavations produced few significant artworks, but yielded a number of important inscriptions. Because many of these were discovered *in situ*, they have proved invaluable in reassessing the ED IIIB chronological sequence.

6.2 Chronological background

6.2.1 The construction of archaeological chronologies: General observations

It is impossible to discuss the ‘art’ of the Lagaš state in any meaningful way without first examining how the basic archaeological chronologies used today came into being. Similarly we must discuss what is known about the Uruk period at Lagaš and reassess the convention known as the “Early Dynastic period” in light of the current state of knowledge.

Archaeological periods such as “Halaf”, “Ubaid”, “Uruk”, and “Early Dynastic” are conventions that allow us to categorize artifact assemblages. Ideally, these assemblages would be discovered *in situ*, in well preserved architectural and grave contexts, and during historical periods, they would be accompanied by large quantities of readable, dated texts. The archaeological ‘reality’ is unfortunately quite different; the further back in time we travel, the less artifactual evidence we usually have to describe specific periods, communities, and linguistic and social behaviors. The distinctions between earlier periods seem vague when compared to the distinctions that describe and differentiate later periods. Conventions such as Uruk IV and Uruk III, for example, are based primarily upon a series of formal observations about the evolution of the early Sumerian writing system and a series of largely fragmented, or incomplete, architectural sequences and artifact assemblages. By contrast, later periods such as ED IIIA – ED IIIB tend to yield a greater variety of better preserved evidence, which for historical periods is also usually more elaborately documented with texts and inscriptions that can be linked either to the specific reigns of rulers or to other historical events.

6.2.2 The effects of geography

Chronological conventions tend to also be less precise when used to describe broad geographical regions. The designation late Uruk, for example, is a convention that was originally intended to refer to a limited body of artifactual remains found at a city in the extreme south of Mesopotamia, the center of the Sumerian heartland.⁵⁹ Its use, however, has been extended to describe the specific assemblages of cultural remains throughout much of greater Mesopotamia (e.g., sites in Syria such as Tell Brak). The more that we learn about the artifactual assemblages of specific regions, however, the more refined and geographically specific we can be in defining chronological terms. The term Jemdet Nasr, to cite a common example, appears to represent a subdivision of what had traditionally been considered the Uruk III period in Southern Mesopotamia. Whether the Jemdet Nasr artifact assemblage actually represents a “regional style”, or is really a separate chronological period that can be extended to include other regions, and thus refining their existing chronologies, has been heavily debated (Finkbeiner and Röhlig 1986). Be that as it may, the convention Jemdet Nasr does describe a specific artifactual assemblage found in a particular region and generally recognized as a period. Hence, it has served to refine a vague chronological term—i.e. Uruk III—even if we are still uncertain to what extent it should be applied. But the common problem remains: knowing what geographical areas any convention can accurately be extended to cover.

As in the case of the term Jemdet Nasr, chronological conventions tend to focus upon specific sites or regions where particular, stratified archaeological assemblages have been discovered. They are then employed to describe historical remains in larger regions that have

⁵⁹ The geographical region that I am calling the Sumerian Heartland being more or less that area of the central floodplain of the Euphrates described in Adams 1981.

not been as well researched. It takes a long time for archaeologists to arrive at regional designations. For example, until recently, even very large sites far removed the Sumerian heartland such as Habuba Kabira in Syria (Strommenger 1980), were discussed in terms of a chronological sequence developed in Southern Mesopotamia. This occurred despite profound variations and differences in locally found diagnostic artifacts. As more complete artifact assemblages are collected from previously “peripheral” geographic zones, however, earlier conventions are either questioned as a whole, or are replaced by newer regional designations. In the Syrian Jezireh, for example, the artifact assemblage most similar to the Jemdet Nasr assemblage in the south has been redefined regionally and is now called Early Jezireh 0 (Lebeau, Pruß, Roaf, and Rova 2000).

Because research in Iraq has been largely stalled for several decades, we are still forced to use a series of chronological conventions to describe Sumerian culture which have remained largely unquestioned since the 1950's.

6.2.3 The Uruk period at Lagaš

There is little evidence from which we can analyze the development of systems of visual display at Lagaš during the Uruk period. Uruk levels have not yet been uncovered at al-Hiba. At Tello, there is extensive evidence of occupation well into the Uruk period, but the Uruk assemblages are fragmentary and poorly documented. Furthermore specific parts of the sequence still remain unfound. Diagnostic artifacts dating to the late Uruk period were discovered in a 14m deep pit covering approximately 800 square meters dug by de Genouilliac's team at Tell K, during the 1930 to 1931 seasons, below the ED remains unearthed by de Sarzec (de Genouillac 1934:21-68). Here, de Genouillac unearthed a series of

ancient rubbish heaps interlaced with Uruk period burials (de Genouillac 1934:65-68), but he misunderstood the majority of these to be contemporary with levels IV-V at Uruk (de Genouillac 1934:21-23). As Briggs Buchanan has observed, de Genouillac's huge pit "yielded more small objects of Protoliterate date than have been found at any other site, including Warka," but, unfortunately, it yielded neither "the architecture, nor the tablets, and few, if any, of the seal impressions for which Warka is famous" (Buchanan 1967b:532). In part because of the lack of in situ contact and/or related architecture or texts, this period remains little understood at Girsu. At al-Hiba and Nina it is still unknown.

In his second installment of articles on prehistoric stamp seals (1967a and 1967b), Buchanan attempted to make some sense of the Uruk period materials excavated by de Genouillac; his comments provide an accurate description of the problems involved:

The deep pit at Tello has been largely ignored in archaeology, despite the importance of the objects found, for two reasons. First, Genouillac misunderstood the new results from Warka and incorrectly lumped together his finds from 4-9 m. as of the time of Warka IV and from 9-14 m. as Warka V.... Second, Genouillac published his results in such a disorganized manner that it is very difficult to make sense of them. For example, there is no way to locate illustrated objects except to go over all of the possibly relevant text, and even then they can be missed if there at all. Similarly, much of the material has been classified and interpreted in the text without full presentation of substantiating detail, or if such detail does appear, it may not be in its expected place. Consequently the process of finding what the report contains is in itself a major job of excavation. (Buchanan 1967b:532)

In his meticulous analysis of the seals and diagnostic pottery forms present in the graves, Buchanan was able to determine that: 1) the earliest burial contained artifacts contemporary with those of levels VIII-VI at Uruk; and 2) that the latest burial contained pottery that "could be as late as Jemdet Nasr Times" (Buchanan 1967:540). The context of these finds helps to explain why complex systems of programmatic visual display dating to the Uruk period and discussed previously in

chapter four have not yet been found at Tello. These complex visual systems did not develop until the Uruk IV-III periods and, at Tello, these late portions of the Uruk sequence are represented only by a small percentage of the Uruk materials. Furthermore we would not expect to find complex programmatic relief works and statues in graves, but rather in temples.

The present study does not include the Uruk period finds from that site, as they consist primarily of small finds such as pottery vessels (de Genouillac 1934:24-37); clay figurines (1934:37-38); a small number of stamp and cylinder seals (1934:38-43); and a number of other miscellaneous small finds some of which yield data that can be said to be significant in terms of the present discussion. The one category of small finds that might have yielded interesting examples, the cylinder and stamp seals from Tello, is unfortunately disappointing. Although many Uruk seals were discovered, the majority of these display either geometric motifs or repeating rows of stylized humans and animals that seem intended to indicate the trade or office of their owners. In no cases do we encounter the more complex forms of compositions known from larger Uruk IV-III artifacts. Given our lack of any buildings, documents, or monumental artworks from the Uruk period at Tello, the most that we can do at present is to note that there was a pattern of continuous habitation and production of cultural objects dating as far back as Uruk VIII.

6.2.4 The Early Dynastic chronology: General observations

Just as the terms Uruk IV and Uruk III represent formal conventions that were originally specific to the development of southern Mesopotamian culture—but which are now used to

broadly describe the chronology of peripheral regions—the designation “Early Dynastic” was originally based upon stratigraphy and artifact assemblages specific to the Diyala region, a small region of Iraq outside the Sumerian heartland. Because the Diyala is a peripheral area, the chronology devised there cannot be said to accurately describe the artifactual and historical sequence for central Sumer.⁶⁰

Traditionally the Early Dynastic period has been divided into four separate sub-periods: ED I, II, IIIa and IIIb, originally based upon the stratigraphic sequences discovered at the Sin Temple, at Khafajah, and the Abu Temple, at Tell Asmar. This chronological framework is sometimes referred to as the Diyala sequence.⁶¹

In addition to the finds from the Sin Temple and the Abu Temple, the evidence used to construct the ED chronological framework also included cultural remains discovered by the University of Chicago at its excavations at the Temple Oval (Delougaz 1940) and the Nintu Temple (Delougaz and Lloyd 1942) at Khafajah as well as a separate stratigraphic sequence discovered at the Shara Temple at Tell Agrab (Delougaz 1942). The remains of private houses and graves discovered at Khafajah and Tell Asmar (Delougaz, Hill, and Lloyd 1967) were also taken into consideration. In addition to the monographs which described the architectural finds, the seals, statues, votive plaques, and pottery were also eventually published separately in a series of individual volumes that served to organize the diagnostic artifacts into categories, styles, and periods within the ED chronological system (Frankfort 1939; Frankfort 1943; Frankfort 1955; and Delougaz 1952). Although the material excavated

⁶⁰ The peripheral status of this area is stressed in the title of Adams' definitive study of land usage in the Diyala region *Land Behind Baghdad* (1965).

⁶¹ Of the ten final publications of the Oriental Institute's Diyala excavations, seven deal almost exclusively with the artifactual remains from the ED period (i.e.: Frankfort 1939; Delougaz 1940; Delougaz and Lloyd 1942; Frankfort 1943; Delougaz 1952; Frankfort 1955; Delougaz, Hill, and Lloyd 1967). These volumes record the material evidence used to originally derive the ED sequence.

in the Diyala remains the basis of the ED sequence for all of Sumer, additional finds have made it necessary to gradually refine its structure.

One of the most important chronologies for the ED period is that of Porada, Hansen, Dunham, and Babcock (1992a and 1992b). That chronology attempts to gather together and to integrate a substantial body of artifactual and epigraphic evidence from all of the known Sumerian sites, both in the cultural heartland and in the peripheral regions. Its major contribution, however, might reasonably be argued to be Hansen's insights based upon his excavation of the Inanna Temple at Nippur, as well as his more general knowledge of the other work performed at that particular site.

The material from excavation of the Inanna Temple, which was performed by Hansen more than four decades ago under the general direction of Carl Haines, includes perhaps the most important corpus of ED sculptures ever to be discovered in the heartland of Sumer. Unfortunately, however, that material has never been made public, except in a few short articles (Haines 1961; Hansen and Dales, 1962; Hansen 1965, Hansen 1971) and it remains uncertain how it would effect our overall understanding of the ED sequence.⁶² As Irene Winter put it, "Unfortunately, the sequence has also had important ramifications for the sculpture of the Early Dynastic Period" (Winter 1984:103).

What has been published from that era of investigations at ED Nippur are a separate series of excavations conducted at the North Temple. Unfortunately, however, either the usual large corpus diagnostic pottery was either absent from the North Temple, or the authors of the final report simply chose to largely ignore it in their final publication (McCown, Haines, Biggs and Carter 1978:3-33). Several other published soundings, "G" and "H", also contained scant remains of plano-convex bricks and small numbers of Early Dynastic sherds (McCown

and Haines 1967:156). A separate area, known as sounding “K,” yielded chalice bases of the ED I period (McCown, Haines 1967:152-156).⁶³

The following sections of this chapter review the basis of the existing ED chronological sequence, which is still ordered primarily around the results of the University of Chicago’s excavations in the Diyala region to the north. They will also discuss it in terms of the material from other primary ED sites in southern Mesopotamian—e.g.: Ur, Girsu, Lagaš , Kish, Eridu, Bismaya, Tell al-Ubaid, Nippur, Abu Šālabīkh, and Fara. In these sections I also attempt to integrate the observations and conclusions drawn by Hansen (in Porada, Hansen, Dunham, and Babcock 1992; and in Hansen 1965) on the basis of the largely unpublished Inanna Temple sequence with my own understanding of the Sumerian archaeological sequence.

6.2.5 The Early Dynastic I period

To understand what is meant by the term ED I, it is important to return to the point of its invention/discovery at Khafajah Sin Temple. The Sin Temple sequence was interpreted by its excavators as consisting of ten primary levels, of which Sin I is the earliest and Sin X is the latest (Delougaz and Lloyd 1942). The three earliest levels, Sin I-III, were considered by their excavators to belong to a period which at that time they called Protoliterate c—a term which has since been largely abandoned. Protoliterate c was believed to be contemporary with Uruk IV but is now generally considered to correlate to the final stages of the Uruk III/Jemdet Nasr phases.

⁶² The architectural layout of several of the ED levels have also been published in Zettler 1992.

⁶³ Gibson and MacMahon have also published the results of a number of ED related soundings at Nippur (these are discussed in section 6.2.7)

The following two architectural phases, Sin IV-V, which were described by the excavators as Protoliterate d, were believed by them to belong to the terminal phase of the Late Uruk period (i.e. Uruk III), with Sin V possibly extending into the beginning of ED I. The usual diagnostic features that relate to the end of the Uruk period: bevel rimmed bowls, wares with drooping spouts, polychrome pottery, and both highly geometric and roughly drilled cylinder seals were used to assign Sin I-V levels to the Protoliterate c and Protoliterate d periods. Additionally, the buildings themselves were constructed of small square bricks, usually referred to by the German name *riemchen*. Delougaz in particular believed that the primary form of construction during the ED period consisted of arranging the slightly rounded, plano-convex bricks in herringbone-like patterns to construct walls. In contrast, the smaller *riemchen* bricks that were laid flat during the process of construction, continuing the traditional architectonic practices of the late Uruk period, were not yet understood to have continued into the earlier portion of the ED I (Early) period (Delougaz 1933:1-38).

In contrast to architectural constructions built of *riemchen* in levels I-V, the later Sin Temple levels VI-VII were characterized by the use of plano-convex bricks a form of construction which remains the hallmark of ED architecture for Southern Mesopotamia. The artefactual assemblage of ED I is characterized by: brocade style seals and sealings, solid foot chalices, jars with wing tip handles, elaborate fenestrated stands, and scarlet ware. Hansen has recently suggested that Sin IV-VI should be dated to a period that he now calls “ED I (Early)” and that Sin VII-VIII should be considered to belong to the later portion of ED I (Porada, Hansen, Dunham, and Babcock 1992a, and 1992b). What is meant by this, however, is unclear. Although the chronological division between ED I (Early) and ED I (Late) is

delineated in the charts that accompany the 1992 chronology, the distinction between these two periods was never distinctly elaborated in the accompanying text.

Possibly Hansen's distinction between the two periods was premised upon a comparison with seal styles discovered by him at Nippur and upon the declining number of solid foot chalices in level IX of the Inanna Temple. Hansen described the distribution of these chalices as follows: "These were rare in Level IX, but plentiful in Level X. This bears out Delougaz's assumption that the chalice was less common towards the end of Early Dynastic I" (Hansen 1971:48). Insofar as the glyptic evidence is concerned, Hansen noted that the figurative, non-geometric seals of the ED II (Early) period were technically executed in a manner that appears more linear—i.e. less modeled—than the "tenuous and delicate figure style that characterizes the later level IX A" of the ED II (Late), Inanna Temple at Nippur" (Porada, Hansen, Dunham, and Babcock 1992a:104).⁶⁴

In support of Hansen's argument, I agree that the sealings from Nippur described by him as ED I (Late) do appear to bear more of a resemblance in terms of both technical execution and style to those discovered in the later levels of the Seal Impression Strata (SIS) at Ur (Legrain 1936), i.e. SIS 4-5, than they do to the earlier sealings from SIS 6-7. This view is also more or less consistent with that of Wolfgang Glockel (1982:105), who observed that a pronounced stylistic distinction exists between the seals from SIS 4-5 and 6-7. Hansen also explains that the ED I (Late) seals from Nippur "...stylistically point toward the developed 'Fara' style" (Hansen 1971:54, Pl. 21, e, f). Unfortunately, these observations are predicated upon scant evidence consisting of two incomplete sealings from level IX A of the Inanna Temple. Although Hansen's assessment that there are marked differences between the earlier and later portions of the ED I period may eventually prove to be correct, one can only hope

that this distinction will be more clearly elaborated at a future time when either more stratified objects are discovered or are published. Currently, however, there is no compelling evidence to suggest a clear division between ED I (Early) and ED I (Late).

What can be said with some degree of certainty is the following: (1) that the transition between the Uruk III period and earliest portion of the ED I sequence remains unclear when framed in terms of artifactual evidence; (2) that the later portion of ED I—which is often traditionally described as ED II—is marked by a decrease in the diagnostic pottery usually associated with ED I, such as solid foot chalices; and (3) that the glyptic styles that appear to represent the end of the ED I period are characterized by forms that are less linear/more modeled and which are therefore more similar to those of the ED IIIA period.

6.2.6 The Early Dynastic II period: A sequence based upon the Diyala Region

The most problematic characterization employed in the Diyala sequence is the designation ED II. This is referred to in German scholarship as the “Mesalim Zeit” (e.g., Boehmer 1969:262-263; Karg 1993-1997:74-81). Perhaps even more confusingly, ED II is also referred to as the “Fara Zeit”, which in the German system includes late ED II and ED IIIA (Porada, Hansen, Dunham, and Babcock 1992a:109).⁶⁵ Assuming that it has any validity whatsoever, the term ED II appears to represent only the artifactual and stratigraphic sequence of the Diyala region—which was peripheral to the Sumerian heartland—and not of southern Mesopotamia. Archaeologists who have excavated continuous ED sequences at major Sumerian cities appear to share a uniform opinion about the value of the term ED II. Hansen, for example, remarks “Attempting to fill a time span represented by Early Dynastic II in the

⁶⁴ Brackets are this author’s.

Diyala with a comparable period in the south...seems doubtful and even more dubious as the geographical distance between the southern sites and the Diyala increases” (Porada, Hansen, Dunham, and Babcock 1992a:107). This is echoed by Gibson, “I am convinced that the ED I must be greatly expanded and that the ED II as defined in the Diyala has diminished importance in central Mesopotamia” (1976:614).

An examination of how ED II was conceived of by the University of Chicago’s excavators, gives us a better sense of the problems in utilizing the term. The basis for the designation ED II rests upon the chronological sequence of the Abu Temple at Tell Asmar, where the so-called Archaic Shrine was replaced by a newer building with a completely different footprint, the Square Abu Temple. The Square Abu Temple was thought by the University of Chicago’s archaeologists to correspond chronologically to levels VIII-IX (and possibly even level X) of the Sin Temple at Khafajah. In addition, they judged that the earlier Sin VIII level should also be considered to date to ED II, which was consistent with the presence of “Fara style” seals in that level.

Frankfort believed that he was able to categorize a group of Diyala seals depicting mythological, combat and banqueting scenes as ED II, based not only upon the greater number of these iconographic forms, but upon changes in formal elements such as the use of increasingly modeled surfaces (Frankfort 1955:25-28). It is unclear, however, if these seals can truly be said to form a group that is distinct from the seals of the ED IIIA period. This is particularly true because the seals which the excavators date to the ED II period and which were found within the corresponding architectural strata of the Square Temple, were discovered mixed in with other seals and small finds from both the preceding Jemdet Nasr

⁶⁵For the excavations at Fara and the artifacts of the ‘Fara Style’ see, *in passim*: Schmidt 1931; Heinrich 1931; Martin 1988.

period and to the later ED III period. More recently it has become clear that even the distinctive seal style once considered to be a “hallmark” of the ED II period and known at the “Fara Style”⁶⁶ should be considered to date to the end of the ED I (Late) period on the basis of comparable stratified finds from sites such as Nippur (Porada, Hansen, Dunham, and Babcock 1992a:104).

As for the unique diagnostic pottery forms that usually denote different periods in archaeological chronologies, there are few materials that can be considered to belong solely to ED II within the definitions outlined by the University of Chicago’s archaeologists. Hansen writes:

The pottery of Early Dynastic II is a compilation of those pots from building levels assigned to Early Dynastic II on the basis of architectural considerations. When this material is plotted, it is clear that the pottery for the period consists of three kinds: (1) types that run the gambit from Early Dynastic I through or into Early Dynastic III; (2) types that begin in Early Dynastic I and continue into Early Dynastic II; and (3) types that begin in Early Dynastic II and last into Early Dynastic III. Only two types are considered as representative of Early Dynastic II, namely, a type of flask and a particular type of stand [Delougaz 1952:141-142].⁶⁷

(Porada, Hansen, Dunham, and Babcock 1992a:107)

These last two representative vessels do not seem to appear in southern Mesopotamia; they are restricted to the Diyala. If a separate ED II assemblage, or phase, ever really existed, it was most likely restricted to the Diyala and is indiscernible at southern sites such as Girsu and al-Hiba. The term ED II should be discarded when referring chronologically to areas outside the

⁶⁶ Here, again, the designation “Fara style” is also often confused with the term “Fara Zeit.” The “Fara style”, however, refers only to glyptic. This style has traditionally been considered to belong to the ED II period, but it should be reassigned to the latter portion of ED I in southern Mesopotamia. Both “Fara style” and “Fara period” are also sometimes confused with the term “Fara text”, a convention used to describe an evolutionary stage in the development of the Sumerian writing system which occurred during the ED IIIA period. The confusion created by the many competing archaeological conventions that employ the term “Fara” suggests that there might be a value in dissuading any further use of these chronological terms.

⁶⁷ Brackets represent the original author’s footnote.

Diyala.⁶⁸ Despite such observations, however the term continues to be used by many art historians to describe artifacts that would probably be better classified either as late ED I or as ED IIIA.

6.2.7 The Early Dynastic IIIa and IIIb periods

At Tell Asmar, the Square Abu Temple was eventually replaced by a totally different type of structure known as the Single Shrine Temple. On the basis of artifact assemblages, Single Shrine I was considered by the University of Chicago's excavators to correlate approximately with level X and possibly level IX of the Sin Temple at Khafajah—i.e. ED IIIA to ED IIIB. The following two levels (Single Shrine II-III) were assigned to a period following the destruction of the Sin Temple at Khafajah which the excavator's referred to as "Proto-imperial." Gibson, however, has compellingly argued that the term Proto-imperial should be eliminated because the Single Shrine II-III levels clearly belong to the Late Akkadian period, whereas Single Shrine I probably dates from ED IIIB to the end of the Early Akkadian period (1982:535-538).

The diagnostic artifacts that characterize the ED III period are: (1) beads, cylinder seals, and other small objects constructed of lapis lazuli, which was imported from Afghanistan (Herman 1968a, 1968b, Casanova 1995)⁶⁹; (2) jars with applied plastic decoration commonly known as "goddess handles"; (3) cylinder seals decorated with more than one horizontal register; and (4) several artifact categories of Elamite origin such as "intercultural

⁶⁸ Archaeologists working in the Jezireh region of Syria, for example, already made this decision and now refer to a separate chronological system.

⁶⁹ Of which there appear to be none dating to what has traditionally been called the ED I period and a very few from the ED II finds in the Diyala region.

style” decorated steatite/chlorite vessels and elaborately decorated objects composed of bitumen.

Inscriptions and other textual materials outline an historical sequence of four kings who ruled Lagaš during the ED IIIA period, probably in the following chronological order: Lugalshaengur, Urnanše, and Akurgal. The sequence of kings previous to Urnanše has been determined largely “on the basis of paleography,” however; as Cooper observes, “this is rather impressionistic, and much work remains to be done on the paleography and chronology of not only the early (pre-Urnanše) group of inscriptions, but the entire Presargonic corpus” (1986:4). That Urnanše preceded Akurgal, however, is well established from a series of votive plaques that depict the father, son, and other family members and officials visually and in inscriptions (Figs. 64-67).

Also important to understanding the ED sequence at Lagaš and how it relates to the rest of Mesopotamia is the correlation of the reigns of its rulers with the historical reigns of the Kings of the Ur I dynasty. These are known from a mytho-historical document known as *Sumerian King List* (Jacobsen 1939). Although the reigns of the earlier kings of Ur listed in that document are assigned unbelievable life spans, those of the Ur I dynasty “have credible reign lengths” (Zettler 1998). Nissen (1966:139) convincingly argued that the reign of Eannatum, the first ED IIIB ruler of Lagaš, overlapped with that of Mesanapada of Ur. Although this marks a substantive departure from Jacobsen’s earlier (1939) analysis, it conforms with current mainstream views (e.g. Cooper:1983:60 and 1986:14), in which the reigns of both Mesanapada and his son A’anepada at Ur overlap the reign of Eannatum at Lagaš. Working backward, since Mesanepada is now confirmed to have been Meskalamdug’s son (Boese 1978), it follows that Meskalamdug and Akalumdug of Ur reigned during a portion

of the ED IIIA period that was roughly concurrent with the reigns of Urnanše and Akurgal at Lagaš (Porada, Hansen, Dunham and Babcock 1992a:108).

During ED IIIB, the succession of rulers at Lagaš is well understood to be as follows: Eannatum Enannatum I, Enmetena, Enannatum II, Enentarzi, Lugaland, and Uru'inimgina (Fig. 68). Archaeologically, the period is best defined by the discovery at al-Hiba (Fig. 69) of three major structures: the IB.GAL of Inanna (Fig. 70), in Area A (Hansen 1970, 1978); the BA.GARA₂ of Ningirsu (Fig. 71), in Area B (Hansen 1973 and 1978); and a large administrative building, in Area C (Hansen 1970; Hansen 1978; Bahrani 1989). The dating of these structures is based upon well contextualized inscriptional evidence (Biggs 1973, 1976, and 1978; Crawford 1972, 1974, and 1977) and is, therefore, irrefutable. As Hansen notes:

For the first time in early Dynastic Sumerian archaeology, specific buildings may be linked chronologically to individually known historical rulers: Area A, level I = Enanatum I; Area B, level III = Eannatum; Area C, levels 1B = Eanatum and Enannatum I.

(Porada, Hansen, Dunham, and Babcock 1992a:112)

In contrast to the evidence unearthed at Tello, the evidence from al-Hiba stands as a major contribution to our understanding of the archaeological sequence of central Sumer.

Work by Gibson at Tell Razuk, one of the conglomerate of mounds known as Uch Tepe in the Hamrin (Gibson 1981), led him to propose “that all material in Mesopotamia which had been previously called Proto-imperial, as well as most of Early Dynastic IIIB, was in fact Early Akkadian in date” (Gibson and MacMahon 1995); more recently, he and MacMahon have also argued for the elimination of the entire ED IIIB period. Their argument is based primarily upon the excavation of a sounding at Area WF at Nippur, which was intended to continue the chronological investigation that Gibson had conducted earlier in Area WA50c (Gibson and MacMahon 1995 and 1997). Based upon their findings, they proposed

that all material previously dated as ED IIIB should now be considered Early Akkadian. Gibson and MacMahon's view, however, has failed to gain general acceptance. Some of the arguments surrounding this dispute are more complex, but the primary reasons for the proposal's general failure may be summarized as follows: (1) the distinction between ED IIIB and Early Akkadian pottery assemblages has never been clearly defined; many of what historically have been considered to be ED IIIB pottery types continue well into the Akkadian period; (2) the pottery assemblages found in Areas WF and WA50c are statistically limited and only a few Akkadian sealings were discovered; (4) the aforementioned pottery is illustrated in their reports but, as Donald Matthews notes, "no comparanda are cited" (Matthews 1997a:2). Perhaps even more importantly, the historical inscriptions and texts from Lagaš denote a succession of at least seven rulers during the ED IIIB period some of whom were the contemporaries of well known rulers of other states—e.g. Eannatum of Lagaš, who appears to have reigned at the same time as coincided with that of Mesanapada of Ur. The inscriptions of several of these ED IIIB kings were discovered at al-Hiba within specific levels at the IB.GAL of Inanna (Area A), the BA.GARA₂ of Ningirsu (Area C), and the large administrative building (Area C). The pottery from these areas is fairly well understood. If Gibson's and MacMahon's proposal were to be adopted, there is the problem of how to redefine a ceramic assemblage that is known to have also been used during the reign of the ED IIIB kings. Mathews states:

Gibson's research has demonstrated that the "ED IIIB" assemblage is sometimes found in association with Akkadian glyptic, whereas the "Akkadian" assemblage is more often found with late Akkadian and even Ur III dated objects. He has therefore proposed that the "ED IIIB" assemblage should be dated to the early Akkadian period [Gibson 1981, 77-9, cf. Moorey 1978, 66-70]. But this does not explain what pottery was used during the ED IIIB period. It is known, both from the seal style and from the dynastic

succession of the rulers of Lagash, that this period was of significant length.⁷⁰
(Mathews 1997a:2)

For the moment, there is little evidence to support Gibson and McMahon's revised sequence (see also Roaf 2001). Because of these reasons, the periodization used to discuss Lagaš acknowledges the southern ED sequence to be as follows: ED I (Early), ED I (Late), ED IIIA, and ED IIIB. The distinction between ED I (Early) and ED I (Late) is viewed as largely undefined, yet probably correct; ED II is excluded as a period existing in central Sumer; and, finally, Gibson and McMahon's proposed re-dating is unsustainable.

6.3 The Temple of Ningirsu at Tello

The majority of the ED artifacts discussed in this study were discovered at Tell K (Figs. 72-74) either inside, or in the close vicinity of a series of structures that appear to have been the temple and abode of the god Ningirsu, known as the *Eninnu* (Figs. 76-78).⁷¹ Several attempts have been made to make sense of de Sarzec's excavations in this area (see Parrot 1948:54-69; Crawford 1987; and Forest 1999:5-31) and it is now clear that the Temple of Ningirsu should be divided into four basic levels corresponding to two distinct temple structures.⁷² The lower levels (V-VI; marked *Deuxième état* and *Premier état*) belong to the building commonly known as either the Construction inférieure, or the Construction anonyme (Figs. 76-77). The

⁷⁰ Original footnotes are preserved in brackets.

⁷¹ See Heuzey 1894b; Heuzey 1897; Heuzey 1898; Heuzey 1900; Sarzec 1884-1912:411-416. This unusual set of stratified buildings has long been misunderstood because of its manner of excavation. As discussed in section 6.1, de Sarzec had no understanding of how to excavate unbaked mud brick and undoubtedly hacked straight through the majority of the architectural remains he encountered. That this building was not only preserved, but subsequently escaped the ravages of de Sarzec can be attributed, in part, to an historical event; the most recent construction phase of the temple had been badly burned in antiquity, subsequently baking and hardening the bricks to a consistency that would have been easily recognized by his team.

⁷² As the main point of the current study, is an examination of visual systems of communication, it is possible only to provide a very condensed description and analysis of the stratigraphic remains of Ningirsu's temple here. In any event, it is unlikely that such a discussion would yield any new information of value. For a more detailed understanding of the various levels and their associated artifacts, the most detailed analysis to date is currently that of Forest (1999:5-31).

upper levels (III-IV) are part of a later edifice known as the Construction d'Urnāše, or the Construction d'Urnāše.⁷³ (Figs. 76-78; N.B., these are not drawn as separate levels on any of the plans).

The construction of the Construction d'Urnāše serves as a convenient chronological reference point for determining the relative dating of the temple objects. While building the Construction d'Urnāše, the Construction inférieure was leveled and covered over with a floor of mud bricks belonging to the newer structure and inscribed with the name of Urnāše. The exterior of the newer Construction d'Urnāše was also surrounded by a pavement of Mosul marble. The encased stratigraphy inside the building and corresponding paving outside it make it possible to establish a *terminus ante quem* for the artifacts inside, as well as immediately outside, specific portions of the Construction inférieure. The general assumption is that any objects found within that area must date to a period during or before the reign of Urnāše, whereas any objects discovered in or near the Construction d'Urnāše must date to either Urnāše's reign or later.

Both the Construction inférieure and the Construction d'Urnāše are without significant architectural parallel. The earlier temple building (Figs. 76-77) is arranged according to an unusual bipartite plan consisting of two rooms with separate entrances to the exterior. The main room, chamber 1, which measured 4.10 X 4.30 meters, contained an unusual cruciform-shaped mud brick support, or base, measuring 180 cm in height, which may have served as a support for either a statue or for some type of standard. Immediately outside of its doorway, on the pavement along the south-east side of the building, lay the fragments of a small circular relief, probably the base for a statue (Figs. 79-83). Inside chamber 1 the

⁷³ The sequence used here follows that of Forest 1999.

uppermost portion of a round topped stele (Fig. 84) was found, which should be dated to ED I (for the reasons discussed later in section 7.2.1), as was a two meter wide fragment of a second ED stele of uncertain date (Fig. 85). Two groups of uninscribed copper foundation figurines were also discovered buried within the area of the Construction inférieure, the first beneath the floor and in front of the cruciform-shaped architectural feature, and the second under the western corner of the temple. Two other important objects were discovered outside the building: the first a magnificently cast, inscribed, copper dagger, the original location of which remains uncertain (Fig. 86); the second a decorated and inscribed tablet known as the *Figure aux plumes* (Fig. 87), which must date to ED I or earlier (see section 7.2.1) was unearthed approximately 8 meters north of the western corner of the building.

Crawford wrote that the Construction inférieure must originally have been covered by a reed structure—an idea that had originally been proposed by Heuzey (1900:58), but was later rejected by that same author:

A curious feature was observed by the excavators. Fifteen bitumen-lined, vertical, bottle-shaped cavities were found in the walls of rooms I and 2 of this second building stage. They were placed at regular intervals to form transverse pairs across the rooms with one on the cross wall. It is possible that they represented foundation deposits for the later stage of the building, but this is rather unlikely as they are above floor level and nothing was found in them except for transverse impressions of reeds in the bitumen lining.... These impressions suggest that the cavities may possibly have been sockets for the support of reed bundles bound together with reed thongs, of a type used to support reed screens which are then thickly plastered to form the superstructure on mud-brick bases. (Crawford 1987:74)

This interpretation makes a great deal of sense, particularly as the bitumen lined, bottle shaped cavities could have been filled with water to help extend the life of the reed supports (Fig. 88) We know very little about ED roofing techniques, but it seems likely that, even in buildings with full height walls, the ceilings would have been covered with some sort of reed matting,

which was possibly plastered over and attached to a structure of transverse wooden support beams. Delougaz uncovered evidence of such roof structures in room L 43:9, House D at the Khafajah Temple Oval where—because the building had been burned—enough portions of the roof were preserved in charred segments for him to attempt a reconstruction (Fig. 89) (Delougaz 1940:49-52, 133-136). One can easily imagine the *Construction inférieure* as having a modest canopy-like superstructure consisting of a simple arched roof constructed of marsh reed. Except for the paved floors and the lower walls, such a structure would have shared properties with reed structures, such as those depicted on the basin thought to come from Uruk (Fig. 32) and on the Uruk seal from Tell Billa (Fig. 24). This ancient technique of reed construction has, in fact, continued until very recently (Fig. 90) in southern Iraq's pre-Saddam Hussein six thousand square miles of marshes (Thesiger 1954; Thesiger 1964; and Salim 1962). If the superstructure of Ningirsu's temple utilized similar architectonic forms, then the bitumen lined cavities would have provided the added benefit previously stated.

Crawford (1987:73) also suggested a possible similarity between the bipartite ground plan of the *Construction inférieure* and the architectural organization of the shrine at level VII of the Inanna Temple at Nippur, which is currently dated to ED IIIA and IIIB (Fig. 91)⁷⁴. Such a connection seems implausible for two reasons. Whereas the *Construction inférieure* was a free standing building surrounded by an open pavement, the shrines at levels VIIa and VIIb of the Inanna Temple were enclosed with a sprawling ceremonial building complex with a single outer wall. Furthermore, the circulation between the two adjoining sections of each of

⁷⁴ Crawford believed Inanna VII to date to ED II, an opinion based upon the cursory publication of Hansen and Dales (1962). Since the publication of Crawford's article, however, level VII of the Inanna Temple sequence has been broken down by Hansen, its original excavator, into two phases, which he has also re-dated. The earlier phase (level VIIb) is now dated to ED IIIA, whereas the later phase (level VIIa) is considered to correspond to both late ED IIIA and the ED IIIB period (Porada, Hansen, Dunham, and Babcock 1992b:100, Fig. 5).

the bipartite plans is radically different. At Nippur, the antechamber provided direct circulation to the central room of the shrine, whereas in the Construction inférieure the two rooms were distinctly separate structural entities, the doorways to which were accessible only from entirely opposite sides of the building.

