

## **Origins of the International System: Mesopotamian and West Asian Polities, 6000 B.C. to 1500 B.C.**

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*Abstract.*—The oldest original international system from a political science and world historical perspective is the West Asian international system. Reported here are findings of a study to identify, measure, and describe the composition of the earliest international system in terms of politically autonomous units, similar to earlier studies of the modern international system of nation-states and its polity membership. Autonomous polities include states, as well as chiefdoms and empires, from ca. 6000 B.C. to 1500 B.C., after which this pristine West Asian international system expanded into a much larger interaction network comprising the Euro-West Asian international system. The new data set developed for this study is based on primary sources from archaeology and epigraphy, and contains over two hundred polity-periods covering the initial 4,500 years (‘Ubaid period to end of Old Babylonian period).

Scientists who study large-scale complex systems—such as the physical universe or the Earth’s biosphere—spend considerable effort measuring and trying to understand the origins, composition, and early evolution of such systems. They use raw data collected by instruments to develop and test hypotheses and theories to explain phenomena of interest: be they stellar clusters, planetary events, or earthquakes. When, where, and how did the first international system originate? Which were the first states? How did they interact? What was their level of political complexity? How did subsequent configurations of the early international system evolve and develop? When did the first empires form? Political science today is dominated by the Westphalian paradigm of the modern nation-states system, even as it accepts some non-state actors within a global system (neo-Westphalian version). However, the Westphalian system that has evolved from A.D. 1648 to the present is only the most recent configuration in a long and complex political process that goes back thousands of years ( $\sim 10^3$ ), not just hundreds ( $\sim 10^2$ ).

The purpose of this paper is to reconstruct and analyze in a systematic way the “natural history” (Singer 2000) of the first original international political system that formed in West Asia during the 5<sup>th</sup> and 4<sup>th</sup> millennia B.C., approximately 7,500 years ago. I shall first provide some background, followed by sections on research methodology, findings, and a discussion of selected findings. The main results from this study, based on a new data set containing several hundred polity-periods, indicate that the first international political system formed between ca. 5500 and 4000 B.C., consisted exclusively of chiefdoms, and later evolved into the first true interstate system by ca. 3700 B.C. (Middle Uruk period as a *terminus ante quem*). The first empire in this pristine international system—the Uruk polity—also emerged soon after the formation of the first interstate system. The findings also uncover several new political patterns previously overlooked by the archaeological, epigraphic and historical literature on the ancient Near East.

## Background

### Motivation

This study—and a few others like it by a handful of political scientists (Buzan and Little 1994; Cioffi-Revilla 1991, 1996; Dark 1998; Ferguson and Mansbach 1996; Kaufman 1997; Midlarsky 1995; Modelski 1964; Thompson 1988; Wilkinson 1988)—is motivated by a disturbing anomaly in contemporary social science: the empirical age of the international system is now known to be much older, by several orders of magnitude, than the temporal scope of the dominant paradigm and theories of international relations. This contradiction—between the known facts and current explanations—will not go away; it can only grow more acute as archaeology and epigraphy increase the quality and quantity of relevant empirical data while other social sciences cling to the current modern focus, ignoring the ancient record. Political science, in particular, is decades behind in facing and solving this scientific problem.

The anomaly in political science can be appreciated by the following argument. Systems of government, alliances, diplomacy, deterrence, rivalries, warfare, conquest, negotiations, treaties, summitry, trade, and other diacritical phenomena may be called the “world politics complex,” as a short-hand that covers the array of phenomena that occur in an international system. Put differently, the “world politics complex” includes all the core constituent or defining phenomena of an international political system, without which such a system would not exist. Logically, the age of the international political system, and consequently the scope of investigation in political science, should be determined by the objective age of the “world politics complex,” not by a nominal convention: just when did alliances, deterrence, rivalries, warfare, conquest, trade, and other core international political phenomena begin to occur? When did the first polities establish a system of interactions?

Today, the dominant world politics paradigm that answers these questions is the Westphalian model, according to which the international system dates back to the 1648 Peace of Westphalia, when the Thirty Years War came to an end (Dougherty and Pfaltzgraff 1997; Russett, Starr and Kinsella 2000). A few works go back a little earlier (Bueno de Mesquita 1999; Levy 1983), but just by a few centuries. Quantitative or mathematical international relations research going back thousands of years is exceptionally rare (Alker 1988; Brams 1980; Cioffi-Revilla and Lai 1995; Midlarsky 1995; Russett and Antholis 1992; Wilkinson 1999); but symptomatic of the inadequacy of the Westphalian paradigm as a viable framework for understanding the “world politics complex” from a truly global perspective.

As I have argued elsewhere [references hidden for anonymity], with several initial empirical studies to back up the claim [references hidden for anonymity], a new, more empirically and theoretically robust paradigm is needed to resolve the anomaly and significantly advance frontiers of scientific understanding in world politics. One critical reason for expanding the scope of world politics research from a few hundreds of years into the thousands of years range is that many systemic variables (polarity, polarization, hierarchy, core-periphery relations, and others) are known to show only slowly changing values and relatively small variances over time spans of just a few hundred years. Thus, theories of the international system—the largest scale object in the political universe—cannot be rigorously developed and tested with modern data alone. We need more variance, not less (Singer 1990: 12), in order to have better and richer scientific explanations. A new global, long-range paradigm should cover the “world politics complex” in its entirety, from start to the present, not just the recent system of modern nation-states. Since international politics did not begin in A.D. 1648, as every social scientist knows, the real challenge is one of coherence and consistency in implementing the scientific enterprise: we

should “walk our talk,” not just pay lip service to the proposition that, of course, world politics antedates the Peace of Westphalia.

A few studies of international relations using the new long-range paradigm have already begun to appear (Buzan and Little 1994; Dark 1998; Ferguson and Mansbach 1996; Kaufman 1997; Watson 1992), in the midst of an otherwise Westphalian-focused discipline. Some of these studies may one day be acknowledged as early pioneers. However, the basic descriptive information on which these studies have been based has thus far suffered from some key methodological and theoretical deficiencies, not least of which has been the lack of a basic and dependable empirical foundation describing the composition of the international political system during its formative stages. A fundamental cause of this weakness has been the lack of extensive and systematic use of primary sources produced by Near Eastern area specialists and too much reliance on secondary and tertiary sources. Non-primary sources always lag behind the most recent primary materials and cannot be used without in-depth understanding of the underlying raw data. Historians in particular, on whom political scientists have customarily relied for the study of modern world politics, necessarily lag behind the most current knowledge produced by archaeologists and epigraphers, sometimes by decades.

Research on the earliest international system must begin with a methodologically sound and theoretically guided systematic description of the composition of the system in each formative epoch, directly in terms of the polities that existed at the time. For the modern international system, such descriptions were among the first scientific priorities in international relations (Russett 1967; Russett et al. 1968; Wyckoff 1980). For example, it is no coincidence that many pioneering scientific studies of war, the dominant research puzzle in world politics (Midlarsky 2000; Vasquez 1993, 2000), began with a rigorous and systematic assessment of the composition of the international political system in terms of polities (Levy 1983; Singer and Small 1972; Small and Singer 1983; Q. Wright 1942). If we want to understand earthquakes or hurricanes—explaining when, where, how, and why they occur—the first task is to describe and understand the underlying geological fault systems and weather systems within which earthquakes and hurricanes occur, respectively. The same should be true for world politics.

