Quantitative Methods in the Humanities and Social Sciences

Thomas E. Levy
Thomas Schneider
William H.C. Propp *Editors*

Israel's Exodus in Transdisciplinary Perspective

Text, Archaeology, Culture, and Geoscience

Springer

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Preface

The grand narrative about Israel's Exodus from Egypt, mainly preserved in the Book of Exodus in the Hebrew Bible, holds momentous significance for ancient Israel, Jewish identity, Christianity, Islam and Western thought, and deeply impacted the formation of academic disciplines studying the ancient Near East. In its role as a pervasive theme, it has inspired artistic and popular imagination. Finally, the Exodus lies at the heart of a controversy about the reliability and origins of the Biblical narrative, not the least in the context of research on the emergence of Israel after the end of the Late Bronze Age.

This volume is the most innovative gathering of thought assembled on the topic of Israel's Exodus from Egypt. In 9 sections, the volume presents papers first presented at Out of Egypt: Israel's Exodus Between Text and Memory, History and Imagination, a conference at the University of California, San Diego, May 31 to June 3, 2013. The transdisciplinary perspective this book takes combines an assessment of past research with current knowledge on the topic and new perspectives for future study. Research from Egyptologists, archaeologists, Biblical scholars, computer scientists, and geoscientists appears in active conversation throughout the various chapters of this book. The 44 contributions by leading scholars from the United States, Canada, Great Britain, Israel, Germany, Switzerland, and Italy, unite a diverse group of hermeneutic approaches. They pertain to the text and later reception of the Exodus narrative, including its Egyptian and Near Eastern parallels, function as cultural memory in the history of Israel, the interface of the Exodus question with the emergence of Israel and archaeological fieldwork, and exploration of the text's historicity. The historical geography and the environmental events described in the Exodus narrative and related texts receive thorough scientific analysis, reinforcing this volume's transdisciplinary character. An important section is devoted to cyberarchaeology, visualization techniques, and museological presentation of the Exodus.

Exodus research is evocative of "World Building," to use a phrase from Alex McDowell, production designer at the University of Southern California. World building is based on three pillars: "Storytelling is the most powerful system for the advancement of human capability due to its ability to allow the human imagination to precede the realization of thought; that all stories emerge logically and intuitively from the worlds that create them; and that new technologies powerfully enable us to sculpt the imagina-

tion into existence."[1] Through the practice of ancient world building described here, we hope to promote a new approach to transdiciplinary research.

Setting the Stage: Interdisciplinary Approaches to the Exodus Narrative

This volume commences with the conference's keynote lectures. *Jan Assmann* perceives Exodus as a myth about the origin of a people and a religion. This myth simultaneously symbolizes the revolutionary turn in human history from cosmotheism to monotheism, the transition from the idea of a god immanent in or equivalent to nature, to the concept of one transcendent god beyond nature. He also traces the incomplete realization of this concept in Western history, where the recurrence of cosmotheistic trends and the reactions to counter cosmotheism kept the myth and symbol of Exodus alive until modern times. *Ronald Hendel* situates the cultural memory of the Exodus in a dialectic between historical memory and ethnic self-fashioning. He locates the roots of the mnemohistory of the Exodus in the transition from the Late Bronze to the Iron Age. At that time, memories of the collapse of the Egyptian Empire in Canaan were transformed into a memory of liberation from Egyptian bondage that was narrativized as a myth of ethnic origins—expressed in its oldest form, the Song of the Sea, as Yahweh's victory over the chaos represented by pharaoh. The dishonorable storyline of the Exodus, with a people fleeing from slavery, is for *Manfred Bietak* an indication of elements that are historically credible. From this, he reviews the available evidence from Egypt on the settlement of "Proto-Israelites" during the later Ramesside period. He infers that such groups would have settled in Egypt simultaneously with the Proto-Israelites in Canaan. In his conception, the collective memory of the Proto-Israelites suffering in Canaan under Egyptian oppression and those suffering in Egypt merged in the genesis of Israel's myth of origin. The later belief in a stay of the Israelites at Tanis/Zoan was then spurred by the transfer of archaeological remains from Pi-Ramesse to Tanis and Bubastis. *Israel Finkelstein* reconstructs different historical stages of the narratives about Israel's wanderings in the southern desert. He focuses on the eighth century with Israelite activity along the Arabian trade route; the transformation of the desert narratives in Judah under Assyrian rule in the seventh century; their elaboration under the Egyptian 26th dynasty; and the loss of knowledge about the southern desert after 560 BCE. These narratives would have enriched a tradition of salvation from Egyptian rule that developed between the sixteenth and tenth centuries BCE. This tradition was transferred from the lowlands to the northern part of the central highlands, where it became a charter myth of the kingdom of

