

BOUNDARIES OF THE
ANCIENT
NEAR EASTERN
WORLD

**A Tribute to
Cyrus H. Gordon**

Edited by
**Meir Lubetski,
Claire Gottlieb and
Sharon Keller**



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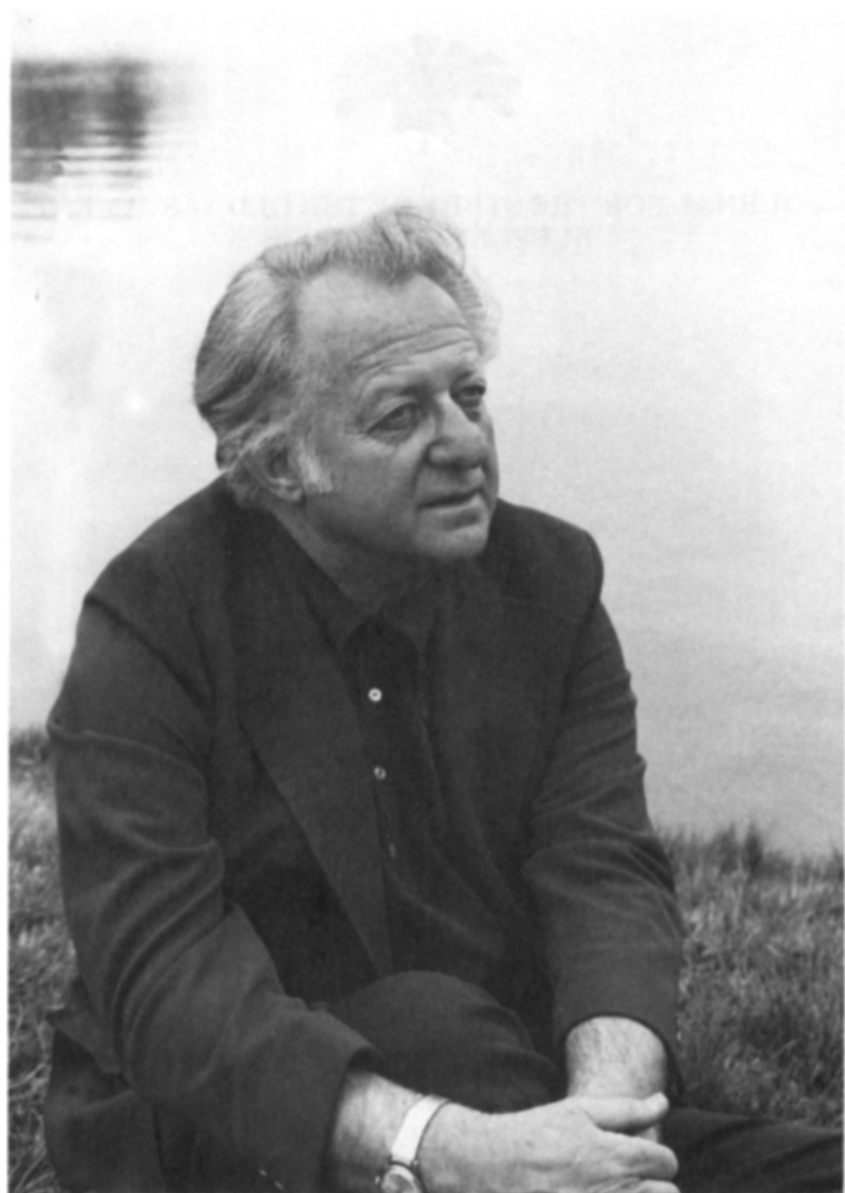
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and Sharon Keller**

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וּלְמִיּוֹם שָׁבַט אוֹרֶךְ, הַמּוֹרֶת, עָלֵינוּ יְנוּחַ--
 רִאיוֹנֶיךָ כְּאִירֵי אֶל הָאֵמֶת וְכֹאִתָּן הַרוּחַ,
 נְקִידָעַת, צְנוּעַ וְשֹׁהֹר בְּסִתָּר כְּבִגְלוֹי,
 בְּטוּחַ בְּאֵמֶתוֹ וּבְדַעַת אַחֲרָיו לֹא־תָלוֹי,
 דּוֹכֵךְ בְּשִׁבְלֵי הַמִּצָּח, בְּהִיר-עֵין וְתִקְיָה

.....

שָׂא בִרְכָּה, הַמּוֹרֶה, מִפִּינוּ, שָׂא בִרְכָּה נֶאֱמָנָה
 עַל־כָּל שְׁלִמְדֵנוּ מִמֶּךָ וְעַל־כָּל שְׁנִלְמָדָה.
 הַבִּרְכָּה--זֶה יָמִים עַל-שָׁנִים בְּלִבֵּנוּ נִצְפָּנָה,
 וְצִרוּפָּה, מִשֵּׁם עֲתִיד יוֹצֵאת וְאוֹמֶרֶת לָךְ: "תּוֹדָה"
 שָׂא בִרְכָּה מְרֻבָּה עַל־כָּל־גִּרְעִין רָעִיוֹן נִעְלָה,
 שְׁנוּדָע עַל יָדֶךָ לְהַפְרוֹת לִבֵּנוּ הַשָּׁמַם.
 הַרְבֵּה לְמִדְנוּ מִפִּיךָ וְהַרְבֵּה מִפִּיהַ שְׁבִקְשָׁנוּ
 מִצֵּאתָ לְמַעֲנֵנוּ וְאַנְחָנוּ מִיָּדֶךָ יִרְשָׁנוּ--
 קִטְעַ מִלְאֲחַד הָעַם

בְּחוּךְ כָּל כְּתָבִי ח' נִי אֵלֶיךָ. תֵּל אֲבִיב: הַיּוֹצֵאת דְּבִיר,
 הַדְפֶסָה תִשַׁע-עֶשְׂרֵה, תִשְׁ"ח. עֲמִי לֹג־לֵד.

Dear Teacher,

Your luminous staff long resting upon us,
 We've seen you as hero of truth and stalwart of spirit,
 Clear of purpose, prudent, forthright within and without,
 Secure in the truth you find and dependent on none;
 Clear-eyed and strong, you tread your own path.

Dear Teacher,

Accept the blessing that from our lips pours forth,
 For all we've learned from you and still must learn.
 The blessing, latent and distilled, within our hearts so long
 Comes forth to say, 'We thank you!'
 Accept our blessing full for the germ of every thought sublime
 You sowed to quicken our desolate hearts.
 Much have we learned from you and much we sought to learn
 You found and graciously bequeathed to us.

Translated by Reba and Howard Marblestone

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PREFACE

Cyrus H. Gordon is a professor whose erudition, scholarship, friendship and *Menschlichkeit* have never known any boundaries. The varied articles that form this *Boundaries of the Ancient Near Eastern World* reveal the extensive scope of his interests. The volume reflects his passion for 'discerning real sameness in apparent differences and real difference in apparent sameness'. It is also a testimony to his vision of an interrelated ancient East Mediterranean society as evidenced by a Mesopotamian seal cylinder reaching the shores of the Greek peninsula and ancient Aegean jars being unearthed in the Holy Land. It is a tribute to his world view, encompassing the entire ancient Near Eastern ecumene and beyond. The contributors to this volume are former students, colleagues, friends and relatives. Their articles are a mirror of his foresight and the range of his influence in the scholarly world and represent the variety of disciplines that have been enriched by his dedication to teaching and research. They illustrate the progress made in studying the history of the biblical world during the past half century.

Cyrus Gordon completed his academic training at the University of Pennsylvania, receiving his doctorate at the age of twenty-two. He spent his early years as a field archaeologist and recorder, excavating with the great names of the 1920s and 30s such as Woolley, Petrie, Albright and Glueck. Working and living with the indigenous population at numerous Near Eastern locales enabled Gordon to learn many of the still surviving ancient customs and he was able to observe first hand the performance of ancient rites involving magic and demonology. Listening to the traditional songs and folktales allowed him to acquire a unique insight into the mores and practices of the ancient world.

After several exciting years in archaeology Gordon heeded the call of academia, deciding that with his experience he now had more to offer as a teacher than as a 'digger'. He wanted to convey the message of the ancient texts to the next generation of scholars. Students at the

University of Pennsylvania, Dropsie College, Smith College, Brandeis University and finally at New York University, where he inaugurated the Center for Ebla Research, benefited from his erudition and love of teaching.

Gordon served as a professor *par excellence* for more than sixty years, sending scores of PhD graduates out to work in almost every facet of ancient studies including archaeology, Bible, classics, Egyptology, history, linguistics, Semitics, and related studies. He gave his students the tools that enabled them to become independent thinkers and forge new frontiers in their varied fields. His most famous advice, 'read the original text', was stamped indelibly in their minds. Gordon was always more than their teacher. He was their mentor, friend, confidant and sometimes father figure and always enjoyed the interchange of ideas with his students, taking pride in all of their successes. Today his former students are represented in the most prestigious universities in both hemispheres.