## **Purpose**

In this paper I present findings on the polity composition of the earliest international political system that formed in world history, the West Asian system, with emphasis on the Southern Mesopotamian region that produced the first complex polities (state-level societies). The geographical area of West Asia corresponds to the Middle East—including Turkey, Iran, Kuwait, Iraq, Jordan, Syria, Israel and Lebanon—an area that for thousands of years has manifested the complete “world politics complex”.

The Southern Mesopotamian (“Babylonian”) region within the larger West Asian system consists of southern Iraq and parts of Western Iran, an area several hundred kilometers wide along a band of territory that extends roughly from where modern Baghdad is located, to the northern shores of the Persian (or Arabian) Gulf. This is the region where a set of “complex chiefdoms” evolved into the first true states, as detailed in sections below, and the first international political system formed at ca. 5500 B.C. Eventually, this pristine system came to include not just states but also empires, and it expanded to Greater Mesopotamia (Figure 1) and beyond, including Egypt and polities in Anatolia (modern Turkey). By ca. 1500 B.C. this West Asian system expanded even further, creating a vast Euro-West Asian system that lies beyond the scope of this investigation.

It must be emphasized that the results from this study are tentative and will, no doubt, be revised and hopefully improved in validity and reliability—just like data sets on modern world politics have benefited from continuous development and improvements. Over time, better and more complete primary sources will become available from Near Eastern specialists, greater interdisciplinary collaboration will develop across the relevant social science communities, and more scientific experience will be gained in long-range comparative research.

## Method

### General Procedure

The general procedure employed in this study had two main stages. First, a comprehensive survey of specialized works on the ancient Near East—authored by archaeologists and epigraphers, with less emphasis on secondary works by historians—produced a reference database of Mesopotamian and neighboring polities. Paraphrasing the title of Banks' (1998) classic annual compendium, this reference database resembles a multi-year version of a *Political Handbook of the Ancient World*. The focus in this first stage was on the Mesopotamian region, because as indicated earlier, that is where the first (primary or pristine) states and empires formed.

Second, once the set of Mesopotamian and neighboring polities were coded, the information was used to obtain the composition, structure, and basic process of the resulting international system. The main emphasis here was on obtaining, by direct empirical induction, guided by the theoretical and operational concepts specified below, the composition and early politico-military evolution of the international system during its formative periods. Less emphasis was placed on detailing other components of the “world politics complex” (trade and diplomacy). The sections below explain the specific procedures used.

### Operational Definitions: Polities, Complexity and International Systems

Polities, political complexity, and international systems—the key conceptual building blocks—are terms that combine concepts and definitions from political science, archaeology and anthropology. While some ideas may seem obvious or unproblematic, others may not, so they are explicated here for conceptual clarity and for understanding measurement requirements.<sup>1</sup>

*Polities.* The term “polity” has several meanings across the social sciences, including some discrepancies between political science and anthropology. For the task of identifying and measuring cases (criteria of inclusion and exclusion), a polity was defined as follows:

DEFINITION 1 (Polity). A polity is the largest-size autonomous political system of a society, such that within each polity a system of government rules with putative legitimacy and authority over a population and territory during some period of time.

Political autonomy means self-governance, notwithstanding common attempts of external interference short of actual colonization, conquest or annexation. Accordingly, in common language “polity” □ “country,” such that Madagascar, the USA, Italy, or Mexico are “polities” or “countries” in today’s international system. Similarly, the Akkadian Empire, the First Empire of Uruk, the State of Ugarit, the Chiefdom of Arslantepe, or the State of Mari, constituted countries

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<sup>1</sup> These standards differ somewhat from parallel standards used for the modern nation-state system (Russett et al. 1968; Wyckoff 1980; see also [www.umich.edu/~cowproj/states.html](http://www.umich.edu/~cowproj/states.html)), where coding is based on historical sources, not primary archival work. Nonetheless, the measurement function of the instruments is the same—to produce an empirical list of polities for each chronological period.

or polities in the West Asian international political system, albeit at different levels of political development (see below). The social entity “nation” was not used in this study as a unit of observation, because it refers to a social or historical (ethnic-linguistic) unit, not necessarily an autonomous political entity.

Based on definition 1, a polity has several population centers (sites) linked by a centralized system of hierarchical administrative relations. Thus, a single urban center by itself is not a polity, although in some cases it may be the capital of a polity or country. By convention, the political capital of a polity is where the central government is located; for states and empires this is where the leader’s palace is located (Flannery 1998). Besides the central political capital, a polity also has other lesser political centers or provincial capitals.

Since the original name of many ancient polities is unknown, or a polity may have lacked a name (other than “the land of ...”), I used the convention of naming each polity by the name of its capital city (Umma, Ur, Uruk). An alternative but more artificial nomenclature would be to use the suffix “-land” or “-landia” and the name of the capital as the prefix (Ummaland, Urlandia, Urukland). The compromise solution adopted here is to refer to each polity by formal name, such as the Chieftdom of ‘Ubaid, the State of Uruk, the ED II State of Umma, the ED III Empire of Uruk, the Empire of Akkad, and so forth, based on the name of the capital. (So, for example, Peru and Ireland today would be designated as the State of Lima and the State of Dublin, respectively, each encompassing the whole of each country.) Polities, not just cities, constitute the unit components of an international political system. Every city—even a capital—is always part of some broader polity.

Over time a polity can change in territorial size, ethnic composition, economic structure, geographic location of its capital, or other features, as a time-dependent vector of national attributes. However, as long as the basic autonomy of its system of government does not change in some fundamental way the polity remains the same. For example, if a polity *A* loses its political autonomy, such as when *A* is conquered and annexed by another polity *B*, then *A* ceases to exist. If the area where *A* used to be later on separates from *B*, then a new polity *C* comes into being, even if *A*’s and *C*’s capitals are located at the same site, because *C*’s system of government will be new. (Poland provides a modern example.) This phenomenon of polity discontinuity was observed for some of the cases in this study (see below, Findings section). More often, polities exhibit remarkable temporal continuity.

Operationally, a polity is identified (measured) by (i) observing the settlement pattern hierarchy of sites for a given region (frequency-size histograms), especially in terms of number of levels in the hierarchy; and (ii) inferring the administrative control structure among the set of sites using on the most direct primary evidence available (archaeological, epigraphic, or pictographic).<sup>2</sup> The combined use of these operational indicators provides a tested technique for identifying polities, are discussed in the works of Robert McC. Adams, Kent V. Flannery, Gregory Johnson, Joyce Marcus, Hans Nissen, Charles S. Spencer, and Henry Wright (References section). For example, polities such as those centered at ‘Ubaid, Uruk, Susa, and others reported below were identified by this procedure. In addition, after ca. 3000 B.C. historical methods are also available through written records. A list of polity codes, synonyms, and modern country locations is given in Appendix 1.

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<sup>2</sup> I concur with Flannery (1998: 15–16): the conceptualization of a polity is in the disciplinary domain of political science and political anthropology; operational techniques for empirical measurement, based on ancient primary data, are in the domain of archaeology.

*Political complexity.* Definition 1 includes a large class of political units (polity actors in the international system), which must be partitioned for theoretical and conceptual reasons. Polities differ by level of political complexity or specialized development.

DEFINITION 2 (Political complexity). The political complexity of a polity is given by the degree of institutional diversity, administrative specialization in the system of government, demographic composition, and geographic range of putative political control.

The higher the level of latent features in definition 2, the greater the political complexity. Operationally, political complexity is an ordinal-level variable with the following set of values:<sup>3</sup>

“Chiefdom” = system of government of a ranked society with centralized leadership, undifferentiated institutions, and claimed but unreliable control over territory.<sup>4</sup>

“State” = system of government of a ranked and stratified society with centralized (and often hereditary) leadership, differentiated institutions with authoritative decision-making, and putatively reliable control over territory and its resources.