[1] You can read more about world building and the 5D Institute that Alex McDowell directs here: http://5dinstitute.org/about.

Israel. In contrast with these assessments that are skeptical of our ability to define a single Exodus event in the second millennium BCE and concentrate instead on the purpose and development of the narrative in the first millennium, *Lawrence Geraty* gives an overview of conservative and mainstream readings of the Exodus account. He attempts to situate an Exodus event in various historical contexts of the Egyptian Bronze Age, with a special focus on dates in the 18th and 19th dynasties, while also touching on other proposed Exodus dates between 2100 BCE and 650 BCE.

Science-Based Approaches to the Exodus

This section presents a scientific study of the eastern Nile delta and Sinai peninsula's ancient environment. This includes a thorough assessment of scenarios that could either underlie events detailed in the Exodus narrative (for instance, plagues and the parting of the sea) from a conservative point of view, or scenarios that could have inspired the imagery behind the Exodus plagues and miracles, imagery that also appears in apocalyptic and ritual texts from the ancient Near East. *Stephen O. Moshier and James K. Hoffmeier* reconstruct the changing ancient physical geography of the region due to dynamic interactions between the Nile river system, Mediterranean Sea, and the tectonics of the Red Sea rift system. By combining field geology, archaeology, digital topography, and satellite imagery with geographic information technology, they produce a new map that reveals different positions of the Mediterranean coastline, lagoons, and the existence of Pelusiac Nile distributaries, lakes, and wetlands. By creating an accurate geophysical map for Exodus research, this recreated geography helps to delineate the path of the ancient coastal road between Egypt and Palestine. *Mark Harris* gives a critical assessment of the interpretative strategies of the burgeoning number of popular, naturalistic readings of the Exodus text. In defiance of Biblical scholarship that emphasizes the complex genesis and character of the Exodus traditions, and without considering the ideological uses of a text, these strategies take the narrative at face value as reflecting apocalyptic natural catastrophes, particularly the eruption of Thera (Santorini) in the seventeenth century BCE. The remaining contributions of this section provide scientific data on a variety of natural disasters to determine whether they could have generated the phenomena described in the Exodus narrative. *Amos Salamon* and coauthors examine the main tsunamigenic sources in the Eastern Mediterranean that may explain the parting of the sea—how to make the sea dry and then inundate the land. Their simulations recreate the tsunami that followed the Thera eruption around 1600 BCE; the strong magnitude 8–8.5 earthquake of 365 CE in the Hellenic arc and the resulting tsunami that devastated Alexandria; and a voluminous Late Pleistocene submarine slump at the Nile cone that started with a significant drawback of the sea and was followed by a remarkable inundation. The Thera eruption is also crucial to the remaining papers. *Michael Dee* and coauthors discuss the relevance of radiocarbon dating to Exodus-related problems and present dates from three

pertinent case studies; the dating of the Egyptian New Kingdom, the conquest of Canaanite cities as reported in the Book of Joshua, and the dating of the Thera eruption. *Malcolm Wiener's* article presents a reply to Dee's study, advocating for a much later eruption date (after 1530 BCE).