In contrast to the Inanna temple at Nippur, the ground plan of the Construction d'Umanše, or Maison des fruits, represents an entirely different type of building. The ground plan (Fig. 78) is that of a rectangular structure measuring 10.50 X 7.30 meters. Within this structure, two unconnected rooms (A and B) were entirely surrounded by a perambulating corridor (C) and all of the floor surfaces were coated in bitumen. No doorways were ever identified within the building, but Crawford (1987:74) has suggested that the two inscribed door sockets of Umanše discovered in room A, along the southeast wall, may indicate that an entrance existed in that particular area of the chamber. Little was discovered in room B with the exception of a series of copper knife blades complete with rivets; although some of these appear to have been inscribed, they were impossible to decipher. Associated with the same structure, but outside the main building, were a series of peripheral constructions including: two large basins (I and K); eight symmetrically arranged pillar bases (H); and two projecting brick platforms (D and E), for which Heuzey (1900:9) could find no reasonable explanation.

At some point prior to the Ur III period, the building was burned to the ground. Its contents were subsequently and purposefully sealed under a layer of bitumen covered bricks, possibly during the reign of Šulgi. It is thus possible to define both a *terminus ante quem* and a *terminus post quem* for the many elite artifacts associated with this area: they must date to between the period of Umanše's reign in ED IIIA and the Ur III period. These objects include, but are not limited to the following: on pavement F, an extraordinary copper standard

measuring 3.27 meters in length (Fig. 92) and five sculptural fragments of lions, several of them inscribed by Urnanše (Figs. 93-97); near the lower level, outside of building (IV), three bas-relief votive plaques of Urnanše (Figs. 64-66), a large decorated, inscribed, ceremonial copper spearhead (Fig. 98-99), and the macehead of king Mesalim (Fig. 100-101); below the foundation level two a copper bull head, probably intended as the fitting for a harp (Fig. 102); at the level of the walls several fragments (“D,” “E,” and “F”) of the Stele of the Eannatum (Figs. 103-110).

Chapter 7
The ED I period at Lagaš and the structural processes and limitations of message transmissions

The divergence of representational ‘art’ and writing in Sumer may have been sparked not only by the evolution of the writing system itself but by the need to record and transmit different types of information to varying audiences for specific purposes. These fall into two general categories: (1) economic transactions and (2) religious or state functions. By focusing upon the distinct corpus of Lagaš elite artifacts, I analyze how specific ideological goals and programs were codified and transmitted via monuments and other artworks and how these messaging systems can be classified and explained as a series of structural innovations designed to overcome the limitations of previous messaging systems. ‘Writing’ systems on these objects are discussed here only in those specific contexts where texts were displayed alongside, or in conjunction with, ‘artistic’ representations. Economic documents and transactions are covered here only when they are associated with pictorial and sculptural forms.

7.1 The ED I period finds from Lagaš

7.1.1 The circular plinth and the great relief from the main chamber of the Construction inférieure

At Lagaš, the Construction inférieure (see discussion in section 6.3) directly below the Construction d’Urnāše was effectively sealed below the later building and appears to date either to the ED I period or to the very early portion of ED IIIA. I have tentatively dated several objects found in it to ED I because of the archaic graphemic forms of several of their inscriptions. Some of these artifacts may actually come from very early portions of the ED

IIIA period, but there is not enough stratigraphic and contextual evidence to further refine the dating of these objects. As mentioned earlier, the finds included: a large ceremonial dagger with a double lion handle (Fig. 86); several fragments of a circular relief (Fig. 79-83); the lower portion of a colossal stele (Fig. 85); a decorated, inscribed, square stone artifact known as the *Figure aux plumes* (Fig. 87); and a small round topped stele with an archaic inscription (Fig. 84).

The colossal dagger (Fig. 86) of either copper or bronze measured 41 centimeters in length and was inscribed with a dedication to Ningirsu by a temple official with the title of SANGA—i.e. the highest temple administrator. Its handle was composed of two reclining lions executed in sculptural form. Unfortunately the whereabouts of this unique object are unknown as it disappeared *en route* to France and it is only known now through photographs. The significance of the monumental dagger and other objects which I call “performative weapons” is discussed in detail in later sections (see 8.2.1-8.2.4).

The circular bas relief (Figs. 79-83), which appears to have originally been intended as a stand for a statue, divine emblem, standard, or other such object, measures approximately 19 centimeters in height and 39 centimeters in diameter. It was originally composed of two horizontally superimposed blocks and was decorated with a number of human figures, all of whom are depicted in profile and arranged upon on a single register line.

The composition may be seen as having two orientations. The primary one shows a number of human figures arranged in two single files facing each other (Fig. 79). The secondary orientation, which occurs exactly opposite the point at which the leaders of the two human columns meet, depicts a child clad in a skirt and raising his arms upward between two figures who appear to be dressed differently than the others, perhaps women (Figs. 82-83). At

the head of the two rows of figures, men face each other holding what appear to be emblems of rank (Figs. 79 and 81). The clean-shaven figure to the viewer's the right holds a staff, or perhaps a spear. The figure on the left, who may originally have worn a beard, carries a sickle-shaped blade, probably a scepter, whose form is paralleled by several examples discovered by Cros at Tello in an Ur III period grave in the necropolis at Tell H (e.g., Cros 1910:129 Pl. 8, Figs. 4-5). He is depicted resting the sickle-shaped object on his shoulder, while, in his right hand, he grasps a set of handcuffs or fetters.

Some of the other figures in the procession are bearded, others have their heads as well as their faces shaved in the typical manner of both *wari* soldiers and temple attendants. The identity of each of the figures on the relief was originally anchored, or tagged, by a series of graphs that appear to have been inscribed primarily on their garments. Some of these names can be read, but the majority are too damaged. The inscriptions have attracted little interest and there has been no published version of them since that of Thureau-Dangin in a footnote, almost a century ago (1907:2, Note a4). Prof. Gebhard Selz (personal communication) gives the following preliminary readings:

Rank of figures on the right hand side:

1st-4th:	inscriptions are not present	
5th:	SAL GI	
6th:	<i>ur me</i> TUŠ DUMU, or perhaps <i>ur</i> -GAN?	
7th:	TUŠ- še -er- še -er	
8th:	<i>lugal-ezem-a</i>	(i.e., "The king is at the festival ...")

Rank of figures on the left hand side:

1st-6th:	inscriptions are not present
7th:	<i>Lugal(?)</i>
8th:	illegible

Child and figures to either side

Figure to the right: inscription not present
 Figure of child: inscription not present
 Figure to the left: *pa-bíl-ga-ul₄-gal* (i.e., “The uncle is the fence”) *nar* (“singer”)

What is represented here is a question still under debate. Heuzey (in de Sarzec 1884-1912:356) suggested that the scene must represent a meeting between the local ruler/ priest, i.e., the *ensí*, with the warlord, i.e. the *lugal*. Parrot disagreed with Heuzey’s reading because, as he argued, were this the case, we should expect the local prince, or *ensí*, to have his right hand free to accept the symbol of his investiture. Instead he believed that what was being represented was in fact one single column of people marching towards the temple with two leaders who might be the “king” and the “prince” at its head (1948:73).

The best interpretation appears closer to de Sarzec’s than to Parrot’s. The two figures at the heads of the two columns are indeed the *ensí* and the *lugal*, and each of them holds an object that should be viewed as both utilitarian and as emblematic.⁷⁵ The cleanly shaven figure to the viewer’s the right hand side holds a staff, whereas the figure on the left carries a sickle-shaped blade in his right hand. These two figures represent the two primary, but different roles of Sumerian rulership: on the right, we see the ruler as an *ensí*, or “priest,” *sipad*, or “shepherd” of his people; and, on the left, the ruler is depicted as the military leader, or the “great man”, *lugal*. Although this is offered here as a hypothesis, this is supported by the ED IIIB depiction of rulership on the “Standard of Ur” where the two primary sides of the object, usually called the “peace panel” and the “war panel”, epitomize the two roles of the leader (Woolley 1934:Pls. 91-94).

It has often been suggested that the offices of the *lugal* and the *ensí* would have been occupied by different persons. There is no evidence, however, to substantiate the claim that

⁷⁵ I wish to express my gratitude to Gebhard Selz for many discussions with me about this object.

this was always necessarily the case. It is possible that certain persons may have occupied both roles. It is also possible that there may have been more than one single *lugal* as on the circular plinth. Since one of the figures on the circular plinth is labeled *dumu*, or “son” (i.e., *ur me TUŠ DUMU*, or perhaps, *ur-GAN*), perhaps the relief is depicting a ceremony regarding that particular offspring. This would also make sense in terms of the clearly separate, yet centrally important scene showing the child standing between the two adults. This may be the same son prior to, or in preparation for the “festival” or ceremony. This would explain why the child holds the hand of the figure to his right who is tagged by the text describing his name “*pa-bíl-ga-ul₄-gal*,” “the uncle is the fence,” and his profession *nar*, “singer.” Selz suggests that this singer is a ceremonial official/relative who represents the liminal barrier between the sacred and profane worlds, “because music has apparently such general function crossing these barriers” (Selz, personal communication). He adds that “This is even more true for the *gala*, the castrates, who are symbolizing even the transgressions of the sexes and therefore play a dominant role in burial rites” (Selz, personal communication). Perhaps, given the specific archeological/architectural context of the circular plinth we should view the *ul₄-gal* as the intermediary, or representative, of Ningirsu. If this represented an initiation or “coming-of-age” ceremony we might postulate an additional performative context for the plinth. It has always been assumed to have supported a statue, but perhaps it supported instead a ceremonial object, such as the sickle-like weapon held by the bearded figure, the staff held by the clean shaven figure, or even both such objects, as it appears to have had two holes.

The figures presented in profile on the circular relief and the interpretation I have suggested above may also give us a sense of the subject matter that would have adorned the monumental stele also discovered in Chamber 1 of the Construction inférieure (Fig. 85). This

enormous relief, which was abandoned by de Sarzec in situ⁷⁶ and of which only the bottom portion remains, measures approximately 2 meters in width and 85 cm in height.

Unfortunately, the object was never photographed in any detail. There is a photograph displaying it in its architectural and archaeological context, but in it the stele occupies only a small portion of the pictorial frame (de Sarzec 1884-1912:195-196, Pl. 56). The size of this object becomes clearer when one compares it to the later, ED IIIB, Victory Stele of Eannatum (Figs.103-110), which appears to have measured approximately 1.30 meters in width and 1.80 in height. If one extrapolates using the same ratio of height to width, then this object's height can be estimated to have been approximately 2.77 meters.

The importance of the great stele fragment is that, when viewed in conjunction with the circular relief, it reinforces the sense of importance and ceremonial function which the great chamber must have had, making it even more explicit. There can be little doubt that, in that room, some four and one half millennia ago the priests, supplicants, and followers of the state's tutelary god, Ningirsu's, performed some rituals pertaining to the well being of the state, its rulers and the god. Although it is not clear if the Construction inférieure was indeed the very early architectural form of Ningirsu's great house, or temple, the *Eninnu*, it must have been among Ningirsu's more important temples at Tello.

7.1.2 The round topped stele fragment and the *Figure aux plumes*

Very few artistic representations from ED Lagaš are joined to texts dealing with economic, or land tenure, documents. Of the three that are known, two date to as early as the ED I period,

⁷⁶ Although no reason is given, perhaps the great stele was thought to be of insignificant artistic, or historical, merit to transport given its great size.

which is unusual given that very few significant ED I objects are known from Lagaš at all.⁷⁷

The first of these is a small round topped stele, which is in the collection of the Louvre but currently lost within the museum (according to Gelb, Steinkeller, and Whiting 1991:67-68).

The second is a rectangular stone object, decorated and inscribed, known as the *Figure aux plumes*.

Both of these artifacts were originally discovered by de Sarzec outside the Construction d' Umanše at Tell K in the earliest levels—i.e. the strata associated with the Construction inférieure. In the case of the round topped stele, only a small portion of this object has been preserved (Fig. 84). On the decorated side of this object, a small portion of a man's head is just barely visible including part of an eye. Above and to the left of the head, one can see several signs. On the reverse side a series of written signs are still preserved, the orthography and style of which might suggest a date of ED I or earlier. Unfortunately, little can be said about this object; Gelb, Whiting and Steinkeller were unable to verify that the writing on it is indeed Sumerian (1991:67-68).

By contrast, the *Figure aux plumes* is an object that yields not only a great deal more information, but also causes us to ask many more questions (Fig. 87). It is unique not only in its visual and textual content; it may also be the only complete, known major artwork from Lagaš to date to a period earlier than ED IIIA excluding small finds, such as seals, pottery and a few crude Uruk period sculptures. This rectangular limestone tablet measures roughly 18 x 15 cm. Despite the fact that the text inscribed on it is generally considered to be largely unreadable, enough of it can be understood that it has usually been classified as a “land tenure document.” Gelb, Steinkeller, and Whiting summarized the situation as follows:

⁷⁷ The later land tenure document inscribed on a statue belonged to Lupad of Umma and dates to the ED IIIA period (see section 8.3.2),.

If there is anything certain that can be said about this text, it is that we understand nothing about it. Even the earliest texts in this volume, nos. 1-7, for example, yield more information than the *Figure aux plumes*. We can no more than guess that the ag.en.nam group of signs, which occurs five times on the obverse of this text, stand for a name, and that it is the name of the person who acquired (?) the field that is described on the reverse

(Gelb, Steinkeller, and Whiting 1989:66-67).

More recently, Claus Wilcke (1995) has proposed a tentative reading of the text presenting it as a hymn to Ningirsu. As other philologists have yet to comment on its accuracy we are left for the moment with the consensus of his predecessors.

As with the vast majority of finds from Tello, there is no relevant archaeological information that can be determined by the context of the artifact which was discovered approximately eight meters the north of the western corner of the Construction Inferieur. The writing, which covers the entirety of its *verso* surface, as well as much of the *recto*⁷⁸ surface that surrounds the artistic representation, has been dated by Gelb, Whiting, and Steinkeller to the ED I or ED II period (Gelb et al. 1989:66-67)⁷⁹. As discussed in chapter 6, since ED II cannot be considered a valid chronological designation for the Sumer heartland, this object must be classified as ED I. Although Selz and Steinkeller both agree that the writing is indeed an early form of the ED script, neither of them appears comfortable dating the text more specifically on the basis of epigraphy.⁸⁰

⁷⁸ The reasons why this side should be considered the original *recto* surface will become apparent in the course of this discussion.

⁷⁹ The volume referred to was produced posthumously, by Whiting and Steinkeller, following Gelb's death. When later asked what the criteria for dating the object was, Steinkeller (personal communication) said that the original determination had been made by Gelb; he and Whiting chose not to revisit the question of dating during the process of completing Gelb's unfinished manuscript.

⁸⁰ Selz has opined that he is generally distrustful of epigraphic dating for this script phase (personal communication 2001); Steinkeller has remarked that Gelb's (1989) study was edited and completed by him and Whiting, following Gelb's death, and adds that they never changed any of Gelb's datings (personal communication 2001).

The visual composition on the *recto* depicts a man wearing a netted skirt. It is similar to those shown on the Uruk period artifacts discussed earlier. He wears a headband with two protruding feathers. The figure faces to the right, his head in profile, though his body is depicted frontally, a method of composing human figures that is part of the standard canon of conventions of Early Dynastic ‘art’—just as it was for the preceding Uruk IV and III periods.⁸¹ He grasps one of three ovoid-headed maces in his left hand. The top of the one furthest to the right has been erased due to damage. The maces are disproportionately tall and are executed in raised relief, with incised detail. These representations of weapons were presumably intended as symbols of rank, and/or authority. Raised relief with this same technique of incision was utilized to indicate details such as: the eyes, ears, mouth, hair, pectoral muscles, the mesh of the skirt and the wrapping below the heads of the maces.

The netted, or mesh, skirt should already be familiar as a symbol of authority, since it was equated with the EN priest of the Uruk IV/III phases (e.g., see section 3.3). It may or not also be significant that, during the later ED IIIB period “battle nets” were equated with divine authority; on the Stele of Eannatum, Umma’s soldiers are shown trapped within such a device and the accompanying text describes Ningirsu enjoining the leader of Umma to swear consecutive oaths upon the “great battle nets” Enlil, Ninḫursag, Enki, Sin, and Utu (Cooper 1986:33-37). Whether such battle nets would have been worn around the waist as skirts, or carried in some other manner while not in actual use is, however, unknown. Generally speaking, what can be definitely asserted is that the net skirt was never depicted as a form of human dress in known Early Dynastic representations. In the case of the *Figure aux plumes*,

⁸¹ The only time in which the rules of this canon are purposefully violated are in ED III depictions of certain goddesses, whose head is depicted frontally. See for example the second stele of Urnanše discussed in section 8.4.2

the netted skirt may represent an unusual holdover from the Late Uruk period but may also suggest an earlier date for the visual portion of the artifact than that of the text.

There are several other reasons to date the representation before the text. The first is that—defying one of the standard mimetic conventions of early Sumerian ‘art’, in which iconic signifiers are always portrayed in their entirety—the tops of both the two feathers and the two maces are truncated, having been cut by the upper frameline of the surviving image field. This might be due to damage along the top edge of the object, though this is unlikely since the text—which covers the majority of the negative space surrounding the composition on the front of the object as well as the entire surface of its reverse side—is completely intact. It also seems highly unlikely that the tops of the two feathers and of the two maceheads were not originally included in the composition because schematized rules regulating frame boundaries, ground lines, register usage...etc., were already well entrenched in Sumerian thinking by this time. Rather than a purposeful violation of such rules, it seems more likely that the top portion of the object was broken at some point during antiquity and that later it was smoothed prior to the addition of the inscriptions. This is also suggested by the fact that, whereas the edges of the object are convex along the bottom, the left, and the right sides, the top edge is practically convex at its center.

In terms of technical execution and style, the relief fragment found at Girsu may present the closest parallel to the *Figure aux plumes*, but at least one ‘intercultural style’ object from Bismaya, ancient Adab, presents intriguing iconographic similarities. (Banks 1912:266). This fragment of a steatite vessel (Fig. 111-112), belonging to a subcategory of the intercultural style, known as the *série ancienne*⁸² depicts a group of figures wearing skirts

⁸² A term coined by Miroschedji (1973). At least one fragment of a *série récent* vessel was discovered by Cros at the “Tell des Tablettes”, see Heuzey (1904).

and headbands with differing numbers of feathers that may have indicated rank. These figures are attended by a second group which is engaged in musical and acrobatic activities. The similarity in headdresses might point to an ‘Elamite’ origin, not only for the emblem of rank worn by the *Figure aux plumes*, but for the object itself.

More important, the parallel between the objects from Bismaya and Tello confirms the *Figure aux plumes*’ elite rank as well as the artistic object’s metaphorical use of indexicality—i.e., the use of signifiers to suggest the physical presence of that person. In that context, the visual representation serves as the legitimating mechanism for the textual document. This might also be implied by the similarities between the feathered headdress and the form of the Sumerian graph LUGAL—a hypothesis suggested by Morris Jastrow and Edgar Banks almost a century ago, but since ignored, or forgotten for the figures on the Bismaya fragment. The word *lugal*, which meant literally something like “big man”, or “great man”, but which is generally interpreted as meaning “king” or “ruler,” is an agglutination of the two graphs LU₂ (i.e. “man”) and GAL (i.e., “great”). In connection with this sign and the representation of the human figures on the Bismaya vessel Banks made the following interesting observation:

From the cap of one figure, three feathers project, and in the cap of each of the two small boys behind is a single feather. The feathers are probably a sign of royalty, and Professor Jastrow has suggested that the cuneiform word “great” which, when joined to the word for man, forms the word for “king” was derived from them. The sign for great is then but a conventionalized picture of a cap with projecting feathers [see illustration, Fig. 113]⁸³
(Banks 1912:267-268).

Although speculative, such an interpretation is not altogether unfounded. The graphemic form GAL+LU₂ does not yet occur in known Uruk IV texts, but appears during the Uruk III phase. In the Uruk III writing phase, there are at least eight uses of it in administrative texts, but none in

⁸³ Brackets are this author’s.

the lexical lists (Green and Nissen 1987:240, No. 334). This suggests that the particular concept of rulership, or rank, represented by the graph group GAL+LU₂ did not exist yet in Sumer, prior to the Uruk III phase; it was either invented during the Uruk III period, or perhaps imported from another region, such as Elam. Green and Nissen have observed that the sign form GAL+LU₂ is also “usually written with a ligature” (Green and Nissen 1987:240, No. 334)⁸⁴; in some cases, this ligature was even connected directly to the head of the LU₂ sign. Hence, the GAL+LU₂ might really have originally been a mimetically derived depiction of a man wearing a feathered symbol of his rank.

Equally intriguing, is Jacobsen’s suggestion that the headdress worn by the *Figure aux plumes* shows stalks of fan barley, rather than feathers. According to his interpretation, the barley stalk would have represented the last sheaf of the harvest. This was traditionally presented as a wedding gift to Inanna by the EN priest as part of the sacred marriage rite (see also, *passim*: van Buren 1944:1-72; Cooper 1993:81-96; Kramer 1969; and Kramer 1970:135-141) and, as such, would have functioned as a sign vehicle for the concept of *En*-ship:

In favor of seeing the Sumerian *en* and stalk of barley he carries in this light, as embodiment of the last sheaf and the power to ensure next year’s harvest, is the sign *en* which symbolizes him or her in the writing. For EN is quite clearly the picture of a stalk of barley... which juxtaposes fan barley with the representation of barley stalks on the bottom register of the Uruk Vase, and with an early form of the sign EN.

It will be noted that the sign has a narrow rectangle at its lower end. That probably represents the headband of the *en* into which the barley stalk was stuck. This is suggested by the well known plaque with the *Figure aux plumes*. It shows the *en* with a headband into which are stuck two ears of barley. There the ears are shown in the same stylized form in which they are rendered in the sign for barley ŠE. They are also shown much enlarged. The wearing of the barley by the *en* serves by way of contagious magic to identify him in the rite. (Jacobsen 1991:116-117)

⁸⁴ For example, see Green and Nissen 1987:240, No. 334 (second sign down).

Regardless of whether or not any such speculation is true, the *Figure aux plumes* represents a figure of authority and the headdress acts as a signifier indicating status/rank, as do his netted skirt (see discussion above) and the three tall mace-like objects in front of him (for the symbolic significance of maces, see sections 8.2.1, 8.2.2, 8.2.4). Precisely what rank these signifiers indicate may remain uncertain, but we can safely hypothesize that a reading such as Jastrow's or Jacobsen's is not far from the truth. They must have designated a high ranking official such as an *en* or a *lugal*.

7.1.3 Experiments in anchorage and other Early Dynastic parallels

If the image and text of the *Figure aux plumes* date to different periods, then for what purpose would a later text have been added? Despite being unable to accurately read the text on the object, one can still make some observations about it and the evolution of visual systems of display in Sumer based upon a closer examination of its messaging structure. I previously described a system of sign usage that Barthes called anchorage in section 5.4.1, in which either single linguistic signifiers, or groups of them, are employed in order to reduce the ambiguity of those icons and symbols used in mixed systems of visual display—i.e. systems that combine text and image. These signifying anchors point the viewer toward correct interpretations—i.e. primary sign values—for icons and symbols. Hence, the term anchorage primarily describes the relationship of graphs, or linguistic signifiers, to other signifiers used in pictorial compositions. The use of anchors is an important structural trope that reduces the polysemous nature of the visual image, enhancing the effectiveness of the transmitted message.

It is unclear to what extent standard interactions between text and image, such as anchorage were employed here. Although it is unlikely that the inscription can be properly read, or that we can gauge how much time passed between the creation of the image and its subsequent alteration, the addition of the text can be seen as an attempt to turn an unidentifiable image into an identifiable representation of the person with the name AG.EN.NAM. If we examine the *Figure aux plumes*, it is clear that the more substantive portion of the message is the text, rather than the image. This suggests that the ‘artistic’ representation is also anchoring the text in a way that goes beyond Barthes’ notion of anchorage in text/image relationships. Here, the process is in some ways similar to Egyptian examples which served to mutually anchor each other because they were often the same depictions. In the *Figure aux plumes*, the image anchors the writing contextually—i.e. it places it within a specific social and architectural context. This is not to suggest that this concept was derived from Egypt; the point is simply to point out that since, historically speaking, the split between writing and image making was still relatively recent in Sumer, that culture appears to have still been experimenting with this type of structural process, or idea.

There may also have been a more complicated extension of the anchorage process going on, which is known as a “relay” mechanism. This is essentially a structure in which broader units of information are bound between text and image. This term, however, is usually reserved for more narrative works where the text clearly fills in gaps in the visual story line and vice-versa. A fairly common example of this would be a modern comic book, where the writing and the drawing supplement and complement each other mutually, rounding out the details of the entire story or message. A good example of an illustration showing the use of anchorage and relay mechanisms appeared in the New York Times on 3 October 2001. It

describes the situation in the immediate vicinity of the World Trade Centers on 11 September 2001⁸⁵ (Fig. 116). On the 10 year old child's drawing, a series of written tags anchor what might otherwise be ambiguous icons and symbols. The written word "sun," for example, is shown just above the black horizontal line signifying stream of smoke that reaches the windows of the building marked "school," from the World Trade Center's two towers. A more complex tag, the word "Doom," written with the two letters "O" filled in with black crayon fixes the symbolic value of the signifiers immediately surrounding it, specifically: the fuel laden jet airliner about to hit the tower to the left and the building's occupants, who are shown jumping out the window to their immediate death. Below the photograph of the child's drawing the caption, "A picture drawn by a 10-year-old at Public School 29 in Brooklyn on the day of the attack," serves as a relay mechanism that encodes and transmits additional information about the pictorial representation by means of a phrase that effectively utilizes the image as its predicate.

Barthes, who first described the concept of the "relay" mechanism described it thus:

Here text (most often a snatch of dialogue) and image stand in a complementary relationship; the words, in the same way as the images, are fragments of a more general syntagm and the unity of the message is realized at a higher level, that of the story, the anecdote, the diegesis (which is ample confirmation that the diegesis must be treated as an autonomous system).
(Barthes 1977:41)

Insofar as relay is concerned, Barthes major interest was in the relationship of dialogue to image in film, rather than text to image in 'art', which he perceived as rare. In the present discussion, however, the terms 'relay' and 'relay mechanism' refer to structures that by the ED III period become standard features of more complex programmatic artworks. This is

⁸⁵ Approximately twelve blocks away from where the present manuscript was written.

particularly true of objects that combine narrative historical texts with complex visual representations; the apogee of this in ED art being the Stele of Eannatum (see section 9.3)

Our inability to properly translate the *Figure aux plumes*' text makes it unclear to what extent it may have functioned as a relay. In Wilcke's attempt at translation, it can at least be said there appears to be a genuine correlation between the maces represented on the object and the actual inscription: "Die Lapislazulikeule läßt du (wie) einen Pfeil dasein, du bist es, der sie auf ein tief (gegründetes) Fundament (wie) einen Pfeil setzt...", i.e. "You cause the lapis club to be (present?) like an arrow,/ It is you who places it (the club) on a deep foundation like an arrow" (Wilcke 1995:673).⁸⁶ Assuming that there is some truth to Wilcke's translation, the process of anchorage becomes self-evident, with the graphic representation setting the scene for the accompanying hymn-like text, which would refer to Ningirsu. Since the accuracy of Wilcke's reading is not clear, however, neither is this hypothesis. We are not yet certain to what extent the text on this particular object actually conveyed narrative, historical, or dialogue-like information about the image. Therefore, in the absence of an explanatory text, we can only speculate what the image was supposed to signify.

On a general level, it seems reasonable to assume that the figure with his assorted paraphernalia represents a person of high rank—perhaps even the actual *ensi*. The power of the figure with the headdress' authority is visually manifested on a series of semiotic levels. The iconic and symbolic levels are the ones most immediately apparent, even if they are not well understood. Perhaps most interesting is that the representation of this elite person also serves as an indexical manifestation of what was once his own presence: he touched and handled, or, at the very least authorized the construction of the object that visually represents

⁸⁶ I am grateful to Gebhard Selz, Piotr Steinkeller, and Tina Breckwoldt for their discussions with me about this object. I am particularly indebted to the latter for her help in translating Wilcke's German into English.

him. The object became an indexical manifestation of his authority as soon as he had it made to express his own specific messages or ideas. The indexical value of the object also describes the reason for its reuse, namely that it already had an importance in historical terms; that it was already an historically significant object must have given it weight via an added authority to the person, or persons, who later inscribed its back.

Finally, it is important to note that the ‘artistic’ representation of the *Figure aux plumes* served to anchor the accompanying text not only by contextualizing it socially and spatially, but also by signifying its verity and authority in a manner that might be said to be structurally paralleled in seal usage. In the case of glyptic usage, the reversed-intaglio impressions left by the seals served to verify the legitimacy and authority of the accompanying statements. The difference between those statements and that of the *Figure aux plumes*, however, is that sealings were almost infinitely reproducible and were impressed at the time of writing. The image on the *Figure aux plumes*, by contrast, was intended as a singular statement; it also originally predated the textual information and was re-purposed to serve the purpose just described. When one considers the structural means through which the *Figure aux plumes*’ land tenure text is legitimated via iconic anchorage, it is clearly not only an important ED I document and artistic representation, it is also a unique statement that records the structural experimentation occurring during that period in the evolution of Sumerian visual systems, when the process of anchorage was still being experimented with and had yet to be clearly codified or defined.

Another ED I object from Lagaš is similar in several ways to the *Figure aux plumes*. A relief fragment depicting a battle scene (Fig. 114), was found by de Sarzec between Tell K and Tell J at Girsu, in the vicinity of several fragments of the Stele of the Vultures (de Sarzec

1884-1912:103). Boese (1971:199) has included this object in his catalog of votive plaques, but it seems unlikely that it should be categorized as such. The fragment measures 18 x 25 cm, but must have belonged to a considerably larger object, perhaps a stele or another form of commemorative relief. However, it is most likely not a fragment of a votive plaque given its size—the largest known votive plaque from Lagaš measures 43 x 49.5 cm and most of the plaques are about half of that size—and subject—no votive plaques from Lagaš depict combat scenes.

Unfortunately, the object's find spot and context provide no relevant information as to its date of manufacture. Certain stylistic qualities of the object, however, are reminiscent of the *Figure aux plumes*, suggesting that the two objects may date to approximately the same period. In terms of style, both the *Figure aux plumes* and the relief fragment share a very similar manner of rendering which lacks any real modeling of the raised relief surfaces. The incised technique they utilize seems both 'scratchy' and linear. The schematic layout and rough execution of these two artifacts makes them more reminiscent of the later ED III 'intercultural style' objects, which are of Elamite origin (e.g. Delougaz 1960; Hansen 1962; Kohl 1962; and Potts 1994:247-274), rather than of mainstream, ED Sumerian art.

The figure on the left side of the relief fragment appears to be a goddess known from later ED III representations (*q.v.*, sections 9.2.2 and 10.2.3.2). The representation is quite rough and therefore far from clear, but the deity appears to be wearing a cape over a dress that covers her left shoulder. She is shown seated and in profile, but the uppermost part of her headdress is portrayed frontally so as to clearly display the two horns. Two long tresses of hair descend along either side of her left shoulder. The left hand extends outwards from underneath the cape, whereas the right hand is held upward and grasps a chalice. Behind the

goddess and facing towards the viewer's right stands a figure wearing a thin headband and possibly a false beard. He uses his right hand to pummel a captive across the back of the head with a mace. The clubbed figure faces away from him, making it unlikely that this is a combat scene. We can see not only a small portion of the victim's left arm, but the bound hand of a separate figure is also visible in the same area. As in the case of the *Figure aux plumes*, the mace is employed here as a symbol of rank, or authority. It is used here differently to represent not only status but physical force. Whereas in the case of the *Figure aux plumes*, the mace appears to represent an emblem of the divinity as well as a marker of human rank, on the fragment it is not clear whether there is divine aspect to the weapon. The mace on the fragment may be read dialogically, not only in conjunction with the *Figure aux plumes*. It is among the earliest examples in a tradition of similar portrayals that became semiotically codified and repeated on later victory monuments, such as the ED IIIB Stele of Eannatum.

7.2 The difficulty of conveying 'meaning': Encryption, transmission, reception and the effects of 'neural plasticity' upon decoding (re-encoding)

Problems reading objects like the *Figure aux plumes* originate from the fact that all forms of visual representations are, in fact, coded messages. Barthes noted that at least three distinct statements can be made about the structural properties of drawings, which are here expanded to include all of the categories of representations discussed in this study. The first is, that "to reproduce an object or a scene in a drawing requires a set of *rule-governed* transpositions... there is no essential nature of the pictorial copy and the codes of transposition are historical..." (Barthes 1977:43). This should be self-evident by this point: systems of "rule governed transpositions" (standardized semiotic structures, or conventions) determine how information is transmitted pictorially. "Codes of transposition are historical" since they require

the consensus of the specific communities that use them. Additionally in Sumer, stone, the primary artistic medium of pictorial display, was a scarce and valuable substance, its use reaffirming the fact that the “codes” governing Sumerian pictorial display were purposefully organized by affluent and elite groups.

The second observation is that the coding of the ‘artistic’ statement “immediately necessitates a certain division between the significant and the insignificant;” it “does not reproduce *everything*”, yet the result is still “a strong message” (Barthes 1977:43). Again, this conclusion is largely self-evident. In ‘art’ there can be no “accurate” representation of any given scene because the rules of transposition focus the message behind all forms of visual display. To give a simple example—discussed later in greater detail (see section 9.1.2)—in early Sumerian art, portraiture as we think of it today did not exist; this was not because of a lack of technical ability, or facility. It simply reflects the absence of our modern concept of portraiture. Humans were always depicted as idealized graphic forms. Thus, when it is was considered necessary to clarify the identity of a particular person, this was usually accomplished via anchorage, by means of placing linguistic signifiers next to the visual representation of the person to whom they referred. These visual statements did not, as Barthes put it, “reproduce everything.” Instead they relied upon encoding carefully and specifically selected information to elaborate and transmit a potent message.

Finally, Barthes asks whether there is a consequence from the actual coding of the message since the process of encoding visual forms of display requires schooling. Quite obviously all encoding must result in the modification of the original message:

It is certain that the coding of the literal prepares and facilitates connotation since it at once establishes a certain discontinuity in the image: the ‘execution’ of a drawing itself constitutes a connotation. But at the same time,

insofar as the drawing displays its coding, the relationship between the two messages [denoted and connoted] is profoundly modified...

(Barthes 1977:43)⁸⁷.

To this final observation, the following should be added: not only are all messages modified during the process of encoding, each and every decoding is, in point of fact, yet another encoding on the part of the message's recipient. There is at least one additional level of encoding that Barthes failed to fully account for. The question of 'connotation' really only addresses one segment of the issue that I described earlier as 'dialogism', namely that the relationship of both the author and the recipient to various personal and cultural biases are based upon experience.

Barthes deals primarily with the structural process of encoding a message and how that causes its mutation—"the 'execution' of a drawing itself constitutes a connotation." This process of mutation, or "connotation" does indeed occur and some information is excluded from the encoded transmission. As is evident in the case of the *Figure aux plumes*, where the representation of the figure is highly schematic, there has been a conscious decision to impart specific information about him by means of signifiers denoting status: the feathered headband, the net skirt, and the mace-like objects. Additional information about this person was excluded because it was deemed irrelevant to the transmission of the intended message. The composition of the text—despite our inability to read it—involved similar choices on the part of the scribe.

But what about that information that is simply lost because of its structural means of transmission? Clearly, the writing phase utilized on the *Figure aux plumes* is more sophisticated than that of the Uruk III period, but is not as developed as that of the ED III period. That modern Sumerologists cannot read the text implies that the rules governing

⁸⁷ Brackets are this author's.

textual encoding had yet to develop in ways familiar to us to interpret it without a pre-existing knowledge of its appropriate context. Though the audience it was created for could read it, the encoding/decoding system utilized does not contain sufficient structural mechanisms and definitions for modern linguists to be able to take the structure apart and reconstruct it by means of analyzing the operative mechanisms embedded within. If the message was intended for a specific audience that was unique in its ability to decode, or interpret the message, modern recipients of the message may simply lack the correct 'key(s)' necessary to unpack the message.

Barthes' argument that the structural process of encoding is responsible for changes in the value of the transmission does not fully account for such difficulties to the modern reader. Barthes' argument relies upon the assumption that both the encoder and the decoder of the message utilize the same 'key(s)' for both encoding and decoding, as though the processes are exact reversals of one another. For Barthes, if there were no structural change caused by the encoding process—no generation of "connotation"—the message's intended recipient would be able 'unlock' the code and reproduce the original un-encoded message because there would be no loss through transmission. This conclusion contains erroneous assumptions about the structural mechanics of decoding, principally that the message is only encoded once when, in fact, it is clear that all messages are encoded at least twice: prior to the message's transmission; and again after the signal/transmission has been received. What is commonly referred to as 'decoding' is really 're-encoding.' On a cognitive level the decipherment process involves:

- (1) The receipt of the visual information—i.e., the signal—as raw sensory input.