“Empire” = system of government of a multi-national society with centralized leadership, differentiated institutions, extensive bureaucratic apparatus, and putative control over a multi-national territory.<sup>5</sup>

The scale of these types of polities also increases as a consequence of their intrinsic complexity, although precise empirical correlates of political complexity are not yet available.

Polities were coded by their level of political complexity, for each chronological period detailed below. A change in political complexity marks the end of a polity and the start of a new one. For example, this occurred in the transition from the Chiefdom of Uruk to the State of Uruk, or in the transition from the Chiefdom of Susa to the State of Susa, both around 4000 B.C.

Since there is no teleological necessity for each level of complexity to always lead to the next (see earlier footnotes 4–6), developmental reversals are possible. For example, after the First Uruk Empire collapsed, it retreated back into its southern Mesopotamia homeland. That polity was followed by the Second State of Uruk, which emerged during the Jemdet Nasr period. Other examples are given in the Findings section. The evolutionary properties and dynamics of political systems (both ancient *and* modern) remain a fertile area of investigation.

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<sup>3</sup> Some anthropologists reject this “evolutionary” approach, based on the erroneous or uninformed belief that there is some kind of necessity in the “arrow” of political evolution from one level of complexity to the next, whereas no such necessity is implied. The fact that levels represent ordinal values (in the sense of Stevens’ classification of levels of measurement) should not be interpreted to mean that there is also a causal necessity in evolving from one level to the next.

<sup>4</sup> In turn, a chiefdom can be classified as “simple” or “complex” (see Earle 1991: 3 for standard references), depending on how close the polity characteristics are to those of a state (institutional specialization, social ranking tending towards stratification, number of tiers in the regional settlement pattern, and others). A complex chiefdom is often called a “maximal chiefdom.” Not every chiefdom, not even complex or maximal chiefdoms, becomes a state. The conditions under which some do and others do not remain an open research question.

<sup>5</sup> Similarly, not all states become empires, and the conditions under which some do and others do not remain unknown.

An important use of the political complexity measure is to more accurately describe the international system in terms of a variety of polities (not just states) and to observe and record variance in political complexity. In turn, variance in political complexity allows for testing a broader range of hypotheses on the effects of systemic diversity on international behavior, and vice versa.

*International systems.* The following definition of an international system was employed, consistent with common use in political science (e.g., Dougherty and Pfaltzgraff 1997: 175–85):

DEFINITION 3 (International political system). An international political system is a set of polities linked by a set of interactions (patterns of behavior in the “world politics complex”).

A set of polities does not constitute an international system, even if located in the same region, unless the polities interact through a set of political, economic, or military relations—the “world politics complex” discussed earlier. The interaction requirement was easily met, because as soon as polities could be identified (at the chiefdom level) interactions were also detectable (for example, trade and sometimes warfare as well).

As mentioned earlier, the identification of an international system was carried out by induction—by first identifying a set of interacting polities—based on the primary evidence from archaeology and epigraphy. By contrast, earlier studies (at least in political science) have postulated the existence of a system at a given date, without investigating whether one had existed before. Beyond the identification of the system for each time period, no attempt was made to measure systemic variables (polarity, alliance structures, hierarchy, core-periphery relations). System membership data can provide a basis for such future studies. Nonetheless, some overall systemic and behavioral patterns were also derived.

### **Spatial-Temporal Coverage**

*Regions.* Following Rothman (1994a: 5; 2000) and others (Huot et al. 1990; Liverani 1988; Postgate 1994), the nine regions of West Asia or Greater Mesopotamia were covered—Palestine, Anatolia, SE Anatolia, NW Syria, Northern Mesopotamia, Southern Mesopotamia, Central Zagros, Susiana, and SW Iran. However, the latter five regions were the foci of this study, given the objective of coding and analyzing the first international system.

*Periods.* The time span of this study began at ca. 6000 B.C., when the first colonization of Southern Mesopotamia took place and polities had not yet formed (anywhere), and ended at ca. 1500 B.C., or Kassite period, by which time the Greater Mesopotamian international system was fully formed (including Egypt, Hatti, and other major polities; Cohen and Westbrook 1999; Warburton n.d.). More than 250 cases of distinct polity-periods were coded, each case consisting of a given polity (e.g., Lagash) during a given period (e.g., Late Uruk period).

Following the periodizations proposed by Brinkman (1994), Rothman (2000a), Stein and Rothman (1994), and comparable specialized sources (Aurenche et al. 1987), the following seventeen periods of the standard relative chronology were used:

- I. ‘Ubaid 0
- II. ‘Ubaid 1
- III. ‘Ubaid 2
- IV. ‘Ubaid 3

- V. 'Ubaid 4
- VI. Early Uruk
- VII. Middle Uruk
- VIII. Late Uruk
- IX. Jemdet Nasr
- X. Early Dynastic I
- XI. Early Dynastic II
- XII. Early Dynastic III
- XIII. Akkadian
- XIV. Ur III
- XV. Isin-Larsa
- XVI. Old Babylonian
- XVII. Kassite

Absolute chronology was not used extensively, except in an approximate way, because the correlation of relative and absolute chronologies is the subject of a separate investigation and a matter of on-going debate. However, relative chronology is sufficient for the purpose of determining systemic composition by periods, just as when using a sequence of modern periods: post-Westphalian, Napoleonic Era, Concert of Europe, inter-war period, Cold War period, post-Cold War, and so forth. Approximate absolute dates are given as a reference.

### Sources

A comprehensive archive of primary and secondary sources was used, with emphasis on the former. While an exhaustive listing of sources for each polity and each period exceeds the journal's space limitations (contact the author), the following examples are illustrative:

- Akkad: Adams (1972), Glassner (1986), Liverani (1988; and chapters by Cooper, Foster, Liverani, Michalowski, Nissen, Steinkeller, Weiss and Courty, Westenholz), Postgate (1994).
- Kish: Cooper (1983), Flannery (1998), Lamberg-Karlovsky et al. (1973), Moorey (1978), Postgate (1994).
- 'Ubaid: Adams and Nissen (1972), Jasim (1985), Oates (1987).
- Ur: Adams (1981), Flannery (1998), Jasim (1985), Oates (1960), Stein (1994b), Wooley (1934), H. Wright (1981), Wright and Pollock (1986).
- Uruk: Adams (1981), Adams and Nissen (1972), Algaze (1989, 1993, 2000), Johnson (1972, 1973, 1980, 1987), Nissen (1986, 1990, 2000), Oates (1993) Schmidt (1974), Stein (1994a), H. Wright (1998), H. Wright and Johnson (1975).

Crawford (1991), Hallo and Simpson (1996), Liverani (1988), Nissen (1990), and Postgate (1994), among others, were used as secondary sources. Roaf (1996: *Gazetteer*) was used for the geographic location of sites, along with the Abzu Web site of the Oriental Institute of the University of Chicago (see [www-oi.uchicago.edu/OI/DEPT/RA/ABZU](http://www-oi.uchicago.edu/OI/DEPT/RA/ABZU)).

For polities where several generations of specialists have worked (Uruk, Susa), and discrepancies in primary data or interpretations differed, more recent sources and those using more rigorous methods were assigned priority, other factors being equal. For example, Adams (1981) had priority over (Wooley 1934), Johnson (1987) over Johnson (1973), and so forth.