Cyber-Archaeology and Exodus

The four contributions to Section III explore the potential of visualizing the past, with the Exodus and recent archaeological research on Iron Age Jordan as a means to present original research for both scholarly and public dissemination in the format of the "museum of the future." The four contributions provide the background to an exhibition that accompanied the Exodus conference, prepared by a team of archaeologists, geoscientists, computer scientists, engineers, and digital media technologists under the direction of Thomas Levy. It was mounted in the Qualcomm Institute Theater at UC San Diego, a performance space reconfigured into a museum space that uses new visual and audio technologies. A large-format 8′ × 32′ (2.3 m × 9.75 m) 64 million pixel screen and several other tiled display systems were used for the computer visualizations, and a new 50-megapixel 3D large-scale immersive display system called the WAVE had its premiere. New audio systems and content were developed by the Sonic Arts researchers to project archaeological and geological audio data. These cyber-archaeology papers, along with those in the science-based approaches to Exodus, provide the grist for ancient world building applied to the Exodus narrative.

The Exodus Narrative in Its Egyptian and Near Eastern Context

Bernard F. Batto proposes that the Exodus narrative was rewritten through redaction by priests in order to elevate the Exodus "event" to mythical status, in the exile or post-exilic times. In this conception, employing motifs of the Combat Myth prevalent throughout Mesopotamia and the Levant, Yahweh and pharaoh were profiled as the two antagonists in the battle between the creator and the chaos monster in the form of the primeval Sea. Pharaoh is identified with and defeated in the "Sea of End" (*yam sûp*), the Red Sea not Reed Sea, from which Yahweh emerges as the creator of Israel. *James Hoffmeier* reviews the long history of scholarly engagement with the Old Testament by Egyptologists since the nineteenth century, in particular their vivid and positive interest in the topic of the Exodus and the historicity of Israel's sojourn in Egypt. He calls for Egyptologists "to return to the debate to bring data from Egypt to bear on historical and geographical matters." *Susan Tower Hollis* studies the relationship between Egyptian stories and Biblical stories about Israel's sojourn in Egypt, most notably the comparison between the 19th dynasty "Tale of Two Brothers" from the Papyrus

d'Orbiney (BM 10183) and the narrative of Joseph and Potiphar's wife in Genesis 39. *Scott B. Noegel* suggests the Egyptian sacred bark as the best non-Israelite parallel to the Ark of the Covenant that the late priestly tradition of Exodus 25 depicts as being manufactured at Mount Sinai. The Israelite conception of the Ark probably originated under Egyptian influence in the Late Bronze Age. *Gary Rendsburg* presents an assessment of Egyptian parallels to motifs occurring throughout Exodus 1–15, such as the hidden divine name, turning an inanimate object into a serpent or crocodile, the conversion of water to blood, the casting of darkness, the death of firstborn, the parting of waters, and death by drowning. Almost all these motifs are known only from Egypt without an echo in other ancient Near Eastern societies. Rendsburg imagines an educated Israelite writer and his well-informed Israelite audience were able to understand and enjoy the Egyptian cultural context of a composition that "both subverts Egyptian religious notions and simultaneously expresses Israel's national heritage in exquisite literary fashion." *Brad C. Sparks* concludes this section with a comprehensive compilation and discussion of scholarship since the nineteenth century that takes note of Exodus parallels in some 90 ancient Egyptian texts of different genres and time periods. Sparks argues that the historicity of the Exodus needs to be reevaluated in light of this Egyptian narrative material and intriguing associated iconography.

The Exodus Narrative as Text

This Section gives in-depth views of the starting point for Exodus discussions: the Exodus narrative as preserved in the book of Exodus. Eminent specialists on the exegesis of Exodus are represented in this section. *Christoph Berner* suggests that the complexity of the account of Exodus 1–15, a narrative that is not coherent in nature and whose details often stand in tension with each other (if not in flat contradiction), can best be understood as resulting from a process of continuous literary expansions (*Fortschreibungen*). He demonstrates through the references to the Israelites' forced labor, which he uses as a test case, that substantial parts of the narrative belong to an extensive post-priestly stage of textual redaction. Thus, the Exodus narrative reveals little about the historical circumstances of the Exodus, but all the more about how post-exilic scribes imagined it and participated in the literary development of the Biblical account. *Baruch Halpern* speaks about the Exodus as a fable that was inspired by possible events of Israel's past, although he contends that its historical genesis will be as irretrievable to us as its narrator. Halpern also emphasizes that the text's modern discussants must wield the tools necessary to confront the epistemological challenges that we face. The true question is: "What do we need to know in order to know what we want to know?" Faced with storytellers and their audiences who contributed historical detritus while adding artistic value to the story, the subject's sole value is to recover the story's magic: to understand Israel's modes of social thought over time and the culture that immortalized the Exodus. *Thomas Römer* addresses traditions