- (2) The categorization of individual units of information—a process which occurs on both microscopic and macroscopic levels.
- (3) The re-encoding of the received and subsequently categorized units or elements of the original signal into as coherent a structure as possible—a process that occurs to a great extent because of cross-domain mapping.

Two humans beings might be assumed to have similar, if not identical, biological faculties for receiving sensory information. They may in fact utilize highly similar cognitive faculties which are either/or both biologically and/or culturally determined in order to categorize information. It is impossible that any two people would share identically constructed and wired cognitive faculties, however, if for no other reason than ‘neural plasticity’ (discussed in section 2.4.1). “The neural basis of experience-dependant processes appears to involve active formation of new synaptic connections in response to the events providing the information to be stored” (Greenough, Black, and Wallace 1987:129). No two people can ever be exposed to identical types and levels of neural stimuli. Because each member of our species is exposed to entirely different patterns of ‘long-term potentiation’, each of us will have different neuronal cell assemblies and differing patterns of cortical organization. Although a coded visual message might be received by two people as an identical stream of information, it is unlikely ever to be re-encoded by any two recipients in exactly the same way. This is not the result of encryption, as Barthes has suggested in his observations regarding the coding of visual messages; this is the result of biology.

7.2.1 Signal noise and the transmission of visual information

Regardless of how a message is encoded, received, and subsequently re-encoded, or the receiver’s identity or membership within a particular cultural and historical group, a certain

amount of distortion must always be expected because of transmission. Hence, it seems useful to create distinction between ‘signal loss’, which describes the absence of information that was intended to be transmitted, and ‘signal noise’, which describes the process of message distortion during the transmission process.

In both ‘art’ and in writing, signal loss can occur for a variety of reasons. It can, for example, be the result of an insufficiently complex system of rule governed transposition. Such a system would result in a flawed, or otherwise imprecise encoding of the original message. ‘Loss’ occurs, despite the fact that the original signal has been transmitted and received without fragmentation with the communications breakdown occurring on the receiving end, where either a lack of similar cross-domain mappings, culturally agreed upon sign readings, or similar connections and/or knowledge is simply not present.

The second set of processes—referred to here as ‘signal noise’, or simply ‘noise’—creates a distortion in the message. This distortion occurs specifically during the period of message transmission as in the theory developed primarily by Shannon and Weaver (1949).⁸⁸ In a diagram (Fig. 115), taken from *The Mathematical Theory of Communication* (Shannon and Weaver 1949:34, Fig. 115), two operations occur prior to the transmission of the signal: first, “the *information source* selects a desired *message* out of a set of possible messages”; and second “the *transmitter* changes this message into the signal” (Shannon and Weaver 1949:7).⁸⁹ In other words, the message is first chosen, then it is encoded.

Following the encoding of the message, the “signal is sent over the *communication channel* from the transmitter to the *receiver*” (Shannon and Weaver 1949:7).⁹⁰ These discrete processes exist in all forms of communication. “In oral speech,” for example, “the

⁸⁸ In particular, the earlier portions of the book (Shannon and Weaver 1949:3-35)

⁸⁹ Italics are original—i.e. the quoted authors’.

⁹⁰ Italics are original—i.e. the quoted authors’.

information source is the brain, the transmitter is the voice mechanism producing the varying sound pressure (the signal) which is transmitted through the air (the channel)” (Shannon and Weaver 1949:7). In terms of visual media, such as ‘art’ or ‘writing’, the signal is the visual representation itself and the communication channel is the refracted light that triggers the various optical receptors belonging to the receiver. Hence, signal noise would seem like a limitedly useful concept for discussing visual representations. On the level of optical transmission, signal noise might be expected to occur only rarely because one would assume the primary agents effecting such distortion would be properties such as translucent, or opaque obstacles,—e.g., atmospheric haze, colored glass, boulders...etc.—or either extreme or unusual lighting conditions—e.g., bright sun, darkness...etc.—that either diminish or obscure the viewer’s vision.

Signal noise is an inherent property of all transmissions and can affect visual displays on a deeper, more systemic, level than optical occlusion described above. Signal noise can also result when the object has been damaged following its construction, because portions of the original message have either been destroyed or changed. On a more complex level signal noise is also generated when an object has been intentionally modified in order to construct a new meaning, as in the later inscription of the *Figure aux plumes*. Deliberate physical changes might introduce a new signal that either crosses, or otherwise conflicts with the prior transmission’s ability to transmit information. For example, the *Figure aux plumes* as it exists after the addition of the text now incorporates anchorage. The object has been modified and reused in order to bring the authority inherent in the object in its previous state to the message later inscribed on it. Its refashioning constitutes the modification/distortion of one signal by means of a newly introduced one. When only the originally transmitted signal existed—the

pictorial representation of the figure with the feather and his cultic accoutrements—the object transmitted an entirely different set of messages than it did following the subsequent addition of the inscription. The inscription of the object introduced a secondary signal represented by the linguistic component that modified and/or obscured the original message.

For the purposes of this discussion, I refer to the two signals as the ‘image signal’ and the ‘textual signal’. Crossing these two separately conceived transmissions on the *Figure aux plumes* resulted in signal noise that changed the value of the ‘image signal’ from what was originally intended—from a representation of a figure to the representation of a named figure. The ‘image signal’ from the object’s first iteration could not have anticipated the distortion that the ‘text signal’ would produce, but the reverse was not true; the modification to the ‘text signal’ made by the ‘image signal’ was planned to create more meaning that the text would have had alone. The encoder of the ‘textual signal’ would have taken the possibility of noise caused by the ‘image signal’ into account during the encoding of its own particular message.

Shannon and Weaver (1949) account for ‘noise’ that is produced during the transmission phase. Noise can also occur, however, either previous to the signal’s transmission, or following its receipt for the simple reason that the processes of encoding and decoding/re-encoding processes also involve signal processing. One example would be that of a radio transmitter and a receiver. Prior to the transmission, the transmitter must engage in a series of processes simply to encode the desired information into a signal. When the transmitted signal is finally received, the receiver must undergo a similar set of processes in order to decode/re-encode the information. By analogy this extends to the way in which all animals process and exchange information. On a cortical level, a plethora of electrical processes occur as any communication is conceived of, generated, and finally transmitted; the

same is true when the sensory stimuli are received (see, for example, the processes discussed in section 2.4.1).

Although noise is generally associated with the distortion of a signal, it can also be incorporated into—or accounted for—in the formulation of a subsequent signal by a new transmitter/encoder. In fact, the quantity of noise increases the amount of information possible in any given channel by increasing the number of possible messages that can be extracted and decoded from each particular transmission. Shannon and Weaver ask:

How does noise affect information? Information is, we must steadily remember, a measure of one's freedom of choice in selecting a message. The greater the freedom of choice, and hence the greater the information, the greater is the uncertainty that the message selected is some particular one. Thus greater freedom of choice, greater uncertainty, greater information, go hand in hand.
(Shannon and Weaver 1949:18-19)

Increased noise allows a greater amount of information to be fed through a particular transmission channel. In terms of visual messages, we might put this differently; we might say that the more ambiguous (the less rigidly, or complexly structured) the message being transmitted is, the more polyvalent it is. The problem with this manner of increasing information is that it decreases the specificity of the message and increases the uncertainty of its proper decoding/re-encoding.

It is generally true that when there is noise, the received signal exhibits greater information—or better, the received signal is selected out of a more varied set than is the transmitted signal. This is a situation which beautifully illustrates the semantic trap into which one can fall if he does not remember that 'information' is used here with a special meaning that measures freedom of choice and hence uncertainty as to what choice has been made.

(Shannon and Weaver 1949:18-19)

Message transmission involves what, on the surface, appears to be a paradox: precisely because noise functions as a distortion mechanism producing uncertainty, it also increases the total amount of information passing through any given communication channel. The problem

is that the information received and re-encoded may not constitute the “intended” message. Consequently, there is a dynamic tension involved in any and all forms of message production and transmission. This tension is the product of reconciling the problem of utilizing “desirable uncertainty” effectively, while eliminating forms of “undesirable uncertainty” which are caused by errors on the part of the sender, or by the influence of noise on the transmission.

With the *Figure aux plumes*, the person who intentionally modified this object was able to take advantage of two of the major properties of noise mentioned above, increased informational capacity and increased uncertainty. In doing so, he was able to and to encode a new signal. This person introduced unwanted noise with respect to the original message of the pictorial object, but desired uncertainty for the contemporaneous period. The effect of the noise upon the ‘image signal’ was to increase the amount of information sent by it through the channel by means of increasing the uncertainty of that information—de-contextualizing /re-contextualizing the original transmission. The ‘textual signal’ utilized this noise to its benefit; reconfiguring it to suit the needs of the new message. The *Figure aux plumes* displays the co-opting of an earlier signal—the original interpretation of which has become less certain with the introduction of noise, but endowed by that same process with a greater information capacity—by a later signal that is able to employ it for advantageous purposes in the formulation of a new message.

Beyond the differences between the original encoding and the decoding/re-encoding processes utilized by modern Sumerologists, differences in schemata that are the result of historical and temporal changes prevent us from interpreting various aspects of the plaque. Even if we could read the Sumerian text perfectly, it is unlikely that our frames and “default

slot values” which humans today utilize to construct mental models would resemble those of the Sumerians closely. The effects of incongruities between the schemata utilized by the encoder of an ancient message and the modern person receiving it increases according to distance in time between the message’s moment of origin and the time at which it is being received. When we look back at the only ED I elite visual representation that we have from Lagaš, the *Figure aux plumes*, we are subject to the effects of this distortion. The same is true we when we look at the earlier artifacts discussed in chapters two through five, or the ED IIIA and ED IIIB artifacts discussed in the following chapters.

Chapter 8

ED IIIA period at Lagaš: Performative Objects

The artifacts discussed throughout this work are confined to products made for elite members of the state and/or religious apparatus, each directed towards transmitting statements of authority by means of elaborate social, religious, and geographic metaphors to exclusive audiences. The messages encoded within these artifacts are based upon frames of mental representation that we can no longer fully comprehend because noise and distance in time limit our understanding, but we can attempt to reconstruct portions of their original messages by investigating the ways in which humans did and continue to structure meaning.

8.1 Categories of visual representations in ED IIIA and IIIB

The ED III artifacts from the Lagaš corpus I discuss can be broken into three general categories: performative objects, votive sculptural representations, and programmatic relief works. Just as the split between writing and ‘artistic’ representations represents an evolutionary pattern in which these two forms of communication are marked by divergence according to use, the categories of visual representations listed above are artificial divisions which, nonetheless, demonstrate the Early Dynastic codification and evolution of mixed messaging systems involving textual and ‘artistic’ displays of carefully designed messages to various specific audiences.

“Performative objects” were intended to be used for personal, public, or semi-public displays of power and authority. These objects utilized complex visual metaphors and other structural tropes to purposefully express specific messages about the social and metaphysical

status of their owners or users. At ED Lagaš, these objects include maceheads, daggers, lances, and vessels. Musical instruments should also be included since they were often elaborately decorated with representations of lions or of Ningirsu's lion-headed bird, the Imdugud, icons indicative of extraordinary power. Many were also inscribed with the owner's name and/or title or office. Each served as the embodiment of the raw forces symbolized by their iconographic programs. Only in rare cases did any of these performative objects represent actual acts or possess narrative sequences. Instead, the visual representations displayed on them are largely emblematic and static.

In the context of "votive sculptural representations" and "votive relief works," my present use of the word "votive" is intended to mean that the person, or figures, represented are engaged in devotional acts, rather than the object itself being the intended subject of veneration. Surprisingly, although we would reasonably expect to find a great many representations of deities among the remains of a profoundly polytheistic society such as Sumer, these are missing from the Early Dynastic Lagaš corpus and from the Sumerian archaeological record in general. What has survived instead are quasi-historical representations, sculptures and reliefs in which the icons and symbols of the gods are inevitably accompanied by historical inscriptions and/or physical representations of humans.

The ways in which the Sumerians worshipped their gods is unclear, though there are textual references to their images. Numerous Sumerian texts seem to describe the journeys of statues of various gods such as Enki (Fouadi 1969), or Nanna-Suen (Ferrara 1993), to the sacred city of Nippur (see also Sjöberg 1957-1971), although Selz cautions that these may alternatively have referred to "priests personalizing gods" (Selz, personal communication). These statues are now absent from the archaeological record of Lagaš, if not from Sumer in

general. Perhaps they were fashioned out of organic materials that simply disintegrated over the course of time, or out of metals and stones that had enough intrinsic value they were later reused for other purposes. The objects that survive deal primarily with humans' own sense of historicity—the first evidence seen of the emergence of this feature of human consciousness.

The first category of objects that deal with this newly emerging sense of historicity are the “votive sculptural representations.” These highly idealized depictions of elite members of society usually depicted their patrons in postures of piety or worship and were sometimes accompanied by a certain amount of textual information defining the owner/offerer's personal name, rank, and status. These often provided other information about his or her, relationship to the god or temple. These artifacts also served to define relationships between the donor and the metaphysical system that justified their temporal authority. For the most part statues are not treated in the present work, as they have already been so extensively studied (e.g., Spycket 1981, Garbini 1962, Braun-Holzinger 1977, Matsushima 1993). Where they are discussed, it is primarily to draw comparisons with the more complexly structured representations visible on the votive and the programmatic relief works.

Programmatic relief works can be divided into votive plaques and stelae which can be further subdivided into two general subcategories. The first of these focuses upon the use of icons, or symbols, that represent a particular deity but which do not depict it in anthropomorphic form, generally accompanied by dedicatory/historical inscriptions that describe the role of the ruler, or priest, in constructing, or rebuilding, the deity's temple/house. The second group contains semi-narrative representations of rulers or priests engaged in pious acts, which are also accompanied by dedicatory, historical inscriptions like the ones described above.

The most semiotically sophisticated of the programmatic relief works, meaning those with semi-narrative representations, focused upon the idealization of the state and social structures. They affirmed the status of the state elite by means of validation structured according to religious and genealogical guidelines. These objects were inscribed with a series of texts that acted structurally as anchors, but also performed newer and more complicated processes that relayed information between the linguistic and visual representations, which were more sophisticated forms of the relay mechanisms described in the previous chapter. During the ED III period the majority of these relief works do not appear to have been intended for general public display, but were instead set up within courtyards, or inside the temples themselves. Although the vast majority of known Early Dynastic relief works are votive plaques, Ur III texts describe the manner in which numerous stelae were set up in front of the temples/houses belonging to the various deities. Unfortunately, with the exception of the fragment of a stele base found within the earliest level of the Construction inférieure (i.e., Fig. 85), only one monumental Early Dynastic stele has ever been recovered, the “Stele of the Vultures”, which was set up by Eannatum to commemorate Lagaš’s victory over Umma (Figs. 103-110).

Votive plaques and the stele idealized state power by emphasizing the religious and social roles and acts of the elite. In programmatic ‘art’, one can see an ideological progression, which begins with an emphasis on religious building activities during the period of Urnanshe, and changes radically during the ED IIIB reign of Eannatum to statements of military power. There was also probably a shift in audience as well given that Eannatum’s great monument, the “Victory Stele, or “Stele of the Vultures” (Figs. 103-110), was probably set up where it could be viewed by a much larger segment of the general public.

The three basic categories of representational objects discussed above—performative objects, votive sculptural representations, and programmatic relief works—are not intended as absolute terms. Often, in fact, an object may share properties of more than one category. These categories indicated here are intended primarily as simple divisions to facilitate the discussion of each artifact’s structural properties.⁷⁶ Since the primary concern of this study is the evolution of rules that structured visual messages—rather than more traditional and ‘formal’ art historical concerns, such as style and iconographic interpretation—these categories seem preferable to the more commonly employed ones of sculpture, relief, and painting.

8.2 The ED IIIA Lagaš corpus: Performative objects

The contextual uses of performative objects is a subject for which we have little concrete information. The divine status of physical objects, such as Ningirsu’s maces *šár-ur* and *šár-gaz*, was pointed out early in the last century by Tharsicius Paffrath (1913:61-66) and discussed more recently by Selz (1997:174 and 177). Indeed, from Lagaš, these weapons constitute the largest existing category of ED performative objects. In addition to these “divine weapons,” however, there must also have been a great many performative objects, many of which would have been considered numinous, but about which we know even less because they are either not represented in the archaeological record, or could not be recovered by their excavators. Many of them were no doubt composed of organic materials that have long since decayed and disappeared.

⁷⁶ As mentioned in the preface, a major category of objects that has been excluded from the present study is foundation figurines. These should clearly be considered performative objects.

The existence of some of these “un-represented” objects is hinted at, however, by a variety of decorated ED shell inlays, primarily from Tell K at Girsu (Figs. 117-131). The majority of these depict mythological, or otherwise religious, scenes and must have originally adorned a variety of performative and non-performative objects similar to those known from at the Royal Cemetery of Ur. These would have included lyres or harps (*balaĝ*) and other instruments, as well as a variety of other objects such as: votive plaques, gaming boards, and chalices (see Woolley 1934:262-283 and *passim*; and Zettler [ed.] 1998, *passim*).

Also from Tello, is a small, ED IIIA copper model of a bull’s head (Fig. 102).⁷⁷ This object was found on the pavement outside the Construction d’ Urnanše, approximately 16 m from the SE corner of the building approximately and .25 meters below the foundation level. Measuring approximately 19 centimeters in height this object would have adorned the head of a lyre similar to those discovered at the Royal Cemetery of Ur (e.g. Figs. 132-133; cf. Woolley 1934:249-258, Pls. 107-112 and 114-120; also, *in passim*, Schauensee 2002). We know that at least during the subsequent Ur III period such instruments were viewed as deified entities. As Gebhard Selz put it, “The inscriptions of Gude’a call two of Nin-Ĝirsu’s harps (*balaĝ*) by their names: one was called Ušumgal-kalam-ma, meaning ‘dragon of the land (Sumer)’, the other lugal-igi-ĥuš ‘red-eyed lord’. Parallels to this can be found elsewhere during the Ur III period....” (Selz 1997:178).

I will argue that in the case of many of these performative objects, they not only embodied the power of numinous entities, they were probably viewed as hypostatic avatars of the actual gods to whom they “belonged”. In the specific case of musical instruments, Gebhard Selz has pointed out another reason for their deification; he writes that “music is not

⁷⁷ Apparently two identical bull’s heads were originally unearthed, but the location of the second one now appears to be unknown although perhaps it shares the same Louvre inventory number.

only for the pleasure of man and god, it also creates a means of communication between our world and the divine, it is evidently due to this that music and musical instruments feature regularly in the context of death and afterlife” (Selz 1997:174). Selz’s remark actually strikes at the heart of the greater matter; it is more than likely that not simply musical instruments, but almost all of the objects described in the following sections were viewed as living entities that facilitated communication between the world of humans and that of the divine. This will become increasingly clear in the following sections, which focus mainly upon the significance of divine weapons.

8.2.1 The Mesalim Macehead: General description, style, and chronological observations

Among the most historically important performative objects of the ED IIIA period is a large white stone macehead inscribed by King Mesalim of Kiš (Figs. 100-101) and discovered at Tell K in Girsu in a stratigraphic level antedating Urnanše’s reign (Sarzec 1884-1912:223-224).⁷⁸ The horizontal perimeter of the object is circumscribed by a frieze of lions whose bodies are turned left and whose faces are presented frontally. The frieze employs a tightly interlocked, visually compressed type of composition, which in glyptic art is known as the ‘Imdugud-Sukkur’⁷⁹ style. Although Mesalim’s mace appears to reflect a similar canon of proportions to this style, its composition also differs in some important respects. The first is that the Imdugud-Sukkur style seals tended to depict animal heads in profile, whereas the Mesalim mace does not. The second is that the frontally presented animal heads, the drilled

⁷⁸ For more on Mesalim, see Edzard (1993) and Karg (1993).

⁷⁹ Hansen writes, “the term ‘Imdugud Sukkur’ indicates a seal style contemporary with a group of texts from Fara datable to this phase. The term is usually read now as “Anzu Sud,” but the previous name ‘Imdugud Sukkur’ is so firmly associated with a particular style that the older usage is retained here” (Hansen 1987:56; see also Boehmer 1969:263).

eyes and mouths, and the subtly curved yet carefully spaced elements of the lion manes are more clearly identified with the ED IIIB seals belonging to the elite of the Lagaš state (Figs. 135-142) and to the so-called 'Royal Cemetery style' seals from Ur, which must date to a slightly later portion of the ED IIIA period than the macehead of Mesalim. We can reach this conclusion because of generally accepted synchronism between Urnanshe of Lagaš and Meskalamdug of Ur.

The lions on Mesalim's macehead should be considered to have been emblematic of his royal authority, just as lions represented the powers of the ruling EN priest of the Uruk period (see sections 3.1-3.4). I would suggest, however, that by the ED IIIA period, the lion had come to signify something else as well: it now no longer signified simply the king's power and authority, it symbolized the actual state with all of its awesome power. This important symbolic change does not, semiotically speaking, come as a complete surprise since signifiers tend have a propensity to drift in semantic value and to take on new meanings that are categorically, or otherwise, related.⁸⁰

That the lion symbolized not only the ruler, but the logical and very real extension of his power—i.e., the entire state apparatus—is expressed via the use of the animal on seals belonging to different officials and family members of the ruling elite. Seals, one must remember, had long since become an integral part of a complex and strictly codified system of administrative practices and were used to seal and authenticate objects as varied as: cuneiform documents, the contents of jars and other containers, and doors of storerooms and archives. They were therefore direct expressions of their owner's social standing and authority. From the ED IIIB Administrative Building of Eannatum in Area C at al-Hiba (for which see, *in*

⁸⁰ Proof of this statement requires little more than a quick perusal through any dictionary with etymological references.

passim, Hansen 1978), three surviving sealings each depict “heraldic” scenes involving lions combating other beasts (Figs. 135-138). One of these, which was the ruler Eannatum’s own seal, depicts a human-headed bull and a bull man⁸¹ with their arms intertwined (Figs. 135-136), to the left of which a lion attacks a bull. Two other sealings found at the same structure also depict lions (Figs. 137-138), but appear to have been uninscribed.

From Girsu, the impressions of three separate seals belonging to the ruler Lugalanda (ED IIIB), one of which was eventually re-inscribed by his successor Uru’inimgina (Figs. 139-142), also depict lions in conjunction with other complex icons and symbols. The evidence demonstrating semiotic drift—i.e., the change in the lion’s value as a signifier—however, occurs on the seals of family members and officials of Lugalanda’s reign. There, for one of the first times in Sumerian history, leonine iconography is used in a strictly official capacity by people other than the king, including, for perhaps the first time, a woman. These examples include the seals of: Lugalanda’s wife, Baranamtara, who supervised and administered the estates of the goddess B’au (Fig. 143); Eniggal, who was first the “scribe of the woman’s organization” and later the “scribe of the goddess B’au,” which was probably the same organization, but renamed (Fig. 144, see Sollberger 1971:78); and Uremush the “chief commercial agent,” who was probably the minister of commerce under Lugalanda (Fig. 145; see Lambert’s comments in Amiet 1980:214, No. 1096). Leonine imagery also occurs on a seal marked “GAL,” meaning “great,” found in the area of the Construction d’Umanše, and on four other seals that are presumed to have come from the clandestine excavations of the late nineteenth century at Girsu (Figs. 147-150).

⁸¹ The terms “human-headed bull” and “bull man” follow the terminology suggested by Edith Porada in her Columbia University seminars. The first term indicates a creature with the body of a bull and the face of a human, whereas the latter describes a creature with a human body but whose head has aspects of a bull’s such as horns, large ears, or similar hair.

What all of these seals suggest is a new conception of state power in which the authority represented by the lion was carried through by extension to those bureaucrats and officials closest in status to the king. Returning to Mesalim's macehead, it is interesting to note that he is the earliest ruler of the ED period who can be attested to have used the lion as an emblem of his authority. Urnanše, for example, appears never to have employed the lion as a symbol. Instead, his inscriptions and his pictorial representations portray him as a pious ruler concerned primarily with erecting temples. During his reign, the lion seems to have appeared only in conjunction with the Imdugud. This may also have something to do with the conception of rulership that is being expressed—specifically, one in which the salient categories and prototypes deal with the Urnanše as the head of his family, the shepherd of his people, and as a pious leader engaged in the sustenance of the gods and the maintenance of their temples.

By contrast, the iconography of the Mesalim macehead may have indicated a different variation in the concept of kingship, one in which the prototype of the lion signified concepts related to earthly rulership, while the divine authority bestowed upon the king was expressed iconically, symbolically, and indexically via the Imdugud, which was Ningirsu/Ninurta's primary emblem. Although such this idea is offered purely as speculation, perhaps this particular type of formulation and conception of rulership was, during the ED period, even specific to Mesalim's home state of Kish (see the opinion expressed in Steinkeller 1992 and Steinkeller 1993, both *in passim*). If so, then this might be viewed as contrasting with the southern Sumerian concept of the ruler as the head of a temple state (e.g. Falkenstein 1974).

Whereas a frieze of lions decorates the sides of Mesalim's mace, the top depicts the Imdugud, the lion-headed eagle that was the most direct personification of Ningirsu (studies of

which include: Hruska 1975 and Fuhr-Jappelt 1972). We know little about the specific origins of Ningirsu previous to the ED period. Since the graph NIN is usually read as “lady”, it is possible that prior to the ED III period the god may have been conceived of as a female deity—as the “Lady of Girsu.”⁸² During the ED period Ningirsu was venerated as the city/state god of Lagaš and was perceived as being male in physical aspect. Perhaps even prior to the ED period, Ningirsu must have personified the numinous and awesome powers of the storm cloud (the word “numinous” is used in the sense coined by Otto 1950 and extended to the study of the ancient Near East in by Oberhuber 1963 and Jacobsen 1976, both *passim*). This is in keeping with the generalized conception of gods in Sumer as personifications of natural forces. As characterized by W. G. Lambert, “Sumerian gods were supernatural beings, the personifications of some aspect of nature as then seen or understood, endowed with a human personality, but with superhuman power” (Lambert 1997:1). The meteorological aspects of the storm cloud are in fact conceptually blended into the complex metaphor that is the Imdugud. Its lion-head allows it to roar like the thunder-cloud, its enormous wings cause it to beat down the atmosphere from the heavens.

Ningirsu also occupied an important position in the Sumerian pantheon. By the Ur III period, the following is established about Ningirsu’s position in the divine order: first, that he was the son of Enlil, the supreme deity/wind god, and Ninmah/Nintu, the birthing goddess of the Sumerian pantheon—also called Ninhursag, the “lady of the foothills”; second, that he was the brother of Sin, the moon god; and, third, that he was the husband of Ba’u/Baba, the healing and mother goddess, which meant that he was also the son-in-law of the sky god An and the brother-in-law of the goddesses Inanna, Gatumdug, and possibly also Nisaba..

⁸² This and several other possibilities are discussed by Wolfgang Heimpel (2002:155-160).

The names Ningirsu and Ninurta are separately attested in the ED III god-lists from Tell Fara and from Tell Abū Šalābīkh (Streck 1998-2001:512; for an historical summary of the god lists see Lambert 1957-1971). The assertion of some scholars that Ninurta was, “a later form of Ningirsu” (Winter 1986a:14) is incorrect. By the Ur III period, Ningirsu had become syncretized with and was synonymous with Ninurta, the latter name being the preferred form in Nippur, but there is at the current moment no evidence to suggest that one name preceded the other. What can be said is that although both Ningirsu and Ninurta are present in the ED III lists, the exact significance of this separation is unclear. Jeremy Black (1988:19-20) has suggested that Ningirsu and Ninurta may have been separate regional deities whose identities eventually became fused. Alternatively, Ningirsu and Ninurta may simply be different names for the same god, or for different aspects of that god (see the opinions summarized in Streck 1998-2001:512).

The iconographic significance of Measlim’s macehead is premised upon the metaphoric connection of the Imdugud with Ningirsu/Ninurta. This relationship appears to have been one of such absolute equivalence. The Imdugud, as Steinkeller notes, was imagined to be identical with Ningirsu:

Not just a symbol of Ningirsu, but his alter ego. His hypostasis. We have to agree with Jacobsen that IM-dugud was the original form of Ningirsu. Several other Sumerian gods also had bird forms—Nanshe—u₅ bird; Ningal—u₅-bí bird; the bird of Lagash—buru_x, probably the bird of Gatumdug.

The Imdugud is not simply a symbol of Ningirsu; certainly not his trophy! In the same way that the lioness is Inanna, IM-dugud is Ningirsu. (Steinkeller, Unpublished ms. [1995])

This description does the concept of the Imdugud great justice. The Imdugud is not only the emblem/symbol of Ningirsu. More importantly it is his avatar; it is Ningirsu himself. This

concept of hypostatic avatars is essential to understanding not only the iconography of Ningirsu and other deities, but also to understanding how certain performative objects, in particular weapons, were schematized within the Sumerian metaphysical system. Like the Imdugud, objects such as weapons and emblems were also hypostatic embodiments of specific deities and other numinous powers, rather than simply symbols or emblems (see section 8.2.2).

8.2.1.1 The lion-headed bird: Imdugud or Anzu?

The centrality of the lion-headed bird to the iconography of Ningirsu/Ninurta and the Lagaš state merits a brief excursus into the larger realm of Sumerian literature and metaphysics. By examining a large variety of evidence and sources that may more clearly indicate this creature's identity, we should subsequently be able to discuss objects such as the Mesalim macehead with greater clarity.

The identity of Ningirsu's/Ninurta's avian avatar has long been the subject of great confusion. Many earlier scholars of Sumerian iconography used only the broadly descriptive term "lion-headed bird" to describe Ningirsu's avian hypostasis (e.g., Porada 1948:4, No. 4, Falkner 1957-1971:194; Frankfort 1969:31-32; Moortgat 1969:28).⁸³ Later authors, however, have been less cautious. Irene Winter (1986a:14) and Barthel Hrouda (1971:112; and 1991b:330) have identified the Ningirsu's/Ninurta's lion-headed bird as an *Anzu* (or *Zu*) bird while Eva Strommenger identifies the creature as an *Imdugud* (1964:392-393), as does Seton Lloyd in his description of an ED III the well known copper plaque from the Ninhursag

⁸³ The hesitancy of many twentieth century scholars to attempt to identify individual deities with ancient Near Eastern representations is perhaps due over-speculative nature of Anton Moortgat's book *Tammuz, der Unsterblichkeit in der alt orientalischen Bildkunst* (1949). More recently, debate over such attempts has been exemplified by Ellis' (1995) critique of Wiggerman's (1992) monograph, *Mesopotamian Protective Spirits: The ritual texts*.

Temple at al ‘Ubaid (1961:82, Fig. 45) . Jeremy Black and Anthony Green (1992:138), Jutta Börker-Klähn (1982 [Text Volume]:124), and Samuel Noah Kramer (1989:253), have each written that the *Imdugud* and the *Anzu* (or *Zu*) were one and the same creature.⁸⁴

So the question remains: is Ningirsu’s lion-headed bird the Imdugud, the Anzu (or Zu), none of the above, or both of the above? My own suggestion is that, at least during the ED period, two distinctly different mythological creatures existed which were eventually blended into a single being, either in Akkadian or later times. The present confusion exists, in part because of this historical blending of the two mythological creatures, and in part because of the complex variations, spellings, and uses of the terms Imdugud, Anzu, and Zu. In the many different Ningirsu/Ninurta related myths, dating to many different periods, the terms Imdugud and Anzu appear to have often been used interchangeably, but a careful reading of the texts as well as a reasoned inspection of the available iconographic evidence shows that there are at least two distinctly different avian creatures.⁸⁵

The philology of the terms involved is not entirely clear. Although portions of the following discussion would be better served by a Sumerologist than by the present author, the basic issues involved may be distilled as follows. In ED and Ur III texts the name of the Imdugud/Anzu creature(s) was written AN.MI^{MUSEN} or AN.IM.MI^{MUSEN} and in the OB period “the name was mostly written AN.IM.DUGUD^{MUSEN}, or sometimes AN.IM.MI^{MUSEN} (Alster 1991:2).

⁸⁴ Interestingly both the ancient and the modern treatments of the Anzu and the Imdugud seem to individually highlight the tendency of the humans to engage in what Fauconnier has termed “conceptual blending” (see my discussion in section 8.2.3). In both the original conception of this mythological creature and in the modern misconceptions of it Sumerians and modern scholars alike have succeeded in merging distinctly separate forms and concepts into newer ideas, or “mental spaces,” in order to create new meanings.

⁸⁵ I first became aware of the differences between the Imdugud and the Anzu in 1993 when I was assigned the topic for a seminar report in a class taught by Donald Hansen at the Institute of Fine Arts, New York University. In 1995, while at Harvard, I was fortunate enough to be able to discuss my lecture notes to Piotr Steinkeller. He was very generous in offering me a copy of his notes for a lecture on this same subject, titled *Anzu or IM-dugud?*, which he had delivered to a seminar in Los Angeles in 1991 (unpublished [1991] ms). Needless to say, although any errors appearing here are strictly my own, I am indebted to Prof. Steinkeller for sharing with me his views on this interesting subject.

The ED Abu Šālabīkh texts also record the form UD.MI^{MUSEN}, which replaces AN.MI^{MUSEN}.

Alster believes that this suggests that AN was used as a determinative “since in the UD-GAL-NUN-texts, UD often replaces AN as the divine determinative” (Alster 1991:2).

Benno Landsberger proposed that the name of the creature written as AN.IM.DUGUD^{MUSEN} should be read as *Anzu(-d)* in Sumerian and *Zû* in Akkadian (1961:1-21) and also observed that the name could be written either with or without the determinative^d (i.e., “dingir”, the determinative for divinities). Although Landsberger’s proposition was favored by Miguel Civil (1972b:271), it has been regarded with skepticism by other scholars such as W. G. Lambert (1980:81), who has argued that the reading AN.IM.DUGUD^{MUSEN} should be retained in the Sumerian, whereas *Anzu* correctly represented only the Akkadian form.

Lambert also pointed out that in the earliest attestation of the creature’s name, a Nippur Tablet (published in Buccellati and Biggs 1969:No. 1[6])—now dated by Steinkeller to ED I or ED II (Steinkeller unpublished [1991] ms.:2)—the graph DUGUD was used to write the name without the accompanying graph IM (1980:81, Footnote 3). The latter also makes some sense since, according to Alster, “IM is a kind of determinative, as yet unexplained” (1991:2).

Although Alster has concluded that “for the time being the only solution that can be suggested is that the bird had two readings /zu(-d)/ and /anzu(-d)/ in Sumerian and /anzû/ and /zû/ in Akkadian” (1991:1-5), Steinkeller has noted that the occurrence of the graph DUGUD in the ED I/II Nippur text cannot be discounted and writes, “In my opinion, paleographic evidence must be given priority. The conclusion: the writing with DUGUD is the original one. We have to assume that in the later 3rd millennium texts MI is a simplified DUGUD to be read dugud_x” (unpublished [1991] ms.:2). Given the early occurrence of the written form DUGUD and the fact that IM may have been a determinative, Steinkeller’s interpretation, for the time

being at least, appears to the present author to make the most sense. We should, therefore, provisionally accept his determination that the proper forms are “in Sumerian IM-dugud; in Akkadian Zu or Il-zu” (Steinkeller, unpublished ms. [1991]:2), although the final answer to this complex question may eventually turn out to be different than expected.

Regardless of the issues already present in reading the cuneiform writing of the Imdugud/Anzu’s name(s), philological discussions cannot fully account for the problems of identity that we are most concerned with here. The determination of the two creatures’ distinct identities must rest equally upon an analysis of existing textual descriptions and of the iconography of visual representations.

In order to clarify the distinction between the two mythological animals, the present discussion uses the term “Imdugud” to refer to the lion-headed eagle that represents Ningirsu/Ninurta and his avatar. The separate, large “mythological creature resembling an eagle” (*s.v.*, Gelb, *et. al.*:1956-present), is referred to here as the Anzu (or Zu). I would like to re-emphasize, however, what should already be clear from the discussion above, that although there are clearly two different mythological creatures involved here, these terms cannot be proven to be exclusively linked to either of them. Accepting these tenuous terms—for lack of a better naming solution—we can hypothesize that what I am calling the Imdugud was originally a Sumerian mythological innovation, intended as a representation/personification of the storm cloud and as an embodiment of Ningirsu/Ninurta in an avataristic form. The Anzu, by contrast, appears to have been a later Semitic conception involving a large, anatomically normal, bird of prey; this idea was imported into the region and integrated into the cultural currency of Sumerian mythology. At some point in time well after the ED period, the identities of the two creatures eventually fused completely, which may account at least in part

for the confusion suffered by modern scholars.