## Findings

All findings must be considered tentative and subject to future improvements, given the incomplete nature of the extant primary evidence, the inferences involved, and the relatively rapid pace of field investigations and new interpretations. With these standard caveats in mind, the main findings are summarized in Table 1 (see also Appendix 1). The table contains Southern Mesopotamian (Babylonian) polities grouped by (i) the *relative chronology* of the seventeen consecutive archaeological periods covered by this survey (from [I] the ‘Ubaid 0 period, ca. 5700 B.C., to [XVII] the Kassite period, ca. 1500 B.C.); and (ii) the *political complexity* (chiefdoms, states, empires) of each polity in each period. Thus, each cell is a polity-set with bivariate rank ordering by complexity and period. The last row displays selected major polities outside of the Southern Mesopotamian region. The composition of the international system for any given period (“system membership”) is read by columns, as a time-varying polity set containing chiefdoms, states and empires.

[Table 1 and Figure 1 about here]

A map with the approximate location of the capital city of most of the Southern Mesopotamian polities is shown in Figure 1, irrespective of the level of political complexity of the corresponding polity. Only a few neighboring capitals, such as Mari and Susa, are shown; others lie outside Southern Mesopotamia. Some were the capital of a state (Eshnunna, Tutub, Kish, Umma, Larsa), while others eventually became the capital of an empire (Ur, Uruk). Agade or Akkad, the capital of the Empire of Akkad, cannot be shown because its location has yet to be identified. A political map analogous to that in Figure 1 would show the territorial boundaries between Mesopotamian polities in different time periods, something which cannot yet be done with desired precision. A preliminary theoretical approximation could be based on Thiessen polygons for each period, based on system composition data from Table 1.

Polities marked by a question mark in Table 1 are coded with less confidence in a particular period-complexity cell, either because little primary information was found, or because authoritative specialists differ widely in their interpretations of facts from archaeology or epigraphy. Polities without a question mark are coded with significantly greater confidence. For example, the Uruk [Uru] polity with capital at Uruk was certainly a “state” by the Middle Uruk period, and may have been an “empire” by the Late Uruk period (see Discussion section below).

Each cell in Table 1 contains an *asynchronous* set of polities, because within each period the extant polities may not all have been active at the same time. For example, the State of Kish [Kis] and the State of Lagash [Lag] alternated in dominating each other during the Early Dynastic II and III periods. During the reign of king Mesalim of Kish in the ED II period, Kish was the capital of a state that included Lagash as a province. By contrast, later on, during the ED III and the reign of Eanatum, Lagash was the capital of a state that ruled over Kish. Therefore, the set in each cell should be interpreted as meaning that the polities specified were autonomous some time within the given time period. The temporal resolution of the data set is hence by period intervals, generally of the order of  $\sim 10^2$  years (a few centuries). Figure 1 is also asynchronous, because it covers the very long time interval between ca. 5500 and 1500 B.C., during which time most polities moved by “entering and exiting” the regional political map; they were not all coeval. (By contrast, Figure 1 was synchronic, not asynchronous, because all polities represented are coeval.)

Figure 2 presents in greater detail the long-term politico-military process derived from Table 1 and supplementary information in the sources (see Appendix 2). The polities represented (chiefdoms, states, empires) are the major actors in the system and nearby environment (Mari,

Elam, Susa), and the interaction events are the major conflicts (civil, interstate, and coalition wars).

[Figure 2 about here]

The main political findings reported in Table 1 and Figure 2 can be summarized in terms of the following empirical propositions (validated hypotheses).

1. *Temporal systemic continuity.* The entire 4,000-year time range shows a continuous succession of polity sets at chiefdom level or higher (mostly higher with states and empires), beginning sometime during the ‘Ubaid 1 period (ca. 5500 B.C., period I in table 1) and ending in the Kassite period (1500 B.C., period XVII)— with warfare as an endemic occurrence. Once the international system formed at the beginning (period II) of this ancient and long process, it never ceased to exist—a property demonstrating strong meta-stability.
2. *First international system (chiefdoms).* The first international system formed during the ‘Ubaid 1 period and consisted exclusively of simple chiefdoms, such as Girsu, Kish, Nippur, Umma, and Uruk, interacting through trade and warfare.<sup>6</sup> Given approximate absolute dates of ca. 5500–5300 B.C. for this period (‘Ubaid 1), this means that this was also the first international system from a global or worldwide comparative perspective, because no other international system existed anywhere else in the world at this time.<sup>7</sup>
3. *Complex chiefdoms.* By the ‘Ubaid 4 period the international system contained several complex chiefdoms, some of which were at the threshold of becoming states. However, not all of them did.
4. *First international system (states).* The first interstate system formed by the Middle Uruk period and was comprised of actors such as Kish, Umma, Ur, Uruk, and others, all of them engaged in protracted warfare. As I discuss in more detail below (Discussion section), this is contrary to the prevailing view today, particularly among historians who consider the first interstate system that which formed during the Early Dynastic periods I–III at a much later date.
5. *First multipolar West Asian system.* The Susa was the first state that formed outside of the Southern Mesopotamian (Babylonian) region, joining a multipolar system within the broader Uruk-period West Asian system.
6. *West Asian superpowers.* Other non-Babylonian West Asian states formed after Susa, including the State of Choga Mish, a rival of Susa, and later the states of Ebla, Mari, Elam, Egypt, Hatti, and others. These and a few others may be considered the first “superpowers” or “major powers” in the international system.
7. *Early Uruk period interstate system.* The first interstate system in Southern Mesopotamia may have formed even earlier than the Late Uruk period, during the Early Uruk period, with several state-level polities such as Girsu, Kish, Umma, Uruk and others.

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<sup>6</sup> Adams and Nissen (1972: 211), Demange et al. (1994: 18), el-Wailly and es Soof (1965), Yasin (1970).

<sup>7</sup> Later, however, other international systems would form in other independent regions of the world, such as East Asia, Mesoamerica, and the Andean region (Cioffi-Revilla 1996; Dark 1998; Marcus 1998). The West Asian system examined in this study did not merge with other international systems until thousands of years later.

8. *Structure of the international system during formative periods.* During these formative periods (especially between ca. 5500 and 2500 B.C.), the structure of the international system was mostly polycentric or multipolar, as during the four 'Ubaid periods, the three Uruk periods, the Jemdet Nasr period, and the three Early Dynastic periods. Low-polarity periods (unipolar and bipolar structures) also occurred, but were historically rare and of relatively short duration.
9. *First empire in the international system (Uruk).* The first international system comprising an empire formed (perhaps through peaceful economic expansion) during the Late Uruk period, when the Uruk polity attained for the first time the political complexity of an empire with governance over a multi-ethnic society (Sumerians, Semites, and others) as well as colonial outposts (their number is still undetermined) along its northern frontier.
10. *Earliest colonialism in the international system.* Other Middle and Late Uruk period states, such as perhaps Girsu, Kish, Umma, and others, also established colonial outposts in Upper Mesopotamia, although the precise link between each outpost and the controlling state has not been worked out.
11. *Second empire in the international system (Uruk, again).* The second occurrence of an empire in the Southern Mesopotamian international system took place (this time by violent military conquest) during the Early Dynastic III period, when Uruk once again became an empire during the reign of Lugazagesi.
12. *Third empire in the international system (Akkad).* The Empire of Akkad was the third empire to form in the Southern Mesopotamian region, contrary to the prevailing view of most archaeologists, epigraphers, and historians that characterize Akkad as the world's first empire; it clearly was not. The Empire of Akkad was notoriously belligerent.
13. *Fourth empire(s) in the international system (Ur and Uruk, again).* During the Ur III Dynasty period, Ur and perhaps also Uruk (once again!) were empires (Figure 2). Uruk may have been an empire for the third time, when it led the military coalition that ejected the Gutti ("War of Sumerian Liberation" in Figure 2). Ur under Dynasty III certainly was an empire.
14. *Acyclical behavior by periods.* Periods of centralization (with an empire) and decentralization (competing states) did not alternate, which is also contrary to widespread belief. Cyclical behavior is not apparent in the sequence of polity sets (Table 1 would have to show cells with alternating sizes in the number of polities), nor in the politico-military process (Figure 2 would have to show a similar expansion and contraction of polities from one period to the next). Perhaps a different periodization could support the cyclical hypothesis; the traditional one does not.
15. *Chieftdom-to-state transitions.* Many of the chieftdom polities that formed during the 'Ubaid periods eventually evolved into more advanced and complex state polities during the Uruk period and subsequent epochs (viz., ED periods). At present the exact proportion remains unknown, but may be calculated in the future.
16. *State-to-empire transitions.* Some of the states that formed during the Uruk and ED periods eventually evolved into empire-level polities (Uruk twice, Ur, Akkad, and possibly others). This proportion can be more readily calculated.