about the origins of Yahweh. While the Exodus narrative was recorded in writing for the first time in Judah and seems to reflect the contemporaneous Assyrian oppression, the literary contours of the older Exodus tradition that came to Judah from Israel after 722 escape us. Hosea 12 shows Yahweh (the god of the Exodus) in opposition to the Jacob tradition, perhaps proof of the attempt to make the Exodus the foundation myth of Israel. The two accounts of Yahweh's revelation to Moses, as well as external evidence (Kuntillet Ajrud, evidence about the *Shasu Yahu*) preserve the memory that Yhwh was not an autochthonous deity but was introduced from the South. *Stephen C. Russell* proposes a new historical contextualization of Moses' appointment of officials to judge legal cases in Exod 18:13–26. Traditionally believed to reflect the social world of the monarchic period and to provide an etiology for the system of royal judges established by Jehoshaphat (2 Chron 19:5–10), this appointment more closely parallels the postexilic system of Ezra 7:12–26, where the Persian king Artaxerxes instructs Ezra to appoint judges who know the Mosaic law. Exod 18:13–26 is best understood as a postexilic expansion of Exodus 18; it constitutes a major bridge in the book of Exodus by summarizing the deliverance from Egypt and anticipating the revelation at Sinai. *Konrad Schmid* issues a call to acknowledge in our assessments the difference between the world of the narratives and the world of the narrators and to account for this difference in a methodologically controlled manner. His particular example is Exodus 1–15, a text debated in Hebrew Bible studies in terms of both its compositional and its historical evaluation. Despite all controversies, there is broad consensus about the Priestly texts in Exodus 1–15 (Exod 1:7, 13–14; 2:23*–25; 6:2–12; 7–11*; 14–15*). The article discusses several narrative peculiarities in the Priestly Exodus account that might be explained by seeing it as a Judean foundational myth of the early Persian period. The image of Egypt as unruly and needing to be tamed suggests a date prior to 525 BCE, when Cambyses conquered Egypt. Whereas Cyrus was a supporter of Jewish independence, the Pharaoh of Exodus is an "Anti-Cyrus."

The Exodus in Later Reception and Perception

This section deals with later Jewish, Christian, and Islamic traditions and interpretations of the Exodus. *Joel Allen* examines the "despoliation of Egypt" (Gen 15:14; Exod 3:21–22; 11:2–3 and 12:35–36), a motif that has evoked embarrassment for Jewish and Christian expositors. This essay examines key allegorical "text therapies" (e.g., the interpretation of the Egyptian plunder as *spiritual* treasures by which Jews and Christians sought to heal the text of its improprieties and warrant appropriation of the pagan classical heritage into the realm of the spirit). Philo, Origen and Augustine all sought to provide justification for those who wished to have the best of both the Biblical and classical worlds and to balance the faith of scripture with the reason of Greek philosophy. *René Bloch* examines the challenge that the Exodus story presented to Jewish-Hellenistic authors whose homeland was Egypt. How did they come to terms with the Biblical story of liberation from