These two products of different traditions, however, Imdugud and Anzu, can be distinguished both in terms of their iconography and their known textual descriptions. The prototype, or forerunner, of Ningirsu/Ninurta's Imdugud was undoubtedly the lion-headed bird known from glyptic imagery dating to the Uruk IV/III periods (e.g., Delaporte 1923, No. A. 41; Porada 1948:Nos. 1 and 4a; Boehmer in Schmidt 1972:70-71, Pl. 42a). On the late Uruk seals and sealings, the lion-headed bird is always represented in profile and the idea of representing the Imdugud frontally appears to have been an innovation that probably occurred in Lagaš during the ED period (other ED representations are listed in Braun-Holzinger 1987; and Braun-Holzinger 1998-2001). What the significance of 'frontality' may have been in Sumerian representations would, no doubt, be an interesting subject for a separate discussion, given that the only such representations are those of the Imdugud, *Humbaba/Huwawa*, and a few goddesses (the latter are discussed in section 10.2.3.2). Since the creature that I am calling the Imdugud has already been dealt with extensively earlier (see section 8.2.1), it should suffice to restate the following: 1) that the main texts describing the Imdugud are the Ur III recensions of the *Lugal-e* and of *An-gim dim-ma*; and 2) that, by the ED IIIA period, the Imdugud was represented only frontally and was always with the head of a lion.

By contrast, the stories dealing with the Anzu appear in a variety of myths, known primarily from redactions and recensions dating to the Old Babylonian period or later. In the myth commonly known as *Gilgamesh and the Huluppu Tree*, for example, the divine Zu bird is described roosting with its young in the sacred tree's crown—a situation that persists only until Gilgamesh fells the plant in order to create furnishings for the goddess Inanna's abode (Kramer 1938). In the myth known as the *Lugalbanda Epic* (the definitive study of which

remains Wilcke 1969, although see also Civil 1972a, Falkowitz 1984, Hallo 1984; Moran 1990; Black 1998 *passim*), the Anzu bird is described as an awesome creature that builds its nest in the mountains and appears to have the power to reorganize time and space.

Perhaps most important, however, is that the Anzu is known from several Old Babylonian tablets that describe a myth, thought to date to the Akkadian period (Alster 1972:120). Usually referred to simply as the “Anzu Myth”, these describe the thefts of the sacred *me* from the god Enlil by a giant eagle-like bird (see Foster 1996:456-465). The *me*, also known as the “tablet of the destinies,” appears to represent either a series of prototypes—or perhaps a conceptual blend of metaphysical rules, or principles—that were necessary for the maintenance of the cosmic order and which were expressed as a physical object.⁸⁶ Following that theft of the *me*, Ninurta defeats the Anzu and returns them to Enlil. In a variation, known alternately as “Ninurta’s Pride and Punishment” or as “Ninurta and the Turtle” (Kramer 1984:231-237; Kramer 1989:84-86; Alster 1972:120-125)—which Civil (1966:92) has shown to be related to the Akkadian version of the same story—the *me* are stolen from Enki instead of Enlil, and Ninurta recovers them only to be trapped in a huge pit dug by a turtle.

As mentioned above, the origins of this Anzu myth must date to at least as early as the Akkad period. As E. Douglas van Buren originally observed (1933:28), the Anzu seems to have been depicted on sealings of that period both as a bird and as an anthropomorphic bird-man (see also Kramer 1989:120-121). In its form as a huge bird, the Anzu was usually shown grasping a plant in either its mouth or claws, which presumably referred to something now unknown, or signified a concept that is no longer recorded. In this form it was usually shown

⁸⁶ In a separate myth concerning the sacred *me*, the god Enki loses them to Inanna during a drinking contest (see, *passim*, Farber-Flügge 1972). The lists of the *me*, as they appear on a series of tablets from Nippur related to that myth, are discussed by Glassner (1992:55-86).

pursued by a god with a mace, presumably Ningirsu/Ninurta (e.g. Boehmer 1965:Pls. 27-29, Nos. 323, 325, 334-336, 354-355); less often, it was depicted pursued by a deity with a bow (e.g. Boehmer Pl. 27, No. 324). In its anthropomorphic form as a bird-man, the Anzu was displayed shackled in fetters and brought in front of a god, possibly Ea, to receive judgment (e.g. Boehmer 1965:Pl. 43-44, Nos. 502-503, 509-517, 519). The Anzu fortuitously presents one of the few clear matches between mythological texts and separately wrought images from such an early period (Postgate 1994:176-184). Unlike Ningirsu/Ninurta's avatar, the Imdugud, the Anzu was never textually described, nor visually depicted, as having leonine attributes nor was it ever depicted frontally in any known representations.

The Anzu appears to have originally been one of Ningirsu/Ninurta's trophies and not his avatar, or hypostasis—the latter role being that of the Imdugud. Many centuries after the ED period, the Imdugud and the Anzu must have merged creating a blend, or amalgam, that represented a newer concept. The later myths involving the “Tablet of Fate”—i.e. the “sacred *me*,” or “Tablet of Destiny”—may well have had nothing to do with the lion-headed avatar of ED Lagaš' state god, Ningirsu. The hypothesis presented here is that those myths represent part of a separate tradition and that during the ED period the Anzu and the Imdugud were most likely distinctly separate, mythological creatures.

8.2.1.2 Additional observations about the Mesalim macehead and similar objects

To understand how performative objects such as Mesalim's mace—many of them adorned with hypostatic emblems of the god, such as Ningirsu's avatar, the Imdugud—were employed and framed, or conceptualized, one can examine a variety of other examples from ED III Lagaš. Another macehead from Girsu (Fig. 134), for example, found in the area of the

Construction d' Urnanše and therefore presumably dating to ED IIIA, also depicts the Imdugud. On this example, however, there is no inscription, and here the Imdugud is represented along the mace's side, above a hatched baseline. The object is unusual in shape, being cylindrical rather than ovoid.

The places chosen for the depiction of the Imdugud on the two maces highlight their possible differences in use. Whereas on the uninscribed macehead the sole focal point of the display is the Imdugud, on the Mesalim Macehead there are several foci. When the Mesalim mace was held upright, the viewer's gaze remained focused upon the heraldic frieze of lions. When the mace was brought down, however, as it would be to smite a blow, emphasis would have changed. The Imdugud, which would not have been easily visible when the weapon was held upright, becomes the focus of attention for the person at whom the weapon is pointed. In this position the emphasis is on the divine force that validates the king's authority, namely Ningirsu via his hypostasis the Imdugud.

The uninscribed mace head (Fig. 134) expressed a more singular, less narrowly defined message, whose decoding/re-encoding was primarily the function of individual schemata and category definitions concerning Ningirsu's iconography. By contrast, the Mesalim Macehead was intended to distribute a more specific set of interwoven signals. The frames involved in prescribing meaning were not only more numerous but were also more specifically defined. On the Mesalim Macehead the interplay between text, royal imagery, and divine imagery was designed to purposefully transmit more clearly delimited signals or messages concerning the relationship between Ningirsu, the ruler of Kiš (Mesalim), the state of Lagaš, and cosmological order. Specific aspects of that message appear opaque to us. Nonetheless, we can still discern a series of values and structural relationships that describe

political and metaphysical order, which are expressed as a series of hierarchically ordered nested category values through which Mesalim derives his authority from Ningirsu. This is expressed visually through the display of his hypostasis, the Imdugud, and textually by his description as “temple builder for Ningirsu.” Lugalsha’engur, the ruler of Lagaš, in turn derives his authority from Mesalim’s act of setting up the mace on Ningirsu’s behalf. This hierarchical ordering is clear in the structure of the inscription: “Mesalim, king of Kish, temple builder for Ningirsu, set this up for Ningirsu. Lugalsha’engur is the ruler of Laga[sh]” (Cooper 1986:19, Ki 3.1). There is a chain of order and authority that is commuted downward from Ningirsu, to Mesalim, to Lugalsha’engur.

The inscription on the Mesalim Macehead is also important from a chronological perspective in that it documents the co-existence of Mesalim’s reign at Kiš with that of Lugalsha’engur, the second king of the ED IIIA period at Lagaš. This makes it not only the earliest datable ED IIIA artifact to have been discovered at Girsu, but raises a series of interesting questions. The first concerns the influence of northern Sumerian art upon its southern cousins: does his macehead reflect, or exhibit, the artistic influence of the northern Kiš state? If this is indeed the case, then the Mesalim Macehead may be the earliest example that we have of specific influences that become fully expressed and developed in the later Royal Cemetery Style. Although this is only offered here as speculation, such a merging of styles does not seem implausible, particularly given the fact that Meskalamdug, Mesanepada and Eannatum of Ur all also bore the title “King of Kiš.”⁸⁷

The second question concerns the chronology of the ED IIIA period itself. It is generally accepted that “Urnanshe and Akurgal [are] roughly contemporary with

⁸⁷ Note, however, that the designation “*Lugal* Kiš,” or “King of Kish” probably served more as an epithet than anything else, since it is unlikely that the majority of rulers who used the title ever physically reigned at that city.

Meskalamdug and Akalamdug who are known archaeologically to have preceded Mesanepada of Ur” (Hansen 1992:108).⁸⁸ This assumption, however, is based upon a later documented synchronism between Mesanepada of Ur and Eannatum of Lagaš —both of whom ruled during ED IIIB. The logic of most commonly accepted chronologies (e.g., Porada, Hansen, Dunham, and Babcock 1992a) simply extrapolates backwards in time and assumes similar combined life spans for Urnanshe/Akurgal at Lagaš and Meskalamdug/Akalamdug at Ur. We have no idea, however, whether such an assumption is correct.

Although one cannot reasonably reassign periods of specific Sumerian reigns on the basis of ‘artistic’ styles, it is nonetheless clear that the Mesalim Macehead displays important attributes of the *Royal Cemetery Style* at a period much earlier than one might reasonably expect given most current chronologies. This cannot be entirely ignored, since stylistic qualities such as the perspective and modeling of the lion’s heads and the style of their manes are not similarly expressed on any other datable objects from at Lagaš until a much later period. Unfortunately, the solution to either of the two questions just posed—that of northern versus southern ‘artistic’ styles and their influences or that of the correct synchronisms between the chronologies of certain rulers at Ur and Lagash—remains beyond the scope of the current study.

8.2.2 The performative context of divine weapons and the iconography of Ningirsu

The performative context of ED maces and other “divine weapons”, a subject for which we have little concrete information, was no doubt complex. One way in which to approach the uses of the performative artifacts is to question the types of schemata that Sumerians might

⁸⁸ Brackets are the present author’s.

have utilized to interpret them. For instance, what types of cognitive frames and default values must have existed in order for people to understand and to interact with objects such as the Mesalim Macehead which was adorned with the images of lions and of a divine lion-headed bird?

The first half of the Mesalim Macehead's inscription provides us with some information about its contextual use, "Mesalim, king of Kish, temple builder for Ningirsu, set this up for Ningirsu." (Cooper 1986:19, Ki 3.1). We know that the mace was "set up" for the state god of Lagaš, Ningirsu. We will recall that the representation on the *Figure aux plumes*, depicts a figure of authority standing in front of three maces mounted on long shafts that have been stuck into the ground. In that composition, the maces establish the primary figure's authority and are literally "set up" in front of him. It seems reasonable to expect, given its inscription, that the Mesalim Macehead was utilized in a similar manner.

The accompanying text on the *Figure aux plumes*—which I previously argued is later than the original image (see section 7.2.2)—is a legal document describing a land tenure transaction, suggesting that there was some connection between the actual written contract and both the elite person and the ritual maces that were portrayed visually. I have already argued that the visual representation was later co-opted by the legal text and its message. It seems reasonable given that pairing of text and image to interpret that by the ED I period, one of the primary uses of ceremonial maces was to sanctify land agreements and to settle disputes relating to them. This would not only describe and resolve any questions about the relationship of image to text in the *Figure aux plumes*, it would further explain the role of the Mesalim Macehead in particular and other ceremonial maces in general.

We can deduce from its inscription that the macehead was instrumental in settling one

phase of a long and well documented land dispute between Lagaš and Umma that lasted for several generations until the end of the ED IIIB period (see Cooper 1983). In that context, the Mesalim Macehead, and other “divine weapons” were not only emblems of office, they played active roles in situations requiring arbitration on the part of powers greater than humans—i.e., Ningirsu, or other gods and forces.⁸⁹ In addition to being emblems of the gods, they were also personifications of the deities themselves, replete with their numinous faculties. This is difficult for us to understand because most of us no longer utilize or possess similar schemata in which inanimate objects are equated with cosmic forces and are used to construct mental models. Today, human produced visual representations are part of the common currency all humans use to interact with each other and to envision, interact with, and reshape the physical world. The frames that we use to construct meaning from such representations are completely different than those of ancient societies such as Sumer, in which image production was far less widespread and stone was a rare and unusual material.

The Sumerian attitude towards cultic, performative objects is revealed in part through texts. In the case of Ningirsu’s weapons, these include the *Cylinders* of Gudea and two Old Babylonian texts that are thought to have also been first written down during the Ur III period: the *Lugal-e* (Radau 1910; van Dijk 1983; Jacobsen 1987a:233-272) and the *An-gim dim-ma* (Cooper 1978). The *Cylinders of Gudea*,⁹⁰ which were written to commemorate the construction of Ningirsu’s temple, the *Eninnu* at Girsu, around 2125 BCE are thought to have originally consisted of three parts (Jacobsen 1987a:386). Two of these were discovered at

⁸⁹ The participation of Ningirsu in administering to land claims is also evidenced by a land tenure document shaped like Ningirsu’s lion-headed eagle. Although this unusual document was discovered in an ED II level of the Sin Temple at Khafajah, Gelb, Steinkeller, and Whiting (1991:38-39, No. 9) believed it to date to the Uruk III period.

⁹⁰ Major translations of *Cylinder A* and *Cylinder B* include: Thureau-Dangin 1907:89-141; Averbek 1987; Jacobsen 1987a:386-444; and Edzard 1997:68-101. See also the extraordinary explication of Gudea’s inscriptions by Falkenstein (1966).

Girsu, *Cylinder A* and *Cylinder B*, and are believed to have constituted the middle and final episodes of the text. A presumed third cylinder, thought to have comprised the story's initial portion, has never been discovered. The *Lugal-e* and the *An-gim dím-ma* appear to deal with older myths concerning the city gods. *Lugal-e* describes the battle between Ningirsu—who is referred to in the text as Ninurta, his Nippur name⁹¹—and a coalition of foreign enemies including tribes from the Zagros mountains. *An-gim dím-ma* describes Ninurta's victorious return to Nippur. Each of these texts provides some insight into the conception of Lagaš's primary deity.

The *Lugal-e* myth is divided into roughly four parts: 1) Ninurta's battle against Azag and his followers symbolized by a vast variety of stones and plants, which may have been intended to indicate specific geographical areas and social groups; 2) his construction of the foothills as a way of controlling irrigation; 3) his meeting with his mother Ninlil; and 4) his judgment of Azag and his followers. The first existing section begins with Ninurta, the young warrior god and personification of the storm cloud, feasting.⁹² Imdugud, arrives and interrupts him with the disturbing news that an enemy from the mountains to the east, Azag, has risen against Ninurta and his people. Ninurta immediately sets off to battle Azag, while Imdugud reconnoiters further, returning with the news that Azag's troop strength is high and cautioning retreat. Imdugud's advice is ignored by Ninurta and Azag raises a dust storm that chokes Ninurta and his troops. They remain on the brink of defeat until Imdugud is sent to Nippur to plead with Enlil, Ninurta's father, who sends a rainstorm which settles the dust and allows

⁹¹ In several of the texts described here, Ningirsu is actually referred to as Ninurta. I have decided to substitute the name Ningirsu for Ninurta here, in order to maintain consistency and in hope of avoiding confusion by the lay reader.

⁹² Note, however, that whatever forces Ningirsu may have originally personified have been perceived of, at an earlier point in time, as female. This is indicated by the feminine prefix NIN, which is usually translated as "lady." The same may be said of at least two other male gods that appear in Ur III texts, Ninazu and Ningišziggā, both of whom are related to Ningirsu and represented in texts describing Gudea's construction of the *Eninnu*.

Ninurta to rout Azag and his forces.

Most relevant to our reconstruction and investigation of Sumerian schemata are the weapons employed by Ninurta. All of these appear to not only personify aspects of the god but to stand in for Ningirsu/Ninurta himself: Imdugud, the Mittu-mace, the Shita-weapon, and the “long spear.” In Jacobsen’s translation, one portion of the myth reads as follows:

Imdugud [sent] a storm up on heaven,
 it scattered its people,
 like a chastiser
 it swept along,
 its venom (all) by itself
 destroyed cities.
 The weapon, going to reconnoiter
 the border areas, cast fire upon the highland.
 The Mittu-mace smote heads
 with (its) bitter teeth,
 the Shita-weapon, which plucks out hearts,
 gnashed (its) teeth,
 the long spear was stuck into the ground,
 and the blood (from it) fitted
 the hole (it made),
 the rebel country was poured out
 like milk for dogs,
 the foes got up (to leave), called their
 wives and children,
 lifted not the arm against lord Ninurta [Ningirsu]⁹³.
 The weapon tumbled the highland
 in the dust, (and) the Azag had no smiles.
 (Jacobsen 1987a:248)

In this passage, the “divine weapons” wielded by Ningirsu against the forces of Azag—the Imdugud, the Mittu-mace, the Shita weapon and the “long spear”—all appear to be aspects of the same set of forces embodied by Ningirsu. Interestingly, the finds at Girsu included not only maces, but several other forms of weapons as well, including a colossal spear tip measuring a full 80 cm in length (Figs. 98-99). This particular object is engraved along one side of the blade with a depiction of a lion, rearing in profile and an inscription, located

⁹³ Brackets are the present author’s.

directly between the socketed section and the blade. The object unfortunately can not be dated to a specific period within the ED III horizon, but its fragmentary inscription, “*Lugal...*, king of Kish” (Cooper 1986:20, Ki 4.1),⁹⁴ is notable insofar as it draws its authority from the same titular source as the Mesalim Macehead—i.e., the title “king of Kish.”

The most interesting aspect of this performative cultic weapon, however, is the orientation of the lion. If the spear were set upright, with its shaft dug into the ground, the lion would have appeared to be upside down. This suggests that in its performative context it was stuck into the ground head first, so as to orient the lion right side up. This appears to be confirmed by the fact that the image of the lion is not centered on the spearhead; instead it is placed far enough down on it so that it would appear centered were the tip of the spear dug into the ground. The ceremonial use of the object thus bears a close correspondence to the metaphorical use of the lance in the text quoted above: Ninurta’s “long spear was stuck into the ground, and the blood (from it) filled the hole (it made), the rebel country was poured out, like milk for dogs....” It seems likely that what we have here is the “lance of Ningirsu”, an object used in a performative context that was unfortunately never recorded. If this is indeed the case, it explains not only the colossal size of the object and the unusual, upside-down orientation of the engraved lion, but also why such an object should have been an important emblem of kingship. It embodied the power of the primary god in the Lagas pantheon.

Throughout the *Lugal-e*, the poetic descriptions of weapons is generally consistent with that of Ningirsu’s hypostatic avatar, the Imdugud, which seems also to be equated with a weapon known as Sharur (see below). We are told at one stage, for example that Ningirsu’s “heart was brightening for him from (pleasure in) his lion-headed mace, birdlike it was flying off, was trampling the highland for him, to bring a dissident one (back captive)...” (Jacobsen

⁹⁴ The ellipse here is Cooper’s and represents a portion of the text that cannot be read.

1987a:242). Jacobsen explains this phenomena as follows:

Sharur is Ninurta's weapon. Its name means 'the one who lays low multitudes,' and it is termed 'flood storm of battle.' Consonant with its storm character it was envisioned as a bird, in this tale even as a bird with a lion's head, which makes it indistinguishable from the thunderbird, Imdugud... Ningirsu/Ninurta's old form as personification of the thunder cloud. In this tale Imdugud is personified, moves about freely on its own initiative, and acts as a devoted servant and friend rather than as a mere weapon.

(Jacobsen 1987a:237, fn. 7)

What the myth indicates about Sumerian frames of representation is that their schemata allow divine forces to be directly expressed in a multitude of ways including the direct expression by means of a weapon. That the Imdugud was also conceptualized as a mace is clear from the description in Gudea's *Cylinder A* of wooden shafts being fitted to the images of the weapon built for the Eninnu temple:

To the mountain of cedars,
not for man to enter,
did for lord Ningirsu
Gudea bend his steps:
its cedars with great axes he cut down,
and into Sharur.
the right arm of Lagash,
his master's flood-storm weapon,
he dressed them

(Jacobsen 1987a:407)

Within the Sumerian mental representation of the cosmos, performative objects such as the Mesalim Macehead and the colossal spearhead mentioned above were no doubt governed by different schemata than we use to understand them today. Most likely the Imdugud was defined both physically and metaphorically in a broad variety of ways: as a mace, as an architectural standard, as a composite bird, as a temple (see below)...etc. Similarly, all of these above were also actual embodiments of the god—the Imdugud, the Mittu weapon, the long spear—and the majority of the physical, poetic, and iconographic representations that are

commonly viewed as Ningirsu's emblems, were probably more than simply emblems, they were his actual embodiment. This perceptual difference between our own interpretive schemata and that of the Sumerians forms a fundamental gap in our understanding of the ways in which they thought. What I have offered here are only speculations concerning Sumerian philosophy of mind, but it is important to identify that these gaps exist in our understanding.

Given the temporal distance and the difference in frames of representation standing between the original messages on Sumerians artifacts and the modern viewer's ability to understand them, how can we comprehend the meaning of symbols such as the enormous copper standard (Fig. 92) discovered at Girsu? This object is singularly unique, as no other Sumerian temple standards have ever been discovered. Its general appearance is that of a tapering shaft measuring 3.27 meters in height, with a "D-shaped" loop attached to its uppermost portion, surmounted by a ball-like finial.⁹⁵ Parrot proposed this artifact would have been set up near the doorway of Ningirsu's temple (Parrot 1948:106). This seems likely, since this object must have occupied an architectural and performative setting similar to the standards shown on Uruk seals. One inlay fragment also found by de Sarzec (Fig 128)—perhaps originally used to adorn a harp—represents a long-haired, bearded man holding two such standards. Similar standards with D-shaped loops are also well represented on Early Akkadian seals, where they are frequently held by "bull-men" (e.g. Boehmer 1965:Pls. 6, 10, and 11 Nos. 58, 110, 113, and 124).⁹⁶ This was long thought to be a symbolic aspect of glyptic composition until a bulldozer, engaged in the construction of a road during the 1970's near Bassetki, Iran, unearthed the bottom of a massive copper statue of

⁹⁵ This object was unfortunately "lost during transportation" from Girsu (Parrot 1948:106), so we no longer have the opportunity to study exactly how it was constructed.

⁹⁶ The term "bull men" is used here as being less controversial than identifications such as the Akkadian *lahmu*, which still remains a subject of disagreement and debate (e.g., Wiggerman 1981-1982; Ellis 1995).

a bull-man holding a standard and inscribed with an Old Akkadian Inscription of Naram-Sin of Agade (c. 2291-2255 BCE, see al-Fouadi 1976). The discovery of the Bassetki statue convincingly demonstrates that this particular type of scene, as it was represented on Akkadian seals, was probably an accurate representation of temple statuary. It is likely that these statues, as suggested by Ebeling many years ago, were made and utilized in pairs (1928-1929:219). The standard discovered outside the Construction inférieure may also have been supported by a similar statue, rather than driven directly into the ground. If so, it is likely to have been one of a pair that would have been situated to either side of the temple doorway—a possibility which is suggested by the iconography of the contemporary inlay from Tello discussed above (Fig. 128).

It is well known that the physical standards set up in front of Sumerian temples in certain instances also resembled the written graphs corresponding to the name of a god or (see, *passim*, Szarzyńska 1996; and Szarzyńska 1987-1988). As mentioned earlier, for example, the graph used to write the name of the goddess Inanna (MUŠ₃) appears to have been derived from the actual standard placed in front of her temple (see section 3.5). Another example is the Sumerian graph NUN, which corresponded with the six-ringed pole believed to have been placed in front of the temple of the god Enki. In contrast to these very clearly understood graphs, the standard discovered at Tello appears to resemble the graph URI₃, which is generally read simply as “emblem.” Unfortunately, URI₃ “is not with any certainty attributed to any specific deity in ED times,” although it may have represented Ningirsu “in certain circumstances” (Selz, Personal communication). That it may have represented a number of different deities is suggested by not only by texts, but by the iconography of a number of ‘artistic’ representations. For example, the same standard appears on the (Ur III

period) libation vessel inscribed by Gudea to his personal god, Ningišzida (Fig. 202). Clearly there is a complex set of semiotic relationships relating to the signifier URI₃ that are not yet fully understood and cannot be clarified at this time.

The standard is only a minor example of the difficulties the modern viewer/reader faces in understanding any Sumerian composition. To the Sumerians, for example, the *Eninnu* itself was also perceived as the Imdugud, or “thunderbird”, and is referred to as such repeatedly in the Gudea texts:

When to my house,
 the house honored in all lands,
 the right arm of Lagash,
 the thunderbird roaring on the horizon—
 Eninnu my kingly house...
 (Jacobsen 1987a:401)

The temple was not a static architectural form but a living, performative entity, a physical manifestation of one of Ningirsu’s avatars. Structurally speaking, the temple is the avatar of an avatar. Here we reach levels of metaphorical complexity that define the completeness of the frames representing them. Ningirsu, the Imdugud, and the Mittu-mace are all aspects or transformations of one and the same set of forces, the frames and boundaries of which are even more unclearly delineated now than they were at the time of their conception.

The ways in which these forces are perceived relates directly to categorization and to cross-domain mapping via metaphorical and analogical structures. Clearly, Ningirsu is thought of in terms that blend natural categories conceptually. He is, for example, clearly equated with lion-like forces; his lion-headed mace “snarls” and “roars” repeatedly throughout the text. This leonine aspect appears as a constant in his divine weaponry. Examples include not only the various maces and the spear described in this section, but the monumental dagger discovered in the Construction inférieure and described in the previous chapter (Fig. 86). The

importance of the lion as a metaphor for Ningirsu should appear implicit by now. It is further highlighted by a series of small sculptures of lions discovered at Tell K, mostly within the area of the Construction d'Umanše: the first of these fragments is uninscribed (Fig. 93); the second fragment (Fig. 96) is a small, exquisitely carved onyx lion, measuring only 8 cm in height, inscribed "For Ningirsu, Umanše, king of Lagash, son of Gunidu..." (Cooper 1986:30, La 1.24); the third fragment, a calcite lion's head, bears an inscription almost identical to that of the second (Fig. 94)⁹⁷; and a fourth fragment, also of onyx (Fig. 97), is inscribed, "[...He had] ships of Dilmun trans[port] timber from foreign lands (to Lagash)" (Cooper 1986:30, La 1.25). Given the context of the latter inscription, it seems reasonable to assume that the timber was transported for the purpose of erecting Ningirsu's temple at Tello—i.e., the Construction d'Umanše.

Three similar fragments of lion figurines, inscribed by Umanše's son Akurgal, were also discovered: one in the area of the Tell des tablettes (Tell V) and the other two in unspecified locations (Figs 151-152).⁹⁸ The inscriptions on the latter two are largely unreadable but are assumed to have been similar to that of the first, "For Ningirsu, Akurgal, ruler of Lagash, son of Umanše king of Lagash, built the Antasura" (Cooper 1986:33, La 2.). The evidence suggests that, at least during the ED IIIA period at Lagaš, the lion was viewed not only as the metaphor of rulership, but more specifically as the incarnation of the numinous force from which the kings derived their sovereignty—i.e., the gods and more specifically Ningirsu.

⁹⁷ On this example, however, the attribution to Ningirsu is missing.

⁹⁸ There is no published illustration for the third lion mentioned above.

8.2.3 Conceptual blending and schematic conceptions of metaphysical forces

The idea of equating natural forces, such as the storm cloud with its attendant thunder, with the members of other natural and artificial categories, such as animals, or weapons, allowed the Sumerians through cross-domain mapping to explain otherwise incomprehensible cosmological phenomena. This is hardly surprising since the primary way in which we try to understand the unknown is reasoning via analogy, metaphor, and other such structured tropes. More specifically, the structures used to create lion-headed eagles, animate/living architecture—the *Eninnu* as thunderbird, weapons that personified cosmological/natural forces, and so forth—result from a process that Fauconnier has referred to as “conceptual blending” (Fauconnier and Turner 1998; Fauconnier 2001). This type of *schema* specific projection is similar to the analogical and metaphorical mappings between categories discussed throughout this analysis; it differs, however in that conceptual blending results in the creation of another newer *frame* of mental representation:

Like standard analogical mapping, blending aligns two partial structures (the inputs). But in addition, blending projects selectively to form a third structure, the blend. The blend is not a simple composition of the inputs. Through pattern completion and dynamic elaboration, it develops an emergent organization of its own. The blend can be used to provide inferences, emotional content, rhetorical force, and novel conceptualization.
(Fauconnier 2001:256)

Although Fauconnier’s analysis was originally based upon linguistic models, it applies to other forms of mental representation as well (see, *passim*, Fauconnier and Turner 2002). To the people who participated in the use of the performative objects described here, those artifacts were more than just symbols of authority and rank. They were direct manifestations of Ningirsu or of other gods, divine forces presented in physical, tangible, and therefore mentally accessible, forms. They were endowed with meaning not only via metaphorical and analogical

mappings between basic categories, but by means of blending category values such as lions/birds, weapons/animals, temples/mythological beasts into newer frames and more fluid, hybrid representations.

Conceptual blending is epitomized as an important aspect of Sumerian metaphysics in the *Lugal-e* where, after Ningirsu's defeat of Azag, he discovers that the waters are flowing up into the mountains where they freeze. Ningirsu is able to solve this problem by means of constructing the foothills, or *Hursag*, which he later presents to his mother Ninlil. Ninlil thus becomes Ninhursag, or the "lady of the foothills;" this is clearly a 'blended' concept in which human and topographical categories are linguistically and ontologically merged in order to create a new schema or frame which explains a natural phenomena.

Next, Ningirsu must determine the fate of the so-called "stones." These 36 different stones each represent a group that was either allied with Ningirsu or opposed him in the fight against Azag. As a result of their roles in the battle each stone is sentenced to be used, from that day onward, for a very specific set of purposes. Here conceptual integration, or blending, creates a series of schemata that are puzzling to understand on a formal level. It is difficult for us to imagine mental frames in which stones are viewed as having distinct human properties; to the modern reader, this appears to exemplify cross-domain mapping at its most peculiar. The point of conceptual blending, however, is that the blended space is endowed with its own meaning. Reading the *Lugal-e*, the modern reader is trapped by the limitations of approaches that only consider formal aspects. We can determine, for example, that the associations between rocks and social (or ethnic) groups appear in some of the instances to have been geographical and, at other times, were based upon metaphors or analogies related to the minerals' physical properties. This appears to have been true of materials other than stones as

well (e.g., petroleum products—for which see, *passim*, Postgate 1997) Such approaches clearly take us only so far because they are dependent upon similarities in form and structure that may not be present or visible in the newly blended conceptual space.

One example of the ways in which concepts and categories were blended survives in the text's description of the ELALU, or “waterbearer” stone. Jacobsen believes the ELALU to have been “a kind of hard brownish limestone,” a description similar to the material of Mesalim's macehead (Jacobsen 1987a:260, footnote 48). The sentence that Ningirsu passes upon the ELALU stone describes a performative context for it in keeping with what we might expect for the Mesalim and the other performative maceheads:

May your haleness suffer no attrition,
 may your bulk be hard to diminish,
 and may my sacred office (of warrior)
 find correction in your body
 for you;
 going into battle, may you be grandly perfect
 for my killing warriors!
 In my main courtyard
 may a pedestal be set up for you
 and may the nation admire you
 and all the lands praise you
 (Jacobsen 1987a:260)

This passage both establishes that performative, divine weapons were actually displayed within the sanctum of the god—in this case the Eninnu of Ningirsu—and highlights some of the major differences between modern and Sumerian frames of mental representation. Not only were the schemata used by Sumerians employed to conceptualize cosmological forces radically different from our own, so too were their metaphysical conceptions of mineralogical properties. It seems that stones—a rare material in Sumer—were perceived not as inert materials used simply for the fashioning of objects. Rather, they were perceived as having distinct personalities based upon schemata of knowledge and representation that were

conceptually blended from a variety of human, geographical, physical, and other conceptual categories, and were hierarchically situated within larger cosmological, mythological, metaphorical, and poetic frameworks.

The quandary of the modern reader, or viewer, is that approaches based on formal aspects are limited in their ability to recreate schemata. This is precisely because integrated, or conceptually blended spaces are not simply composite structures which we can reduce to a set of original elements. Structural approaches are powerful analytical tools until they run up against the complex binding properties of blended spaces, which tend to be effective and survive precisely because they are commonly apprehended as being seamless. Although Ningirsu's judgment of the 36 different stones might seem conceptually inaccessible to the modern reader, the difficulty we experience interpreting this text is due to the radical differences between the schemata that most of us employ to understand natural materials and those utilized by the Sumerians to interpret the same elements.

8.2.4 The architectural settings of divine weapons

Gudea's Cylinder (col. XXV, line 24) describes a specific area of Ningirsu's temple known as the *A-ga tukul lá*, which Wolfgang Heimpel has translated as a "weapons porch." According to his interpretation, "The word *tukul* 'weapon' indicates that this might be the place where the weapons of Ningirsu of Eninnu were displayed, The second designation [*ká mè*], 'battle gate' indicates that Ningirsu picked up his weapon when he departed for war" (1996:18-19).⁹⁹ Jacobsen and more recently Edzard (1997:85) have translated this as a "weapons room," rather than a "porch":

The able shepherd Gudea

⁹⁹ Bracketed text is the present author's.

was greatly knowing,
 and great too at the carrying out.
 In the “back room of the weapons,” its battle gate,
 He was making the warriors “six-headed buck”
 And “radiant head” take their stand.
 (Jacobsen 1987a:420)

Whichever way the phrase *A-ga tukul lá*, should be translated, the general understanding of the phrase—which more or less follows the earlier interpretation of Adam Falkenstein (1966:123)—as some sort of area used for the storage of Ningirsu’s divine weapons, must be correct. This interpretation is also supported by a series of stele fragments from Gudea’s reign, that depict not only maces and scepter-like objects arranged to either side of a stele, but which also show other the defeated enemies of Ningirsu arranged on a ceremonial chariot (Fig. 153).¹⁰⁰

Archaeological evidence from the ED IIIA period also suggests that divine maceheads were either set up or stored within temples, presumably for use in performative contexts. At the Temple Oval I, at Khafajah, a special “macehead room” (N 44:1) was discovered containing approximately 50 maces (Frankfort, Jacobsen, and Preusser 1932:66-70; Delougaz. 1940:7, 27). Although they have never been published, the Temple Oval maces must have been similarly as varied in both form and material as those discovered at the nearby site of Tell Agrab, which have been illustrated in a general survey written by Seton Lloyd (Fig. 154)¹⁰¹.

The most complete description of the “macehead room” (N 44:1) occurs in a preliminary

¹⁰⁰ The defeated enemies, or “trophy,” of Ningirsu/Ninurta are listed in Gudea’s *Cylinder A*, the *Lugal-e*, the *An-gim dim-ma* and a number of Emesal texts that date to the second millennium; these have been listed and extensively analyzed by Cooper (1978:141-162). According to Selz, however, by the ED period, however, there were already references to these trophies—e.g. *gišimmar urudu*, “the bronze date palm” (Selz, personal communication). There also exists a separate series of later texts belonging to Susin of Ur and Bursin of Larsa that describe Ningirsu/Ninurta’s trophies (Sjöberg 1976). One must assume, particularly given the descriptions of their uses in *Cylinder A*, that representations of these various enemies were also utilized during performative cultic activities

¹⁰¹ The maces from Tell Agrab were never published in scholarly form either. The only published illustration referred to here is a watercolor rendering from the introductory survey text, *The Art of the Ancient Near East* (Lloyd 1961)

report of the expedition, rather than in the final publication:

Four successive floor levels, all with remains of lime pavement, show that this room was used for a considerable length of time. In the deepest floor three large pottery storage jars were embedded to their shoulders. Two were empty, but the third was filled to the brim with burned lime, certainly a very valuable material at that time. Over the mouth of the middle jar stood a rather small pot containing four maceheads; two more maceheads lay on the floor beside it; and many others came out of the overlying rubbish....