17. *Chieftdom-to-empire transitions.* No chieftdom-to-empire transitions were observed, consistent with political science expectations. Or were they? Uruk became an empire almost immediately after having become a chieftdom; it was briefly a state during the Early Uruk period, in between the 'Ubaid 4 period (complex chieftdom) and the Middle Uruk period (empire). This First State of Uruk was very short-lived by comparison to other early Mesopotamian states. Uruk, therefore, came closest to experiencing a direct chieftdom-to-empire transition.
18. *Uruk's empires.* Uruk was the polity that most often evolved into an empire during the entire time span, two out of three times, doing so by military conquest. The mode of formation for the First Empire of Uruk (Late Uruk period, with colonial outposts in Northern Mesopotamia) remains undecided, based on the extant evidence.
19. *Long duration of polities.* Most polities that were extant in the latter periods originated in the earliest periods: Girsu, Kish, Umma, Ur, and Uruk, among others.<sup>8</sup>
20. *Short duration of empires.* By comparison, empires (Uruk I, Uruk II, Akkad, Ur, Uruk III, Babylon) lasted far less than the average state.
21. *First interstate rivalries.* The earliest interstate rivalries emerged during the Uruk periods, among Southern Mesopotamian states, as well as with the states of Susa and Choga Mish, not during ED periods as extant literature has it.

Taken as a whole, these findings demonstrate that the “world politics complex,” and therefore the international political system, is approximately 5,500 years old, not the much younger age assumed by the Westphalian paradigm. Moreover, these findings also demonstrate numerous political patterns (earlier systemic origins and empire formations) previously overlooked by the extant specialized literature on the ancient Near East.

## **Discussion and Conclusions**

### **Emerging Picture: A Brief Recapitulation**

The findings from this study begin to paint a picture of the origin and early development of the first international system that is remarkably dynamic, particularly when compared to the mostly static view that many political scientists have of the pre-modern world. It is also a rather well-defined picture, particularly in spite of many remaining gaps and uncertainties. In particular, the millennium that covers the Uruk periods (ca. 4000 to 3100 B.C.) already displays a significant portion of the patterns contained in the “world politics complex” discussed in the introduction. For example, warfare, imperialism, rivalries, colonialism, trade, and probably also alliances, are all already observable during the fourth millennium B.C. Moreover, some of these patterns, such as trade and warfare, occur even earlier, during the 'Ubaid periods. The remaining patterns of the “world politics complex” all occur by the ED periods (3000 to 2500 B.C.) at the latest, so the international political system was fully formed by the middle of the third millennium B.C.

Based on these findings, therefore, the international system is at least 5,500 years old, not 500 years old as in the Westphalian model. This much longer duration for the true age of the international political system has numerous implications that must be worked out by political

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<sup>8</sup> See also Cioffi-Revilla and Landman (1999) for a comparable finding in a recent study of Maya polities in the ancient Mesoamerican system based on survival analysis methods.

science and international relations scholars. The longer duration also yields much greater variance across variables, which is necessary and desirable for developing and testing better theories of world politics.

### **Politically Significant Contrasts with Extant Literature**

In the very broadest terms, the emerging picture of the first West Asian international system coincides with some of what archaeologists and epigraphers know, based on the primary evidence that they themselves have produced. However, significant aspects of the new emerging picture contrast with the extant accounts of the early international system. This is especially so with respect to two critical pristine processes: the rise of the first empires and the formation of the first international system, in that order.

*The first empires: Uruk, Uruk (again), and Akkad.* The first contrasting finding that emerges from this study concerns the formation of the first empire, which is a milestone event from a political science perspective. According to virtually all extant accounts, whether by anthropologists, historians, or political scientists, Akkad (half-way down in Figure 2) was the first empire to form (Buzan and Little 1994; Crawford 1991; Ferguson and Manbach 1996; Finer 1997; Liverani 1988, 1993c; Marcus 1998; McNeill 1993; Postgate 1994), and not just within the Near East but from a global, worldwide perspective as well. Watson (1992: 33–39) erroneously dates the first empire in the Near East to the rise of Assyria, which is a fourth- or fifth-generation empire.

By contrast, as shown in Table 1 and Figure 2 (period VII), not just one, but two distinct empires formed well before the Empire of Akkad: the First Empire of Uruk (periods VII and VIII) and the Second Empire of Uruk during the reign of Lugalzagesi (period XII, during the ED III period). Both preceded the Empire of Akkad. The Uruk polity formed the first empire during the Middle Uruk period, if not sooner, approximately 1400 years before the Akkadian Empire. Moreover, Uruk's transition from statehood to an empire-level polity was, as already noted, relatively brief, having taken place during the Early Uruk period. In other words, Uruk was not a state for long, only approximately 200-300 years (period VI). This First Uruk Empire had all the necessary characteristics to qualify as an empire, by definition 3: a multi-national (multi-ethnic) community, colonial outposts in the north, some of which were heavily fortified, and consequently an extensive territory even if direct political control over all of it has not been demonstrated. From a political science perspective, it is puzzling that Algaze's (1989 [sic!], 1993) influential and path-breaking work establishing the imperial nature of Uruk since 1989, as coded in Table 1 and Figure 2, continues to be largely ignored by social scientists and historians in the context of determining the world's first empire. By contrast, his work on Uruk has become a standard reference in the "world systems" community (Denemark et al. 2000; Frank 1993; Frank and Gills 1993).

The Second Empire of Uruk formed during the last phases of the ED III period, when the state of Uruk once again expanded its frontiers and encompassed, once again, a large and diverse community. Although at present there is less archaeological evidence for the imperial character of the Uruk polity during the ED III period than there is for the Uruk period, the epigraphic evidence for the Second Uruk Empire during ED III is considered historical, not mere political propaganda (Cooper 1983: 94–95; Liverani 1988: 195, 197; Postgate 1994: 34–35).

*The first interstate system: Uruk periods.* The second contrasting finding uncovered by this study concerns the formation of the first international system, which is another milestone from a political science perspective. The standard account among most historians, political scientists,

and even some anthropologists, is that the first interstate system formed during the Early Dynastic periods (periods X to XII in Table 1 and Figure 2), not earlier (Buzan and Little 1994; Dark 1998: 162–63; Ferrill 1997; Finer 1997; Humble 1989; Marcus 1998; Montgomery 1968; Watson 1992). For example, the conflict (interstate rivalry) between the states of Umma and Lagash has become a classic episode within this allegedly original interstate system (Cooper 1983).