Gordon focused not only on the meaning of the text but also on its philological aspects. As a teacher of linguistics he is perhaps *primus inter pares*. It is one thing to know a language; it is another to bring it to life and teach it clearly to the students. Gordon impressed on his students the fact that an understanding of grammar is basic to the comprehension of the languages of the ancient Near East. Understanding the language opens the door to the history of a culture. If an available grammar did not satisfy his needs, Gordon, with good humor and artful pedagogy, would lead his students through the labyrinth of syntax and grammar by creating his own tables and exercises that clarified complex concepts and guaranteed proficiency. With the discovery of Ebla in the 1980s he began his presentation of Hebrew grammar by demonstrating that it had roots in the Early Bronze Age.

Cyrus Gordon is one of the most prolific writers of his generation, having authored several books and written hundreds of articles in almost every leading journal. One of his first major contributions was the *Ugaritic Grammar*, published in 1941 (revised in 1965 as *Ugaritic Textbook*). This monumental opus opened the discipline for young scholars and helped speed the course of Ugaritic research as well as that of related disciplines. In his review of the first edition, W.F. Albright lauded the volume, saying:

Gordon's *Ugaritic Grammar* is of greater lasting significance for OT research than any dozen assorted recent commentaries taken together.¹

Still ranking as one of the principal texts in the field, the *Ugaritic Textbook* will soon be reissued by the Pontifical Biblical Institute.

Another classic, *The Common Background of Greek and Hebrew Civilizations*, presents conclusive evidence that these two civilizations are parallel structures emanating from a common ecumene.² A reviewer describes Gordon as

the rare scholar who can control diverse languages and archaeological remains and is thus able to cut across the conventional academic lines generally reserved for, and jealously guarded by professional Semitists and classicists.³

Although he is an expert in the world of Akkadian, Sumerian and Ugaritic, ancient Egyptian and Coptic, Aramaic and the classical languages, Gordon considers the identification of Minoan Linear A as Northwest Semitic to be the most important breakthrough of his career. However, biblical exegesis remains his grand passion. A worn copy of the Hebrew Bible is his eternal fountain of inspiration. Gordon's work on the Nuzi tablets illuminates the Patriarchal period. His *Ugaritic Textbook* contains a wealth of new insights into the meaning of many biblical verses. His work on the Eblaite language and grammar demonstrates that the culture and language of the Bible extends back to the Early Bronze Age. Cyrus Gordon has worn many hats during his distinguished career but the recognition he receives as a Hebrew Bible scholar brings him the most pleasure and pride.

As a scholar in general, and as a biblical scholar in particular, Gordon's methodology is exemplary. His demanding approach has led him to keen observations and a multitude of innovative contributions to scholarship. Gordon wholeheartedly agrees with the instructions of the Rabbis to the scribes of the Scrolls. In interpreting Deut. 6.9, 'You shall write', the Talmudic Sages said: 'Your script must be perfect. [This means] that one should not write *'alephs* as *'ayins* and vice versa'

1. W.F. Albright, Review of *Ugaritic Grammar* by C.H. Gordon, *JBL* 60 (1941), pp. 434-38.

2. C.H. Gordon, *The Common Background of Greek and Hebrew Civilizations* (New York: W.W. Norton, 1965).

3. C.A. Robinson, Jr, 'Sumer and Semantics', *Saturday Review* 46 (1963), p. 28.

(b. Šab. 103b). Cyrus Gordon heeded this advice punctiliously. It is the basis of two fundamental principles of his approach. First, since the scribes were meticulous, one should accept the integrity of the text of the Hebrew Bible. Therefore, when there is difficulty in interpreting a verse, *lectio difficilior praeferenda est*. If a text cannot be explained in the light of all extra-biblical material it is possible that our knowledge is deficient, rather than that the verse is corrupt. Secondly, careful reading and attention to slight differences is of utmost importance.

Those who recall the young Gordon and are privileged to listen to him today are astonished that his unique delivery and graceful style have not diminished with time. He maintains a constant flow of creativity. His philosophy of research can be summed up by the words of the Sage, Ben Bag Bag in *The Sayings of the Fathers*, a work Professor Gordon loved teaching:

Delve in it [the Torah] and continue to delve in it for everything is in it; look deeply into it; grow old and gray over it, and do not stir from it, for you can have no better portion than it (*m. 'Ab. 5.26*).

The editors of this *Festschrift* are fortunate, not only to have the distinct honor of having compiled the book, but to have a unique and personal relationship with Professor Gordon, since he was the doctoral sponsor of each of us. He has added a dimension of excellence to our lives, the value of which is beyond measure. We would like to express our heartfelt wishes to our beloved teacher with a 'forgotten script' utilizing the 'old perfective', the sole surviving relic in Egyptian of the Semitic finite verb.⁴

*wšḥ 'nh.tn wḏj tiwny*⁵

Long may your life be, may you be prosperous!

May you carry on the work that you love and continue to reach 'new horizons'.⁶

Meir Lubetski, Claire Gottlieb, Sharon Keller
Editors

4. A.H. Gardiner, *Egyptian Grammar* (Oxford: Griffith Institute, 1978), p. 234.

5. K. Sethe, *Urkunden der 18. Dynastie* (Berlin: Akademie-Verlag, 1961), p. 66 lines 1-2.

6. For a biographical appreciation of Cyrus Gordon see M. Lubetski and C. Gottlieb, 'Forever Gordon: Portrait of a Master Scholar with a Global Perspective', *BA* 59.1 (1996), pp. 1-12. Other articles in the issue describe his contributions to specific disciplines.

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Meir Lubetski, Claire Gottlieb, Sharon Keller

ABBREVIATIONS

AASOR	Annual of the American Schools of Oriental Research
AB	Anchor Bible
AbB	Altbabylonische Briefe in Umschrift und Übersetzung
ABD	David Noel Freedman (ed.), <i>The Anchor Bible Dictionary</i> (New York: Doubleday, 1992)
ADAIK	Abhandlungen des deutschen archäologischen Instituts, Kairo
AfO	<i>Archiv für Orientforschung</i>
AHw	Wolfram von Soden, <i>Akkadisches Handwörterbuch</i> (Wiesbaden: Harrassowitz, 1959–81)
AJA	<i>American Journal of Archaeology</i>
AJP	<i>American Journal of Philology</i>
ALASP	Abhandlungen zur Literatur Alt-Syrien-Palästinas
AnBib	Analecta biblica
ANEP	James B. Pritchard (ed.), <i>Ancient Near East in Pictures Relating to the Old Testament</i> (Princeton: Princeton University Press, 1950)
ANET	James B. Pritchard (ed.), <i>Ancient Near Eastern Texts Relating to the Old Testament</i> (Princeton: Princeton University Press, 1950)
AnOr	Analecta orientalia
AOAT	Alter Orient und Altes Testament
AOS	American Oriental Series
ARET	Archivi Reali di Ebla Testi
ARM	Archives royales de Mari
ArOr	<i>Archiv orientální</i>
ARTU	J.C. de Moor, <i>An Anthology of Religious Texts from Ugarit</i> (Leiden: E.J. Brill, 1987)
AS	Assyriological Studies
ASAE	<i>Annales du service des antiquités de l'Égypte</i>
BA	<i>Biblical Archaeologist</i>
BARev	<i>Biblical Archaeology Review</i>
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
BBB	Bonner biblische Beiträge
BDB	Francis Brown, S.R. Driver and Charles A. Briggs, <i>A Hebrew and English Lexicon of the Old Testament</i> (Oxford: Clarendon Press, 1907)
BE	Babylonian Expedition of the University of Pennsylvania
BGUL	S. Segert, <i>A Basic Grammar of the Ugaritic Language</i>