In the refuse, chiefly in the layer .45 thick between the fourth floor level and the sand on which the hooked wall was built, were found altogether some forty maceheads, besides statuettes, heads, and a few other objects, which seemed to have been thrown in on purpose. Since underneath the fourth floor level two separate maceheads and a group of six were found, four at least obviously in situ, carefully stored in a pot, we must assume that this room served from the beginning as a magazine of valuable products of the stonecutter. (Frankfort, Jacobsen, and Preusser 1932:66-68)

Since the room in which these maceheads were stored was provided with direct access to the courtyard immediately in front of the temple platform, it seems reasonable to assume that these were among the divine weapons employed by the temple authorities. The evidence from Khafajah shows usage similar to that represented on the later texts and stelae of Gudea's reign, thus establishing that those literary and artistic representations must have shown actual practices.

At Khafajah Temple Oval I, the entrance to the "macehead room" (N 44:1) was almost directly perpendicular to the front of the temple platform and thus advantageously located for the acts of cultic display in which the weapons would have been used. Not far from room N 44:1, near the platform's main stairway, there was also a specially constructed circular basin, complete with a bitumen lined drainage system that led the used water directly from the inner set of enclosure walls. This basin may have been associated with the performative use of these maces, though the excavators noted:

The walls of the basin had been exposed long before our expedition started work and had invited plunderers. As a result of their activities it has not

been possible to establish a connection between this basin and the macehead room.
(Frankfort, Jacobsen, and Preusser 1932:70)

It is unfortunate that more could not be learned about this basin but it does not seem unreasonable to theorize that it was associated with the washing of the divine weapons following their performative/ritual use. This would be in keeping with practices suggested by later texts. We are told in the *Lugal-e*, for example, that following the battle with the Azag:

The warrior had accomplished
 what he had at heart,
lord Ningirsu, Enlil's son relaxed,
 calmed down,
came out of the storm in the highland,
and hailed Utu (the sun).
The lord rinsed belt and weapon in water,
Rinsed the Mittu-mace in water...
(Jacobsen 1987a:250)

The use of performative weapons by temple authorities would by necessity have required some form of ritual cleansing following their use. This would explain the relationship of the Khafajah Temple Oval I “macehead room” to both the platform and the basin in a previously unproposed manner. Situating these “divine weapons” within a performative context helps illuminate what otherwise is impenetrable due to the incompatibilities between modern and Sumerian frames of knowledge and representation.

Additional parallels with the archaeological discoveries at the Khafajah Temple Oval exist. One ED macehead from Girsu, for example, bears a remarkable similarity to a specimen from Khafajah. The Girsu example is of simple rounded form, except for the remains of what must originally have been crouching lions, which were carved in raised relief so as to recline on top of the head (Fig. 155). Unfortunately it does not come from a datable archeological context and only one half of the mace has been preserved, having been

shattered in half vertically. Its dedicatory inscription, “Ur-šultur, the son of Ur [gigir²], dedicated this” (Braun-Holzinger 1991:42, K4), tells us little about its specific cultic function.

The similar macehead from the Khafajah Temple Oval (Fig. 156) was discovered only .25 meters below the surface of the mound (Frankfort, Jacobsen and Preusser 1932:111, Fig. 54; Delougaz 1940:99-100, 147-148, Figs. 91 and 147 [No. 5]) and is inscribed to the goddess Inanna, “Shar-ilumma, chief alderman, fashioned the mac]e(?); to Inanna he presented (it)” (Jacobsen in Delougaz 1940:148 [No. 5]). Like the Girsu example, the mace of Shar-ilumma, also depicts two crouching lions in high relief. It cannot be dated to any particular portion of the ED period with any more specificity than the Girsu example.

The similarities between the Khafajah macehead and the Ur-šultur macehead do suggest that at least certain specific compositional forms of these “divine weapons” may have been standardized, leading one to wonder if this specific form had a distinct meaning or function. The inscription on the Khafajah mace states the owner’s name and the title—an UGULA-MAḪ, which Jacobsen translates as “chief alderman” (Delougaz 1940:148) and records that it was an offering to the goddess Inanna. The lower rank of the donors of these two similar objects may also account for their less elaborate composition and execution when compared to the Mesalim Macehead, which in comparison was quite grand in the scope of its design and use. It was carefully composed and executed for a ruler; used to settle a major land between the states of Lagaš and Umma, and designed to personify the god, Ningirsu, via his avatar, the Imdugud.

The two smaller maceheads discussed here belonged to lesser officials and were perhaps utilized for cultic activities of lesser consequence. The almost generic quality of the maces of Ur-šhultur and of the UGULA-MAḪ, causes one to wonder if such forms were

produced *en masse* and then subsequently inscribed for their new owners. Though this may not have been the case, it is clear that the inscriptions on the maceheads were never really integrated into the overall ‘artistic’ compositions. Whether the shape of these maces was specific to the cult of Inanna, or whether such a shape was utilized by other cults, is uncertain. There is no reason to assume that the example from Girsu would have necessarily been dedicated to Ningirsu. The two objects do suggest, however, that this particular shape—essentially an ovoid sphere, unadorned except for two reclining lions projecting from its top—was a standardized type of symbol though the scope of its standardization remains unknown.

The schemata that allowed divine/cosmological forces to interact with human societies in the physical form of “divine weapons” is recorded again in later Old Babylonian texts from Sippar. Although extrapolating from these later historical materials is anachronistic, the Sippar texts at least present a conception of the divine weapon closer to the ED period than our own and from a conceptual frame closer in resemblance to those in the ED period. According to the texts analyzed by Rivkah Harris, it was possible, at least in Sippar, to rent “the journey of the divine weapon,” an activity known as the *GIŠ.TUKUL* (Harris 1965). This would be done for events such as, but not limited to: religious rituals associated with the harvest, the measurement of fields, the collection of taxes, and the administering of oaths related to litigation. Hence, at least in the OB period these instruments still served to settle disputes, just as the Mesalim mace had during the ED period. In addition to performing a series of important social functions, the *GIŠ.TUKUL* also brought additional income to the temple which rented the weapon:

That oaths were taken by the various symbols of the gods is well known from the Old Babylonian textual material of Northern and Southern

Babylonia. In these instances the declarations of the litigants were made in the temple or other sacred precincts. But at times the symbols, usually the divine weapon, might be transported from the chapel or temple where they were housed to some other place so that the oath might be administered. In all references to the transporting of the divine symbol the basic purpose to which it was put, as pointed out by Professor Landsberger, may be summed up by the Akkadian term 'burru,' 'to establish the truth by an oath.' The man who swore falsely would surely incur the wrath of the god and suffer a terrible punishment.
(Harris 1965:217)

The existence of schemata in which the rented weapon was the embodiment of a divine force must also have been both a politically and an economically convenient situation, as Old Babylonian temples presumably still derived much of their income from land ownership.

More recently, Sallaberger (1994) has commented that the practice of renting out divine objects by temples also appears to have existed during the Neo-Sumerian (Ur III) period. The economic implications and consequences faced by the temple's clients while engaging in such transactions must have seemed ancillary in comparison to the consequences of incurring the god's wrath—a possibility which must have seemed quite real in ways that are different for us to understand, since most of us are not inclined to view similar objects as being directly endowed with such power.

The physical control of sacred weapons and other such emblems by the priestly elites would have been particularly important during the ED period, because the state/religious apparatus held an almost absolute monopoly upon the ownership of agricultural land in Sumer (for discussions of the Sumerian temple economy see, *passim*: Jacobsen 1957; Edzard 1967; Falkenstein 1974; Steinkeller 1981, Steinkeller 1992, Steinkeller 1993). In order to arbitrate the outcome of property disputes, the ability to gain access to the direct, numinous power of the divine via these performative weapons was without a doubt a powerful addition to the ideological arsenal of the state. This is not to suggest that such practices were necessarily

deceptive, or contrived. Quite the opposite was probably true, as the Sumerians no doubt believed in the actual religious power of such objects. The aim here is simply to point out a structural property that helped to stabilize and maintain the socio-economic system.

Whatever the case may have been, the frames by which Sumerians perceived performative objects were certainly far different than our own. Although we can never hope to fully transcend the haze of temporal noise that defines the difference between our own schemata and those of ancient societies, analyzing the ways in which different category members, such as weapons, stones, and animals, were conceptually blended across domains helps us to conceptualize what were no doubt radically different frames of mental representation.

Chapter 9:

The ED IIIA period at Lagaš: Statuary and programmatic relief works

The present chapter deals more with programmatic relief works than it does with sculpture. In particular it focuses upon the development, uses, and display of votive plaques and of stelae—objects which were governed by complex semantic and other structural rules to organize, transpose, and transmit carefully calculated messages to specific audiences. For the most part, the systems found in relief works were more complex than in their sculptural counterparts. Statuary is therefore discussed here only briefly and in such contexts as it might illuminate the development of complex systems of visual communication that are generally represented by the ED relief works (the classification and stylistic development of Early Dynastic statuary has also been dealt with exhaustively in several major studies; see p. xxiv).

The same comments could also be made about complex cylinder seals as about relief works, since the most complex of these personal objects tended to be rather like miniature versions of the more complex relief forms, but executed in intaglio. These miniature representations were, however, intended for very different purposes than the large reliefs and would constitute a very different, albeit equally interesting study in and of themselves. The emphasis of the remaining chapters is therefore upon the large scale visual forms of complex display exemplified by plaques and stelae. The focus of the present study, therefore, differs from that of most others in that it discusses objects such as sculptures and seals only in a few specifically chosen contexts where they appear to suggest aspects of Sumerian cognition, perception, metaphysics, or communication that might not otherwise be easily illustrated.

9.1 ED IIIA votive sculptures

9.1.1 Portraiture in Sumerian art

The idea of votive statuary, as formulated during the Early Dynastic period, reflects significant changes in schemata from the Uruk IV/III periods. The few known sculptures in the round that depicted humans during the late Uruk period were limited to portrayals of the so-called EN priest, or hunter/ruler (Figs. 26-31; see section 3.2). These were never inscribed and tended to be block-like and two-dimensional in their appearance, always depicting the bearded EN priest standing in the same highly canonical manner, with his legs together and his arms at his side. There was very little variation or sense of individuality between these objects, nor was there any attempt to break away from this very block-like form.

By contrast, the Early Dynastic votive figurines depicted their subjects in a variety of poses and costumes suggesting a movement towards a canon of sculptural forms and methods of compositional organization (Figs. 157-168). Although our concept of portraiture seems to have been largely alien during the ED period, there was a sense of individuality to most of these statues that was not expressed in Sumer during previous historical periods. Something like portraiture is indeed present in the ED statues and in ED reliefs as well, but it occurs on the level of mental representation, rather than on the visual level of mimetically replicated detail. This form of “mental portraiture”—for lack of a better term—is possible because the use of textual inscriptions refined the messages transmitted via the statues supplying the viewer with a sense of the subjects’ individual identities. As Claire Richter Sherman pointed out in her work on the portraits of Charles V of France, portraiture may be defined in ways other than strict mimesis, it is also possible to use a “... definition of portrait to mean any image seeking to portray a particular person irrespective of its success in modern terms.”

(Sherman 1969:3) This comment applies equally well to Sumerian portraiture. Whether we are looking at the Statue of Lupad of Umma (see below, Figs. 157-158) or the votive plaques of Urnanše, all of these objects were intended to represent specific living people although utilizing a very different set of rules than the modern viewer is accustomed to.

Sherman's explication of the role of portraiture in Christian art following the Roman period and prior to the late medieval era of Charles V parallels the situation of Sumerian portraiture, in both sculptural and relief works:

For centuries, rulers, high-ranking clergy, and members of the nobility were represented in presentation scenes, in devotional and donor images, and on tombs. Since, with the exception of certain representations of rulers, these portraits functioned in the context of Christian art, they served primarily to commemorate the piety of the believer rather than to preserve a record of his specific appearance as an individual. The equally strong impulse to indicate in these images the social status of a person or his family by means of inscriptions, heraldic symbols, or costume did not encompass a description of his distinctive characteristics. (Sherman 1969:3)

In ED Sumer images were also elaborated to convey information about the religious authority, piety, strength, authority and social standing of specific elite individuals.

If Sumerian art does not seem to express portraiture in the modern sense of 'resemblance', perhaps it is not because their artisans were incapable of such mimetic forms of rendering, but rather because this type of information was not deemed important to record. The operative structures defining portraiture included mechanisms such as linguistic tags and relays, iconicity and indexicality, rather than mimesis.

By blending linguistically accessible categories of information—personal names, professional ranks, and geographical names—the ED 'artists' who executed the portraits and reliefworks of that era were able to anchor their images in a manner that allowed them to

successfully transmit an equation between a specific representation and an historical member of the social elite. The resulting messages suggest that, at the very least, elite individuals were beginning to experience their own historical identities in new ways, understanding themselves as individuals with respect to time and place. This objectification of the individual human, as having a self distinct from all others, expresses a fundamental shift; it also makes ED art more conceptually accessible to us than that of the Uruk period.

9.1.2 ED III sculpture

Only two sculptures from Lagaš, the statue belonging to Lupad of Umma (Fig. 157-158) and a small head of a woman (Fig. 159) can be ascribed to the ED IIIA period with certainty.

Several statues can be shown to date to ED IIIB on the basis of their inscriptions (Figs. 162-164) or their similarity in style to inscribed examples (Fig. 167). Although I believe that the majority of the other, uninscribed sculptures (Figs. 160, 161, 165, 166, 168) from Lagaš should be dated to the ED IIIB period, this remains unclear. Perhaps these examples should simply be assigned to the broader portion of the ED IIIA and IIIB, following the reign of Urnanše which Eva Braun-Holzinger called *Stilstufe III* (see Fig. 169, which is reproduced from Braun-Holzinger 1977, Tab. 2). The same may be said about a number of small and badly preserved fragments found at Girsu (these are neither catalogued, nor illustrated here; see Parrot 1948, Figs. 19 d, and h-j).

9.1.2.1 The Statue of Lupad of Umma: Historical background and questions

ED sculpture is only intended to be treated here in conjunction with other materials presented in this study (see preface), since sculptural works entailed much less complex approaches to structuring and transmitting information than did their bas-relief counterparts. As a way of discussing some of the cognitive changes that led to the refinements in ED system of visual display and communication, it makes sense to examine at least one unusual example of these artifacts, the Statue of Lupad of Umma (Figs. 157-158), which also introduces the historical dispute over a large tract of rich agricultural land that constituted a prolonged dispute between Umma and Lagaš during the ED III period.

This Statue of Lupad is perhaps the only extant ED III period sculpture of a human inscribed with a land tenure document.¹⁰² Despite being composed of Diorite, a particularly hard and durable stone, the existing portions of the statue were discovered in fragments in the area of Girsu's Tell des tablettes. Its inscription describes not just the location of the land purchased by Lupad, but also his genealogy, occupation, and the exact nature of the economic transaction it commemorated. Its existence, as well as its discovery at Tello, raise a series of important questions that are not easily answered, such as: why would an economic transaction have been recorded on a statue; why would a "field recorder" from Umma have purchased land in, or near Lagaš; why would such a record have been found at Tello, rather than in Lupad's home city of Umma; and, finally, how did a statue composed of such a durable material come to be so heavily damaged?

We can hypothesize why the statue ended up in fragments at Girsu. Presumably, Lupad would have wanted the record of the land transaction to remain in his possession at Umma, but it is also possible that for some reason or another it was set up at Girsu to remind

¹⁰² The overwhelming majority of ED statues are votive artifacts, many of which display dedicatory inscriptions.

its citizens of Umma's, or one of its officials', rightful claim on that particular area of land. Poebel (1926) and Cooper (1983) have both extensively documented the many border conflicts between Umma and Lagash during the ED III period, dating at least as far back as the reigns of Lugalsha'engur of Lagaš, the contemporary of Mesalim of Kiš, whose well known macehead was involved in settling a portion of this historical land dispute (see section 8.2). The dispute is confirmed by a great number of cuneiform inscriptions including an ED IIIB inscription of Enmetena, which asserts that during the reign of an earlier king of Lagash it had already become necessary for Mesalim of Kiš to place a boundary marker between Umma and Lagash (Cooper 1983:22). Slightly later, during Urnanshe's reign, a stone slab erected at al-Hiba, describes the ruler as having gone to war against both Umma and Ur (Crawford 1977:193-197, 211-214; Cooper 1980:104-108; 1983:13; Cooper 1986:24-25; Steible 1982a:112-116; Braun-Holzinger 1991:335 [Stele 6]). The conflict, which mainly concerned a rich section of arable land, called the Gu'edena (Edzard 1957) continued well into the ED IIIB, where it was also heavily documented, for instance on the monumental Victory Stele of Eannatum (Figs. 103-110; see sections 10.4-10.4.7). The conflict may ultimately be the best explanation for both the final resting place of Lupad's statue and the condition in which it was found. Whether the Statue of Lupad was originally erected at Umma and carried back to Girsu, or whether it had remained in Girsu all along, it is reasonable to believe it may have been purposefully smashed there to either annul the contract or simply destroy any record of a legitimate claim by Umma, or its citizens, to land perceived by Lagaš to belong to its state.

9.1.2.2 The Statue of Lupad of Umma: Style

Stylistically speaking, the closest excavated parallel to the *Statue of Lupad of Umma* is the statue of “Kurlil” discovered at Tell ‘Ubaid (Hall and Woolley 1927:Pl. X; Hall 1928:Pl. IV [upper left]).¹⁰³ In both sculptures, the depicted figures are seated cross-legged, with their arms folded. Although Moortgat (1969:41) has argued that the “well rendered features of the head” of Lupad’s statue are “by no means lacking in expression,” the heads of both statues are highly stylized and largely devoid of any details suggesting portraiture, as is typical for most Early Dynastic sculpture. The bodily proportions, however, appear to have an unusually atypical block or stump-like, quality¹⁰⁴ and the head has the appearance of being directly connected to the upper torso, as if there were no neck.

Additional inscriptions on the statue, which occur along the center of the upper chest, the shoulders and arms, and the lower torso, are divided into a series of triple columns, each of which is presented within a rectangular outline. The writing itself has been dated by Gelb to the Fara text phase, of ED IIIA (Gelb, Steinkeller and Whiting 1991:72). Gelb notes that “It is exceedingly difficult to reconstruct the sequence of the formulary of the Lupad Statue, partly because its individual parts appear to be unequal in length, and partly because of the poor state of preservation of the inscription,” adding that his own textual reconstruction “must be considered very tentative”(Gelb, Steinkeller and Whiting 1991:72). Gelb also observes that the inscription deals with the acquisition of at least three groups of fields by Lupad. He reconstructs the text as follows:

¹⁰³ It also bears a close resemblance to a statue currently in the Ny Carlsberg Glyptotek in Copenhagen (Moortgat 1969:Pl. 107; Spycket 1981:Pl. 68. The Copenhagen example is of uncertain origin, however, and is highly unusual in style. Although it has never been argued that this object is a forgery, there is also no compelling evidence of its authenticity.

¹⁰⁴ Both statues also share an overall block-like quality that is in many ways more reminiscent of Old Kingdom, Egyptian depictions of scribes than it is of Sumerian sculpture (see, for example, Seidel and Wildung:Pl. 129).

Lines 1-7, reading “Lupad, the field recorder of Umma, the son of Nadu, the field recorder, the father(?) of [...]-[x],” plus a few lines now destroyed, probably gave the total area acquired by Lupad and constituted a general résumé prefacing the rest of the inscription....

The acquisition of the first group of fields begins around i 11 and should end around ii 12. As tentatively reconstructed, it consists of the following parts:

- 1) Size and location of the individual parcels, as indicated by the structure: x field located at the side (zag) of PN (i 11 -39)
- 2) Lupad, the field recorder of Umma, bought [a total of x iku of land from P]N (ii 1-6)
- 3) Price paid in še "barley," sig "wool," and níg-urudubabbar "'white'. . . copper" (ii 7-8)
- 4) [Additional Payment] (ii 9-12)

The acquisition of the second group of fields begins around ii 13 and should end around iii 12. It consists of the following parts:

- 1) [Size and location of the individual parcels] (ii 13-24)
- 2) [Lupad bought a total of x land from PN₂] (ii 25-28)
- 3) [Price] (ii 29-30)
- 4) Additional Payment, including commodities in various amounts, paid to the main seller, and five pounds of wool each to the secondary sellers and officials (ii 31 - iii 8)

The acquisition of the third group of fields should begin around iii 13, but it is too much destroyed to allow any safe reconstruction. The rest yields fragmentary information (Gelb, Steinkeller and Whiting 1991:73).

A great deal of the text is missing and therefore much of the message has been lost, but we can still make some observations about the text message that can be extended to explain the structure of visual compositions.

9.1.2.3 The Statue of Lupad of Umma: Exaptation and neural plasticity

One important observation that we can make is based upon the categorical manner in which Lupad is identified (lines 1-7). As I discussed earlier (in section 3.3), in addition to looking at the specific syntactical relationships between signifiers—i.e., the relationship between icons,

symbol, and indexes—we can also look at how categories are constructed and how information is mapped between domains by means of structures such as metaphors and analogies in order to construct meaning. In particular, I noted that most cognitive neuroscientists agree with Rosch’s assessment that categories are organized radially or axially, resulting in a system where what are called “prototypes”, or “basic-level members”, of each set are considered to be more representative of the category than others.

The theory of prototype effects dictates that basic-level categorization operates so that all prototypes are central members of specifically hierarchical structures. The non-prototypical members of the category are then ordered to indicate their degree of specialization or generality by means of their proximity to the prototype. Humans process information by first establishing global mappings, which are most closely related to basic-level members of categories and then by extending these mappings “upward” or “downward” in order to further define parameters for individual category members. This process, “basic-level primacy”, occurs at virtually every level of cognition (see section 3.3). The first seven lines of the statue’s inscription, “Lupad, the field recorder of Umma, the son of Nadu, the field recorder, the father(?) of [...]-[x],” demonstrate basic-level effects, which are then utilized to construct more complex structures.

The primary elements of the statue’s inscription may be broken down into members of categories, such as the following:

- | | |
|-----------------------------|------------------------------------|
| 1. Genealogical titles: | “the son”, “the father” |
| 2. City/Geographical names: | “Umma” |
| 3. Personal names: | “Lupad”, “Nadu”, and “[...]-[x]” |
| 4. Professional titles: | “the field recorder” |

Some of the category members, such as “son” “father”, “Umma” are either prototypes—i.e., basic level members of categories—or are very closely related to prototype members. Since

kinship and genealogical categories exist universally among human societies, the assumption that we are dealing with similar categories here is not unusual. Similarly, we know that city names and professional titles were well known lexical categories, which were actively codified and organized into lists by scribes, in some cases as early as the late Uruk period (see section 3.3.2). Although lists of personal names were uncommon in the ED III period, they are well attested by the later Old Babylonian period. At the OB period Temple School of Nippur, for example, lists of personal names were organized according to distinct Akkadian and Sumerian categories (Chiera 1916a and 1916b). Presumably, such practices began during far earlier periods.

More important than the categories themselves—insofar as the Lupad statue's inscription is concerned—are the structural relationships that existed between individual category members. These are used to define Lupad's identity by means of “nesting” specific category members below or above each other, in a series of clearly defined hierarchical relationships. The accompanying diagrams (Fig. 170) demonstrate two slight variations of the structures by which category members are related to each other via nesting in order to construct a specific identity that answers the question “which Lupad?” Diagram A shows that, in order to identify the individual Lupad who conducted the transaction, a series of members of nested subcategories are defined: the first of which is that he is the “field recorder of Umma;” the second is that he is the “son of Nadu;” the third is that he is “father(?) of [...]-[x].” The identity of Nadu is also defined by the use of a nested character, he is a “field recorder.” The structure of status and authority is therefore invested in Lupad by membership in and/or relationship to specific category members. The structure marked in the diagrams as “B” would probably represent a misreading of the text.

The construction of the Sumerian equivalent of portraiture via the careful inclusion of texts that structure the identity of those persons being visually represented via familial, professional, or other categories appear to be the norm in ED III Sumerian art, rather than the exception (see also the discussion of portraiture above in section 9.1.2). For example, in the sculpture of the ruler Entemena's brother (M)ean(s), the "son of Enanatum I of Lagaš" (Fig. 162), this is precisely the way his identity is structured. The same could be said of almost any of the inscribed ED III statues (e.g. Figs. 163-164); for the various votive plaques depicting Urnanše and his family (e.g. Figs. 64-67); for the votive plaque of Dudu (Fig. 171); or for numerous other ED visual works that attempt to represent people visually, while defining their identities via inscriptions. All of these objects invoke complex genealogical, and mythological structures, and list numerous achievements not merely as a way of elevating then ruler's status. In all of these examples the identity of the individual—i.e. the Sumerian equivalent of portraiture—is defined via the use of extended categorical structures. This manner of publicly defining and declaring the identity of individuals via visual representations, utilizing relationships between text and image to express categorical relationships and structures, is something new to the ED period. The structures and perhaps even the manner of thinking that made these visual statements possible already existed, but it was not until the ED period that those mechanisms were exapted to be used to create publicly displayable visual messages.

9.2 ED IIIA programmatic relief works

9.2.1 Votive plaques: Codifying structural codes and canonical forms

One hallmark of visual display during the ED IIIA period is the increased canonization, codification, and the refinement of the many structural codes discussed earlier into a more clearly unified system of communication. The newer systems of visual display during that period utilized all of the complex structural elements discussed thus far: frames, groundlines, registers, hierarchies of size, linguistic tags, relay mechanisms...etc., but integrated them into a complex system of communication. This system was exploited and utilized extremely effectively as a means of programmatic display on votive plaques—decorated rectangular objects, usually inscribed, that often utilized several registers grouped in relation to a large hole in the center of the object. These objects have been discovered at a variety of Early Dynastic cities in both the Sumerian heartland and in peripheral regions including: Tello, Ur, Nippur, Kiš, and Fara in modern Iraq; Khafajah, Tell Agrab, and Tell Asmar in the Diyala; Mari in Syria; and Susa, in Iran.

9.2.2 The architectural and architectonic functions of the votive plaques.

In 1953-1954, the University of Chicago's expedition working at the North Temple at Nippur discovered a votive plaque which for the first time allowed archaeologists to reconstruct the original placement of one of these objects and provided concrete evidence for the use of the hole at the center of each votive plaque. The plaque, which was constructed of slate:

...was found in a long room in a corner by a doorway in level IV of this temple, which dates to the Third Early Dynastic period. When the floor of this room was cleaned the plaque was recovered upside down and presumably had fallen from a wall.” (Hansen 1963:147)

It was particularly interesting because it revealed how these objects were affixed with a knob and utilized as architectural ornaments. As Hansen observed, “The unique aspect of this plaque is that the central knob over the hole in the plaque is preserved in place” (1963:147). No such “knob”, had ever been previously recovered. Hansen interpreted the original manner of affixing the plaque as follows:

It is evident from the plaque found in the “north” temple at Nippur that when the plaque was set into the wall, a peg would have been driven into the central hole of the plaque. To this peg the stone knob formed from two disks would have been affixed with a smaller 1 cm. peg or nail, one end of which would have projected out from the face of the plaque along with the stone knob.
(Hansen 1963:151)

The “knob” essentially functioned as a huge washer whose structural purpose was to help keep the votive plaque from falling off the wall. A peg would have originally have been placed through the narrow hole in the knob’s center and would have been driven directly into the mudbrick wall to support the entire fixture.

Richard Zettler, who appears to have been the first archaeologist to extensively study the types of impressions visible on the backs of ancient clay sealings has been able to divide them into at least two specific categories, sealings that were utilized to ensure the integrity of vessels (these were based upon his study of sealings from SIS 8-4 at Ur; see Zettler 1989) and sealings that were affixed to pegs, or knobs. The latter group, which was based upon the corpus from the Inanna Temple at Nippur, also showed impressions of the ropes that had been wrapped around the knobs, or pegs, in order to fasten the doors shut. (see, *passim*, Zettler 1987, and Zettler 1991). It seems more than likely that similar sealings, if not those studied by Zettler, would have been similarly fitted not only to simple pegs, but to the knobs on the votive plaques within prominent areas of ED temples.

Hansen also analyzed the meaning of a group of three Sumerian graphs GAG-GIŠ-ÛR in order to shed further light on the function of the “knob” (1963:151-153). The group occurs at least twice: first, on an inscribed votive plaque dedicated during the ED IIIB period by a priest named Dudu, and found at Tello by de Sarzec (Fig. 171); and later on Gudea’s *Cylinder A* (the relevant line occurs there in section XXVI:28). Although Hansen translated the group GAG-GIŠ-ÛR as a “locking knob-stick/mace,” at least in the context of the Gudea inscription it is more likely to mean something like “nails of roof beams” (Edzard 1997:86), “beam pegs” (Averbeck 1987:673), or “beam spikes” (Jacobsen 1987:422). In the earlier ED IIIA inscription on the votive plaque of Dudu, it is uncertain what GAG-GIŠ-ÛR means. Cooper (1986:68), chose not to attempt a translation of the group at all. Thureau-Dangin translated the phrase as an “untersatz für einen Streitkolben,” a stand for a mace (1907:34 and 35, i [6]). Deimel (1928-1933:465 [230^x]) and Borger (1978:117 [233, 40+230*]) both interpreted the signs GAG-GIŠ as “weapon,” the only difference being that Borger read and transliterated the sign as ŠITA rather than as GAG-GIŠ. This is no doubt the basis of Steible’s transliteration of the group as ŠITA-ÛR, which he translated tentatively as a dedicatory plaque (“Weihplatten” Steible:1982a:266, Ent. 76) though this decision appears to have been based on the inscription’s physical context rather than on any philological basis. Within the context of the votive plaque, none of the philologically derived interpretations can tell us anything at all about the function of these objects.

Hansen’s reading of *Cylinder A* identifies the final sign in the group as URU₁₂, which is the same as ÛR (1963:152), translating the group as a “locking knob-stick/mace.” He believed that the device, the GAG-GIŠ-ÛR was in fact the knob that was placed at the center of the votive plaques and that it was utilized, rather like a winch, in order to pull, or wrap, a rope across to

shut the temple doors.¹⁰⁵ In the context of the Gudea text cited by Hansen, however, the sign GAG clearly means “nail”, while GIŠ-ÛR is clearly a “beam” or “rafter.” The logic of the agglutinative construction has to do with the fact that that, in Sumer, roofs were generally constructed of beams covered by palm fronds. It follows that since ÛR means “roof”, or “thatch”, and GIŠ is the determinative for wood, one possibility is that GAG-GIŠ-ÛR might then signify the type of nail used for the roof beam.

Selz, however, has come up with a more logical interpretation. He writes “The object GAG-GIŠ-ÛR should be the actual object bearing the inscription. Since in fact the text reads GAG-GIŠ-ÛR-Š₃, e.g. ‘he fashioned GAG for the roof-beams’, the object on which the inscription is found must be the GAG.” He suggests that “is obvious that this object is not a nail, but a votive plaque” and proposes that the plaques themselves may have been called GAG. Since, “The function of a nail is to fasten things together, and in the same way the votive plaque may be used to fasten such beams,” Selz proposes to translate “GAG-GIŠ-ÛR-Š₃ *mu-na-dím* ‘He made (the stone from Uru’a) into fastening devices for (a special kind[?]) of roof beams for him (the god Ningirsu)’” (Selz, personal communication).

Although Hansen’s translation no longer holds up to scrutiny, a great deal can still be surmised from the fact that the plaque from Nippur’s North Temple appears to have been fitted next to the door. His inability to support his theory of how the plaques were used with a textual reference in no way diminishes this idea as a working hypothesis. In fact, if the purpose of the knob was in fact to attach the door ropes to, then regardless of whether or not the knob actually functioned as a sort of winch (unlikely given its size and shape,) the votive

¹⁰⁵ The current author has replaced Hansen’s transliteration of the sign, KAK, with GAG—the more current transliteration of the same sign, see Borger 1978:283.

plaque surrounding the knob performed an important function. It would have prevented the ropes from the doors from cutting into the plastered mudbrick walls.

9.2.3 The categories and subject matter of votive plaques.

At Lagaš the majority of the votive plaques discovered were originally dedicated by kings, or in rarer instances their priests, and exhibited within the temple of Ningirsu¹⁰⁶. The plaques can be further divided into two distinct groups: “numinous displays,” which focus and draw upon representations of Ningirsu, the Imdugud, or in rarer cases another god or goddess; and “social displays,” which focus upon the roles, functions, and relationships of the ruler, in general portraying him as a pious figure engaged in temple building activities, and surrounded by his children, his cupbearer, and other priestly officials. In terms of their probable placement near the doors of ED temples, it is also interesting to note that these objects that depicted either deities and their avataristic forms, or ruler/priests, their families, and their attendants would have been quite literally placed at the liminal boundary between two purposefully delimited architectural, but separate, architectural areas: the world of man and the *sanctum* and realm of the divine

9.2.3.1 Votive plaques: Numinous displays

The “numinous display” plaques which focus upon Ningirsu’s iconography may be the earliest known corpus of complex objects on which a carefully composed, programmatic form of visual display was systematically replicated for use as architectural ornamentation. Three separate votive plaques found at Tello appear to have been exact copies of one another (Figs.

¹⁰⁶ These were perhaps also displayed within the temples of the other primary deities of the Lagaš pantheon, in particular Nanše.

172, 173, and 174). Each of the them depicts the frontal image of an Imdugud whose talons grasp two outward facing lions by their midsections. These images are rendered in raised relief. The Imdugud's wings, feathers, facial, and other features are depicted via a series of carefully incised lines, as are details of the images of the lions. The entire composition is surrounded by a raised rectangular frame. The area between the wings of Ningirsu's mythological emblem and the lions is covered in inscriptions, as are the bodies of the lions themselves. The inscriptions which are almost identical on each of them reads "for Ningirsu, Urnanshe, king of Lagash, son of Gunidu, built the temple of Tirash" (Cooper 1986:31, La 1.26).

At least one other fragment of what appears to have been part of a votive plaque was found at the Tell du palais outside of the palace structure. It depicts an entirely different type of bird which is not clearly identifiable (Fig. 175), but which one might tentatively suggest was the raven, known as BURU₄, which Steinkeller believes was the emblem of the goddess Gatumdug and "the totemic symbol of the clan of Lagash" (Steinkeller unpublished [1994]14). If this hypothesis is correct, then it is possible that different types of display plaques were replicated for the temples of various state gods.

9.2.3.2 Votive plaques: Social displays

In contrast to the "numinous display" plaques, four plaques from the area of the Construction d' Urnanše at Tell K display more complex structures designed to present social information about the ruler. These "social display" plaques utilize more elaborate register systems, formal hierarchies based on size, and textual displays that serve as anchorage and relay systems. These plaques display newer and more elaborate messages about the king's

relationship to temple, family, and state than previous known forms of elite art; they also represent new heights in structural complexity. The votive plaques depicting Urnanše, in many ways, are the first fully formed and “modern” visual messages, assuming that we accept the term “modern” in this context to mean that they contain the majority of the structural components that we have come to expect in our everyday printed visual representations—e.g. advertisements, comics, political propaganda. The first of these is the use of tags, which I have described as words that are placed next to individual signifiers in order to reduce or eliminate semiotic ambiguity. In this case, the tags identify the images of the king’s children. The second is the use of more elaborate captions which serve as relay mechanisms, adding a secondary and equally important signal or stream of information to the transmitted message. Other structural components present in the votive plaques that we have come to expect as a part of human messaging systems include inventions that were already well defined by the Late Uruk period: the use of the rectangular frame; the use of individual register lines; and the definition and use of size based hierarchies in order to portray status, importance, and relevance (for example, the fact that the king is always portrayed as larger than his subjects or family).

The simplest of the “social display” plaques, in terms of composition, is the roughly oval shaped one (Fig. 66) which like the other votive plaques must have originally been rectangular but became abraded along its edges over the course of time. The composition differs from other examples since the large figure of the king, all the way to the right, faces away from his family instead of towards them. The family, to the left, is represented on two separate registers. As is standard practice, in these votive compositions, the king’s preeminence, centrality, and importance is indicated by means of his dominant size in relation

to that of the other figures despite his peripheral location. Because the figures are so similar, with the exception of the king who is differently costumed, textual anchorage is employed in order to eliminate any ambiguity concerning the figures' identities.