From a political science perspective, the dating of the first interstate system as late as the ED I period (to say nothing of those who date it as late as ED II or even ED III) is highly problematic for at least two reasons. First, if (a) Uruk produced the first state during the Early Uruk period (Table 1 and Figure 2), which seems certain, and (b) a tentative absolute period for the Early Uruk period of ca. 4000-3700 B.C. is assumed (Rothman 1994a: 5, Table 1), then it is politically highly improbable, indeed rather implausible, that no other states formed in southern Mesopotamia for the next 800 years. At least some of the other complex chiefdoms contemporary with the state of Uruk must also have evolved into states by the Middle and Late Uruk periods, as indicated in Table 1 (periods VII and VIII) by the question marks attached to Bad Tibira, Girsu, Kish, Umma, Ur, and others. This set of polities, during all three Uruk periods, should be the subject of more focused investigation. They were probably states, which therefore gave rise to the first true interstate system, almost a thousand years before the time claimed by the extant literature.

The second reason why the dating of the first interstate system as late as the ED I period is problematic is because, as we have known for quite some time, the nearby State of Susa—in present-day southwestern Iran—formed by the Middle Uruk period, and the neighboring State of Choga Mish, a break-away polity of Susa, formed during the Late Uruk period (Johnson 1973, 1987; H. Wright 1994, 1998; Wright and Johnson 1975). Therefore, the states of Uruk and Susa also formed an interstate system by Middle Uruk times, again, almost a thousand years earlier than ED times, even if there had been no other southern Mesopotamian states besides Uruk (see Figure 2, Middle Uruk period). By the Late Uruk period, approximately 300-400 years before the ED period, this interstate system also included Choga Mish and possibly other state-level polities as well (Arslantepe?), including the First Empire of Uruk.

Findings from this study, together with the above arguments based on primary evidence, conclusively indicate that the first interstate system formed during the Uruk periods (during ca. 4000–3200 B.C.), much earlier than ED times. This new model would be consistent with Algaze's (2000) recent re-analysis of the Uruk polity, which seems to imply that the Uruk polity was not alone in southern Mesopotamia during the Early to Late Uruk periods. Perhaps also Finer (1997) and Saggs (1989) understood this phenomenon, although they are even less explicit than Algaze (2000).

How can one explain these and other significant discrepancies between these findings and the extant literature? I believe the explanation lies in the way that different disciplines are accustomed to analyzing the same body of primary evidence. Political scientists view an international system as a network of interacting polities (by definition 3), with strategic actors (domestic or foreign) making interdependent decisions. Using a modern political science framework to evaluate and interpret archaeological and epigraphic evidence can produce, as in this study, a somewhat different picture than what, say, an anthropologist or an historian would see. Although some of the features of the emerging models may coincide, other important and insightful details do not—especially on the origins and formative stages of the international system. A better understanding of the objective systems and processes can only be obtained through further interdisciplinary collaboration.

## References

- Adams, Robert McCormick. 1972. "Settlement and Early Irrigation Patterns in Ancient Akkad." In Gibson (1972: 182–208).
- \_\_\_\_\_. 1981. *Heartland of Cities: Surveys of Ancient Settlement and Landuse on the Central Floodplain of the Euphrates*. University of Chicago Press.
- \_\_\_\_\_, and Hans Nissen. 1972. *The Uruk Countryside*. University of Chicago Press.
- Algaze, Guillermo. 1989. "The Uruk Expansion: Cross-Cultural Exchange in Early Mesopotamian Civilization," *Current Anthropology* **30**: 571–608.
- \_\_\_\_\_. 1993. *The Uruk World System: The Dynamics of Expansion in Early Mesopotamian Civilization*. University of Chicago Press.
- \_\_\_\_\_. 2000 in press. "The Prehistory of Imperialism: The Case of Uruk Period Mesopotamia." In Rothman (2000a in press).
- Alker Jr., Hayward R. 1988 "The Dialectical Logic of Thucydides Melian Dialogue," *American Political Science Review* **82**(3) September: 805–20.
- Aurenche, O., J. Evin, and F. Hours, eds. 1987. *Chronologies du Proche-Orient*. Editions du Centre National de la Recherche Scientifique, Paris.
- Banks, Arthur. 1998 [annual]. *Political Handbook of the World*. New York: McGraw-Hill.
- Brams, Steve. S. 1980. *Biblical Games: A Strategic Analysis of Stories in the Old Testament*. Cambridge, MA: MIT Press.
- Brinkman, John. 1994. *General Chart of Chronological Periods in Ancient Mesopotamia*. Oriental Institute, University of Chicago.
- Bueno de Mesquita, Bruce. 1999. *Principles of International Politics*. Washington, DC: CQ Press.
- Buzan, Barry, and Richard Little. 1994. "The Idea of 'International System': Theory Meets History," *International Political Science Review* **15**(3) 1994: 231–55.
- Cioffi-Revilla, Claudio. 1996. "Origins and Evolution of War and Politics," *International Studies Quarterly* **40**(1) March: 1–44.
- \_\_\_\_\_, and David Lai. 1995. "War and Politics in Ancient China, 2700–722 B.C.: Measurement and Comparative Analysis," *Journal of Conflict Resolution* **39**: 467–94.
- \_\_\_\_\_, and Todd Landman. 1999. "Evolution of Maya Polities in the Ancient Mesoamerican System," *International Studies Quarterly* **43**(4) December: 559–98.
- Cohen, Raymond, and Raymond Westbrook, eds. 2000. *Amarna Diplomacy: The Beginnings of International Relations*. Baltimore: The Johns Hopkins University Press.
- Cooper, Jerrold S. 1983. *Reconstructing History from Ancient Inscriptions: The Lagash-Umma Border Conflict*. Sources from the Ancient Near East **2**(1). Malibu, CA: Undena Press.
- Crawford, Harriet. 1991. *Sumer and the Sumerians*. Cambridge University Press.
- Dark, Kenneth R. 1998. *The Waves of Time: Long-Term Change and International Relations*. London: Pinter.
- Demange, Françoise, Françoise Tallon, Elisabeth Fontan, Agnès Benoit, and Annie Caubet. 1994. *Les Antiquités orientales*. Paris: Réunion des Musées Nationaux.
- Denemark, Robert A., Jonathan Friedman, Barry K. Gills, and George Modelski, eds. 2000. *World System History: The Social Science of Long-Term Change*. London and New York: Routledge.
- Dougherty, James E., and Robert L. Pfaltzgraff, Jr. 1997. *Contending Theories of International Relations: A Comprehensive Survey*. New York: Longman.
- Earle, Timothy. 1991. "The Evolution of Chiefdoms." In *Chiefdoms: Power, Economy, and Ideology*, Timothy Earle, ed. Cambridge University Press. Pp. 1–15.
- El-Wailly, F. and B. Abu es-Soof. 1965. The excavations at Tell es-Sawwan. *Sumer* 21:17-32.
- Ferguson, Yale H. and Richard W. Mansbach. 1996. *Polities: Authorities, Identities, and Change*. Columbia, SC: University of South Carolina Press.
- Ferrill, Arther. 1997. *The Origins of War*. Rev. ed. Boulder, CO: Westview.
- Finer, S. E. 1997. *The History of Government From the Earliest Times, Vol. 1: Ancient Monarchies and Empires*. Oxford University Press.
- Flannery, Kent V. 1998. "The Ground Plans of Archaic States." In Feinman and Marcus (1998: 15–57).
- Frangipane, Marcella. 1996. *La nascita dello Stato nel Vicino Oriente*. Rome and Bari, Italy: Editori Laterza.