	(Berkeley, CA: University of California Press, 1984)
<i>BHK</i>	R. Kittel (ed.), <i>Biblia Hebraica</i> (Stuttgart: Württembergische Bibelanstalt, 1937)
BiAe	Bibliotheca Aegyptiaca
<i>Bib</i>	<i>Biblica</i>
<i>BIES</i>	<i>Bulletin of the Israel Exploration Society</i> (= <i>Yediot</i>)
<i>BiOr</i>	<i>Bibliotheca Orientalis</i>
BKAT	Biblischer Kommentar: Altes Testament
<i>BSO(A)S</i>	<i>Bulletin of the School of Oriental (and African) Studies</i>
BZAW	Beihefte zur ZAW
CAD	Ignace I. Gelb <i>et al.</i> (eds.), <i>The Assyrian Dictionary of the Oriental Institute of the University of Chicago</i> (Chicago: Oriental Institute, 1964–)
CARTU	J.C. de Moor and K. Spronk, <i>A Cuneiform Anthology of Religious Texts from Ugarit</i> (Leiden: E.J. Brill, 1987)
CBQ	<i>Catholic Biblical Quarterly</i>
CdE	<i>Chronique d’Egypte</i>
CDG	W. Leslau, <i>Comparative Dictionary of Ge’ez (Classical Ethiopic)</i> (Wiesbaden: O. Harrassowitz, 1987)
CIS	<i>Corpus inscriptionum semiticarum</i>
CP	<i>Classical Philology</i>
DBSup	<i>Dictionnaire de la Bible, Supplément</i>
DDD	K. van der Toorn, B. Becking and P.W. van der Horst, <i>Dictionary of Deities and Demons in the Bible</i> (Leiden: E.J. Brill, 1995)
DNWSI	J. Hoftijzer and K. Jongeling, <i>Dictionary of the North-West Semitic Inscriptions</i> (Leiden: E.J. Brill, 1995)
<i>EncBrit</i>	<i>Encyclopaedia Britannica</i>
<i>EncJud</i>	<i>Encyclopaedia Judaica</i>
FARG	Forschungen zur Anthropologie und Religionsgeschichte
Ges. ¹⁷	Wilhelm Gesenius, <i>Hebräisches und aramäisches Handwörterbuch über das Alte Testament</i> , 17th edn
GM	<i>Göttinger Miszellen</i>
GTJ	<i>Grace Theological Journal</i>
HÄB	Hildesheimer ägyptologische Beiträge
HAL	W. Baumgartner, <i>Hebräisches und aramäisches Lexikon zum Alten Testament</i> (Leiden: E.J. Brill, 1967)
HUCA	<i>Hebrew Union College Annual</i>
ICC	International Critical Commentary
IDB	George Arthur Buttrick (ed.), <i>The Interpreter’s Dictionary of the Bible</i> (4 vols.; Nashville: Abingdon Press, 1962)
IEJ	<i>Israel Exploration Journal</i>
IM	Tablets in the collections of the Iraq Museum, Baghdad
ISet	= SLTF
JAC	<i>Jahrbuch für Antike und Christentum</i>
JARCE	<i>Journal of the American Research Centre in Egypt</i>
JANESCU	<i>Journal of the Ancient Near Eastern Society of Columbia University</i>

JAOS	<i>Journal of the American Oriental Society</i>
JBL	<i>Journal of Biblical Literature</i>
JCS	<i>Journal of Cuneiform Studies</i>
JEA	<i>Journal of Egyptian Archaeology</i>
JEOL	<i>Jaarbericht...ex oriente lux</i>
JJS	<i>Journal of Jewish Studies</i>
JNES	<i>Journal of Near Eastern Studies</i>
JQR	<i>Jewish Quarterly Review</i>
JSJ	<i>Journal for the Study of Judaism in the Persian, Hellenistic and Roman Period</i>
JSOT	<i>Journal for the Study of the Old Testament</i>
JSOTSup	<i>Journal for the Study of the Old Testament, Supplement Series</i>
JSS	<i>Journal of Semitic Studies</i>
KAI	H. Donner and W. Röllig, <i>Kanaanäische und aramäische Inschriften</i> (3 vols.; Wiesbaden: Harrassowitz, 1962–64)
KB	Ludwig Koehler and Walter Baumgartner (eds.), <i>Lexicon in Veteris Testamenti libros</i> (Leiden: E.J. Brill, 1953)
KRI	K.A. Kitchen, <i>Ramesside Inscriptions</i>
KTU ²	M. Dietrich, O. Loretz and J. Sanmartin, <i>The Cuneiform Alphabetic Texts from Ugarit, Ras Ibn Hani and Other Places (KTU: second, enlarged edition)</i> (ALASP, 8; Münster: Ugarit-Verlag, 1995)
LÄ	<i>Lexicon der Ägyptologie</i>
Lane	E.W. Lane, <i>Arabic–English Lexicon</i> (Beirut: Librairie du Liban, 1968)
Lesko, Dictionary	L.H. Lesko, <i>A Dictionary of Late Egyptian</i> (4 vols.; Berkeley: 1982–89)
LingAeg	<i>Lingua Aegyptia, Journal of Egyptian Language Studies</i>
LSJ	H.G. Liddell, Robert Scott and H. Stuart Jones, <i>Greek–English Lexicon</i> (Oxford: Clarendon Press, 9th edn, 1948)
MÄS	Münchener ägyptologische Studien
MDAIK	Mitteilungen des deutschen archäologischen Instituts, Kairo
MVAG	Mitteilungen der vorderasiatisch-ägyptischen Gesellschaft
NABU	<i>Nouvelles Assyriologiques Brèves et Utilitaires</i>
NÄG	A. Erman, <i>Neuägyptische Grammatik</i>
Ni	Tablets excavated at Nippur, in the collections of the Archaeological Museum of Istanbul
PRU	<i>Le palais royal d'Ugarit</i>
OBO	Orbis biblicus et orientalis
OECT	Oxford Editions of Cuneiform Texts
OLP	Orientalia lovaniensia periodica
OLZ	<i>Orientalistische Literaturzeitung</i>
Or	<i>Orientalia</i>
OrAnt	<i>Oriens antiquus</i>
OTL	Old Testament Library
OTS	<i>Oudtestamentische Studiën</i>
PRU	<i>Le palais royal d'Ugarit</i>

RA	<i>Revue d'assyriologie et d'archéologie orientale</i>
RB	<i>Revue biblique</i>
REg	<i>Revue d'égyptologie</i>
RIDA	<i>Revue internationale des droits de l'antiquité</i>
RLA	<i>Reallexicon der Assyriologie</i>
RSO	<i>Rivista degli studi orientali</i>
RSOu	Ras Shamra-Ougarit
SAK	<i>Studien zur altägyptischen Kultur</i>
SAOC	Studies in Ancient Oriental Civilization
SBL	Society for Biblical Literature
SBLMS	SBL Monograph Series
SD	A.F.L. Beeston <i>et al.</i> , <i>Sabaic Dictionary</i> (Beirut: Louvain-la-Neuve and Beirut, 1982)
SEL	Studi epigrafici e linguistici
Sem	<i>Semitica</i>
SLTF	S.N. Kramer, M. Çiğ and H. Kizilyay, <i>Sumerian Literary Tablets and Fragments in the Archaeological Museum of Istanbul</i> (2 vols.; Ankara: Turk Tarih Kurumu Basimevi, 1969, 1976)
SSEAP	Publications of the Society for the Study of Egyptian Antiquities
StPh	<i>Studia Phoenicia</i>
TCL	Textes cunéiformes du Louvre
TEO	P. Bordreuil and D. Pardee, <i>La trouvaille épigraphique de l'Ougarit. 1. Corcordance</i> (Paris: Editions recherche sur les civilisations).
TO	A. Caquot, M. Sznycer and A. Herdner, <i>Textes ougaritiques, mythes et légendes</i> (Paris: Cerf, 1974)
TT	Theban Tomb
TUAT	Texte aus der Umwelt des Alten Testaments
TynBul	<i>Tyndale Bulletin</i>
UBL	Ugaritisch-Biblische Literatur
UET	Ur Excavations, Texts
UF	<i>Ugarit-Forschungen</i>
UM	Tablets in the collections of the University Museums of the University of Pennsylvania
UT	Cyrus H. Gordon, <i>Ugaritic Textbook</i> (Analecta orientalia, 38; Rome: Pontifical Biblical Institute Press, 1965)
UUÅ	Uppsala universitetsårsskrift
VS	Vorderasiatische Schriftdenkmäler
VT	<i>Vetus Testamentum</i>
VTSup	<i>Vetus Testamentum</i> , Supplements
Wb	A. Erman and H. Grapow (eds.), <i>Wörterbuch der ägyptischen Sprache</i> (5 vols. + Belegstellen; Leipzig, Berlin: 1926–53)
WBC	Word Biblical Commentary
WO	<i>Die Welt des Orients</i>
WUS	J. Aistleitner, <i>Wörterbuch der ugaritischen Sprache</i> (Berlin: Akademie Verlag, 2nd edn, 1967)

WZKM	<i>Wiener Zeitschrift für die Kunde des Morgenlandes</i>
YBC	Yale Babylonian Collection
YOS	Yale Oriental Series
ZA	<i>Zeitschrift für Assyriologie</i>
ZÄS	<i>Zeitschrift für ägyptische Sprache und Altertumskunde</i>
ZAW	<i>Zeitschrift für die alttestamentliche Wissenschaft</i>
ZDMG	<i>Zeitschrift der deutschen morgenländischen Gesellschaft</i>
ZDPV	<i>Zeitschrift des deutschen Palästina-Vereins</i>

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'LIKE A PERPETUAL FOUNTAIN'
for my father

The day unfolds
 like a flower
and I think of you
one thousand miles to the east
where already it is day.