We may theorize another group of votive plaques existed which would have been similarly composed, but that would have been adorned with inlaid representations crafted from shell or mother of pearl, glued to the objects with bitumen (see Figs. 117 and 125). One inlay discovered by Cros in the area of the basins ("les basins") at Tell K, appears to actually represent the face, torso and hands of Urnanše himself (Fig. 117). It is engraved with his name and would presumably have been joined with other inlay fragments that completed the body. Alternatively, these types of inlays may have been utilized on representations similar to the so-called "standard" discovered at the Royal Cemetery at Ur (Fig. 176).

Again, the "modern" concept of portraiture did not exist but a concept of portraiture did, in a form relying upon a different type of semiotic system coupling linguistic signifiers or graphs with generically patterned iconic representations to convey identity. In this example (Fig. 66) the figures behind the king in the upper register are endowed with identity by means of a series of textual anchors engraved on their skirts. The figures, from right to left in the upper register, identified by the persona names Lugal-ezem and Gula, are perhaps the king's retainers. The figures from left to right in the lower register are identified as "Anita (cup bearer); Akurgal, a son; Barasagnudi, a son" (Cooper 1986:23, La 1.3). As is the case with all of the inscribed votive plaques, the orientation of the inscriptions that tag the individual figures is unusual; they must in effect be read from bottom to top as they have been placed sideways. The inscription to the left and right of the king appears to be of a standard form. It reads "Umanshe, king of Lagash, son of Gunidu, 'son' of Gursar, built the temple of

Ningirsu,” (Cooper 1986:23, La 1.3); presumably, the reference here is to the *É-ninnu* temple. The most structurally complex of the “social display” plaques (Fig. 64) depicts the king in two distinct formulaic roles: that of a pious king builder and that of a priestly official engaged in libation. This represents a new dimension in the Sumerians’ ability to portray not only different offices held by the same person, but distinct temporal states, or moments experienced by an individual or group even if they did not order them to show a chronological process.

The two separate scenes on the upper and lower portions of the plaque focus their messages upon the ruler, but they portray him at different moments and in distinct roles. In the portrayal to the far left, Urnanshe carries a reed basket on his head filled with building materials for the construction of Ningirsu’s temple, an image of the king as builder that is also well known from the later Gudea cylinders. Here Urnanshe faces his children who are depicted walking above a ground line in the upper register. The first of them, “Abda”, possibly his daughter¹⁰⁷, wears a fleece garment of material similar to that of the king’s skirt, though here the garment also covers her left shoulder. Behind her from left to right stand “Akurgal¹⁰⁸, a son; Lugalezem, a son; Anikura, a son; Mukurmushta, a son.” (Cooper 1986:22-23, La 1.2). Behind the king, to the far left of the composition stands his cupbearer “Anita.” In the scene along the bottom register a similar cupbearer, identified as “Sagantuk”, stands behind the seated ruler holding a spouted vessel. In his right hand the king grasps a solid footed chalice similar in shape to the later chalice dedicated by Gudea to Ningišzida. Before him from left to right stands another series of figures with tags inscribed on their skirts identifying them as: “Balul, <chief snake>-charmer; Anunpad, a son; Menusud, a son;

¹⁰⁷ Cooper has observed that, “Abda is labeled *dumu*, which can mean either ‘son’ or ‘daughter,’ and the seemingly feminine dress and hairstyle suggest the latter. But the exposure of a breast is unusual, and perhaps it is a male figure wearing a garment similar to Eannatum’s on the Stele of the Vultures” (Cooper 1986:22-23, note 2)

¹⁰⁸ The only known representations of Akurgal are those on the plaques of his father Urnanshe.

Addatur, a son.” (Cooper 1986:22-23, La 1.2).

The rest of the inscriptions on this votive plaque function as a series of relaying texts which are divided structurally into two parts. The first text segment, immediately in front of the standing king, provides information concerning Urnanshe’s genealogy and building activities, “Urnanshe, king of Lagash, son of Gunidu, ‘son’ of Gursar, built the temple of Ningirsu, built the temple of Nanshe, built the Abzubanda.” (Cooper 1986:22-23, La 1.2). The second relaying text segment appears next to the figure of the seated king in the lower register. It supplies additional information about the materials used to build Ningirsu’s temple, “Urnanshe, king of Lagash, had ships of Dilmun transport timber from foreign lands (to Lagash)” (Cooper 1986:22-23, La 1.2). Whereas the first text segment establishes Urnanshe’s legitimacy by means of his pious actions performed in service of the state’s principal deities, whose favor he presumably incurred, this second text segment describes his authority in terms of wealth and of geopolitical and trading power that extended at least as far as modern day Bahrain.

Two additional fragments of votive plaques from Tell K are similar to the one just discussed, but they are less complex in their handling of temporal and metaphysical states. On the first, the ruler is depicted only once, holding a basket of building materials in a way similar to that depicted on the previous plaque (Fig. 65). The relaying inscription in the dedicatory stanzas directly to the king’s right reads “Urnanshe, king of Lagash, built the temple of Ningirsu, built the Abzubanda” (Cooper 1986:24, La 1.5). At the lower left hand corner of the plaque a square area of relief has been left projecting from the background allowing the impression that the ruler stands on a physical block. The surface of this block-like area is covered by a secondary inscription reading “Urnanshe, king of Lagash, son of Gunidu, ‘son’

of Gursar, built the temple of Nanshe, built the Sheshgar. He [had ships] of Dilmun transport [timber] (to Lagash)” (Cooper 1986:24, La 1.5). The figures facing the king on the upper register are again, as we should come to expect, anchored by a series of inscriptions which from left to right read “Lugale[zen], a son; Ani[kura], a son; Mukurmushta, a son; Akurgal, a son.” On the lower register the tags on the figures left to right read “A[nunpad], a son; Gul[a], a son; Shubur?, a son” (Cooper 1986:24, La 1.5). The name of the first figure, shown holding a spouted libation vessel, would have been inscribed on the missing portion of the plaque and is therefore unknown.

The last of the ED IIIA period plaques (Fig. 67) has unfortunately been badly damaged so that almost the entirety of its right half is missing. What remains is a series of figures positioned along two separate registers with a thick band of inscriptions between them. These figures must have faced the figure of the now missing ruler. From right to left those on the top row are identified as “Luginatum; Lugalezem, a son; Mukurmushta, a son; Hursagshemah.” Those on the lower register are identified as “Anita (cupbearer); Balul, chief ‘snake charmer;’ Akurgal, a son; Namazu, scribe” (Cooper 1986:23-24, La 1.4). The inscription on the band between the two registers reads “Urnanshe, king of Lagash, son of Gunidu, built the temple of Ningirsu, built the temple of Nanshe, built the Abzubanda, built the Sheshgar” (Cooper 1986:23-24, La 1.4).

9.2.2 ED IIIA stelae

Two known Lagaš stelae of the ED IIIa period exist, both dating to the reign of Urnanše. The first of these was discovered at Ur by Woolley, to the west of the Temenos, under a Neo-Babylonian floor and below the later levels dating to Nebuchadnezzar (Woolley 1932:386-

387, Pl. 74 (1); Woolley 1956:46, 186, Pl. 39). The second stele, thought to be from al Hiba and now in the collection of the Iraq museum was acquired on the art market in the late 1950's (Basmachi 1960:45-47 [Arabic section], Pl. 1; Börker-Klähn, in Hansen 1975:188, Pl. 84a-c).

The stele from Ur (Figs. 177-179), which measures a mere 25 cm in height, is decorated on three faces. Each of these has suffered heavily from either weathering or some similarly abrasive process, which makes it difficult to clearly interpret the representations. The broad, front face of the object depicts a seated figure, probably a female goddess, wearing a horned crown and holding what appears to be a date palm frond in her left hand. Historians have debated the identity of the goddess with the horned crown, equating her alternatively with Ba'u/Baba/, Ninmah/Nintu/Ninhursag, Inanna, Nisaba, and several others (see the discussion in section 10.2.3.2); her true identity remains, for the moment, unknown. Here, she is shown followed by a smaller figure who clutches a staff in his right hand, holding it to his chest. A hierarchy of size is employed on the stele to separate the divine form from human forms—this is similar to the use of that same visual trope on Urnanše's votive plaques where greater size is used to define the king. The narrow sides of the object are also adorned. The right side displays a standing, belted figure and has been badly damaged. Originally, it must have shown the hands of the figure clasped in the devotional manner common in Sumerian art. The narrow, left side of the stele depicts another figure clasping an object, possibly a vessel, with both hands.

Cooper reads the inscription on the unadorned face of the object: “[Ur]nan[she], k[ing] of L[aga]sh, so[n of Gunidu], ‘son’ of Gursar, built the Dasal-canal of Mart[u[?]], built the temple of [... (x cases broken)]” (1986:32). Noting that Sollberger (1960:83) restored the temple's name as the temple of “S[in]”, Cooper remarks that “this would suggest temporary hegemony

of Urnanše at Ur, where this inscription was found” (1986:32). Instead of that interpretation, he argues that since, “the Dasal-channel is in the Lagash area, the stele is probably commemorating the building of the temple of [Ningir]su, and was brought to Ur from Lagaš in antiquity, as was the Enmetena statue [Fig. 163], likewise found in a Neo-Babylonian context” (1986:32).¹⁰⁹ Both Sollberger’s and Cooper’s views are plausible. There is evidence that Urnanše went to war not only against Umma, but against Ur and conquered both sets of forces (e.g., the text inscribed on a stone slab and translated by Cooper 1986:24-25, La 1.6). It also seems likely, however, that as Cooper suggests, the stele was transported to Ur at a later date. It is worth pointing out, however, that the iconography of the stele makes no particular sense in relationship to either a temple built for either Ningirsu or Sin. It might be worth considering that the temple originally mentioned in the inscription might be dedicated to a female divinity, given the representation on the stele’s surface.

The stele of Urnanše in the Iraq Museum (Fig. 180-182), which is said to have been accidentally discovered at al-Hiba, but which is likely to have been seized from a local dealer, appears to depict the same goddess as the stele of Urnanše’s found at Ur (Basmachi 1960). Measuring 91 centimeters in height, the round topped stele, has four distinct vertical sides, each of them adorned. The broadest two sides measure about 47 centimeters in width and it is unclear which of the two should be considered the primary face, or even whether a primary orientation for the object even existed. I will refer to the side with the goddess as the front, the opposite side as the back with the two narrow sides in relation to the face under discussion.

The primary difference between the representation of the goddess on Urnanše’s two stelae is that, whereas in the case of the stele found at Ur the goddess is shown in profile, in

¹⁰⁹ Brackets are this author’s.

the case of the Iraq Museum stele, the goddess's face and upper body are presented *en face*.

In both cases, the goddess is portrayed as seated, but in the latter case it is only her lower body that is shown in profile. As with the representation of the goddess wearing the horned crown, two long tresses of hair descend over each of her shoulders. In her right hand she holds a date palm frond; her left hand is tucked under the folds of her gown. The full inscription on the stele has never been published but different portions of the text have been published in separate articles and sources. (e.g., Basmachi 1960:47 and Steible 1982a:112, Urn 50). Faraj Basmachi has commented that the inscription underneath the goddess is:

... written in two columns, each containing 23 vertical lines, and mentioning the construction of a temple in a certain place. A certain Ur-Sang-Dingara is mentioned who may be an 'Ensi'. The name of 'Du-Du' also appears in this inscription as being the high priest of this temple. (Basmachi 1960:46)

We know little about Ur-Sang-Dingara, but the name Dudu is commonly attested among the scribes and priests of ED Lagaš and appears to have been common among Lagaš priests. It appears on at least four other objects which date to the later ED IIIB period: a statue, a votive plaque, a silver vessel, and a mace (Figs 164, 171, 183-185, 186-188); as well as on several different ED III texts (see Sollberger 1957:63). The composition seems to be carried around to the right in such a manner that the figure on the stele's right side, which Basmachi believed "probably represents the supreme prince. Ur-Sang-Dingara (Basmachi 1960:47), should be perceived as standing in front of the goddess. With this innovation in the structuring of visual messages suddenly we have two sides of a four sided object that are clearly intended to be mentally collapsed into one single narrative unit. As we will see the same structure appears to be true for the object's other two sides.

In contrast to the divine image of the goddess on the obverse side, the depiction on the

reverse is of Urnanše, his family, and his retainers. It is similar in both structure and in message to the ruler's votive plaques (discussed in section 8.4.3.2) and even appears to depict the same people. Like the votive plaques, it is divided into an upper and a lower register, in which each of the figures are tagged, or anchored, by means of inscriptions some of which also relayed additional historical information concerning Urnanše's building projects. Next to the standing figure of the ruler, facing left in the upper register, the inscription reads "Urnāše the son of the Gu-NI.DU the ruler of Lagaš built the Ibgal." He is followed by his cup-bearer "Anita" (Basmachi 1960:47) and presumably by a second figure on the narrower side of the object. Here we will notice that the object's narrow face follows the orientation of the rest of the scene and is divided into the same number of registers, confirming that this must also be read in conjunction with the scene on the broader side to its left.

On the lower register of the reverse side, two seated figures face each other. The inscription associated with the figure on the left reads, "Ninusu, the daughter of Urnanše, the ruler [of Lagaš]" (see Steible 1982a:112, Urn 50), whereas the one on the right reads "Menbara'abzu, the wife of Urnanshe, the ruler of Lagaš" (see Steible 1982a:112, Urn 50). Presumably, as in the case mentioned above, the figure on the lower register of the narrow side of the object should be viewed as standing behind the figure around the corner of the object and to his/her left—i.e. behind Menbara'abzu. It is unfortunate that the rest of the text covering this object has yet to be published as it might render more interesting information about its function.

What the original purpose of this stele was seems unclear—although it may be worth noting that in size and shape it is similar to the land tenure stele of Ušumgal (Gelb, Steinkeller and Whiting 1991:No. 12; Pl. 13). What can be said is that, as in the case of the votive

plaques, these scenes represent and convey a specific set of meanings, or message to the viewer by capturing a specific moment in which the author of the visual statement has combine geometric and other formal properties such as, frame, subject, proportion, line...etc. in order to form of a balanced, temporal snapshot of the subject. In this particular instance that moment focuses upon and captures a series of complex relationships between the ruler, royal family, courtiers, and priests and the yet unidentified goddess with the horned crown. More specifically the overall message behind the image, in no small part focused by the anchoring and relaying mechanisms of the accompanying texts, focuses upon Urnanše's piety, his qualities as a builder, and his family and social ties, as well as his own sense of their historical place.

Chapter 10:

The ED IIIB Period at Lagaš: Continuity with ED IIIA

10.1 ED IIIB performative objects

For all intents and purposes, the ED IIIB period is simply a direct continuation of ED IIIA.

The distinction between the two periods is largely a matter of convention, which was devised by archaeologists working in the Diyala region during post-war Twentieth Century (as explained earlier in section 6.2.7). The truth of this statement is highlighted by the fact that with the exception of a few very specific seal styles and diagnostic pottery types, very few artifacts are ever specifically referred to as either ED IIIA or ED IIIB. The exceptions are objects that have been inscribed or have been discovered within sealed archaeological levels such as beneath floors or buried within walls, platforms, or benches, and are associated with datable inscriptions or other diagnostic forms. This explains why in most survey texts, the majority of ED finds are somewhat vaguely classified as, “Early ED,” “Late ED,” “Presargonic,” and even simply ED I–ED III (e.g.: Strommenger 1964; Moortgat 1969; Orthman 1975; and Amiet 1980). Since there is also no dramatic, clearly defined, cultural shift between ED I, ED IIIA and/or ED IIIB it should not surprise us to find that many of the same general forms and categories of artifacts continue to appear throughout most of the ED period.

10.1.1 The Maces of Dudu and Barakisumun

Although no major changes occur in the simple categories of artifacts and forms of objects, what changes is the manner in which artifacts employ these preexisting structures and visual

forms and what iconographic programs and representational structures are used on the different types of objects. The change is exemplified by two maceheads from Lagaš, both of which are known to date to the ED IIIB period (Figs. 186-193). These objects demonstrate a change in the structure and iconography of performative weapons that, once observed, serves as a reasonable criteria for dating. These are the earliest known portrayals of humans to be shown on Sumerian maces but are highly reminiscent of the ED IIIA votive plaques of Urnanše. What is new is the idea of adorning weapons with portraits of identifiable humans (the concept of Sumerian portraiture is discussed in sections 9.2.1 and 11.3).

The first of the maces (Figs. 186-188) comes from al-Hiba, where it was found within the Bagara of Ningirsu, in Area B. The top of this object, dedicated by the priest Dudu, slopes inward creating a sharp shoulder and its bottom has been badly damaged. One side of the object (Fig. 186) represents a figure, his hands joined in a devotional posture, wearing a fleece skirt, and facing the viewer's left. The other side of the object (Figs. 187-188) depicts an Imdugud, clenching one or more caprids with his talons. The caprids appear to be feeding on a form of flowering plant (here I am assuming that the scene was symmetrically arranged, however, not all sides of the object are shown in the published photographs).

Fragments of other dedicatory maces were found in Area B of the Bagara as well. A different, presumably unadorned example discovered in the same area and level of the building, for example, was inscribed:

[(To) N]in
 [girsu]
 [of the Bagara]
 [a personal]
 [name]
 the stone cutter
 son of Amaabzusi
 the stone cutter

has dedicated (this) to him.
(Crawford 1974:31)

This raises the interesting possibility that these maces may have formed part of a much larger cache of votive weapons and other religious objects. All of the objects from this area can be accurately dated to the reign of Eannatum. In fact, the mace of Dudu was discovered in Level III, Floor 3, at roughly the same level as a copper/bronze knife blade (Fig. 189), which was inscribed “(To) Ningirsu of the Bagara (a personal name?)” and on the other side, “for the life of his king, Eannatum, (has dedicated this to him, or some similar phrase)” (Crawford 1974:32, Fig. 4, 3H T7).

A slightly later, more complex mace dating to the reign of Enannatum I, now in the collection of the British Museum (Figs. 190-193), depicts in raised relief, the Imduḡud holding the two lions by their rear haunches (Fig. 190). The object also represents three figures, each of which faces towards the viewer’s right. Alternatively, this may have been the same figure shown in various poses and wearing different types of costumes that signified multiple roles, offices, or ranks. Assuming that the order is read from right to left, the first of these figures shows a devotee wearing a typical fleece skirt and clasping his hands in the pious manner familiar from other votive sculptures and reliefs. The second figure shows a person wearing a shawl-like garment over the shoulder and carrying a chalice in the right hand. The figure’s left hand may contain an object as well, but this is difficult to identify. The final figure in the procession wears a similar garment over his or her shoulder and clasps a staff with both hands. Along the uppermost raised portion of the mace, an area has been segmented into a series of vertically arranged linear bands containing the inscription, “For Ningirsu of Eninnu, the workman of Enanatum ruler of Lagash, Barakisumun, the emissary, dedicated this for the life of Enanatum, his master” (Cooper 1986:54, La 4.19).

10.1.2 ED IIIB performative objects: Votive vessels and instruments

A large category of performative objects found at Lagaš are votive vessels. In general, the dedicatory inscriptions on these objects show them to have been given by rulers, priests, or other officials to the temples of specific gods, such as Ningirsu. Since the majority of them are undecorated, they lie largely beyond the scope of the present study (but their translations are widely available in works such as: Barton 1929; Braun-Holzinger 1991; Cooper 1986; Sollberger 1971; Steible 1982a; Thureau-Dangin 1905; Thureau-Dangin 1907). A few general remarks should be made about these objects. First of all, these vessels should be understood not simply as offerings that were intended to increase the wealth of specific temples, but as objects used to feed living deities. As such, they were essential to an ongoing set of acts which were not simply metaphoric. The vessels were intended to provide the gods with sustenance via their images, which required feeding and care on a regular basis (see the explication of Enmetena's vase, especially the text on it, in section 10.2.3.1).

One specific difficulty in our attempts to understand how other societies situate themselves conceptually within the cosmos is our inability to grasp the fact that indexicality can lie at the core of entire conceptual and metaphysical systems. Icons and symbols of the gods such as statues, images, weapons, and standards, as well as a large variety of other objects and properties, such as trees, mountains, rivers...etc., can be understood as being very 'real' manifestations of divine forces. This complex process of schematization cannot ultimately be described in structural terms alone. It relies upon complex mental spaces, frames of knowledge and representation that are the result of blending separate categories and concepts into new and unique forms. Our inability to recreate and understand many of these

hybrid mental spaces is what makes so much of Sumerian thought and cognition in general so seemingly inaccessible.

In the Sumerian myth *Lugal-e*, for example (the text discussed in section 8.2.2), metaphor is only part of a much more complex equation between individual stones and specific social groups. That equation can be explained partially in terms of the basic structures outlined in here earlier. Categorization, cross-domain mapping, and metaphorical and analogical reasoning, however, can only explain so much. It may be enlightening to look at the properties and/or the origins of these minerals. But such approaches never seem to fully describe what these passages from the *Lugal-e* text actually mean, and perhaps as important, how they come to mean it. These passages perplex us because they involve understanding hybrid, blended schemata that we no longer share and cannot seem to recreate.

10.1.3.1 The silver vessel of Enmetena: Cultural attitudes toward the care and feeding of deities

Stones and other raw physical substances of the Sumerian world conveyed meanings via complex cross-domain mappings and mental spaces that are now largely inexplicable to us; likewise we should expect that these same physical substances, when used to physically create objects such as sculptures, reliefs, vessels, or weapons, must have involved even more complex meanings. Indeed, in a world where stones and minerals were rare substances, many of the objects produced with them must have been conceptualized not only as unique, but perhaps also as alive and infused with numinous energy.

As mentioned above, the images of the gods were viewed as living things and as such had to be fed, entertained, adored, and otherwise cared for at all times. The extraordinary

silver vase found at Girsu by de Sarzec at Tell K, near the Massif d'Entemena and dedicated to Ningirsu (Figs. 183-185), demonstrates this type of mental behavior. The vessel, which sits upon an attached base of three copper or bronze feet is decorated along the uppermost surface of the neck by a circular band with the following inscription:

For Ningirsu, warrior of Enlil—Enmetena, ruler of Lagash, chosen in her heart by Nanshe, chief executive[?] for Ningirsu, son of Enanatum ruler of Lagash, for his master who loves him, Ningirsu, made (this) vessel of refined silver, out of which Ningirsu consumes..., and set it up before Ningirsu in Eninnu.

At that time, Dudu was the temple administrator for Ningirsu.
(Cooper 1986:60, La 5.7)

The portion of the inscription which Cooper replaced in the above quote with an ellipsis has since been shown by Selz to read “his monthly fat ration” (Selz 1993:107). It is therefore now clear that the vessel, which held a specific volume of two *kúr* (Selz 1993:109), “was used for animal fat and was part of the specific table-ware of Ningirsu(‘s temple)” (Selz 1993:107).

The inscription on the vessel is particularly significant because it informs our understanding of how Sumerians viewed temple images. This was an object used for the feeding of a ‘living’ god and was quite literally placed within the deity’s place of residence—we should also remember that in Sumerian the word for “house” and for “temple” (*é*) was one and the same. It was not simply an object in which to place offerings to the god, nor was it simply set up in front of a representation of him, it was the vessel “out of which Ningirsu consumes.” It was of pure substance, “refined” silver and if it was set up in front of a statue, then it is more than likely that that image was literally viewed as actually being Ningirsu, or a form of Ningirsu.

It is also possible for us to contemplate the historical circumstances of this vessel in a unique fashion since must be one of the very few recorded instances from Sumer of a dedicated vessel for which there also exist statues of several of the people named on it. These

related representations include: a headless votive statue of Enmetena discovered at Ur (Fig. 163); the bottom portion of a second statue from Girsu's Tell du palais, which is similar enough in style that it may also have belonged to Enmetena; and, finally, the representation of a seated figure inscribed by an individual named Dudu, who was quite possibly the same "temple administrator."

The silver vessel is decorated with a series of engravings that are divided into two registers. The bottom register occupies the majority of the object's decorated surface, whereas the top register showing a frieze of bovines just below the neck of the vase occupied only a thin band along the shoulder. Each of the animals in the narrow upper register lies identically above a herringbone etched groundline and places its front right hoof forward onto the ground while folding the three remaining legs of its body underneath itself. Along the bottom register Ningirsu's hypostatic embodiment, the Imdugud, is portrayed four times. Twice, on opposing sides of the vessel, it is shown grasping a pair of lions by their hindquarters. On the other two opposing sides, the Imdugud is depicted grasping first a pair of stags and the second time a pair of caprids, both in a similar fashion. Although the iconography is not clear, it is possible that it involves a series of environmental metaphors linked to geography and fauna. In such a case, the breadth of Ningirsu's power would be represented by his dominance over the creatures who inhabit different regions: lions for the desert; stags for the forest regions; and caprids for the mountains and/or foothills. It is particularly important to note that the lions, the creatures most closely associated with both kingship and with Ningirsu, are shown biting the faces of the caprids and stags. Although the message is not entirely clear, this may have been intended to symbolize the dominance of the Sumerians, dwellers from the lion's native habitat, over the people of the forests and mountains represented by the caprids and stags.

10.1.3.2 The goddess on the Berlin fragment

A second fragment of a votive vessel constructed of basalt or steatite and thought to have come from Tello, was purchased in 1913 by the Vorderasiatisches Museum in Berlin (Fig. 194). It depicts a goddess, portrayed *en face*, whose identity remains the subject of longstanding iconographic debate (e.g.; Boehmer 1967; Boehmer 1972-1975; Asher-Greve 1985:73-76; Asher-Greve 1995-1996; Furlong 1987). Her hair is split into at least four tresses, two of which fall in front of her shoulders and two of which fall behind them, each ending in a curl. These four tresses are often identified with the goddess Nisaba, but may also have been identified with Inanna (Maxwell-Hyslop 1992:80).

She also wears a two-horned crown the iconography of which is not entirely clear. It appears either to show feathers arranged around an owl's head, or perhaps more likely, stalks of grain, placed to either side of a small lion's head (Asher-Greve 1992:185). She is cloaked and in her right hand she holds a palm frond. From each of her shoulders project three maces, an aspect usually associated with representations of Inanna in her war-like aspect (a conclusion, however, that is generally derived from later Akkadian depictions of Ištar, Inanna's Semitic form and may not hold true for earlier periods, e.g. Boehmer 1965:67, Pl. 377).

The same goddess appears to have been portrayed on a number of other artworks from ED III Lagaš including the two stele of Urnanše found at al Hiba and at Ur respectively (Figs. 177-179 and 180-182; see section 9.2.2); the Victory Stele of Eannatum (Fig. 103-110; see chapter 11); an ED III votive plaque, which cannot be more precisely dated, unearthed by de Sarzec at Girsu (Fig. 195); and a relief fragment found in the valley at Girsu situated between

Tell K and Tell J (Fig. 114: discussed in sections 11.5 and 11.6). The suggestion that this is Inanna is perhaps also supported by a similar ED III gypsum relief fragment from Nippur, found near the Inanna Temple (for which see: Hansen 1971:192, Pl. 95b; Boese 1971:185).

The significance of frontality in Sumerian representations has never been adequately explored. With the exception of only two artifacts (Figs. 177-179 and 114), all of the representations mentioned above depict the goddess *en face* and, in general, frontal representations seem to occur in Sumerian art exclusively in portrayals of the goddess or the Imdugud. This unusual limitation upon frontally representing humans causes one to wonder if there was a special significance involved in such a choice.¹¹⁰ If frontality was reserved strictly for portraits of the goddess, however, then why does she appear to have also been represented in profile (e.g., Figs. 103-110; 177-179 and 114)? We can propose a tentative hypothesis that the representations depicting women in profile might not have been intended to represent the actual goddess, but instead showed only priestesses who, because they represented her in human form, were therefore similarly attired and coiffured. Similarly, direct representations of Ningirsu/Ninurta's avataristic form, the Imdugud, are also always shown frontally, whereas I will argue below that his human representative(s) are depicted in costume as Ningirsu, but are shown in profile (see chapter 11, *passim*).

In the particular context of the complete plaque found at Girsu (Fig. 195), the goddess is represented as seated to the left of a chalice-shaped vase containing a young date palm. The plant is identified by two date clusters which hang downward over the sides of the vessel as well as by the blossoms which grow from the stem. To the right of the vase, a nude suppliant, similar to those on the Uruk Vase, holds a spouted vessel with both hands in front of the plant. Both figures stand upon an area perhaps best described as having a fish-scale like

¹¹⁰ This was first pointed out to me by Edith Porada many years ago.

pattern that extends behind the deity which appears to have signified the mountains, or foothills, rising to the East. It was perhaps also intended to indicate Inanna's astral identity, as the morning star that would have risen from behind those mountains.

Other candidates exist for the identity of the goddess. One obvious choice would be Ninḫursag, the "lady of the foothills," an epithet which is in keeping with the landscape shown on the plaque. Both Ninḫursag and Nanše are also mentioned on the fragmented inscription which surrounds the deity's head on the Berlin fragment:

- (i) [(x cases broken)] he built the E'engura of Sulum for Nanshe; [he built Absupasira for Enki, king of Eridu; he built the giguna of the sacred grove for] Ninḫur[sag (x cases broken)].
 - (ii) [(x cases broken)] when he/she granted [...], he (Entemena) set it up for him/her in the pantry. ... [(x cases broken)]
- (Cooper 1986:66, La 5.25).

Unfortunately, however, this text provides us with little significant information concerning the iconography of the vessel, its religious significance, or its intended cultic function, other than it was set up for the god or goddess within the deity's pantry.

Steinkeller observed that what appears to be, iconographically speaking, the same goddess as depicted on Eannatum's Victory Stele, "is actually Gatumdug who as generally recognized, was the original chief deity of Lagash, and who, like Ninḫursag, was a variety of birth goddess" (Steinkeller unpublished [1994]:14). For the moment at least, it appears that there must remain a series of intriguing options for the goddess' identity—including: Nisaba, Ba'u/Baba, Inanna, Gatumdug, and Ninḫursag—since, at this time, there is still no single overwhelmingly convincing answer. I would like to very tentatively offer at least one additional suggestion, hypothetical though it may be. Perhaps the goddess is really "all of the above," one goddess who—like the Hindu conception of the *Devi*—existed in many different

manifestations and was constantly re-conceptualized in different manners according to different traditions and needs.

On a final note, it is interesting to observe that the fragment in Berlin has always been presumed to have come from Girsu; this is assumed to be the case because of its style and the date of its purchase in 1913. Its true origin, however, remains unknown and there is no reason that it could not have been looted from the still unexcavated city of Nina, another primary city of the Lagaš state and holy city of the goddess Nanše.

10.2 Programmatic relief works: Votive plaques

10.2.1 Votive plaques of uncertain date

Four separate Lagaš votive plaques and fragments are generally ascribed to the ED IIIB period. It is unlikely that some of these (Figs. 196-197) can be dated with such a degree of precision; they may just as easily belong to ED IIIA. The other two plaques (Figs 171-175, which are discussed in section 10.2.2) can be reasonably dated to ED IIIB on the basis of their inscriptions.

The first of the two uninscribed votive plaque fragments is anomalous because it is engraved rather than executed in raised relief (Fig. 196). It depicts a procession of worshippers in which the three extant figures wear fleece skirts. The figure furthest to the left is visible only from the waist down; the central figure is depicted frontally but with his head in profile, holding a sheep in his arms; the figure furthest to the right is most probably a woman, as indicated by the garment covering her left shoulder and by her hair, which is tied back in a chignon. This is a stereotypical votive offering scene representing a schematized presentation

of sacrificial offerings to a temple. Iconographically and stylistically speaking, there is nothing that would distinguish it from numerous other ED IIIA or ED IIIB compositions.

It seems unlikely that another fragment depicting a man holding two braces of fish tied together by a string that has been pierced through their jaws (Fig. 197) was really part of a votive plaque. If it was, it must have been a plaque of a very different nature than other known examples. The composition is executed in raised relief against a sunken relief background. Unfortunately, the upper portion of the composition is missing. The dimensions of the remaining section, approximately 20 x 25 cm, are not unusual for a votive plaque; but the rectangular format of the framed area surrounded by a wide border and the subject matter are unusual. Perhaps the only other ED representation of fishes being brought to a temple as an offering occurs in the middle of the central register on the so-called “peace” side of the Standard of Ur (Fig:176).

This object appears to have once been affixed to a wall by means of the small hole near the figure’s elbow. Such a manner of attachment would suggest a very different type of function than that of other plaques, which were attached via knobs and pegs driven through their centers (see discussion in section 9.2.1). Alternatively, the hole may simply reflect a secondary usage of the object rather than its manner of attachment. Ultimately, because both the format and the iconography of this object are unparalleled during the ED period, nothing can be said about its intended use. It cannot be accurately dated, nor can it be attributed to any particular cult, since fish were regularly offered to many different deities.

10.2.2 Votive plaques of the ED IIIB period

Two remaining votive plaques can be dated to the ED IIIB period on the basis of their inscriptions. The first fragment was probably the upper left hand portion of a larger plaque (Fig. 198). It depicts a pious worshipper wearing a fleece skirt, his hands clasped in a traditional gesture of worship. He faces left towards an inscription which reads “Enanatum, ruler of Lagaš” (Cooper 1986:47, La 4.1). As in the earlier representations of human figures such as those of Urnanše and his family (Figs. 64-67), there is an almost generic quality to the way the figure is presented which is deeply at odds with the modern viewer’s concept of portraiture.

As discussed earlier (in section 9.1.2), something like portraiture appears to have existed in Sumer, but it was very differently conceived from our own standards. The seemingly generic quality of portraits mentioned above is also apparent in statues of humans, but this may be a matter of modern perception. We should therefore include inscriptions on representations, in addition to forms, gestures, and represented actions as part of the mental framework that must have defined Sumerian portraiture. In the case of the statue of Enmetena’s brother (M)ean(s), for example (Fig. 162; see Basmachi and Edzard 1958), that aspect most similar to what we call “portraiture” was encoded not just into his bodily aspect, his fleeced garment, or his devotional pose, all of which strike the modern viewer as rather generalized, but more specifically into the inscription that constructs his identity as the “son of Enannatum I.” The concept closest to our idea of portraiture was, therefore, constructed not according to mimesis, but instead according to structural combinations that utilized and combined written and artistic signs to transmit self-reflexive statements relating to personal identity.

This appears, for example, to have been the case on the plaque of Dudu, a priest of Ningirsu, which was found near the area of the Massif d'Entemena (Fig. 171) and is particularly unusual since it was constructed of bitumen brought from the distant city of Susa in Elam (Connan 1996:124). The composition is divided into a series of sections which employ three registers that are positioned to the left of the hole in the plaque's center and two registers that are shown to the right of it. The bottom register extends from the left to the right edge and is filled with a guilloche motif which is virtually unknown in ED Sumerian art but which was quite common in Elamite art of the same period. The top of this register, to the right of the plaque's hole forms a groundline on which the donor stands facing the viewer's right. To the left of him an inscription reads "Dudu, the exalted temple administrator of Ningirsu." Further to the left of that tagging device, the Imdugud is portrayed holding two lions by their hindquarters in the manner typical to Ningirsu's iconography. Below that register, a bovine is depicted to the left of the hole. Its legs are folded underneath it except for the front right one. The iconography bears strong resemblance to the representations on the vase of Enmetena. The remainder of the plaque's inscription reads "For Ningirsu of Eninnu, Dudu, the temple administrator of Ningirsu, had (this material) brought down from Urua, and had it made into a...for him" (Cooper 1986:68, La 5.28). The plaque is a truly complex statement utilizing not only framing devices, split registers, and inscriptions to create and transmit messages of identity, it even draws attention to its own material composition as a way of denoting the status of Dudu himself.

Although the artifacts from ED IIIA and ED IIIB are quite similar with respect to the forms of objects themselves and the types of subjects that are displayed on them, a subtle shift occurs in the sense of historicity and self-reflexivity that is presented by their authors. During

the ED IIIA period, the images depict the ruler as a high priest in charge of maintaining the temples of the gods, their economic interests, and the well-being of his subjects. This belies an understanding that such rulers can affect the cosmos by means of religious acts related to the temple setting. However, as will become clear in the succeeding chapter, by the middle of Eannatum's reign at the beginning of the ED IIIB period one can begin to discern a shift in the conception of kingship. What we will see is that Eannatum engages in a redefinition of his role as ruler, choosing suddenly to project his image as that of a warrior king, or *lugal* (lit. "great man"). In so doing he utilizes an ideal of kingship that appears to be derived from that of ED IIIA rulers such as Mesalim, the ruler of the northern city of Kish. Eannatum, as he presents himself on the Stele of the Vultures, appears to affect history not simply by appeasing the gods via pious acts and temple construction. As will be seen in the following chapter, as the *lugal* he now acts directly for Ningirsu, the state god of whom he is the human embodiment.