Egyptian slavery and the longing for the promised land? His study looks at narrative differences in Philo's discussion of the Exodus. In particular, Philo read the story allegorically as a journey from the land of the body to the realms of the mind. This permitted him to control the meaning of the Exodus and stay in Egypt. *Caterina Moro* focuses on the extra-Biblical Exodus story of the Jewish-Hellenistic historian Artapanus. This story, unlike the Biblical Exodus account, provides an identity for Moses' Egyptian opponent, assigning him the name Chenephres. Moro examines the evidence on his possible historical equivalent, Khaneferra Sobekhotep IV of the 13th dynasty, and the fictional history that elevated him to the position of the pharaoh of the Exodus. *Babak Rahimi* proposes to understand the Quranic accounts of the Exodus as a salvational drama, in contrast to Classical Quran exegesis that has perceived the expulsion of the Israelites from Egypt as divine punishment imposed on them for their transgressions against God. Not only does the Quranic Exodus narrative contain many instances of God's blessing to the Israelites, the Exodus constitutes a metanarrative of spiritual liberation and represents a chronicle of God's presence. The Israelites' experience of a trial through adversity ultimately reveals divine grace and a promise for salvation. The article by *Pieter van der Horst* examines the pivotal role that the Exodus from Egypt played in Jewish-pagan polemics from the beginning of the Hellenistic period into the Imperial period. Pagan polemicists reversed the Biblical story of the Israelites' liberation from Egyptian bondage, portraying a negative image of Israelite origins and picturing them as misanthropes and atheists. Jewish-Hellenistic authors reacted to these attacks in writing through novels, dramas, and philosophical treatises.

The Exodus as Cultural Memory

It is in the first millennium BCE that the purported Exodus event became a written and cultural artifact, a canvas of continued ideological imagination. This section's contributions engage with the concept of cultural memory, whereby the Exodus story may be seen as a response to a society's religious and cultural needs during the monarchies of Israel and Judah and the exilic and post-exilic period. It may also be considered a vehicle of national identity. *Aren Maeir* discusses the variability of memories and their susceptibility to being shaped and changed. He discusses the Exodus tradition as a matrix of cultural memories, woven together and altered over a long period, thus defying any attempt to determine a single historical event that would correlate to the Exodus. It is not an ahistorical myth but rather reflects the many periods and contexts, in which the Exodus *mnemo-narratives* were formed—a multi-faceted "narrative complex" and space of memory shaped by the needs of Israel's identity. In a similar vein, *Victor Matthews'* contribution draws a distinction from efforts to determine the possible historicity of the Exodus event. Instead it concentrates on how and why collective memories are created, perpetuated, used and reused. While he inquires

when and where the Exodus tradition originated, he concludes that current data make it impossible to provide a definitive answer and that what can be said has more to do with why the Exodus tradition was important to the Israelite community at various times. *William H.C. Propp* supports the view that the Exodus cannot be called "historical" and that the evidence is too diffuse to be adequately tested by the historical method; in consequence, we must resign ourselves to ignorance. By way of comparison, Propp adduces and contrasts another mythic tale of improbable, miraculous salvation to the Exodus story: the "Angel(s) of Mons" from World War I, where abundant information enables us to sift truth from fiction precisely and set both in historical context. *Donald B. Redford* puts the Biblical account of Israel's stay in and expulsion from Egypt in line with several other traditions regarding a "coming-out" from Egypt: Manetho's *Aegyptiaca*, the Bocchoris "leper"-tradition, Phoenician reminiscences, and asides in the Hebrew prophets. These traditions, extraneous to the book of Exodus, are the *Asiatic* folk-memory, "adjusted, distorted, inverted, with motivation reversed or imputed," of the Hyksos occupation and their expulsion after a reign of 108 years. Redford examines the contribution of these traditions to elucidating the original event and its perception through time. Finally, *William G. Dever* offers an archaeological critique of the "cultural memory" model of the Exodus-Conquest narrative. After reviewing what the Biblical writers actually knew about their origins, what they created as their memories, and what they may have forgotten about their past, he concludes that the narrative is a foundation myth whose basic elements—an immigration of "all Israel" from Egypt and conquest of the land—are invented. Instead of asking how these texts functioned socially, religiously, and culturally, he examines "what really happened" and points to Israel's emergence as an indigenous phenomenon within Canaan, with the Israelites being essentially Canaanites, displaced both geographically and ideologically.