May your day be blessed
even as the knowledge
 of your love blesses mine.

It is a small world,
as you have taught me,
from Sumer to the cusp
of the approaching millennium,
or from Ugarit to Beijing—
too small a world
to let a single heartbeat,
pirouette, or flutter of a wing
pass by without a blessing,
but in my small world
your place is spacious
and regal

and now, it is dawn again,
with pale blue snow sifting down faintly,
and once more I think of you
in a moment of awakening and pleasure,
because in all the joys of my life
you who begot me
are present,

and because I remember
how you rose early
nearly every morning,
in the glittering dark
in the quiet hours
to write and study,
before the onslaught and tumult
of the day.

Historian, archaeologist, linguist,
a dawn person,
you always see
the first faint rays
beyond the horizon
from some unseen source.

Our little boats set out
for the coasts
along the cedar forest
and the islands
where potters paint
their vessels with designs
of dolphins and squid.

All the flavors of the world
will be in the omelet you prepare
for breakfast.
You improvise a soup for lunch
like jazz.
At supper there will be candlelight
and sephardic songs.
It is the winter solstice festival
of rededication
when we remember your mother.

In your love and respect for women
you showed me glimpses
of a prepatriarchal world
that persists
uneclipsed, and shines,
in our own days.

We walk along beaches
and through forest trails,
climb mountains, and pick our way
on stepping stones in the beds of streams.
We are ready to meet the unexpected
in our world
and in our conversations,
like a patch of waterlilies,
some subtly tinted lichen, or
the peach blossom spring.

Deborah Gordon Friedrich

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Part I

ARCHAEOLOGY

FUMES, FLAMES OR FLUIDS? REFRAMING THE CUP-AND-BOWL QUESTION

Carol Meyers

Perhaps the most important lesson I learned, decades ago, as a graduate student in one of Cyrus Gordon's courses, was to look across civilizations, continents and chronological periods in attempting to understand the specific features of any individual culture in the ancient Near East. I took this openness to recognizing the similarities between artifacts, texts or socio-political structures of widely separated areas as a way of seeing connections, or 'borrowings', as earlier generations may have called the transmission of aspects of culture from one group to another. But I also now appreciate that openness in a larger sense as an acceptance of the integral role of analogy in the study of civilizations. In addition, I see the possibility of bringing new perspectives to the study of old problems as a corollary of Professor Gordon's celebrated scholarly breadth. Thus I am happy to participate in this volume honoring him with a piece that I hope exemplifies the spirit of his extraordinary career.

The discovery in the 1994 excavation season at Tel 'Ein Zippori, three miles west of Nazareth in Lower Galilee, of three examples of a specialized and rather uncommon ceramic form arouses once again the many unanswered questions that have surrounded this artifact type since the earliest days of Palestinian archaeology. These objects, for reasons that will become clear, do not have a uniform nomenclature in the archaeological publications in which they are presented. The purely descriptive term 'cup-and-bowl' vessel will be used here to designate this intriguing type of pottery container.

None of the three pieces from 'Ein Zippori, a small rural settlement occupied during much of the Late Bronze and Iron Ages, has survived intact. But one of them is fairly well preserved (Fig. 1), and a description of it will serve to introduce this class of objects. The piece consists

of two vessels joined together: an inner deep cup attached at its external base to a shallow, flat-based bowl. This particular example is 5.5 cm high, and the top of the cup has a diameter of 7.3 cm. The bowl is incomplete: its base is 6.7 cm in diameter, and its diameter at rim level would have been somewhat more than 12 cm. It features a greyish core (Munsell 5 YR 4/1), with an exterior of pale orange (5 YR 8/4). The ware is rather coarse, and there is no trace of decoration. Were it not for its unusual composite shape and its relative rarity, it would readily be considered an everyday household vessel of no particular significance.

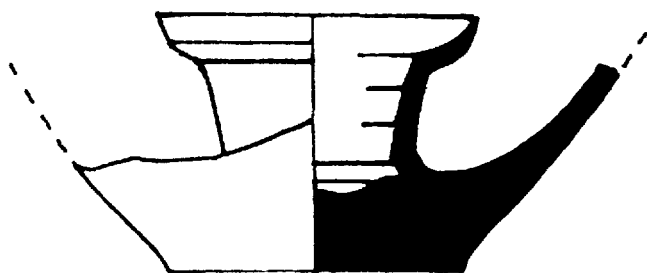


Figure 1. *Cup-and bowl vessel (G37, EZ II.2.155.20) discovered at Tel 'Ein Zippori in Galilee in a tenth-century context.*

One of the other examples from this site also has a flat base, whereas the third one features a rounded base, rounded (or disc) bases being more common than flat ones. Drawing courtesy of the Sephoris Regional Project.

Although others may be somewhat larger or smaller, in its basic structure this vessel typifies virtually all other known examples, nearly all of which come from Palestinian sites.¹ Because of the incomplete bowl rim, it is impossible to determine if the height of cup and bowl were roughly the same, or if the cup extended above or below the height of the bowl rim. Cups below or at about the same height as the bowl are perhaps among the earliest of these vessels, with cups above bowl height apparently being later ones (Stern 1978: 51). An example of the latter is seen in Fig. 2. This chronological/morphological distinction is generally, but not always, the case: both cup-bowl height

1. Several have been discovered elsewhere in the east Mediterranean, including one or two from Egypt, some possible stone precursors from Crete, and one from Ugarit. Several late examples, two from Cyprus and one from Malta, are linked to Phoenician expansion.



Figure 2. *Cup-and-bowl vessel, now in the permanent collection of the Albright Institute of Archaeological Research in Jerusalem, from Munshara.*

The greyish-buff ware of this example is covered with a thick red slip. Its uneven height is 9.5 to 10 cm; the bowl has a rounded base and is 19 cm in diameter at the rim; and the cup is 10.2 cm in diameter at the rim. See Meyers 1996a. Photo courtesy of Seymour Gitin.

relationships are found together in some contexts (for example, Loud 1948: Pl. 86:17-18).

A recent study of the archaeology of Israelite Samaria includes a good synthesis of the chronological and geographical range of the cup-and-bowl vessels (Tappy 1992: 132-36). A significant number of them have been recovered from Late Bronze Age contexts, with earlier 'ancestral' specimens dating to the Early Bronze period, perhaps as early as Early Bronze I. The majority, however, come from Iron I and early Iron II strata, with the numbers falling off rapidly after 925 BCE, about the time of the end of the United Monarchy. The examples from 'Ein Zippori date to the tenth century and are thus within the period of this vessel's floruit. In addition, coming as they do from a northern site, they fit the geographical profile, whereby most specimens have been

found at northern Palestinian sites, notably 'Afula, Beth Shan, Hazor, Megiddo, Samarita, Ta'anach, Tell Far'ah North, Tell Qasile, Tel Mevorakh, Munshara. Only an occasional piece appears at sites in central Israel, typically at places (such as Ashdod, Beth Shemesh, Gezer, Jericho, Lachish) on established trade routes.

To these observations about provenance should be added the fact that, except for the 'Ein Zippori examples, all the cup-and-bowl vessels apparently come from large urban sites or from tombs associated with such sites. This feature of the vessel's distribution is perhaps a result of the fact that cities have elite populations and concomitant access to unusual or luxury goods. The possibility must be entertained, however, that the largely urban context is a consequence of the sociology of the discipline of archaeology. That is, until quite recently, field projects in Palestine focused almost exclusively on urban centers likely to produce monumental architectural structures and aesthetically or economically valuable artifactual remains. The relatively poorer and more mundane remnants of daily life in small villages seemed less interesting to excavators or their sponsors, and thus relatively little is known about the material culture of farmsteads and farm villages. That imbalance has shifted in recent decades; indeed, one of the reasons for excavating Tel 'Ein Zippori is precisely to break the elite bias of earlier field projects. Ironically, small though it may be, the presence of a relatively large building there with a plethora of stamped storage jar handles and a dearth of ordinary household ceramics, may bespeak the presence of rural elites rather than peasant farmers (Dessel 1996; Dessel, Meyers and Meyers 1995; Meyers 1996b). Cup-and-bowl vessels at 'Ein Zippori, therefore, may have served an elite population rather than the peasantry that would usually have inhabited such small, unwallled settlements.

The location of these artifacts at northern sites with specialized buildings (including tombs) leads to the next consideration. Whereas the morphology and location involve fairly straightforward analysis of the information in field reports, the matter of the function of cup-and-bowl vessels takes us to the level of interpretation. There are no definitive epigraphic, graphic or material culture data that provide direct information about how they were used, and the suggestions of archaeologists who have sought to identify their purpose range from the whimsical to the anachronistic. Somewhat similar Minoan forms, with loop handles, have been called 'candlesticks', perhaps because of their resemblance to low colonial candleholders (Evans 1964: I, 577, 579);

one example from the south was called a 'flower vase' (Badé 1928: 49), another was designated a stand for pointed-base juglets (Bliss 1894: 84), and a Gezer example was facetiously labeled 'grave boat' (Dever *et al.* 1981: 79) by excavators acknowledging that its function is enigmatic.