Chapter 11

ED IIIB Programmatic relief works: The Stele of Eannatum, self-reflexivity, and historicity

Comparing the visual representations of the ED IIIA period to those of the ED IIIB period, one can begin to discern an ideological progression in which the elite's conception of self gradually changes. During the ED IIIA period, the information which rulers such as Urnanše chose to record and transmit about themselves was related primarily to religious activities such as the construction of temples. During the ED IIIB period the use of that information changes and so do the ideological messages that rulers choose to convey. Similar messages to those formulated by Urnanše continued to be recorded and transmitted, but by the reign of Eannatum the new emphasis by the state's political and religious head was upon demonstrating a conception of rulership premised to a greater degree upon military power.

A shift in visual, and presumably also mental, forms of representation takes place, in which the ruling elite moves from portraying and understanding themselves primarily as a numinously or religiously concerned and centered group to depicting and conceiving of themselves as an historically and socially self-conscious people. Suddenly, there appears to be a new concern for historical processes such as battles and treaties, rather than simply with human achievements related to the ongoing maintenance of the metaphysical order. This change does not appear to have happened all at once. Some ED objects appear to have remained much the same in their purposes and in their structures and presentation whereas others, particularly the Victory Stele of Eannatum (Figs. 102-110), reflect entirely new types of messages that required the reformulation of existing codes into new types of visually

complex recording and messaging systems.

11.1 Structure, ideology, and self-reflexivity

Surveying the development of canonical structures for visually representing and transmitting information, beginning from the ED IIIA reign of Urnanše and then proceeding to the ED IIIB reign of Eannatum, one can see not only a structural and an ideological progression, but the evolution of an emerging sense of historicity and self-reflexivity. The emphasis of the newer types of messages expressed by Eannatum highlight his predecessors' almost singular focus upon expressions of piety, such as religious building activities. During Eannatum's reign it is not only the ruler's piety that is emphasized, but his historical accomplishments, his prowess as a warrior, and his relationship to the gods. These are all relationships and actions that define Eannatum as an individual, while highlighting the power and ideology of the state.

The newer types of messages did not ignore the types of ideological rhetoric formulated by earlier rulers like Urnanše, rather they incorporated, built upon, and refined the same types of messages formulated by their predecessors. These statements and the semiotic structures that enabled them to encode and transmit their meanings become much more complex by the end of the ED IIIB period. There was a structural progression in which compositional systems, methods of anchoring and relaying between text and image, and other visual tropes gradually become more complex and sophisticated, until they reached an apogee of integration and visual sophistication in Eannatum's Victory Stele.

The Victory Stele of Eannatum, or the "Stele of the Vultures" has two primary faces¹¹¹

¹¹¹ A small amount of relief work was also inscribed on its narrower sides.

often referred to as the “face historique” and the “face mythologique”(e.g., Barrelet 1970).¹¹²

It is believed to have originally measured approximately 1.8 meters high and 1.3 meters wide though only one third of the object remains. It commemorates Eannatum’s victory over Umma and its allies, one phase of an ongoing territorial conflict over water and agricultural rights relating to a rich portion of land, known as the Gu’edena, meaning literally the “Edge of the Plain” (Cooper 1983:11). The dispute over the Gu’edena, also known as the “beloved field of Ningirsu,” originated during a much earlier period, either during or prior to the reign of Lugalsha’engur (see sections 8.2.1 and 8.2.2), when the Gu’edena was jointly divided and controlled by the two states (Pettinato 1970-1971, *passim*).

The stele is perhaps the most written about object from Early Dynastic Mesopotamia. It is also arguably the most complex Sumerian visual statement yet discovered, representing, as it does, a largely unprecedented phase in the transmission of visual messages during which visual and written messages were formulated into complex blends. These are far more complicated than the systems of written tags and relays discussed here in previous sections and the ability to interweave these structural mechanisms into a newer, more complex and uniform statements resulted in an historically unique conception of rulership and state power.

The construction of the stele dates to a period when, as Cooper put it, “political power was concentrated in the city-states of Ur and Uruk to the southwest, Umma (-Zabala) to the north, and Lagash (-Girsu-Nina) in the East,” and when, “For Lagash, battling the states to the southwest and northwest, often acting in concert, was a major preoccupation” (Cooper

¹¹² Other analyses sometimes refer to the two primary faces of the stele as the “obverse” and “reverse”—e.g., Winter (1986a and 1986b, *passim*). These terms are avoided here because they are, semantically speaking, inaccurate and confusing. In the strict sense “obverse” and “reverse” are relative terms based upon the viewer’s temporary and impermanent perspective. They cannot be substituted, for instance, for terms such as *recto* and *verso*, which are valid only for strictly two sided objects and cannot be employed here either, because “obverse” and the “reverse” will continually reverse themselves as descriptive terms once the viewers gaze shifts to the opposite side of the object.

1983:9). Another distinguishing feature of the period is that, unlike during the reign of the ED IIIA ruler Lugalsha'engur, when Lagaš was able to rely on the kings of the powerful northern state of Kish, such as Mesalim (see sections 8.2.1 and 8.2.2), by Eannatum's reign, Kish had formed an alliance with the state of Ashkak that and was now hostilely disposed towards Lagaš, which was now left politically isolated.

The conceptually blended text/image message of the Victory Stele is different than all other Sumerian artworks currently known to have preceded it. In order to support the ideological shift at the visual message's core, the structure of the composition utilizes each and every structure for creating meaning—e.g., iconicity, symbolism, indexicality, categorization, cross-domain mapping, metaphor, groundlines, frames, registers, anchorage, relay...etc.—combining them in such a manner as to support an extended message that embeds both written and artistic display systems into a single, highly cohesive, visual-narrative sequence. The result is a unique statement that expresses Ningirsu's power and by extension Eannatum's and therefore also Lagaš', via the portrayal of a series of mythological and historical events.

As important, is that the particular events expressed, which culminate in Eannatum's victory over Umma and its allies, are intended as a primary expression of ideology and state power that formulates a new concept of self on the part of the ruler. This is accompanied by a uniquely new sense of historicity in which Ningirsu, the city state's tutelary deity, and Eannatum, its flesh and bone ruler, participate jointly in restructuring and reshaping the physical and political order. In order to support this paradigm shift, the relationship between text and image had to change. This allowed for a more complete statement of state power in which metaphysical statements were ultimately combined with historical events and were

employed to conceive of and cement a newly modified ideological state apparatus.

11.2 The archaeological context

Presently, the stele exists as seven individual fragments—conventionally referred to by the letters “A” through “G.” Fragments “D,” “E,” and “F” were found at Tell K, immediately outside the construction of Urnanše while fragments “A” and “C” were found at the foot of Tell K, in the valley between Tell I and Tell I’. Fragment “B” was reused in the construction of the palace at Tell A, and fragment “G” was purchased on the art market by the British Museum, which later donated it to the Louvre.

The location of the majority of the excavated fragments, either on or near Tell K, suggests that Eannatum’s Victory Stele must have originally been set up on that mound, probably outside the Construction d’Urnanše, which, after all, may well have been the *Eninnu*, Ningirsu’s temple/house of the ED IIIA period. This also seems to be consistent with what we know about the positions of stelae from later texts, that they appear to have been displayed in temple courtyards (*kisal*), rather than in more fully public areas such as marketplaces or squares.

11.3 Conceptual blending and dream spaces: Frames and schemata for authoritative knowledge

Both the textual and visual components of the stele have been heavily damaged. There have been numerous attempts to restore the visual component of the stele (e.g., Heuzey and Thureau-Dangin 1909; Barrelet 1970, Winter 1986a). Although large portions of the inscribed text are readable and are well understood, the first ten lines of the beginning section were very

badly damaged. These lines, which served as prologue and introduction to the historical events described on the stele, are important because they constitute the basis of Eannatum's religious, physical, and moral authority. They validate Eannatum's actions, including those performed by him in the service of the state, by recounting and explicating a series of complex interactions with both Ningirsu and several related deities. One of the few attempts at understanding the beginning of the text is the very tentative reconstruction of Jacobsen (1976b). Selz writes that "Very few scholars would accept Jacobsen's reconstruction of the beginning," that "most of it seems pure guess work" and that "some reconstructions may be definitely be wrong" (Selz, personal communication). It is used here simply in order to discuss the object in relation to the entirety of the text and is done so with the explicit understanding that portions of it are likely to be incorrect. Be that as it may it would seem that some speculation as to what that portion of the text said, is necessary in order to better understand this object.

Jacobsen's reconstruction begins with the mytho-historical background justifying Lagaš' claim to the rich agricultural field that lay between it and Umma, known as the Gu'edena. According to his reading, the basis of the conflict may be summarized as follows. The boundary was originally drawn by the god Enlil for Ningirsu and Shara, the tutelary gods of the two quarreling states. It was then subsequently ratified by Mesalim of Kish (see section 8.2.1) who "snapped the (measuring) cord on the field and implanted a stele at that place" (Jacobsen 1976b:257). Following this a sheriff of Umma collected tithes from the shepherds and *gudu*-priests who occupied the Gu'edena, but refused to turn over the portion of the tithes due to the "Triple Lion of the Innermost Ulnun," one of Ningirsu's many avatars—a reading which Selz believes is particularly unlikely (Selz, personal communication). When confronted

about this injustice, Umma treated the envoys of Urnanše and Akurgal defiantly and belligerently.

The “Triple Lion” is the party presented in Jacobsen’s reconstruction as most directly offended by Umma’s actions. This avatar of Ningirsu been conceived of as a divine weapon conceptually blended with animal and human qualities—similar to Sharur, the Shita weapon, the Mittu mace and Lugalkurdub (see section 8.2.2). The relationship between the state god, the “Triple Lion, “and the authority of the ruler may also have been represented by a later (Ur III) macehead dedicated to Ningirsu by Gudea and discovered at Tello (Fig. 199). That particular object was adorned with three sculptured lion heads that faced outward from the sides of the weapon (de Sarzec 1884-1912:229, Pl. 25bis 9a-b; Heuzey 1902:265; Thureau-Dangin 1907:145e’; Parrot 1948:196, Fig 42h, Steible 1991a 298-199; Edzard 1997:151). Ningirsu, the Imdugud, Sharur, the Shita weapon, the Mittu mace and the Triple Lion of the Innermost Ulnun, all seem to have represented the same basic, numinous force of the storm cloud that was venerated as Lagaš’ patron deity and conceptualized in terms of differently blended mental schemata.

Since the Triple Lion and Ningirsu represented the same numinous force(s), the conversation between them should probably be viewed as a structural means of expressing and making Ningirsu’s thoughts explicit to a series of specific audiences. It is another more complicated layer of conceptually integrated space, a blend derived in turn from previous complex blends—here involving the concept of the Triple Lion of the Innermost Ulnun. This newly blended space allows ideas to be presented as a dialogue between the two separate avatars of the storm cloud *numen*. This highlights one important aspect of conceptual blending, that it serves to make ideas accessible and understandable by presenting them in

newly conceived spaces that are not simply analogical, but that appear to be fluid and are thus seamlessly perceived. The idea of expressing the god's frustration with Umma's actions by means of a conversation with the Triple Lion accomplishes the creation of exactly this type of conceptual space. The importance of the dialogue lies not in the relationship between the two avatars of the *numen*, the human-like and the leonine—these are simply structural tropes employed in the creation of the newly blended space—but in the use of the blended space to make the viewpoint of the deified force both transparent and explicit.

Jacobsen's reconstruction reads that the Triple Lion, "opened a hungered maw in a (dream vision) towards Ningirsu (saying) in gloom 'May you have Umma not repel Lagash in my hay (? fields) and my personal (portion fields) in the fields and acreage of Guedinna'" (1976:257). The conflict proceeds from a series of violations in both the earthly and divine worlds and the conversation between the Triple Lion and Ningirsu expresses this disorder. As in the case of Ningirsu's conversations with his other weapons/avatars in the myth *Lugal-e*, the dialogue expresses conceptual blending in a number of different manners. Among the most intriguing of these are both Eannatum's and Ningirsu's self-reflexive aspects, which are expressed via a series of dream dialogues and visions.

Perhaps because we commonly accept that dreams can be shrouded in illogic and obscurity, or perhaps because we are simply products of the post-enlightenment era, we do not expect our dreams to present and to transmit authoritative information. It is a symptom of western metaphysics that most of us consider the dream world to be illusory when, in fact the limitations of what we call 'reality' are dictated by the functions of our own biology. This is because 'reality' is composed of complexly blended mental spaces that combine the specific environments, or spaces, external to our own bodies with the embodied reality of our

perceptual and cognitive apparatuses.

The use of dream dialogues as literary structures that circumvent the uncertainty of otherwise unclear and complex messages, occurs not only in Sumerian mythological and historical texts, but in many societies and periods, including that of the English Romantic poets (Oppenheim 1956:189). In fact these are not simply literary tropes, they represent a more direct experience of the numinous. Julian Jaynes has even suggested that, as late as the Homeric period (c. 900-850 BCE), the bicameral nature of the human mind was such that we as a species were largely unable to distinguish the many different internalized voices of our emerging consciousnesses as something other than the voices of gods (Jaynes 1976:67-99 and *passim*) a viewpoint which is fundamentally unacceptable because it presupposes that biological evolution should occur in an impossibly short time span.

Although Jaynes' viewpoint may go a bit far, he should nonetheless be credited with making an important and valid point by suggesting that these internal dialogues are central to what most humans perceive as consciousness. Some portion of what most of us view as consciousness, seems to occur within the context of internalized, mental dialogues, that occur inside our minds between what appear to resemble self-reflexive mental agents. The dialogue between Ningirsu and his hypostasis, the "Triple Lion of the Innermost Ulnun," for example, seems to occupy this category of inner dialogues and cognition. It is neither merely metaphoric, in the literal sense of the word, nor is it simply poetic; the discourse's structure mirrors that of human consciousness. By presenting Ningirsu's thoughts and consciousness via a series of dialogues with an avataristic form, the god's authoritative knowledge was made explicit to a human audience. The transmission of such messages to a human audience in turn served a socio-political end, validating the ideological basis for Eannatum's rule and his

actions.

Not all cultures share the empirical rejection of the dream space common in the West. The South American Jívaro, for example, believe that it is the waking world that is illusory and therefore dangerous, whereas the world of dreams constitutes ‘reality’:

The Jívaro believe that the true determinants of life and death are normally invisible forces which can be seen and utilized only with the aid of hallucinogenic drugs. The normal waking life is explicitly viewed as “false” or “a lie,” and it is firmly believed that truth about causality is to be found by entering the supernatural world or what the Jívaro view as the “real” world, for they feel that the events which take place within it underlie and are the basis for many of the surface manifestations of daily life.

Thus, within a few days of birth, a baby is given a hallucinogenic drug to help it enter the “real” world and hopefully to obtain help in surviving the hazards of infancy through seeing an “ancient specter.” If an older child misbehaves, his parents may administer another, stronger, hallucinogen to enable him to see that the “reality” on which they base their knowledge and authority does indeed exist. Even hunting dogs are given their own special hallucinogen to provide them with the essential contact with the supernatural plane. (Harner 1984:134-135)

Hallucinogenic rituals are but one of many ways of altering the way in which our biological, perceptual apparatus function—the point here is that what different cultures categorize as “reality” and how they delineate authoritative knowledge can vary greatly. In the case of the Jívaro, “knowledge and authority” both reside within the realm of the supernatural and are conveyed to humans who have entered the correct state of consciousness via the “ancient specters.” The Jívaro are but one of many cultures that seek metaphysical knowledge via visions and other ‘altered’ states, including dreams.

Each difference in the perceptual functions of any living creature must, by necessity, correspond to a similar change in that person’s, animal’s, or organism’s *Umwelt*, a generally meaning ‘environment’ but used here in the sense of Jacob von Uexküll who meant it to describe a subjective, biologically determined universe (see section 1.1; also see, in *passim*:

Uexküll 1926 [1920]; Uexküll 1982; and Uexküll 1992 [1934]). In Sumerian culture, oneiromancers were believed to interact with agents of the dream world who were entirely “real.” This is, in fact, the situation that Ningirsu is presented as occupying *vis-a-vis* his avatar, the Triple Lion of the Innermost Ulnun, in text of Eannatum’s Victory Stele. It is also the position that Eannatum occupies in relation to Ningirsu later in the written narrative (discussed below and also in section 11.5). The most important aspect of the dream appears to have been its ratification of state power which was derived directly from Ningirsu’s disgust with Umma and his and the other gods’ adoption of Eannatum.

The gods’ validation of the Lagaš state, along with its accompanying ideological apparatus, is even clearer in column IV of the text, where Ningirsu is described as impregnating Baba with the “germ of Eannatum.” The king is quickly adopted by Inanna and Ninhursag as well, “Mother Baba [Ningirsu’s wife] took him on (her) arm and named him ‘worthy-of-the-Eanna-of-Inanna-of-the-Oval’ [possibly a reference to her IQBAL Temple discovered at al-Hiba]. She set him down for Ninhursaga on her (i.e. Ninhursaga’s) right knee and Ninhursaga [Ningirsu’s mother] fed him from her right breast” (Jacobsen 1976b:257).¹¹³ Through this validation Eannatum is literally Ningirsu’s son, but is suckled as though he were the god’s brother.

Following the enumeration of Eannatum’s many physical and metaphysical virtues (column V), the text describes the king lying down as a dreamer (column VI) who is engaged in dialogue with the divine being standing at his head¹¹⁴:

Eannatum lay down (as) an oneiromancer. His master followed behind him to the side of the bed, to the sleeper at the head he stepped up, to the sleeping Eannatum Ningirsu his beloved master, at the head stepped up, was prodding him with a sword (saying:) “You who will breathe for me, you who will

¹¹³ Brackets are the current author’s.

¹¹⁴ The formal aspect of the deity appearing at the oneiromancer’s head is discussed by Oppenheim (1956:189).

breathe for me, you who will breathe fire for me, you who will breathe fire and fury for me in the enemy land: Even Kish is letting Umma roam on its own, and out of anger may not come to assist it. At your right Utu will rise for you, on your forehead a diadem (?) he will tie.” Eannatum rose, it had been a dream.
(Jacobsen 1976b:259)

Within the context of the blended dream space Eannatum, the oneiromancer, is proclaimed by Ningirsu to be his hypostatic human embodiment among men. He is literally told by Ningirsu that he will “breathe” for him and unleash his “fire” and “fury” upon the Ummites and their allies. He becomes the avatar of the state god, like the Triple Lion, the Sharur weapon, the Mittu mace, Lugalkurdub, and the Imdugud, Eannatum becomes another of Ningirsu’s embodiments.

This marks a major paradigm shift in the way that Sumerian rulers represent themselves ideologically. If we look at the royal inscriptions of any of the rulers previous to Eannatum, they always formulaically present their genealogies first and then their various building, military and other accomplishments. In Eannatum’s inscriptions, of which roughly a half dozen and a half are known to exist, there is only one example in which he mentions that he is the “son of Akurgal” (Cooper1986:44, La. 3.9). In that inscription, Eannatum’s relationship to Akurgal is seems to be assigned to a position of secondary relevance; his father is only mentioned after he has already stated that he was “granted strength by Enlil, nourished with special milk by Ninhursag, nominee of Ningirsu” and “chosen in her heart by Nanshe” (Cooper1986:44, La. 3.9). This suggests that during Eannatum’s reign one of the major changes that occurred was a re-conceptualization of rulership whereby the basis of the kingship was defined in terms of the ruler’s filial relationship to the divine, rather than his descent from human parents. In addition, votive plaques displaying familial relationships are

missing from the corpus of objects known from Eannatum's reign.¹¹⁵

In Oppenheim's path-breaking study of dreams in Sumerian and Akkadian literature, *The Interpretation of Dreams in the Ancient Near East* (1956), he divided dream experiences into three basic categories that included:

...dreams as revelations of the deity which may or may not require interpretation, dreams which reflect symptomatically, the state of mind, the spiritual and bodily "health" of the dreamer, which are only mentioned, but never recorded, and, thirdly, mantic dreams in which forthcoming events are prognosticated.
(Oppenheim 1956:184)

Clearly, the encounter between Eannatum and Ningirsu falls primarily into the first of these categories, which Oppenheim also calls "messenger dreams." Despite Oppenheim's "determination to abstain from any, necessarily dilettantic, attempts to introduce psychoanalytic terminology and concepts" (Oppenheim 1956:186), his work is none the less indicative of the time during which it was written in that it is essentially a catalogue of dream occurrences that are explicated by means of formal analytical approaches. Much of Oppenheim's emphasis was upon "mind set," physical "setting," and the literary "frame."

In order to unravel the two interrelated dream texts on Eannatum's Victory Stele, however, we need to acknowledge that these dreams are not simply literary metaphors. Structures such as metaphors, analogies, and metonymies are deeply embedded in the way that humans construct meaning (see the discussion in section 3.5). When we use the term "metaphor," it is usually taken to mean an artificial structure, or trope. Eannatum's dream is not simply metaphorical in an abstract, literary sense. Quite the opposite is true, we should

¹¹⁵ One can only surmise that there must have been other reasons for this change that we are unaware of. Although the following is purely speculative, one cannot help but wonder if Akurgal might not have had a more direct heir to the throne who was either rejected, or somehow "disposed of," in favor of Eannatum. This would explain the curious lack of any monuments or inscriptions dating to Akurgal's reign other than the small stone lion sculptures (Figs. 51, 52, and No. 36 in the current catalog—an object which has never been published). Perhaps such monuments were destroyed by his Eannatum. Alternatively, perhaps Akurgal's genetic offspring died of natural causes and Eannatum was his adopted son who wished to remove all historical traces of his step brothers. These are, however, simply guesses raised by questions that cannot currently be answered.

not doubt that his dream may have been considered quite ‘real’ and that the dialogue with the god was viewed as absolutely authoritative. Furthermore, we must acknowledge that when we describe aspects of thought such as metaphor, we are only dealing with very rudimentary surface structures. The conceptual blending that occurs in order to create the blended mental space, i.e. the schema, or frame, is of a complexity that cannot be entirely broken down in terms of structures, although the exploration of such mechanisms and matrices can indeed lead us closer to an understanding.

11.3.1 Beyond simple relays: Blending textual and pictorial systems into unified frames

In the middle of column VII, the emphasis shifts from the semi-mythological, metaphysically blended dream space shared by Ningirsu and Eannatum to a more earthly plane. Here, Ningirsu’s will is expressed in terms of the actions carried out by Eannatum, in the form of his avatar, and directed towards the recapture of the Gu’edena from Umma. Jacobsen’s reconstructed text reads, “On that day Ningirsu threw the great throw-net over Umma stabbed it with the sword, smote it with weapons. On its corpses, 3600, be they stabbed with the sword, or be they smitten with weapons, he heaped up their burial-mounds” (Jacobsen 1976b:259). Their number, 3600 according to the text, seems likely to have meant “a great many.”¹¹⁶ Aspects of that inscription are paralleled pictorially on the stele as part of a relay between text and image. On the historical face of the monument, for example, some of the corpses are heaped up in a mound next to which funeral rites, including libations and offerings, are being conducted. Here, however, subtle distinctions appear to have been introduced

¹¹⁶ This usage that reminds one of Narmer’s macehead from Hierakonpolis (discussed earlier in section 5.4.1), where three oversized graphs, depicted beneath a bound and squatting captive read “120,000”, an artful combination of writing and representation more likely to have been a statement conveying the king’s power than a factual remark about the actual number of men defeated

between text and image, since the corpses being administered rites to seem more likely to be those of Eannatum's troops than the bodies of his enemies. The fallen Ummites, by contrast, are left in heaps to be trodden upon by Eannatum's armies and to be picked at by vultures (see section 11.6).

The action on the mythological side of the stele revolves around a bearded figure, who towers in size when compared to the other humans. In his left hand, he wields a mace which he uses to "smite" the Ummites trapped within the "great throw net" described in the accompanying text. His left hand the grasps a lion-headed Imdugud, which holds a pair of lions in its talons. Some scholars, such as Henri Frankfort (1969:34), have maintained that the immense bearded figure with the mace represents Ningirsu, while others, such as Anton Moortgat (1969:43), have argued that the figure represents Eannatum. Irene Winter, on the other hand, seemed unable to decide; in her major article on the Victory Stele, she initially agreed with Moortgat that the figure represents "Eannatum attending a ritual ceremony" (1986a:18), only to contradict herself several pages later where she writes, "I would argue that the obverse is carved with a monumental figure of Ningirsu as the icon of victory over Umma" (Winter 1986a:24).

Winter's apparent confusion highlights that the solution to the identity of the figure, is not as simple as it may initially appear. In order to determine if the monumental figure indeed represents Ningirsu or Eannatum, we must first ask the following questions: why would a god wear an apparently a false beard and possibly even a wig; and why, more importantly, are there are no "known" ED depictions of Ningirsu? The false beard appears to have been held in place by a double band of material visible directly behind the monumental figure's ear—a fact which becomes clearer when we compare it to the small ED III relief fragment, belonging to

an entirely different artifact, but discovered near some of the Victory Stele's larger remains. On the small fragment (Fig. 114; discussed in greater detail later in section 11.5), the cord is used to attach the beard to the head of the man with the mace. It is depicted as a vertical line running from the beard, over the top of the head, and directly to a point behind the ear. There can be no other logical explanation for this feature. The figure's hair is also held in place by a head band, but it is unclear if this is intended to indicate a wig, or is simply an indicator of status. In contrast to this particular representation, it is less clear whether the beard and hair on the large figure of Eannatum's Victory Stele were intended to be understood as real or as part of a costume. It does seem likely, however, that the figure is wearing some sort of elaborate, ceremonial disguise.

Such a hypothesis, if true, would also confirm the interpretation that the figure represents Eannatum, in his role as Ningirsu's avatar. This makes particular sense because Ningirsu seems never to have been represented directly. Only his avatars, or aspects, such as the Triple Lion of the Innermost Ulnun and the Imdugud, are ever actual depicted on monuments and artifacts. This suggests Ningirsu had no directly approachable human form. Instead, the approachable forms of the god were the avatars which represented individual manifestations of his many metaphysical natures. These were expressed in terms of physical features and manifestations within a conceptually blended cognitive space.

Eannatum was but one of these manifestations, and his role as Ningirsu's hypostasis, is made explicit in the passage of the stele's text in which Ningirsu appears to Eannatum the oneiromancer. When he is shown as Ningirsu's hypostasis on the stele's mythological face, the equation "Eannatum = Ningirsu" is made explicit via the standard visual trope of hierarchical ordering in which the bearded figure of Eannatum/Ningirsu is made to span the

relative size and heights of several of the depicted humans.

11.4 The action on the mythological face: Parallels and observations

The closest parallel to the scene on the Victory Stele's mythological face occurs on the vase fragment (Fig. 114) found at Girsu by de Sarzec between Tell K and Tell J (see sections 7.2.3 and 11.3). Because this artifact was found near several fragments of Eannatum's Victory Stele it is possible that the two objects were related in their uses, although unfortunately little can now be said about this. Perhaps the most relevant aspect of the relief fragment, in terms of Eannatum's Victory Stele, is that it clearly shows a figure wielding a mace and wearing a false beard. The fragment also shows the figure striking a bound prisoner on the back of the head with his mace, which parallels the actions of Eannatum/Ningirsu *vis-a-vis* the netted figures on the Victory Stele. The use of maces as emblems of power is not unusual in and of itself, but the depiction of maces in actual use appears to have been unusual in ED Sumer. It is possible that such displays were limited to specific situations in which the ruler was represented as dressed in the costume of the god—i.e. wearing his robes beard, and wig, and carrying objects that were emblematic of the deity such as weapons, that were specially shaped or decorated, or were made of very particular materials (see, for example, the maces discussed in section 8.2.4).¹¹⁷

This violent way of conceptualizing and representing royal power appears to have been absent from the earlier works of ED Lagaš rulers, yet there is some evidence that it was rooted in an earlier tradition. First of all, the use of the staff as an emblem of authority occurs both on the circular plinth found at the Construction inférieure (Figs. 79-83; discussed in 7.2.1) and on

¹¹⁷ Hence, the symbolic significance of this weapon was slightly different in Sumer than it was in Egypt. In the latter country it was employed as a symbol of royal power (see sections 5.4.1, 5.4.2 and 5.4.3), however, it does not appear to have represented the personification of a particular deity.

the macehead dedicated to Ningirsu, in Enannatum's name by Barakisumun (Fig. 193).

Secondly, numerous seal impressions from levels IV and III of the Eanna complex at Uruk depict bound captives being prodded or beaten with either lances or with staffs (Fig. 25; see also: Jordan 1931:41-42, 44, Pls. 34, 45, 34; Jordan 1932:Pl. 15a; Heinrich 1934:43, 46, Pl. 23a-b; Heinrich 1936:33, Pl.15b; Lenzen 1959:21, Pls. 30a, b, and e; Lenzen 1968:24, Pls. 20a-b; and Brandes 1979:117-144, Pls. 1-8).

Another parallel with Eannatum's Victory Stele occurs on the far left side of this fragment (Fig. 114), where a goddess (or perhaps more likely her priestess, given that she is depicted in profile; see section 10.2.3.2) is shown wearing the "horned crown." The headdress resembles that of the two damaged female figures on the mythological face of Eannatum's Victory Stele, which occur on the top register immediately behind Ningirsu/Eannatum and on the right side of the bottom register. Whereas the small fragment shows the goddess/priestess seated and holding a chalice, on Eannatum's Victory Stele only small portions of the two depicted female heads remain, making it impossible to determine their original postures. On the Victory Stele, the remains of several divine weapons are visible directly behind the head of one of the females. In the representation of the goddess/priestess on the upper register, a standard behind her sustains the image of a bird different from the Imdugud—probably the raven of Lagaš bird known as BURU₄ (see section 9.2.3.1).

On the bottom register, the goddess/priestess faces a chariot and rider of which only a few portions are still visible, including the yoke-pole, the reins, the lion-shaped rein-rings, a single wing of an Imdugud standard, a portion of the rider's vestment, and the shaft of his mace, or of a similar instrument. Both Barrelet (1970:254-256, Fig. 15) and Winter (1986a:15, Fig. 3) have argued that the chariot must have been drawn by a mythological winged lion. In

Winter's opinion:

The argument is plausible, first, for reasons of space in relation to the yoke pole; and second because it would better fit with the mythical character of the stele, particularly as Ningirsu was said to have harnessed the winds to his chariot in pursuit of the *anzu*. In this way, the draft animals would have contributed to the impression that the power invoked was supernatural.
(Winter 1986a:15-16).

There is no concrete evidence to suggest that the chariot shown on the stele was drawn by anything other than the usual onagers. The myth described by Irene Winter is, unfortunately, known only from Old Babylonian texts, although its origins may date to the Akkadian period. There is therefore no compelling reason to use it to reconstruct the iconography of an artifact that is approximately half a millennium older. It is also worth noting that representations of winged lions affixed to chariots do occur in the glyptic of the Akkadian period (e.g. Boehmer 1965:Pl. 31, Nos. 372-374), so perhaps despite the fact that no such forms appear to have existed during the ED period, the possibility should not be entirely discounted that they are simply missing from the archaeological record. Unless, however, the missing fragments of the Victory Stele are one day eventually recovered, or an analogous representation is someday unearthed, such comments must remain speculation.

11.5 Textual structure

Before discussing the historical face of the monument in greater detail, it is instructive to look at the accompanying text. A series of distinctions between the written and the pictorial narrative structures will begin to become clear if we first break down the basic structures of the written and the pictorial transmissions independently.

We can begin by looking at the text on the Victory Stele and dividing it into individual sections, each defined by a singular set of actions or a theme. Since portions of the text are

missing, this requires that we take into account Jacobsen's tentative reconstruction of columns

I-X. One can then summarize and divide the basic text and its structure as a series of

units—here my summaries are separately numbered:

1) Enlil draws the boundary between Umma and Lagaš on the plain of the Gu'edinna, Ningirsu's beloved field. The boundary is then physically ratified by an earthly authority, King Mesalim of Kish, who snaps "the (measuring) cord on the field" and implants "a stele at that place"

(Jacobsen 1976b:257).

This first section should be read by us intertextually, in conjunction with the inscription on

Mesalim's macehead (Figs. 100-101; see sections 8.2.1 and 8.2.2). The macehead is an

earlier document that describes both the event itself and the divine source of Mesalim's

authority, "Mesalim, king of Kish, temple builder for Ningirsu, set this up for Ningirsu.

Lugalsha'engur is the ruler of Laga[sh]" (Cooper 1986:19, Ki 3.1). Read together, the two

separate texts ratify the legal background for the dispute. Since the law must proceed from

an authoritative source, divine participation in drawing the boundary is a necessary event;

only afterward can that divine judgment be ratified on earth.

The following section recounts that:

2) Throughout the reigns of Urnanše and Akurgal, the king of Umma's sheriff repeatedly collects grain taxes from the field of the Gu'edinna in the form of silver, but Umma refuses to turn over the portion due to the Triple Lion of the Innermost Ulnun, Ningirsu's hypostatic avatar.

Since the majority of all land may well have belonged to the temple state—a fact about which

very little is actually known—Umma's action amounted to the same thing as denying Lagaš its

fair share of agricultural income from the fields. There is a chain of causality and hierarchy

that was organized roughly as follows: at the top were the gods; below them, on the earth was

their "house" or temple, inhabited by the deity and/or its avatar(s) and surrounded by

agricultural fields that were literally its property; the temple and the surrounding agricultural

areas were administered by the priest/ruler; below the priest/ruler in status and power were the various members of other classes and professions (see, *passim*: Edzard 1967; Falkenstein 1967, Falkenstein 1974; Landsberger 1974, Jacobsen 1991; although for a different historical-materialist approach see, *passim*: Diakonoff 1969; Diakonoff 1974; Diakonoff 1982; Diakonoff 1990; Diakonoff 1991b, Diakonoff 1991c).

The offenses committed towards Lagaš and its city god are directly understood and expressed when,

3) In a dream vision, the Triple Lion of the Innermost Ulnun states his grievances to Ningirsu (namely those listed above in number 2).

Since Ningirsu and the Triple Lion are simply different aspects of one and the same deity this should be understood as expressing the self-reflexive aspect of the god. The conversation between the two hypostatic avatars of the same deity make its sentiments explicit to the human audience of the stele. As Ningirsu converses with his avatar within the blended frame of the dream space he also conveys authoritative knowledge.

Action then proceeds from the abstract space of the dream to the more real, yet still unearthly realm of the divine where,

4) Ningirsu implants the seed, or semen, that will become Eannatum into the goddess Ba'u/ Baba who then gives birth to him. Inanna takes him and names him "Worthy-of-the-Eanna-of-the-Oval" (Jacobsen 1976b:257) and Ninḥursag breast feeds him.

Via this act, Ningirsu quite literally engenders the solution to the problem of Umma's hubris. He receives the direct approval of Inanna, an important deity of the Lagaš state whose Temple Oval, referred to in the epithet she gives Eannatum, was unearthed by Hansen at al-Hiba. Eannatum is literally suckled by Ningirsu's mother, Ninḥursag, thus reinforcing an idea that is made explicit in the next section, namely that he and Ningirsu are hypostatic (see below,

number 5). That Eannatum is accepted/adopted by these deities serves as the ultimate validation of Ningirsu's proposed solution and confirms both Eannatum's divine origin and, as important, the source of his authority.

The text then returns to the conceptually blended dream space, where the human ruler, now communicates directly with the god.

5) Eannatum lies down to sleep as an oneiromancer . Ningirsu appears at his head and tells him, "You who will breathe for me, you who will breathe for me, you who will breathe fire for me, you who will breathe fire and fury for me in the enemy land..." (Jacobsen 1976b:259).

Again, we see how the Sumerians coped with issues of authoritative knowledge. Validation, authority, and knowledge were conveyed directly by the god, or spirit, to the oneiromancer within the blended schematic space of the dream world. Here is an explicit statement that Eannatum is the fleshly embodiment and hypostasis of Ningirsu who will enact his will and his judgment upon the earth. Following that declaration,

6) The battle takes place; Ningirsu throws his "great throw-net" over the Ummites. The Ummites are badly defeated, their bodies are heaped up in mounds, their city is laid waste by Ningirsu's "great hands and feet." During the fighting Eannatum is wounded. Eannatum provokes "a windstorm" and unleashes a "deluge" upon Umma.

The most interesting aspect of this description is the conceptual blending that takes place between Ningirsu and Eannatum. For example, Ningirsu's use of the great throw net and his laying of his hands and feet upon Umma are clearly mytho-poetic allusions to the actions taken in battle by Eannatum and his forces. Similarly Eannatum's ability to provoke a windstorm and unleash a deluge demonstrate characteristics of Ningirsu's aspect as a weather god, which Eannatum now hypostatically embodies. The blended mental space is completed by the action of Eannatum being wounded, for this is what defines his avataristic form as different from the pure form of the deity—just as he is Ningirsu's earthly embodiment, Eannatum is ultimately of

the flesh and thus susceptible to injury.