- Frank, Andre Gunder. 1993. "Bronze Age World System Cycles," *Current Anthropology* **34**(4) August-October: 383–429.
- \_\_\_\_\_, and Barry K. Gills, eds. 1993. *The World System: Five Hundred Years or Five Thousand*. London and New York: Routledge.
- Glassner, Jean-Jacques. 1986. *La Chute d'Akkadé: L'événement at sa mémoire*. Berliner Beiträge zum Vorderen Orient **5**. Berlin: Dietrich Reimer.
- Hallo, William W. 1990. "The Limits of Skepticism," *Journal of the American Oriental Society* **110**(2): 187–99.
- \_\_\_\_\_, and William Kelly Simpson. 1996. *The Ancient Near East: A History*. 2<sup>nd</sup> edition. New York: Hartcourt and Brace.
- Humble, Richard. 1989. *Warfare in the Ancient World*. London: Cassell.
- Huot, Jean-Louis, Jean-Paul Thalmann, and Dominique Valbelle, eds. 1990. *Naissance des Cités*. Paris: Nathan.
- Jasim, Sabah Abboud. 1985. *The 'Ubaid Period in Iraq: Recent Excavations in the Harim Region*. BAR International Series **267**(I and II). Oxford: B.A.R.
- Johnson, Gregory A. 1972. "A Test of the Utility of Central Place Theory in Archaeology." In Ucko et al. (1972: 769–85).
- \_\_\_\_\_. 1973. *Local Exchange and Early State Development in Southwestern Iran*. Anthropological Papers **51**. Museum of Anthropology, University of Michigan, Ann Arbor, MI.
- \_\_\_\_\_. 1980. "Spatial Organization of Early Uruk Settlement Systems." In *L'Archéologie de l'Iran du début de l'époque Néolithique a 333 avant notre ère*, pp. 233–63. Colloques Internationaux **580**. Centre National de la Recherche Scientifique, Paris.
- \_\_\_\_\_. 1987. "The Changing Organization of Uruk Administration on the Susiana Plain." In Hole (1987: 107–39).
- Kaufman, Stuart J. 1997. "The Fragmentation and Consolidation of International Systems," *International Organization* **51**(2) Spring 1997:173–208.
- Lamberg-Karlovsky, C. C., Norman Hammond, and De Paag. 1973. "Sumer and Mesopotamia." In Roberts (1973).
- Levy, Jack S. 1983. *War in the Modern Great Power System, 1495–1975*. Lexington, KY: University Press of Kentucky.
- Liverani, Mario. 1988. *Antico Oriente: Storia Società Economia*. Rome and Bari, Italy: Editori Laterza.
- \_\_\_\_\_, ed. 1993c. *Akkad: The First World Empire, Structure, Ideology, Traditions*. History of the Ancient Near East, Studies **V**. Padova, Italy: Sargon srl.
- Marcus, Joyce. 1998. "Peaks and Valleys of Ancient States: An Extension of the Dynamic Model." In Feinman and Marcus (1998). Pp. 59–94.
- McNeill, William H. 1993. *A History of the Human Community, Vol. 1*. Englewood Cliffs, NJ: Prentice Hall.
- Midlarsky, Manus I. 1995. "Environmental Influences on Democracy: Aridity, Warfare, and a Reversal of the Causal Arrow," *Journal of Conflict Resolution* **39**: 224–62.
- \_\_\_\_\_, ed. 2000. *Handbook of War Studies II*. Ann Arbor, MI: University of Michigan Press.
- Montgomery of Alamein, Field-Marshal Viscount. 1968. *A History of Warfare*. Cleveland and New York: World Publishing Company.
- Moorey, P. Roger S. 1978. *Kish Excavations 1923–1933*. Oxford University Press.
- Nissen, Hans J. 1986. *Mesopotamia Before 5000 Years*. Dipartimento di Scienze Storiche, Archeologiche e Antropologiche dell'Antichità, Sussidi Didattici **1**, Università degli Studi di Roma «La Sapienza», Rome, Italy.
- \_\_\_\_\_. 1990. *Protostoria del Vicino Oriente*. Rome and Bari, Italy: Editori Laterza.
- \_\_\_\_\_. 2000. "Cultural and Political Networks in the Ancient Near East During the 4<sup>th</sup> and 3<sup>rd</sup> Millennia B.C." In Rothman (2000a).
- Oates, Joan. 1960. "Ur and Eridu: The Prehistory," *Iraq* **23**: 32–50.
- \_\_\_\_\_. 1987. "'Ubaid Chronology." In Aurenche et al. (1987: 473–82).
- \_\_\_\_\_. 1993. "Trade and Power in the Fifth and Fourth Millennia B.C." *World Archaeology* **24**: 403–22.
- Postgate, J. Nicholas. 1994. *Early Mesopotamia: Society and Economy at the Dawn of History*. Revised edition. London: Routledge.

- Roaf, Michael. 1996. *Cultural Atlas of Mesopotamia and the Ancient Near East*. New York: Facts On File, Inc.
- Rothman, Mitchell S. 1994a. "Introduction Part I. Evolutionary Typologies and Cultural Complexity." In Stein and Rothman (1994: 1–10).
- \_\_\_\_\_. 2000a in press. *Uruk, Mesopotamia and Its Neighbors: Intraregional Interactions and their Consequences in the Era of State Formation*. Santa Fe, NM: School of American Research Press.
- \_\_\_\_\_. 2000b. "The Local and the Regional: Introduction." In Rothman (2000a).
- Russett, Bruce M. 1967. *International Regions in the International System*. Chicago: Rand McNally.
- \_\_\_\_\_, J. David Singer, and Melvin Small. 1968. "National Political Units in the Twentieth Century: A Standardized List," *American Political Science Review* **62**: 932–51.
- \_\_\_\_\_, and W. Antholis. 1992. "Do Democracies Fight Each Other? Evidence From the Peloponnesian War," *Journal of Peace Research* **29**: 415–34.
- Russett, Bruce M., Harvey Starr, and David Kinsella. 2000. *World Politics: The Menu for Choice*. 6<sup>th</sup> edition. Bedford/St. Martin's.
- Saggs, H. W. F. 1989. *Civilization Before Greece and Rome*. New Haven, CT: Yale University Press.
- Schmidt, J. 1974. "Zwei Tempel der Obed-Zeit in Uruk," *Baghdader Mitteilungen* **7**: 173–87.
- Singer, J. David. 2000. "The Etiology of Interstate War: A Natural History Approach." In *What We Know About War*, John Vasquez, ed. New York: Roman and Littlefield.
- \_\_\_\_\_, and Melvin Small. 1972. *The Wages of War, 1816–1965: A Statistical Handbook*. New York: John Wiley and Sons.
- Small, Melvin, and J. David Singer. 1983. *Resort to Arms: International and Civil Wars, 1816–1980*. Beverly Hills, CA: Sage.
- Stein, Gil. 1994. "Economy, Ritual, and Power in 'Ubaid Mesopotamia." In Stein and Rothman (1994: 35–46).
- \_\_\_\_\_, and Mitchell S. Rothman, eds. 1994. *Chiefdoms and Early States in the Near East: The Organizational Dynamics of Complexity*. Monographs in World Archaeology **18**. Madison, WI: Prehistory Press.
- Thompson, William W. 1988. *On Global War: Historical-Structural Approaches to World Politics*. Columbia, SC: University of South Carolina Press.
- Vasquez, John A.. 1993. *The War Puzzle*. Cambridge University Press.
- Vasquez, John A. 2000.
- Watson, Adam. 1992. *The Evolution of International Society: A Comparative Historical Analysis*. London: Routledge.
- Wilkinson, David. 1988. "Kinematics of World Systems," *Dialectics and Humanism* **1**: 21–35.
- \_\_\_\_\_. 1999. "Power Polarity in the Far Eastern World System, 1025 B.C.–AD 1850: Narrative and 25-Year Interval Data," *Journal of World-Systems Research* **5**: 403–520.
- Wooley, Sir C. Leonard. 1934. *Ur Excavations 2: The Royal Cemetery*. British Museum, London, and University of Pennsylvania Museum, Philadelphia.
- Wright, Henry T. 1994. "Prestate Political Formations." In Stein and Rothman (1994: 67–84).
- \_\_\_\_\_. 1998. "Uruk States in Southwestern Iran." In Feinman and Marcus (1998: 173–97).
- \_\_\_\_\_, and Gregory A. Johnson. 1975. "Population, Exchange, and Early State Formation in Southwestern Iran," *American Anthropologist* **77**: 267–89.
- \_\_\_\_\_, and S. Pollock. 1986. "Regional Socio-Economic Organization in Southern Mesopotamia: The Middle and Late Fifth Millennium." In Huot (1986).
- Wright, Quincy. 1942. *A Study of War*. Chicago: University of Chicago Press.
- Wyckoff, T. 1980. "Standardized List of National Political Units in the Twentieth Century: The Russett-Singer-Small List of 1968 Updated," *International Political Science Review* **32**: 833–46.
- Yasin, W. 1970. Excavations at Tell es-Sawwan, 1969. *Sumer* **26**:3-20.
- Yoffee, Norman. 1995. "Political Economy in Early Mesopotamian States," *Annual Review of Anthropology* **24**: 281–311.