Less fanciful suggestions fall into three categories, reflected in the first part of the title of this study. Two features that appear on some, but not all, of the examples are relevant at this point. First, many examples have one or more small aperture(s) (c. 1.0 cm in diameter) in the lower part of the cup, connecting the space inside the cup with that inside the surrounding bowl. Secondly, there are traces of burning on the rims of a number of them, and at least one contained charred remains in the cup (Loud 1948: Pl. 70: 16).

The first feature has led some scholars to suppose that the vessel involved the passage of *fluids* between its two parts, which might make it a libation vessel (Amiran 1969: 303). The second feature—traces of burning—could result from the *flames* of burning oil or from the charcoal that would produce the *fumes* of incense. The former possibility seems unlikely in view of the many examples of pinched-rim saucer oil lamps found throughout Palestine, often together with the cup-and-bowl vessels. Their use in the preparation or dissemination of aromatics thus seems most likely, although one can never rule out the possibility that some other technology, no longer extant, was involved.

One tends to think of incense in the ancient world mainly in terms of its use in cultic or religious life. The gods of Egypt and Mesopotamia all appreciated the odor of incense offered by itself or with other sacrifices—for purification or for pleasurable smells (Groom 1981: 1-3; Nielsen 1986: 3-11, 25-30). In its specifications for its utensils and use, and also in the notion that it created 'a pleasing odor to the LORD' (Lev. 2.2), the Hebrew Bible attests to the integral role of incense in formal Israelite ritual (see Haran 1978: 230-45; Nielsen 1986: 68-78, 101-107). Related ritual practices, perhaps the oldest of the religious uses of incense, were mortuary ones: incense was used in funerals, at grave-sites or tombs, and in preparation of the bodies for burial (cf. 2 Chron. 16.14).

The elaborate and widespread ceremonial usage of incense involved a variety of specialized tools, containers and burners (Fowler 1992), many of which are depicted in ancient Near Eastern art. Among them are the high cylindrical stands meant to hold a bowl for incense and

found throughout the Fertile Crescent (for examples, see Nielsen 1986: figs. 6-13, 38-51). Hand-held censers are well known; the most striking ones, in the shape of an arm and a hand, appear in ancient Egypt (Nielsen 1986: figs. 24-36) and also Palestine (May 1935: Pl XVI, M 4304, M 4303; see Meyers 1992a and 1992b). Perhaps most distinctive of the thymiateria recovered from Palestine are the cuboid 'altars', either the miniature ones perhaps originating in South Arabia, which was the source of the most prized aromatics in the ancient world, or the somewhat larger 'horned' variety found at many Israelite sites from Dan to Beersheba (see the catalogue in Gitin 1989 and also 1992).

The association of these archaeological remains with cultic functions tends to obscure the fact that the burning of fragrant substances was probably part of the daily lives of many people in the ancient world.² The production of costly specialized vessels and the procurement of highly expensive and first quality fragrant substances from their sources in the land of Punt—South Arabia or Somalia or both—were surely part of the realm of the gods and royalty. But that hardly meant that daily use of aromatics was beyond the means of all but the elite (so Haran 1993: 241). Indeed, sanitation conditions in small airless rooms and hygienic conditions with few baths or changes of clothing for most people, along with the unending attempt to deal with insects, meant that the use of substances to introduce fragrant smoke and pleasing odors into non-cultic space was also widespread (Neufeld 1971).

The domestic—as opposed to the funerary and cultic—use of incense is far less visible in the archaeological record. For one thing, private dwellings, as noted above, have attracted far less attention than have public ones. But also, ordinary households were more likely to have engaged in fumigatory practices that would have left little trace. Often the desired fragrant smoke could be achieved by the sprinkling of any odoriferous substance—flower petals, the bark of certain trees, dried seeds, the peels of some fruits—on the domestic hearth. Such activities are all technically the burning of incense. The use of imported resins, often mixed with herbs or spices, for fumigation was somewhat more

2. The archaeological identification of cultic contexts for many of the cup-and-bowl vessels is itself suspect. That is, through circular reasoning, some archaeologists assumed that these vessels were intended for cultic use and therefore judged the buildings or areas in which they were found to be 'cultic' (see Tappy 1992: 133 n. 143). If these objects are better considered household vessels, a fair number of so-called cultic structures and their contents should be re-identified.

restricted for economic reasons. But even so, the notion that burning incense could mean only the burning of the costly products of the fruit trees or shrubs of South Arabia or West Africa must be rejected. Cheaper aromatics, compounded from the gums or resins of other species, were available from less distant places.

In this connection, it is relevant to note that a caravan from Gilead to Egypt described in Gen. 37.25 (cf. Gen. 43.11) contained materials used as aromatics. While they cannot all be identified securely, it seems that they included: gum tragacanth (*n^ekōt*) from the *Astragalus guminifera* (Moldenke and Moldenke 1952: 51-52; Zohary 1982: 195), which grows in the cool mountainous region of Syria and Lebanon; ladanum (*lōt*), from *Cistus ladaniferus* L, a beautiful-flowered plant, several species of which grow in Moab and Gilead (Moldenke and Moldenke 1952: 77; Zohary 1982: 194); and probably storax (*š^orî* from either the sap of the *Liquidambar orientalis*, which is found in Asia Minor and Syria, or that of the *Styrax officinalis*, which grows throughout Syria-Palestine (Moldenke and Moldenke 1952: 224-25; cf. Zohary 1982: 192). Clearly, the supplies of fumigatory substances were not limited to the queen of such materials, frankincense (*l^ebōnā*), which was taken from the shrub *Boswellia*, imported from southern sources at great expense (see Holladay 1994) and used, along with salt and several items that resist identification, in compounding the sacral incense of the official Israelite cult (Exod. 30.34-35). Indeed, the fact that the cup-and-bowl vessels tend to be found at northern sites or those on trade routes fits well with the fact that sources of less expensive incense were to the north and northeast of Palestine.³

More accessible incense preparations were typically used by sprinkling them onto live coals. This could be done directly at the household hearth or cooking fire or by placing embers in a separate container. In the latter case, any shallow bowl or plate could be used; and it is

3. The virtual disappearance of the cup-and-bowl vessel at the end of the period of the United Monarchy should be related to the political and economic changes in Palestine in the late tenth century. The end of the Solomonic era, with its far-reaching trade networks and its political hegemony over states to the north and east, probably meant disruption of northern markets. The continual strife, over the next centuries, with the Aramean states and with Assyria, likewise would have affected northern sources of aromatic substances. Trade routes to the south, however, and their access to incense used in official sacral contexts, were apparently not disrupted (see Holladay 1994).

difficult to know how, when, or why specialized receptacles for burning incense in domestic contexts may have emerged. If the cup-and-bowl vessel was intended for fumigation, its relatively narrow cup, as opposed to an open bowl, perhaps was designed to restrict or focus the fragrant smoke. Perforated lids to control fumes are sometimes found depicted with cultic incense stands, the tops of which resemble the cup-and-bowl. That no such lids seem to have been found with the cup-and-bowl vessels may be an accident of archaeology; or it may be that lids were rarely used. Another possibility is that perforated wooden lids were preferred, as was the case in ancient China, where incense was burned in censers (shallow circular pans with an inner container; see *EncBrit* 1993) similar to the Palestinian cup-and-bowl. The wooden cover would have retained the scent of the aromatic smoke long after the coals had died out and the incense had burned.

The likelihood that the cup-and-bowl vessel was used for incense may also be supported by its similarity to certain complex pottery shapes, apparently intended for use with aromatic substances, known from the Aegean, mainly Crete. Establishing nomenclature and identifying function are as problematic for those vessels, usually called by the rather unhelpful term 'fireboxes' (Georgiou 1973, 1980), as for the Palestinian cup-and-bowl forms. Found mainly at palace sites or small urban communities, they are made of coarse ware and consist of two parts: a bowl-shaped lower part, and an open or closed capsule set into it. The bowl is typically perforated. Although one suggestion was that they were censers of some sort, it seems more likely that they were used in the preparation of liquid aromatics (Georgiou 1986: 4-22). An exact functional parallel between the Cretan artifacts and the Palestinian ones can be ruled out, yet the resemblance in form and the apparent relationship of both to fumigants makes a looser functional relationship possible. Incense in its widest sense involves releasing fumes through burning or volatilization (Groom 1981: 11).

If the Palestinian examples are related to the use of incense, the small holes connecting cup and bowl in many of them may well be a device to provide oxygen to the coals on which the incense was scattered, particularly in the forms with narrow cups. The relatively sporadic occurrence of burn marks may have nothing to do with the burning coals in the cup, which would perhaps have left an ashy residue; rather, impurities in less costly substances may have caused occasional flare-ups that left traces of soot.