Following the culmination of the battle, the agricultural order must be reorganized.

7) The boundary between Umma and Lagaš is re-measured, this time by Eannatum. A small portion of land is left under Umma's control. Eannatum also erects a monument on that spot.

This is a particularly interesting ideological statement in that we are acutely aware that the previous boundary was measured by Mesalim, the king of Kish. Eannatum now appears to project his own authority and the ideology of the state in a way departs sharply from that of his grandfather Urnanše. His authority no longer requires the validation of a foreign king, instead it derives directly from his relationship to the god Ningirsu and from his abilities and accomplishments as a military leader. That some land was left under Umma's control may have been a conciliatory gesture, although the reasons for this are not entirely clear.

There are two competing opinions as to the identity of the actual monument mentioned in the text of the Victory Stele. Perkins (1957:57) has argued that the monument erected at the boundary is actually Eannatum's Victory Stele. Irene Winter believes that the text is referring to a different monument because its size and the "complex decoration lavished upon the stele" are "more in keeping with stele of later periods set up in urban temple compounds than with the smaller and more schematic boundary stelae" (1986a:24). She believes that Eannatum's Victory Stele must have been set up within the temple precinct of Ningirsu at Tell K, a theory that makes better sense given the locations of its remaining fragments.

After the stele has been set up,

8) The leader of Umma is then made to swear a series of oaths upon the "battle nets" of the various deities including those of: Enlil, Ninhursag, Enki, Sin, Utu, and Ninki [i.e, probably Ereshki(gal)].

This passage establishes not only the adherence of Umma to the ultimate terms set by the

conflict's outcome. From a structural standpoint, it also makes implicit the agreement by the deities being sworn to of Ningirsu's/Eannatum's terms for the resolution of the conflict. Of particular note is that all of these deities are common Sumerian gods rather than local deities or manifestations.

Finally, the written text ends with the following:

9) The various epithets of Eannatum are recited. His restoration of the Gu'edinna to Ningirsu is reiterated and we are told again that he erected a monument there (for which, see my comments above, in no. 7). The name of the monument is given. The most reasonable translation of this name appears to be that given by Selz, "Nin-Ĝirsu, the lord, (provides) the crown for Lumma (=Eannatum), (provides) life (for) the Pirig-enda-canal" (Selz 1997:196, no. 162)¹¹⁸

The epithets all relate either to the specific gifts bestowed upon Eannatum by individual deities or summarize his accomplishments in terms of his particular conquests. The reader is told, for example, that Eannatum was "nourished with special milk by Ninhursag, given a fine name by Inanna, granted wisdom by Enki" and "chosen in her heart by Nanshe" (Cooper 1986:37, La 3.1). Among Eannatum's/Ningirsu's conquests are important cities such as Susa and Ur, and the regions of Elam and Subartu.

The deconstruction of the textual narrative into the types of structural units outlined above—or any other number and form of possible units—highlights the differences between the text and the visual narrative. Not only does the pictorial representation depict only specific segments of the text, it does not attempt to deal with issues such as time and/or causality in a similar manner. Instead of outlining a story in which the 'logic' or the 'reasons' underlying particular events is shown, the pictorial representation deals with specific and abbreviated episodes in the conflict. This underlines important distinctions between the types of messages

¹¹⁸ For alternative translations of the stele's name see: Cooper 1986:37, La 3.1; Steible 1982a:144; and Steible 1982b:61-62, Nos. 102-103).

that texts and images were able to transmit individually, as well as how they were eventually integrated into complex, cohesive forms of display that expressed complicated ideological messages related to the history of and the functioning of the state.

11.6 The historical face: Making ideology and state power explicit through blended pictorial and textual displays

The structural breakdown suggested in the last section (11.5) can be summarized as follows:

Part 1	The creation of the boundary
Part 2	The political and economic background of the dispute
Part 3	Ningirsu's self reflexivity
Part 4	Ningirsu engenders a solution/ Eannatum is born
Part 5	Eannatum's validation as Ningirsu's avatar
Part 6	The battle
Part 7	The re-measuring of the land
Part 8	The swearing of oaths by Umma's king
Part 9	The exaltation of Eannatum and his accomplishments

Comparing the textual and the pictorial narratives, it is clear that, whereas the mythological face of the Victory Stele deals primarily with Eannatum's status as Ningirsu's avatar (see sections 11.3 and 11.4), with his exaltation, with a visual summary of his great military accomplishment (aspects that correlate with parts 5 and 9 of the text). The historical face deals, on the other hand, deals primarily with the physical events of the battle and with the re-measuring of the boundary (which are expressed in the text as parts 6 and 7).

The historical face of Eannatum's Victory Stele utilizes twice as many registers as the mythological face, a feature that allows it to structurally support a more complex narrative. It is divided into four primary horizontal registers, if one interprets the uppermost section where the vultures are shown flying off with human parts as the sky belonging to the scene immediately below it. Whether the registers should be read from the bottom register upwards (e.g., Winter 1986a:18), or from uppermost downwards (e.g., Perkins 1957:57) is unclear.

Reading upwards seems more likely, at least on the basis of a comparison to the Standard (Fig. 176) from the Royal Cemetery of Ur. The two primary faces of that object are each divided into three registers whose narrative direction, or ‘reading’, has been commonly acknowledged to proceed from bottom to top (e.g. Perkins 1957:56-57; Winter 1986a:19). Because the Victory Stele of Eannatum has been so heavily damaged, however, it is impossible to prove what the correct sequence would have originally been.

Additionally the pictorial narrative on the Victory Stele is not continuously structured and each of the registers is, to use Perkins’ term, “episodic” (1957:57). This is not to say that no linear progression exists whatsoever, simply that there is no clearly continuous chronology that links one register to the other via a standardized order. That type of innovation in a visual story, in which the entire story is chronologically elaborated by means of continuous images does not seem to have occurred in greater Mesopotamia until the Neo-Assyrian period, nearly two millennia later¹¹⁹. In contrast to those later narratives, on the Stele of the Vultures the registers are arranged according to specific messaging functions; they do not necessarily describe a strict chronological order, nor do they tell the entire “story” which is done by the text in its capacity as a relay mechanism.

This demonstrates differences between the possible purposes and intentions of extended written displays, versus their visual counterparts during the ED III period. The textual narrative is continuous, concerned with causality and with the unfolding and the chronological progression of events. It is as much a statement of Eannatum’s self-reflexivity

¹¹⁹ A few examples of the types of continuous pictorial narratives that develop in the 9th century BCE include, but are not limited to: the White Obelisk erected at Nineveh by King Aššurnasirpal II [c. 883-858 BCE] (Unger 1932; Sollberger 1974; Reade 1975); the Palace Gates of Balawat constructed by King Shalmaneser III [c. 858-824 BCE] (Birch and Pinches 1880-1902); and the Black Obelisk erected at Nineveh, also by that same king (Layard 1849:Pl. 53-56). Other works on the uses of visual narratives in Neo-Assyrian art include: Bersani 1975; Bersani 1985; Russell 1993; Winter 1981; Winter 1983; Winter 1991.

and his sense of historicity as it is an ideological statement about the power of the state and about the worldly and metaphysical orders. By contrast, the visual narrative highlights particular images, or episodic segments, abbreviated sections of a larger implied narrative that summarize and transmit succinct messages with distinct clarity.

The bottommost register is almost completely missing. Along its far left portion an upraised hand is still shown clutching the end of a spear-shaft. Irene Winter interprets this hand as belonging to a representation of the standing figure of the king (Winter 1986a:16, Fig. 8). It is also possible that the figure holding the spear would have been shown in a chariot, similar to the one on the second register from the top—although, however, there would appear to be very little space left in relationship to the edge of the frame for such a vehicle to fit properly.

On the same register, the upper portions of four heads are visible to the right. Each of these is cleanly shaven. Nakedness was utilized in Sumerian art to signify ritual purity. This is true, for example, in the case of the cleanly shaven undressed male figure depicted in the register immediately above this one as pouring libations upon the plant—or that of the naked attendants who were shown carrying offerings of grain on the Uruk Vase (Figs. 15-16). Nakedness was also used, however, employed to signify defeat and powerlessness—for example in the case of Uruk IV/III seal impressions from the Eanna complex at Uruk where naked bound prisoners are beaten and prodded with various instruments (Fig. 25; see also the discussion and notes above, in section 10.4.5). This latter signification appears to fit the representation on the Stele of the Vultures more clearly. It seems most likely that the four bald heads that can still be seen from the “episode” of the pictorial narrative present on the bottom register were meant to be understood and interpreted as already defeated enemies.

The audience of the stele is made acutely aware that whereas the three bald heads furthest to the viewer's left face towards the right, the fourth head faces left towards a spear, the tip of which just manages to touch that figure's brow but does not otherwise wound him. This is clearly intended to re-enforce that same hierarchy of power. That spear also appears to be disproportionately long—measuring approximately one and a half to two times the estimated height of its user's body. One can only speculate but perhaps this had a special significance as well. It might have been intended, for example, to represent Ningirsu's "long spear," mentioned in the later myth *Lugal-e* (see section 8.2.2.), in which case it would have served to reinforce the status and identity of its user, presumably Eannatum, as Ningirsu's avatar.

The use of nakedness as a way of visually denoting defeat and/or death is particularly conspicuous on the Victory Stele, because of its repeated usage. On almost every single register of the object, the captives and the dead are shown without hair and without clothing. On the left hand side of the register that is second from the bottom, for example, the dead are depicted as lined up in rows. Their nude bodies alternate in direction, each is turned so that its head lies next to the feet of the corpses on its two either sides. This arrangement allows the bodies of the dead to be closely packed figures within a tight area. Interestingly, in this instance the corpses may be those of Eannatum's own dead troops who are being readied for burial. Hence nakedness is used as a universal symbol that can be applied to the defeat of both allies and enemies. It may also have represented the literal circumstances involved in burial procedures; perhaps the dead were ritually interred in this manner. If these are in fact the corpses of Eannatum's own soldier's then their treatment also contrasts starkly with that of the corpses of the enemy in the upper register whose bodily parts are carried away by the vultures.

Immediately to the right of that field of corpses just described, two skirted figures each use their right hands to hold a basket on his head. These containers are filled with earth to be used for the burying of the dead. With their left hands, each of them grasps a line that is drawn out around the perimeter of the corpses. The lowermost of the two workers places one of his feet upon a large block that seems to secure the end of the line, whereas the uppermost figure places a foot upon the line itself. This artistic convention that is difficult to understand spatially. It suggests either a perspectival limitation that could not be overcome within the system of Sumerian representation, or perhaps simply implies that the way in which the line was depicted as being held was more important on a metaphorical, or symbolic level than on a literal level.

The cord seems on a physical level to simply represent a border, an area that has been surveyed and staked out for the placement of the dead. We can easily imagine this would, in fact have been done by drawing out a taught line and snapping it straight—just as Mesalim of Kish had originally “snapped the (measuring) cord on the field” (Jacobsen 1976b:257) to delimit the border between Umma and Lagaš. Equally important, however is that, on a symbolic, and metaphysical level, the boundary created by the cord also quite literally separates profane and impure space from space that is sacred. It does so by indicating a literally physical boundary between the world of the priests and the gods whose funeral rites and ritual offerings are shown to the right of the cord and the impure domain of the putrefying corpses shown to the line’s left.

Within the area depicting the funeral rites, a bull is depicted directly on top of the formal register line. Lying on its back it has been stretched out between the two wooden stakes to which it has been tied. In the pictorial ground immediately above the bull’s hind

quarters, six small, headless animal corpses are lined up, directly below the feet of a naked human. Only a portion of this male figure remains, but one can see that his hands grasp the base of a chalice, which he uses to pour libations upon the plants directly in front of him. To the right of the plants and of the bull, the fleeced skirt and legs of another figure are still visible. Although the rest of the body is missing, it seems likely that this figure is Eannatum again—this time depicted as a priest engaged in overseeing sacrifices and libations.

The two uppermost registers are similar in their message. The lower of these shows Eannatum in his chariot, again clenching an uplifted spear. Particular attention has been paid to the details of his chariot and his armaments all of which are signifiers of status—e.g., the whip, reigns, quiver, axe...etc. His helmet is perhaps of special interest as it shows an ear sculpted onto the side of the armored surface. His hair which is held up in a chignon also appears to be sculpted onto the back of the helmet and his real hair can be seen flowing out from underneath. This is historically paralleled by the (ED IIIA) ceremonial, gold helmet of Meskalamdug, discovered at the Royal Cemetery of Ur, in which the hair and ears are also integrated into the design of the surface (Fig. 200). Eannatum's helmet distinguishes him from his troops, all of whom wear simple helmets of a type that is known from an example discovered in the area of the Construction d'Urnans (Fig. 201).

On the uppermost register, Eannatum walks rather than rides his chariot, but on both registers he leads his columns of spear bearing troops, who tread upon the bodies of the dead. On the lower of the two registers, the bare-chested foot soldiers wear fleece skirts and carry lances that rest upon their right shoulders. There the pictorial composition is carried around the corner of the stele itself, so that four additional soldiers are visible along the object's thin side (Fig. 108). Presumably the upper register must have continued along the stele's side as

well since one of the trampled enemy from that register is also visible.

Also on the uppermost register, the foot soldiers point their spears forwards between their shields. Twenty-three individual spears are shown, along with an equal number of pairs of hands, but only nine heads, nine pairs of feet and five shields are shown. Since twenty-three is neither divisible by nine nor by five there is little mathematical logic to this. It seems instead that the intention of the message's author was simply to indicate that this represents a mass of troops of which we can see only the front file. To the far right of the register a pile of naked and defeated enemies is shown. Their corpses are twisted in a variety of directions and it is possible that three of the figures in that area may in fact be standing among the dead. In the portion of sky depicted at the very top of the object vultures are shown flying off with body parts including hands, heads, and entire limbs.

The differences between the messages transmitted via the display text and the pictorial representation are clearly apparent in terms of temporal structure. Whereas the written text conveys information in chronological sequence, from beginning to end, and seeks to define an history, the visual representations function as individual episodes within the context of the text's larger and more complete narrative. In all likelihood the stele was intended to convey multiple messages to various audiences. One can imagine that the pictorial display would have been understood differently, for example, by the following three possible groups:

- 1) Scribes and other literate viewers, who were able situate the visual display within the context of the accompanying text.
- 2) Illiterate audiences that were either already familiar with the history of the conflict between Umma and Lagaš or who would have been read the text by other, more literate viewers.
- 3) Illiterate audiences, perhaps visitors, who would have had little or no knowledge whatsoever of the historical conflict between the two states, but who none the less would have been impressed by the various depictions of

Eannatum on the stele.

The above examples emphasize the likelihood that the overall success of the Victory Stele as a device for transmitting social and historical messages lay in its ability to transmit polyvalent, or polysemous, messages to varying audiences. In each of these possible scenarios, important messages would have been successfully transmitted by the ruler to other members of the ruling elite, or to members of other significant social groups.

Chapter 12

Conclusion

12.1 Cognitive development and the study of history

One of the major goals of this study has been to show how a better understanding of human cognition can be used to pursue a different form of historical inquiry than has been the norm in ancient Near Eastern studies. Specifically, I have tried to suggest how theories developed within the cognitive sciences during the last three decades can be employed to better understand the evolution of two of the most important forms of visual communication, pictorial representation and writing.

Regardless of whether communication systems are based upon vision, sound, touch, smell, chemical or electrical stimuli, or any other manner of transmission and reception which may be available, the ability to transmit and receive information is a major part of what defines each species, organism, and individual. Communication is also what gives definition to and creates bonds within societies. The limitations placed upon each and every organism's perceptual apparatuses and the ability to process that information defines the limitations of each individual's world. In the case of our own species, such processes also define important aspects of individual and societal thought, including as cosmology and metaphysics.

The types of systems for recording and transmitting visual information discussed in this work have included some of humankind's earliest visual representations (see section 1.8, although these are discussed here only briefly), but I have focused on the emergence of the types of sophisticated, complexly structured systems of visual display that first appeared in Sumer, during the Uruk IV/III phases, and in Egypt during the late Naqada period. The

majority of this work has concentrated on one aspect of a later stage in that evolution, namely the pictorial representations created by members of the Early Dynastic Lagaš elite as public, or semi-public, expressions of personal, religious, and state authority. This corpus was chosen because as a group it not only spans the entire the entire ED period, it also contains so many complex works commissioned by rulers.

Investigating these types of early systems of visual communication is critical not just to our understanding of specific ancient histories, Sumerian or other, but to a more general understanding of the development of the human mind and of visual systems of representation and communication, including the processes, rules, and codes that they utilize, is an important part of our history. For example the study of features such as basic-level primacy allow us to look at ancient visual representations and to extract the basic-levels of categories from the existing data by noting the frequency of occurrences for particular signifiers that allow us to estimate prototype effects. This in turn allows us to theorize about how knowledge is mapped between categorical domains in order to signify newly blended meanings. It allows us to ask questions such as, what does it mean for a lion, a bull, or a bird to represent a particular type of human, or on a more complex level what does it mean for a natural force, such as the storm cloud, to be conceptualized primarily as an anthropomorphic deity, whose avataristic expressions also include fantastic creatures such as a lion-headed bird?

In the 100,000–140,000 years since *Homo sapiens*, or biologically modern humans, first appeared in Africa, the major advances in our evolution as a species have taken place on the level of cognition, at the level of Berlin's "inner events" that describe much of our history as individuals and as colonies of interdependent and communicative social organisms.

Historical inquiry should not be limited merely to a simple examination of the indexical, or

externally physical, remains of man's past such as, inscriptions, artworks, construction works, and the like, but should be extended to include the mechanisms and structures of human thought in each and every given age. Admittedly, the evidence for the construction of such alternative histories is more difficult to apprehend, but we should none the less persevere in creating and refining models that will eventually more accurately explain the evolution of human thought, communication, and behavior not only during remote periods of prehistory but also during more recent times.

Some of the topics introduced here regarding the evolution of the human mind are each extensive topics on their own which could underlie inquiries into many different subject areas.

These include:

- How the structural mechanisms that humans use to communicate meaning function and how those mechanisms evolved.
- What the nature of individual signifiers is and how and why we distinguish between categories such as icons symbols, and indexes.
- How operations such as categorization function and what roles analogy, metaphor, synecdoche, and other similar processes play in our interactions with and understanding of the world around us.
- What roles those same operative mechanisms play in how we communicate with each other.
- How we map information across conceptual domains in order to create new orders of meaning.
- How schemata, or frames, of representation function.
- In what way processes such as conceptual blending are central to how we think.

As developments and discoveries continue to occur in the cognitive sciences there will no doubt also appear better answers to some of these questions which will also seem immediately applicable towards building a more sophisticated understanding of the development of earlier societies.

12.2 Modularity and neural plasticity

Throughout this work, I have argued that the development of the cognitive sciences has important implications for our understanding of how humans developed mentally as a species that uses extraordinarily unique and complex systems for visually representing, storing, and communicating information. I began by outlining one of the basic paradigm shifts that occurred during the late twentieth century in our understanding of the nature of cortical organization and brain behavior. In particular, I discussed how biological “hardwiring,” for lack of a better term, is not simply limited to the operation of perceptual input systems and faculties, but must be extended to include a much wider variety of domains such as: grammatical and syntactical reasoning; color and taxonomic understanding; categorization; and the seemingly intuitive form of interpersonal awareness, or ‘mindreading’, called “theory of mind” (ToM).

Ideas such as modularity and wiring are to some extent simply convenient matrices, or analogies, drawn from disciplines such as engineering and the computer sciences to describe cognitive functions, systems, and behaviors. These matrices and analogies are necessary because we are only really beginning to understand how the mind operates. What is clear is that the recent models, crude though they may be, are an improvement upon our previous understanding. The cognitive sciences better explain how our species interprets, navigates through, and attempts to understand the perceptually “subjective universes,” or *Umwelts*, that are determined at least in part by our unique biology, than did the studies that preceded them. Models such as domain specificity and modularity have enhanced our understanding of the processes that control not only our perceptions, senses, and locomotion, but how and why we function as social organisms that interact with and communicate with one another.

Equally important, in terms of describing who we are and how we function are concepts that describe the adaptability of the human mind, such as long term potentiation (LTP), and more generalized forms of neural plasticity. LTP, for example, describes how the ways in which we think are in part the biological consequences of adaptations to the different types and levels of stimulus that we receive from our immediate environments. Neural plasticity—a term usually associated with the ability of certain parts of the brain to take on the functions previously controlled by areas that have since been injured—is used here to more generally describe the adaptability of cognitive functions. The effects of repeated patterns of specific thought and environmental interaction, for instance, exemplify some of the causes of neural plasticity because they literally change the types and strengths of connections between nerve cells. Repeated behaviors increase the branching of neuronal projections, and even alter levels of neurotransmitters.

Connections between neurons, “Hebb synapses,” increase in efficacy in proportion to the degree of correlation between pre- and postsynaptic activity. In other words, collections of neurons that have the tendency to fire together form cell-assemblies that continue to operate with increased efficiency and specificity long after the events that may have initially triggered them. Thought itself is intimately linked to the sequential activation of sets of cell assemblies. Cognitively richer environments, obviously, foster these neurological enhancements. Such changes eventually extend beyond simple LTP to include greater numbers of connections between neurons.

12.3 Modularity, LTP, and neural plasticity at work as historical, evolutionary processes

It therefore follows that objects can be said to be “good to think with.” The tokens that appear

to have preceded writing in Sumer, for example, may not have evolved directly into the two-dimensional graphs of the late Uruk writing system, but the manipulation of these and similar objects as signs probably marked a major change in the organization of neuronal connections and of cortical behavior. Manipulating objects as signifiers allowed humans to think of words in terms of visual signifiers. Because this seems to have occurred so quickly—because writing appears seemingly out of nowhere—it seems reasonable to believe it represents an exaptation of a pre-existing cognitive system. Since language is itself a system that substitutes signifiers in the form of sounds for signifieds, or mental representations of objects and other concepts, it would make sense that writing might have begun as a similar form of substitution. In other words, early writing simply employed pictorial, rather than phonetic, signifiers to refer to corresponding concepts or signifieds. This would explain why the earliest writing from Sumer and Egypt does not seem to have at first indicated the sound patterns of language. It was an exaptation of a pre-existing semiotic process. It did, however, quickly evolve to represent language through the development of a series of structural innovations designed to standardize the encoding process and to reduce ambiguity in sign usage.

As writing evolved in both Sumer and in Egypt it diverged along different paths. In Egypt the graphemic forms remained outwardly mimetic even though many of them came to also signify phonetic and/or abstract concepts. In Sumer, the physical process of writing on clay with a stylus appears to have led to a path of visual abstraction. By the ED period Sumerian graphs were no longer “drawn” as they had been in the earliest stages of the writing system, but were instead composed of myriad cuneiform impressions embossed onto the surfaces of clay tablets by means of wedge shaped styluses. Certainly within a few centuries of the system’s evolution the majority of these graphemic forms were no longer obvious

representations of naturally occurring visual forms. One of the major implications of this is that the organization and purposes of visual representations in Egypt and Sumer also evolved differently. Although Egyptian art is not discussed in this study beyond the period of King Narmer in Dynasty 0, it can generally be said that the continuing mimetic nature of written graphs in Egypt continued to allow an interplay between art and writing that was much more fluid than what eventually evolved in Sumer.

12.4 The Early Dynastic period: Complexity in visual communication, the development of historicity, and the emergence of self-reflexivity

Among the hallmarks of the ED period are the newly emergent senses of historicity and self-reflexivity visible in visual communications. The inscriptions and visual representations on ED IIIA objects, for example on the votive plaques of Urnanše, depict and define the ruler aware of his historical significance within the terms of his family and his genealogy, as well as within his religious function—i.e., as a religious leader, or representative of the god(s), whose responsibilities include the construction and maintenance of the temples, the supervision of an agriculturally based temple economy, and the stewarding of his people.

What we see in the ED visual representations of Lagaš rulers is an evolutionary mental progression from a group of people who view their role in the cosmic order primarily as that of caring for and therefore placating the numinous forces of the divine world, to a people who are more conscious of how their individual roles directly affect the world order. It is as though we are witnessing the emergence of a new form of self-consciousness. This is not to say that divine forces cease to remain at the center of the human metaphysical equation, it is simply that the nature of the equation changes so that the elite view themselves as more

actively involved in controlling the balance of the physical world.

Already by the reign of Urnanše there is a temporal dimension to the way that rulers choose to construct their own portraits. The more socially oriented votive relief plaques of Urnanše, for example, describe not only the place of the *ensí* within the genealogical and social framework of the state, they also convey additional information about his identity that is related to historical acts such as the transportation of building materials from far away places, or the construction of temples—statements that deeply concerned with specific historical, temporal (as opposed to symbolic) states of being. Earlier Sumerian representations, for example the Uruk representations of the EN priest as a hunter, appear to have been more concerned with metaphorical descriptions of the ruler's nature than with situating him as the cause of specific events. That the representations on the votive plaques are often considered among the earliest examples of “narrative art” is not surprising since there can be no narrativity without the attendant senses of self-reflexivity, causality, and temporality.

It is unfortunate—not to mention conspicuous—that that there exist no comparable monuments from the reign of Akurgal, who was Urnanše's son and Eannatum's father. Were they still in existence, they presumably would allow us to better understand the emergence of this self-reflexive phenomenon during the ED III period. What we can clearly observe, however, is that by the very beginning of the succeeding ED IIIB period, during the reign of Eannatum, the ways in which the rulers of the state view and present themselves takes on a new set of concerns and directions. The rulers of Lagaš begin to view themselves as even more active participants in earthly affairs, a phenomenon that is clearly evidenced with respect to the ways in which they choose to display social information. If Eannatum's Victory Stele is

an accurate indicator, then it can be said that the nature of mental representation, at least among the Lagaš elite, shifts during the ED IIIB period from a preoccupation with the divine to a newer sense of self-reflexivity in which rulers begin to understand themselves as historical people doing historical things. That this occurs at the time of Eannatum's reign is noteworthy as he is coincidentally also the first ED IIIB ruler of Lagaš, given the synchronism between his reign and that of Mesanapada of Ur (see the discussion in section 6.2.7).

Another important change is that, by the middle of his reign, Eannatum's royal inscriptions no longer make reference to his father Akurgal. It is as if his biological genealogy is no longer an important defining characteristic. What is instead important is the mytho-historical relationship of the ruler to the tutelary state god Ningirsu, whose offspring Eannatum proclaims himself to be. He also ceases to describe himself as an *ensi* and instead becomes the first ruler of that state to employ the title *lugal*, or "great man"—an epithet which during the preceding ED IIIA period is attested at Lagaš only on the macehead of Mesalim of Kish. One can assume that even by the ED IIIA period the particular form of rulership associated with the term *lugal* indicated greater geopolitical stature than the term *ensi* used by Urnanše of Lagaš. Were this not the case, it seems unlikely that Mesalim of Kish would have been called upon to intervene and adjudicate in dispute over the distribution of Ningirsu's "beloved field," the Gu'edinna.

12.5 Future research

Among the major issues that I believe require much more investigation is the nature of mental representation itself. Mental representation is an issue to which reference is often made but which is seldom described for the simple reason that no one seems to understand that much

about it. At the core of this largely intangible subject lies the question of how humans identify objects as carriers of meaning. To use an example discussed extensively in the preceding chapters, when is a mace not a mace in the modern sense of the word; when is it instead a god, a numinous force with which one must interact in ways that are represented by conceptually blended spaces? In the case of concepts such as the Imdugud, Sharur, the Mittu mace, Lugalkurdub, or the various stones that are personified in the *Lugal-e*, these ideas seem so cognitively remote that it is difficult for us to conceive of them, even less properly reconstruct their original defining schemata.

When we look at all of the various categories of ‘artistic’ display from the Early Dynastic period—votive sculptural representations; votive performative objects; votive relief works; and programmatic public artworks—and place them within the larger context of Sumerian schemata, it is clear that these objects utilize the schemata to achieve specific political and social ends. Central to this issue are the frames used by Sumerians to interpret the cosmos around them which were predicated upon the belief that the universe was governed by elemental forces. Much of modern, Western, humankind views the individual as being at the center of the cosmos. The Sumerian cosmological view was entirely different. The frames of representation that governed it viewed humankind as a minute portion of a much larger physical and metaphysical order governed not only by natural phenomena—such as stars, planets, water, fire, weather, flora, fauna, and minerals...etc.—but also anthropomorphized gods and *mischwesen*, or composite creatures (see, for example: Wiggerman 1992; Wiggerman 1993-1997; Green 1993-1997). Because these types of schematized forces are what defined Sumerian metaphysics, they served as the basis for any and all state actions. To put this differently, the actions of the ruler always needed to be

justified by means of these types of cosmological frames.

12.5.1 Other objects from Lagaš

Obviously, a great deal is missing from the archaeological record of Lagaš. In particular it seems surprising that we have so very few monuments or visual representations from the reigns of the rulers who followed Eannatum: namely Enannatum I, Enmetena, Enannatum II, Enentarzi, Lugalanda, and Uru'inimgima. This leaves a huge gap in our understanding of how visual representations continued to evolve, what their ideological goals might be and what information they might indicate about how these rulers viewed and portrayed themselves.

The problem that exists, however, may not simply be one of an inexact material record. It is also possible that we do not know what questions to ask of the archaeological material, or simply haven't asked of it. The narrow focus of the present study, which deals primarily with larger, two-dimensional representations intended primarily for display, means that it includes very little discussion of important "small finds" such as seals and sealings (Figs. 135-150, and 203-214), or jewelry (Fig. 215), objects that serve as important indicators of status and/or office.

A study of glyptic artifacts would, however, require a statistical analysis of seals according not only to find spot, but also according to iconographical content and inscriptions, an approach that is clearly beyond the possible scope of the current discussion. Generally speaking, however, one could generalize about some aspects that such a study might include or would indicate. First of all, the sealings—like the many tens of thousands of cuneiform texts that were either looted or ineptly excavated from Tello—are indicators of economic institutions, as well as of different forms of social hierarchies and organizations. The most

cohesive group of Lagaš sealings are from the Administrative Building of Eannatum at al-Hiba (Figs. 135-138, and 203-215) and it is possible that upon a closer examination, these artifacts and their context might yield some unexpected results.

It would also be useful to try to organize the iconography and structures of these representations into distinct categories and groups, since it is likely that different themes and register uses might indicate information about their owners. For example, it is possible that “banqueting” and/or “drinking” scenes might be shown to have been associated with temple offices, whereas seals depicting “contest”, or “heraldic” scenes might have signified political and military ranks. Most of the most notable seals from Lagaš are in fact of this iconographic type, for example: the seal of Eannatum (Figs. 135-136); the three ED IIIB seals of Lugalanda (Figs. 139-141); the seal of Uru’inimgina (Fig. 142); and the sealings of other government functionaries, such as “Uremesh the chief commercial agent” of Lagaš and “Eniggal, scribe of the woman’s organization,” which was controlled by Lugalanda’s wife Baranamtara (Fig. 144). Seals with multiple registers depicting different iconographic themes, such as the seal of Baranamtara (Fig. 143) might be hypothesized to have been intended as signifiers of multiple ranks or offices. Unfortunately, these particular seals have never been studied in this particular manner so these thoughts are offered here only as speculative subjects for future research.

Another avenue of exploration might include new approaches to the study of ED statues. Although these artifacts have already been extensively studied, the main intention of previous scholarship has been their discussion and classification according to art historical criteria such as style, iconography, and inscription (see references, p. xxiv). An equally if not more insightful study of those same artifacts might concern itself with some of the types of issues raised by Irene Winter in her article titled, “Idols of the King: Royal images as

recipients of ritual action in ancient Mesopotamia” (Winter 1992). It might illuminate specific aspects of visual communication and of Sumerian metaphysics to explore what the intention(s) of these statues was—for example their status as substitutes for flesh and blood devotional humans, their possible status as animate beings, or the possibility that they were utilized within the context of ancestral cults and, like the gods themselves required constant care and feeding. This might help us to further understand specific aspects concerning the Sumerian concepts of portraiture and of the self (discussed earlier in sections 9.1.1-9.1.2.3).

12.6 Final thoughts on the uses and abuses of schemata: The last ruler of ED Lagaš, Uru'inimgima and his reform texts

It seems appropriate to end with an example taken from the “reform texts” of Uru'inimgima of how metaphysical frames and schemata were employed to justify the actions of the ruling class. This example was chosen on the one hand because Uru'inimgima was the last Lagaš ruler of the ED IIIB period and on the other because it exemplifies the very rich body of Lagaš texts that might form the subject of a future research program by different scholars into the nature of Sumerian thought and its evolution. However, I have chosen it primarily as an example of how cognitive aspects such as frames of representation, or schemata, might be purposefully manipulated by the state and its representatives in order to justify ends and intentions, which might otherwise be subject to more general scrutiny. This is in fact the essence of effective propaganda and is a necessary basis for any form of effective and lasting political, or otherwise social, power.

The reform texts of Uru'inimgima are often described as a genuine attempt by a ruler to correct the excessive powers and injustices of an increasingly complex and bureaucratic

temple state that derived its authority from many of the same cosmological schemata that governed the uses and purposes of visual representations. These texts included some meaningful reforms, but it can be argued that they were also clearly a justification for the dismantling of an older ideological state apparatus and cultic bureaucracy in favor of a reformulated one that served to consolidate the ruler's control of the state and its wealth.¹²⁰ In this ambitious appropriation of land, power, and commodities by the head of the central state, the various gods—in particular Ningirsu, the city god—are used as the justification for actions. An inscription pieced together from clay cone and jar fragments, reflects this situation:

[Wh]en [Ningirsu, warrior of Enlil, granted Uru'inimgima the kingship of Girsu select]ing [him from among myriads of people], at that time, because[?] the head boatman appropriated boats; because the livestock official appropriated asses and sheep; because the fisheries inspector appropriated ... ; [because] guda-priests [paid] grain taxes [at] Ambar; [because the shepherds of wool-sheep paid (a duty) in silver on account of white sheep;] and because, [whether he be a surveyor], or a lamentation singer, or a brewer, or a supervisor, or a foreman, (a person) paid (a duty) in silver on account of young lambs; [he (Uru'inimgima) cancelled the(se) obligations for[?]] the citizens of Lagash. (Cooper 1986:74-75)

Despite the righteous claims of the “reforms” texts, in which it is pointed out that various types of services will no longer be paid for by the citizenry of the state and that the corresponding offices will be eliminated. The changes made by Uru'inimgima are a simple re-assignment of property. We are told that:

[He installed[?]] Ningirsu as proprietor over the [rule]r's estate and the ruler's property, as much as he possessed; [Ba'u as proprietor over] the estate of the woman's organization [and the property of the woman's organization, as much as she possessed; (vi) and Shulshagana as proprietor over the children's estate, as much as they possessed. (Cooper 1986:75)

¹²⁰ A good approximate parallel is the attempt by Akhenaten (Amenhotep IV), the late 18th Dynasty Egyptian king, to dismantle the Theban temple aristocracy's power structure by moving the religious and political capital and justifying it by means of a divine authority, or god.

On a material level, since Uru'inimgima had been rather conveniently selected "from among myriads of people" by the god Ningirsu to be king, the installation of the deities as property owners and as the ruler's of organizations and estates firmly establishes Uru'inimgima's universal authority.

The Sumerian schemata that described the larger cosmological order developed alongside with the concept of the state itself into the main justification of social and economic power. According to the Early Dynastic frames describing cosmological and religious structures, the ultimate rulers and owners of the material world were at least initially the gods themselves.¹²¹ All earthly institutions and authorities including the ruler himself and the bureaucratic temple apparatus derived their material authority directly from the higher cosmological order of the divine.

Viewed within the context of Sumerian cosmological schemata, Sumerian 'art' was a particularly meaningful tool in the state's propaganda. Votive performative objects were no doubt viewed as authoritative manifestations of the gods themselves, rather than merely as their representations or as emblems of rank. Votive statues must also have served to establish the authority of individuals by means of their relationship to the gods, as expressed on their inscriptions, and also by virtue of their stone materials which were no doubt viewed as having different types of distinct metaphysical properties, similar to those described in the *Lugal-e*. The same would have been true of votive plaques and programmatic public artworks, except that they expressed far more complexly organized statements concerning social structures. This culminated in Lagaš with complex ideological displays like the Stele of the Vultures,

¹²¹ A feature that also suggests why there is so little documented private land ownership prior to the Akkadian period.

which combined text and images into authoritative statements about the state, its ruler, and their metaphysical relationship to the divine.