## Appendix 1: List of Polity Abbreviations, Synonyms and Modern Country Locations

Listed in the table below are the polities included in Table 1 and Figure 2 in the Findings section, in order of alphanumeric code.

Abbreviation <sup>9</sup>	Polity name <sup>10</sup>	Synonym, site name or modern name	Modern country location
Ada	Adab	Tell Bismaya	Iraq
Agr	Agrab	Tell Agrab	Iraq
Akk	Akkad	Agade	Iraq
Aks	Akshak	Opis, Tell Mujeilat	Iraq
Ale	Aleppo	Alepo	Syria
Ami	Amiya	Ras el-Amiya	Iraq
Amo	Amorite	Amurru	Jordan, Iraq
Ars	Arslantepe	Malatya	Turkey
Ass	Assur	Ashur, Qalat Shergat	Iraq
Awy	Awayli	Tell Awayli, T. Ouelli	Iraq
Bab	Babylonia	Babylon	Iraq
Bad	Bad Tibira	Medina, T. Mada'in, T. al-Medain	Iraq
Car	Carchemish	Same	Syria
Der	Der	Tell Aqr, T. Aqar (Badra)	Iraq
Ela	Elam	Same	Iran
Ebl	Ebla	Tell Mardikh	Syria
Egy	Egypt	Same	Egypt <sup>11</sup>
Ere	Eresh	Abu Salabikh	Iraq
Esh	Eshnunna	Tell Asmar	Iraq
Gir	Girsu	Tello	Iraq
Gut	Gutium	Same	Turkey <sup>12</sup>
Hag	Haggi Muhammad	Hajji Mohammed	Iraq
Ham	Hamazi	Same	Iran
Hat	Hatti	Hittite	Turkey
Hur	Hurrian	Hurri	Iran <sup>13</sup>

<sup>9</sup> The general convention used here for the 3-letter alphanumeric codes of polities is the same as the standard system of abbreviations used in modern events data research (e.g., Usa, Ita, Mex, Unk, etc.). The code for each country consists of the first three letters of the name, except when the combination is already taken in alphabetic order, in which case the code is formed by one of the next letters of the polity name. Two letters are too few, while four are too many, for a set of polities that numbers up to the low hundreds, as in this case of the West Asian system.

<sup>10</sup> The polity name used here excludes prefixes such as "Tell", "Tepe", "Choga," and others, which are given in column 3.

<sup>11</sup> Ancient Egypt during this epoch extended south to Nubia (modern Sudan) and north to Palestine (modern Israel, Jordan, Lebanon, Syria).

<sup>12</sup> Turkey was the probable original homeland of the Gutians, who migrated southeast into Mesopotamia during the reign of emperor Naram-sin of Akkad. Their location was then highly diffused throughout Mesopotamia, as was that of the Hurrians and the Lullubi. See Hallo and Simpson (1998: 60, map, fig. 13).

Isi	Isin	Ishan al-Bahriyat	Iraq
Jem	Jemdet Nasr	Jamdat Nasr	Iraq
Kar	Karana	Tell Rimah	Iraq
Kha	Khafaje	Khafajah	Iraq
Kis	Kish	Kis, T. Ingharra, T .Uheimir	Iraq
Kiu	Kissura	Abu Hattab	Iraq
Lag	Lagash	Tell al-Hiba, Al-Hiba	Iraq
Lar	Larsa	Tell Senkereh	Iraq
Lul	Lullubi	Same	Iran
Mar	Mari	Tell Hariri	Syria
Mis	Mish	Choga Mish	Iran
Mit	Mittani	Mitanni	Iraq, Syria
Ner	Neribtum	Tell Ischali	Iraq
Puz	Puzrish-Dagan	Drehem	Iraq
Qat	Qatna	Tell Mishrifeh	Syria
Shu	Shuruppak	Tell Fara	Iraq
Sur	Surghal	Same	Iraq
Sus	Susa	Suse, Shush	Iran
Tut	Tutub	Khafaje, Khafajah	Iraq
Uba	'Ubaid	Tell 'Ubaid, al-'Ubaid	Iraq
Umm	Umma	Tell Jokha	Iraq
Uqa	Uqair	Tell Uqair	Iraq
Urr	Ur	Tell al-Mukayyar	Iraq
Uru	Uruk	Warka	Iraq
Zab	Zabalam	Zabala, T. Ibzaykh, T. Ibzeikh	Iraq

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<sup>13</sup> See footnote 13.

## Appendix 2: Politico-military chronography

The chart in Figure 2 is a *chronograph*, a method developed for visualizing long-range data describing the evolution of a system with multiple agents (in this case polities) and behavioral events (the “world politics complex”). The purpose of a chronograph is to provide a better view of the overall spatio-temporal structure of a complex system, beyond what can be learned from narrative, tables, or statistical summaries. The chronograph is read from top to bottom (the opposite of archaeological stratigraphy) following a modified standard of ANSI flowchart symbols. *Polities* are represented by 3-letter codes (see Appendix 1), and in this case they consist of chiefdoms, states, or empires (Methods section), as marked by small and plain (**Abc**), medium and bold (**Abc**), and large and outlined (**Abc**) characters, respectively. For example, **Uru**, **Uru**, and **Uru** represent the Chiefdom of Uruk, the State of Uruk, and the Empire of Uruk, respectively. Sets of polities are marked by brackets (e.g., **{Mep}**). Alliances are bracketed and underscored (e.g., **{Uru, Kis, Lag}**, **{Mep}**). *Events* pertain to the “world politics complex,” in this case with emphasis on major politico-military conflicts (interstate wars as rectangles, civil wars as ovals) and associated events (e.g., coalition wars as hexagons). Repeated or protracted conflicts are marked by shadowing, indicating the event contains more detailed internal interactions. Figure 2 was produced from a hypertext file developed with TopDown version 5.5 (MacOS system 8).