The use of these compound and uncommon vessels for fumes is likely though not firmly established. A detailed ethnoarchaeological study of the tools and materials of incense burning in traditional cultures might provide definitive new information; similarly, an experimental archaeological study that tested various ways of preparing and burning aromatics might settle certain technical questions about vessels used in such processes. Lacking either such study, this consideration of cup-and-bowl vessels indicates that questions about socio-economic context, domestic versus public space, and sacral versus general usage may be more useful in attempting to understand this artifact than are the traditional questions of form and date alone. As important as it is to analyze typological features and establish chronological and geographical range, attempts to understand the complex cultural variables relating to function may ultimately be more enlightening.

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SOME REMARKS ON SHIPBUILDING HERITAGE AND ANCIENT PEOPLES

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The beginnings of navigation and sea-borne connections, between the various parts of the ancient Near East and farther away, may have taken place as early as the initial phase of human appearance on the islands of the Mediterranean, or even earlier. Yet the earliest surviving documents as for the types of vessels used for these early water voyages are only the iconographic depictions—clay models, rock-drawings and painted vases—of Late Neolithic and Early Chalcolithic eras in Egypt and Mesopotamia. Some of these depictions are either without datable context, or are too crude and simplified to be of any real value when trying to study the technological aspects of the actual nautical vessels these ancient artists attempted to illustrate. Others, more detailed and better executed, still might be controversial as for the proportions, size, means of propulsion, the raw materials used and the technology of their construction. For that reason, the scholars studying ancient shipping are cautious, tentative and argumentative in their use of these iconographic documents as evidence for the origins of the earliest sails (Bowen 1960; Casson 1991: 4) and for the identification of the materials out of which the illustrated types might have been made (Casson 1971: 5-40; Hornell 1946: 181-93; Vinson 1994: 11-15). Yet every student of shipbuilding technology would accept the logical correlation between the availability of certain suitable raw materials for construction of floating navigable boats and the technology used for shaping the final product.

The vast repertory of boats depicted in clay models, rock-drawings and paintings from predynastic Egypt may be grouped in three main categories, based on the shape of the hull:

1. Reed, or papyrus made hull, characterized by up-curving ends, narrow to a point. This type is presented by clay models dated as early as the fifth millennium BCE, from the Badarian culture

(Vinson 1994: Fig. 2) and continue all through the Amratian and the Gerzean eras (Kantor 1944: Fig. 5).

2. A long, crescentic hull, depicted as having sides of even breadth to their entire length, with angular cut ends. A type of hull which might be dictated by either dug-out, monoxyle trunk (Basch 1987: 55-56), or long timber planks (Vinson 1994: 12). This type is the most characteristic one in the upper Egypt culture of Naqada II period (Petrie 1921; 1933; Kantor 1944: 115; Landström 1970: 12; Bass (ed.) 1972: 12-13; Basch 1987: 57-60; Vinson 1994: 12-15), though a few datable depictions of the type are even earlier, of the Amratian era, of the first half of the fourth millennium BCE (Bass 1972: 13, Fig. 2; Casson 1971: Fig. 3).
3. A rather similar type, as for its raw material (wood), but with either only the prow, or both ends terminated with solid vertical posts of significant size (Kantor 1944: Fig. 4; Engelmayer 1965: Pl. XII.4; Williams 1980: 16). This 'square', or angular type was still rather common among depictions of boats dated to the eve of the first dynasty period, mostly in the eastern desert of upper Egypt and on rock-drawings from Nubia (Arkell 1950: Fig. 1; Emery 1961: Figs. 4, 10, 12). This type was designated as 'foreign' and 'non-Egyptian' by most scholars (Kantor 1944: 139; 1965: 10; Frankfort 1951: 110-11; Bass 1972: 13; Vinson 1994: 16-20).

The argument that this foreign type represents a Mesopotamian vessel, of the Protoliterate era there, was suggested already by Frankfort (1951), supported by Kantor (1952), strongly opposed by Helck (1962: 6-9) and questioned ever since. Recent finds in the Delta have somewhat 'made passé' the earlier scholars' claim for fourth millennium direct sea routes and seaborne connections between the Gulf and Egypt, through the Indian Ocean and the Red Sea (Kantor 1965: 10-14) in favour of the more 'conventional' land route along the Fertile Crescent (Moorey 1990).

Though it is most probable that both overland and sea routes along the Levantine coast had been used prior to the unification of dynastic Egypt, at least since the mid-fourth millennium BCE, or even earlier (Prag 1986), this may not necessarily contradict the well-established data from Upper Egypt, Wadi Hammamat and Nubia, indicating Mesopotamian importation of artifacts and its direct technical and

cultural influences on a society which was, in that era, much more complex and advanced than that of Lower Egypt (Baumgartel 1960: 139; Kantor 1965: 12; Bard 1994: 111-18). Recent socio-anthropological studies would suggest that the shift of developmental focus from Naqada and Hierakonpolis in Upper Egypt to Buto in the north had occurred only during the later Predynastic period, partly because of the growing importance of that Syro-Palestinian trade route (Wenke 1989: 142).

The fact is that all iconographic depictions of the so-called 'foreign' boats, which are dated to the Predynastic era, were found exclusively in the south, in the Eastern Desert and along the ancient route from El-Quseir to the Nile Valley, near Naqada, through Wadi Hammamat. What is the significance of these boats?

Among the illustrations published so far, there are three varieties:

There is the sub-type depicted on the famous ivory knife handle from Gebel el Arak (Emery 1961: 38, Fig. 1) which is similar in shape and decorations to the ceremonial, divine boat, depicted on a cylinder seal from Uruk in Mesopotamia. Gebel el Arak is situated at the eastern edge of the Nile Valley, at the western end of Wadi Hammamat. A somewhat similar boat type is inscribed on the side of a Predynastic clay vessel found at a nearby site (Kantor 1944: Fig. 4, E). Whether this variant represents a real ceremonial boat made of reed bundles, which was used in southern Mesopotamia during its Protoliterate period (Frankfort 1924: 138-42; Arkell 1959), or a conceptual symbol of a foreign and rival cultural unit, it is hard to say for sure (Basch 1987: 60-62).

The second sub-type is actually a hybrid version of the high, vertical ended boats and the crescentic vessel (type 2). Such is the rather long boat from the wall painting at tomb 100 in Hierakonpolis (Quibell and Green 1902: Pl. LXXV). In its context, this boat, painted black, is shown amid five white ones, of the typical Upper Egypt Gerzean crescent, or 'boomerang' type. The black vessel carries the same attribute as the other five, such as the tree branch at the fore end and the down-dropped bundle under its prow. It also carries the standard double shrine-like cabins, though the back one differs in shape, being arched instead of having a flat roof. The same high prow type of boat is to be found depicted on rock-drawings at Wadi Hammamat, on the way to the Red Sea (Kantor 1944: 138, Fig. 3, J, K) and at the Sayala region of the eastern desert in Sudan (Engelmayer 1965: Pl. XII.4). This last

drawing depicts a boat without cabins, furnished with eight oars on each side, and helmsman, operating the steering oar, sitting at the low-lying stern.

Because it is difficult to make any reasoning of the prominent, high and rather heavy prow of that subtype, its resemblance to the hull shape of the Early Cycladic boats of the Aegean Sea, which are dated to the following millennium, is most intriguing (see below).

The third sub-type is relatively close in its general hull shape to the first one. Yet it is depicted always without oars, frequently furnished with a square sail, and the triangular shape of its vertical sternpost, with the even width of its hull and prow, indicating wooden construction, rather than reed bundles. Though some iconographic documents of that sub-type are of uncertain date, others are considered to be either of the late Gerzean, or early First Dynasty period. The most famous one is the sailing boat painted on the late Gerzean vase now in the British Museum (No. 35324, A) and there are two others—from the eastern desert in north Sudan (Basch 1987: 50, Figs. 79, 80, 81). Another recently published one was carved on a stone-made censer found in Qustul, in southernmost Egypt (Williams 1980: 16). That boat has a cabin with forward sloping roof, similar to that which is depicted on the vase in the British Museum. On it a human figure is illustrated sitting with his hands pulled back behind his back. Another man is standing behind him, at the stern, as if holding him as a captive, much like the petroglyph scene from Sudan, dated to the early First Dynasty time of King Djer (Emery 1961: 60, Fig. 22). There are theories, among prominent scholars, that these angular vessels belonged to the invading 'Dynastic Race', that came by sea, probably from Mesopotamia, either through Syria and the Nile Delta (Emery 1961: 38-40), around the Arabian peninsula to El-Quseir (Derry 1956), or both to Mesopotamia and Egypt, from some unknown common provenance in the Indian Ocean (Rice 1990: 35-44). This last presumption, which attributes a common cultural and ethnic origin to the Pharaonic Race and the Sumerians, cannot be attested by any linguistic resemblance. The alleged interpretation of the scenes depicted in the painted tomb at Hierakonpolis, the carved tusk handle of the flint knife from Gebel el Arak and the Nubian petroglyphs, as historical illustration of such invasion (Emery 1961: 38), is too farfetched. It is quite clear that in both scenes, from Gebel el Arak and from Hierakonpolis, the winning side is the local, Gerzean one. The 'Menacing black ships' (Rice 1990: 74, Pl. 24)

are more likely non-local ships of an alien naval (?) power of which the people of the upper Nile Valley had to be aware. These fourth millennium marines might have crossed the eastern desert on their way from the coast of the Red Sea to the Nile Valley, either through Wadi Hammamat, or farther south, but not necessarily as aggressive invaders (Rice 1990: 45-47). It is more likely that their aim was trade; they were probably seeking gold and bringing in their own goods, of which some were the fine products and technical innovations of southern Mesopotamia (Kantor 1965: 10-16).