The Exodus and the Emergence of Israel: New Perspectives from Biblical Studies and Archaeology

This section provides a link to questions about the historicity of the Exodus memory by moving the discussion from the Exodus text and its historical purposes in the first millennium BCE to the emergence of Israel in the later second millennium. *Emmanuel Anati* presents an overview of the archaeological survey of Mount Karkom (which he identifies as Mount Sinai) and surrounding valleys that resulted in the discovery of 1,300 new archaeological sites. The presence of altars, small sanctuaries and numerous other places of worship characterize Mount Karkom as a holy mountain of the Bronze Age at the foot of which large numbers of people seem to have lived temporarily. Drawing on several theoretical insights regarding the nature of social power and makeup of ancient states in his analysis of the Amarna letters, *Brendon Benz* presents an alternative hypothesis to recent scholarship which has hypothesized that Israel consisted of geographical, economic, and/

or political outsiders. Polities and populations of the Late Bronze Age Levant were more diverse than is generally recognized, with social power more widely distributed and often negotiated among a range of political players in an "egalitarian" manner. The various forms of political organization included those that consisted of populations defined by settled centers and those that were not. After highlighting points of continuity between the Late Bronze Age and the constituents of early Israel as they are depicted in some of the core passages of the Bible, Benz suggests that early Israel included a contingent of geographical, economic, and political insiders. *Avraham Faust* discusses the ethnogenesis of Israel with particular attention to the earliest Israel group, the one mentioned in the Merneptah stele, which according to Faust was composed mainly of Shasu pastoralists. Many different groups (including many Canaanites, and possibly a small "Exodus" group that had left Egypt) were amalgamated into what was to become Israel. The Exodus story was one of the traditions and practices that was useful in demarcating Israel from other groups and came thus to be adopted by "all Israel." *Daniel Fleming* looks at the phenomenon of herding over distance as a survival of earlier social strategies from Israel's background. In the Exodus story, Israel appears as settled in Egypt, with no indication of free movement with its livestock into and out of Egypt. For the Exodus writer, all pastoralism was local. However, elements of the deeper narrative structure follow the logic of long-range pastoralism (Moses and Israel's way into the wilderness; the move to herding bases in Canaan), with the Exodus from Egypt amounting to a change of operating base when an existing base was no longer available. Thus, the Exodus story may have been attached to and served social circles in which such migration could be celebrated. *Garrett Galvin* reviews certain aspects of the scholarship on the historicity of the Exodus event and the archaeological evidence from Egypt and Palestine, pointing to the powerful analogy of the establishment of the Philistines as a new nation in Palestine. He emphasizes that, despite a more cautionary approach to texts since the twentieth century Linguistic Turn in the philosophy of history, the Biblical Exodus narrative remains our main textual access to the question of a historical core. However, it is a myth of origin that has parallels in Greek, Roman and Germanic stories of ethnogenesis, a theological document operating within the conventions of historical narratives. *Christopher Hays* recognizes the numerous contacts that existed between ancient Israel and Egypt—memories of Egypt, which later became literary traditions in the Hebrew Bible, were handed down by some portion of the Iron Age proto-Israelite state, and textual and material data related to the earliest Israelite monarchy indicate an ongoing cultural relationship with Egypt. He adds an apparent similarity between the way the two nations conceptualized the extent of their kingdoms to the examples of Egyptian influence on early Israel. *Robert Mullins* reviews the three models that have been put forth to explain the appearance of Israel in the western highlands of the southern Levant: conquest, pastoral sedenterization, and social revolt. According to him, a fourth model, which takes into account the dissolution of the Egyptian empire at the end of the Late Bronze Age, provides a more satisfying explanation for what must have been a widespread, complex, and lengthy

process. What we find in the Biblical text is a constructed history whereby later Israel enshrined and reshaped its past to create official memories of a culture and formulate a new vision for the future. *Nadav Na'aman* examines reasons for the contrast between the central place of the Exodus in Israelite memory and its questionable historical status. He suggests that the bondage, the suffering, and miraculous delivery from slavery actually took place in Canaan during Egypt's imperial reign over Palestine in the New Kingdom and the empire's demise in the twelfth century, and that the locus of these memories was later transferred from Canaan to Egypt. The bondage and liberation were experienced by the pastoral groups that later settled in the highlands of the Northern Kingdom, hence the central place of the Exodus tradition in the cultural memory of Israel's inhabitants. Since the process of settlement in the Judean highlands took place later and on a limited scale, the memory of the Exodus played only a minor role among Judah's inhabitants.