As stated above, the three variants of angular boats are fundamentally different in their function and construction. The 'ceremonial' type is less angular and its ends are turned up and backward, narrowing to their floral decorated points as if they had been made of papyrus, or bundles of reeds. This variant is the only one that matches the Protoliterate period boats carved on cylinder seals from Mesopotamia and Elam (cf. Rice 1990: 71, Pl. 12-13; Collon 1987: 158, Nos. 712-14). The other variant, which was most probably made of wood and carries a functional square sail, might be considered as the only iconographic document of a non-Egyptian marine sailing craft of the fourth millennium BCE (Vinson 1994: 16).

As we have seen, this angular type differs radically from the so-called Mesopotamian 'Divine Boats'. It had no prototype in earlier depictions from the Nile Valley, and is rather rare among boat types of dynastic Egypt up to the time of the New Kingdom. The few that appear are characterized by vertical stems and stern posts and are either heavy cargo carriers on the Nile (such as the long, plank-built, heavy-duty boats depicted at the Valley temple of Unas, the last Pharaoh of the fifth dynasty, carrying granite columns from the quarries of Elephantine); or the sarcophagus carrier illustrated at the tomb of Chief Justice Senezterib, which is shown with stitched gunwale—a boat that, according to the following text, belonged also to King Unas (Landström 1970: 62, Figs. 185, 186). A single wooden model of that type of boat belongs to the early days of the sixth dynasty and is exceptional among 15 other models found at the same context (Poujade 1948: 40). The best known depiction of vertical posts hull is of the seagoing ships, manned by Syrian merchants and crew, which decorate the mortuary temple of Sahure the Pharaoh of the fifth dynasty (Borchardt 1913: 127-34). Much has been written on these boats, their technical qualities (Landström 1970: 63-69; Casson 1971: 20) and

historical context (Vinson 1994: 23). Yet it is interesting that the surviving text which is next to the scene of the 'Syrian' fleet, or an Egyptian one, returning from the Levantine coast of the Mediterranean, tells us of ships that were sent to Punt, the Ophir of the Pharaohs, in East Africa, at the thirteenth regal year of King Sahure, bringing back vast quantities of myrrh, electrum and ebony wood (Breasted 1906: I, 161). Strangely enough, these ships were called 'Byblos' (*K.B.N.T.*) ships (Faulkner 1940). These ships are of clear-cut Egyptian technical heritage, with their keel-less flat bottom, the 'hugging truss', or 'overhead' queen note which replaced that missing keel, the high bipode mast and the stitched gunwales. Yet the crew is not Egyptian. The leading merchants are 'Canaanites', the vessel's type called 'Byblian', and the ship sailed also to Punt. Less Egyptian and less ambiguous are the iconographic documents for ships with vertical posts which date to the New Kingdom era. The most famous one is the scene of a 'Canaanite' fleet of merchantmen reaching the quay at Thebes and unloading their imported cargo, from the decorated wall of the tomb of Kenamun, the superintendent of the granaries of Amun's temple during the reign of Amenhotep III (1408–1372 BCE); another, rather similar type of vessel is depicted on the wall of the tomb of the chief physician of Amenhotep II (1450–1425) (Säve-Söderbergh 1957: Pl. XXIII); and the third, from the tomb of Iniwia, probably of the thirteenth century BCE, depicts 'Canaanites' unloading wine(?) jars from moored ships, of which only the forepart of three ships have been found (unpublished, No. EM 11935 in Cairo Museum, and see e.g. Landström 1970: 138, Fig. 403). For some reason, Landström restored that type as if it were of keel-less Egyptian type, though no 'hugging truss' is depicted on either one of the three documents (1970: 139, Fig. 407). Others would consider these ships to be either true 'Canaanite' (Basch 1987: 62–66; Vinson 1994: 40–44), or Canaanite type of merchantmen which were built at the Royal Egyptian shipyards at Pro-Nefer, by Canaanite craftsmen (Säve-Söderbergh 1946: 39–60). Basch was the first to suggest that the Egyptian name for this Canaanite type was MNŠ (*menesh*), a term to be found in Egyptian texts since the time of Amenhotep III (Basch 1978). Later, this vertical-posts, square type is to be found as representing the 'Sea Peoples' fleet at the famous depiction of Ramesses III defeating them at sea, on the south wall of his temple at Medinet Habu (Nelson 1943; Raban 1989: 165–67). This type continued to be characteristic for small coastal and riverine log carriers of the Phoenicians,

both in the Levant, Cyprus and on the Euphrates, serving their Assyrian lords.

Such are the boat models found at Akhziv, Israel (Basch 1987: Figs. 642-43), which are dated to the ninth–eighth centuries BCE; the repertory of clay models from Amathus and other Phoenician sites in Cyprus (Basch 1987: 253-58, Figs. 543-57); and the *Hippoi* depicted on Assyrian reliefs (Basch 1987: 305-20, Figs. 648-74). As this type was in contrast to the local New Kingdom vessels in Egypt, so they differed from the crescent shaped cargo vessels of the Aegean and ‘Etheo-Cypriot’ hulls of the first half of the last millennium BCE, not to mention the war galleys and longboats of the Iron Age and the Archaic Period in the Mediterranean. How far west this type was known and at least artistically depicted is hard to guess. So far, the statistical analysis made by Basch (1987: 94-137) counted only two Early Minoan seals, a painted pithos and the famous disk from Phaistos (Basch 1987: Figs. E1, E2, 273, 285), out of over 250 iconographic items. A similar conclusion derives from Wedde’s PhD research (summarized Wedde 1995). In mainland Greece there is so far only one picture of that type, or rather its derivation, painted on a LH III (twelfth century BCE) crater from Kynos (Dakoronia 1995: Fig. 2).

Summing up the iconographic data from the ancient Near East in a combined spatial and chronological order, one would find that this special type of angular ship, with vertical prow and stern posts, is to be found in the following order:

1. In the upper Nile Valley and the wadis of the Eastern Desert, on the way to the Red Sea, since mid-fourth millennium BCE, the Gerzean, or Naqada II period, continuing into the Protodynastic and the Archaic eras.
2. On various artifacts, in ceremonial and religious contexts, in both Egypt of the First Dynasty (cf. Landström 1970: 23-25) and Mesopotamia of the third millennium BCE (Rice 1990: 45-46).
3. Around mid-third millennium BCE, mainly in a sea-going voyages context, both in the Mediterranean and the Indian Ocean, from fifth–sixth dynasties of Egypt and the Early Minoan Crete. (From that period we do not have a single iconographic document of boats or ships from the Levant.)
4. Syrian sea-going merchantmen, depicted in the tombs of high officials of the royal administration in Egypt of the New

Kingdom (eighteenth–nineteenth dynasties, fifteenth–thirteenth centuries BCE).

5. 'Sea Peoples' coasters of the twelfth century BCE.
6. Phoenician and Phoenico-Cypriot boat types during the first half of the last millennium BCE.

All scholars agree that this type was alien to predynastic Egypt, most probably predates the Sumerians and is unlikely to be of Mesopotamian origin. Having been depicted first at the geographical sphere between the Upper Nile and the Red Sea, the provenance of this type would be most unlikely to be found in the Mediterranean.

With all that in mind, the remaining potential origin of this type of sea-going vessel would need to be searched for in the north-western corner of the Indian Ocean, and, more precisely, along the south, or the eastern coasts of the Arabian peninsula. This understudied area has been opened for full scale modern archaeological research only in recent years. These studies seem to verify some notions that were popular during the 1930s (Openheim 1954). There is some recently discovered data concerning the societies of Bahrain, Qatar and Oman, which suggest that an agricultural community, involved in trade and seafaring, had thrived there as early as the fifth–fourth millennia BCE (Potts 1984; Zarins 1992; Rice 1994). The sea-borne contacts of these people with the African continent, and maybe even with the Nile Valley, might be attested, among other facts, by the introduction of the sorghum crop plant to the Gulf (Qatar). At the same context, dated to the late fourth millennium BCE, typical Mesopotamian pottery of Jamdat Nasr style has been exposed (Potts 1994: 238–39).