Conclusion

The concluding chapter of the volume by *Thomas Schneider* presents a glimpse of the complexity of Exodus research. Any attempt to trace and contextualize motifs of the narrative is obstructed by the complexity of the text's history. Exegetical certainties of the twentieth century have vanished in the crisis of pentateuchal research and given way to multiple scenarios of text composition and redaction, the interrelationship of major themes, and the provenance and historical context of phenomena mentioned in it. This general situation is exemplified by a study of Exodus 12 that at the same time aims to be a genuine contribution to Exodus research and a perspective at the end of the volume. The received text of Exodus 12 describes the last plague brought onto Egypt by Yahweh—the killing of Pharaoh's firstborn son and the firstlings of the country's livestock—by Yahweh or alternatively, his "destroyer" who strikes the Egyptians but spares the homes of the Israelites. Several aspects of the Passover protection ritual have not yet been explained in a satisfactory way. After giving an overview of the intricate exegetical situation, the study proposes a new approach to the text by drawing on parallels from Egyptian rituals which would have been appropriated by the text's authors for the Israelite cause. Pap. Cairo 58027, a ritual for the protection of Pharaoh at night, and rituals aimed at the "Plague of the Year" receive particular attention.

In addition to the exegetical approaches to Biblical studies presented here, the transdisciplinary methods illustrated in this volume demonstrate the great potential that scientific and quantitative methods have in answering long-standing questions in both the humanities and social sciences. Questions that have mystified generations of people who have been fascinated with the enigmatic Exodus of the Bible may now be examined using these approaches that are sure to bear fruit in the coming years. Indeed, transdisciplinary, or team science approaches will be in the

forefront of cutting edge concepts that, with the integration of technology, will be brought together by researchers from the social sciences, humanities, natural sciences and engineering. The editors hope that the 43 contributions included in the volume will provide an inspiring point of departure for all future research on the question of Israel's Exodus.

San Diego, CA, USA — Thomas E. Levy
Vancouver, BC, Canada — Thomas Schneider
San Diego, CA, USA — William H.C. Propp

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Part I

Setting the Stage: Interdisciplinary Approaches to the Exodus Narrative

Exodus and Memory

1

Jan Assmann

Abstract

The Biblical Book of Exodus is the narrative version of the great transformation from polytheism to Biblical monotheism in the Ancient World. The interest of the story, in which ancient Egypt plays such an important and sinister role, lies not in what really happened but how, by whom, when, in which form, and for what purpose it was told in the course of millennia. The story is about the revolutionary birth of both a people and a religion. It has a political and a religious aspect and both aspects are inseparably linked. It is a story of liberation (from Egypt) and to commitment (to "Law" and covenant)—from Egyptian slavery to Divine service. It involves a great amount of violence that is both of a political nature (Egyptian oppression of the Israelites, the "plagues" against the Egyptians) and of a religious one (the massacre after the cult of the Golden Calf)—the "founding violence" that typically accompanies the birth of something radically new.

The Biblical story of the Exodus of the children of Israel from Egypt is THE story, the story of stories, arguably the greatest, in any event the most consequential story ever told—though perhaps not literally experienced—in human history. It is a story that in its endless tellings and retellings, variations, and transformations changed and formed the human world in which we are living. Given this world-changing importance, it is only natural that scholarly attention has primarily focused on the question what really happened when the children of Israel went out of Egypt, i.e., what archaeological, epigraphic, and other evidence may tell us about its historical background. In this contribution, however, I will direct my attention in the opposite direction and not ask about what really happened, but who remembered the story, following a Latin scholastic hexameter teaching how to deal with historical sources:

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