It is tempting to attribute to these peoples of the southern and eastern coasts of Arabia the role of seafarers who carried goods, cultural ideas and technological innovations from the head of the Gulf (the 'Sea Land' of ancient Mesopotamia) to the Egyptian ports on the Red Sea; and probably across the Eastern Desert to the Nile Valley, as Kantor suggested in 1956. It is also quite probable that such alleged maritime endeavours were carried out on board sailing ships of the angular type discussed above.

The later spatial distribution of that type is correlated quite intimately with the maritime sphere of the West Semitic people of the Levantine coast of the Mediterranean, known from the Bible as 'Canaanites', and later, since the Iron Age, by the name the Greeks gave them, 'Phoenicians'. It is not within the scope of this paper to deal with the issue of

Canaanite involvement in Egyptian sea-going shipping and the connections of both with Early Minoan Crete. All I am trying to present is an independent case based solely on the type of marine vessel which is characterized by a unique hull shape and predominant vertical posts. This unique type might indicate, when followed through time and space, that the combined notion of ancient texts, whether biblical, Ugaritic, Greek or Latin, concerning the origins of the Canaanites from the Red Sea (for a full length, up-to-date discussion, see Röllig 1983; Salles 1993), might not be dismissed so easily.

In this context there is room here to refer the reader to two additional texts, aside from those of Homer, Herodotos and Strabo: the first is ch. 10, v. 6 in the biblical book of Genesis, in which Canaan is designated as the son of Ham and a brother to Cush (Nubia), Mitzraim (Egypt) and Put. Among the offspring of Mitzraim are the Caphtories (the ancient people of Crete), from whom the Philistines were descended (Gen. 10.14). The second is the Ugaritic epos of King Kreth who had sought a bride as far south as Udum, by the Red Sea (Gordon 1949), as it was the custom in those days to marry within the nation, going back to its place of origin (as Isaac went back to Aram-Naharaim for Rebecca, Gen. 24.10). The last items are the petroglyphs from Nahal Gishron near Eilath, on the ancient road from the Red Sea to the Mediterranean (the Kounthilas Road), in which two angular ships with upright sterns and stern posts are depicted (Rothenberg 1967: 158-59, Fig. 231).

The second sub-type of the angular boats from Predynastic Egypt is best depicted as the 'Black Ship' from the painted wall of tomb 100 in Hierakonpolis (Quibell and Green 1902: Pl. LXXV; Landström 1970: 14, Fig. 17). Though considered 'foreign', its alleged Mesopotamian origins have been refuted by scholars (Frankfort 1924: 93-95). Other pictures of that rather strange style of hull are to be found among the pre- and protodynastic petroglyphs from the Eastern Desert and Nubia (Engelmayer 1965: Pls. XII.4, 14). A variant of this hull has its stern rising at an angle of about 50°, which first appears during the first dynasty era (e.g. Williams 1980: 16; Landström 1970: 25, Figs. 73-75). In all these pictures the almost vertical post is clearly at the fore end side, as indicated by the fixed bench behind it and the dangling bundle from its top (Landström 1970: Figs. 17, 42, 79). The clearly depicted helmsman at the lower side of the rock engraved boat from the Nubian desert (Engelmayer 1965: Pls. XII.4) just verifies this conclusion. It is difficult to explain both the function of such a high and heavy prow

post, and its effect on the hydrodynamic navigability of that type of vessel, even when assuming its relative size and prominence as artistic bias. In the case of sea-going vessels, which might have sailed on high seas for long distances, such high prows could have been used as a navigational aid during night sailing, for the helmsman to 'shoot' stars on the vertical line of the prow post, the mast and his eye. Yet what could have been its function for riverine craft, or in a boat propelled by paddlers? Whatever function this high and heavy prow may have served, its uniqueness may be used as a cultural benchmark; and as such, its resemblance to the Early Bronze Age boats from the Cycladic Islands of the Aegean (Basch 1987: 77-84) is rather intriguing.

Again, it is not the aim of this paper to repeat all the known arguments concerning this strange type of marine vessels and the tantalizing issue of defining its stern from its prow (see, for example, Casson 1971: 30-31; Basch 1987: 83-85; Vinson 1994: 15; Wedde 1995: 489-91). The relevant issue here is the actual similarity between the late fourth millennium exceptional variant of the hull from Egypt and the earliest depicted type of sea-going vessel from the Aegean and Crete (the famous three-dimensional clay model from Palaikastro, dated to the Early Minoan Period; and see for example Marinatos 1933: 173, Fig. 19). To the 'technical' similarity of the unique profile of the hull (including the raised angular aft), one might add the 'dangling bundle', which characterizes both the Egyptian depiction of ceremonial context and all the items from the frying pans, or 'Poëlons' from Syros (Basch 1987: Fig. 159-68). The only change is the omitted palm branch and the additional fish above the tip of the bow post on the later groups. Some scholars define these Aegean boats as an autochthonic type of dug-out canoe, which would be ideal for a geographic area abundant with long, straight conifer trees (Renfrew 1972: 348; Casson 1971: 30-31, 41-42; Wedde 1995: 491 n. 12); others would reconstruct their hulls as having been composed of planks, sawn or fixed by mortises and tenons (Basch 1987: 85-88; Vinson 1994: 15). None realized that it would have been almost impossible to sail these boats in open seas without an outrigger, in order to avoid eventual capsizing. One should also wonder how a long, narrow canoe, with a heavy and prominent prow, which is hardly suitable for a riverine voyage, became the earliest iconographic representative type of marine vessel in the Early Bronze Age Aegean sea.

Having only a handful of rather sketchy iconographic evidence, one cannot produce a well-grounded explanation for these alleged

discrepancies. Yet referring to the heated arguments concerning the origins of the Aegean and Early Minoan civilizations, the resemblance of this rather 'strange' type of Cycladian boat and a particular variant of earlier, Protodynastic vessel from Egypt, might add something of substance on the side of the Diffusionists who would follow the old biblical claim that Ham (= Africa) begat Mitzraim (Egypt) who begat Caphtor (Crete) (Gen. 10.14). These Aegean canoes, which were far from being primitive and would represent continuous technical development in nautical engineering over many centuries (Basch 1987: 81), may be used as an additional argument for other aspects of the alleged 'Libyan Diffusion' into Crete and even mainland Greece, including actual artifacts dated to the late Neolithic and Early Bronze Age (Bernal 1991: 95-99).

The third and last type of Predynastic boat to be curious about is the crescentic one, described at the beginning of this paper. This 'boomerang' shaped boat is the most common one among boat depictions from Upper Egypt since the Amratic era, early in the fourth millennium BCE (Petrie 1921; 1933; Landström 1970: 12-14, 20-22). The pictures of this boat, either from petroglyphs, or the more common Naqada II painted vases, always depict it as a ceremonial ship, carrying on board two shrines, divine images (e.g., Kantor 1944: Fig. 3, A, B, C), a tree branch at the far side and a dangling device at the bow, maybe functioning for sweeping off floating impurities in the river. Behind the aft shrine there is, in most cases, at least one high pole, topped by a sign. Newberry (1914) tried to match these signs with protosymbols of Pharaonic period 'Nomes', mostly in the Delta region. This was questioned by Petrie (1921) and Basch (1987: 43-44), on the basis of the pictures in which such divine boats carry either no signs or two different ones. Baumgartel's notion (1947: 13, 72) that these are symbols of various deities has been considered to be more logical.

Most of the depicted boats have a multitude of what seem to be oars, usually divided into two groups, leaving the central area between the cabins free. Having no indication for rowing in the Nile Valley prior to the fifth Dynasty period (Clowes 1932: 16), it is quite clear that these oars were used for paddling, as in canoes (Kantor 1944: 118). The grouping of the oars might indicate an artistic convention of depicting the paddles on two sides of the boat (Clowes 1932: 15), or for better clarity of the scene (Kantor 1944: 119-21). There is at least one depiction that shows the oars of both sides in a more realistic way. Judging

also from one of the earlier depictions, it is quite clear that the oars were used by the paddlers only along the free area foreward and behind the cabins, which would fill the entire breadth of the boat (see also the depiction of a bird's eye view of an Amratic boat in Landström 1970: 12, Fig. 4). The paddling technique is clearly depicted on the painted linen from El Gebelein (cf. Bass (ed.) 1972: 27, Fig. 7).

Finally, though this 'boomerang' shaped type is characteristic for most of the Gerzean vase paintings from Upper Egypt and the only clearly defined type depicted in rock-drawings and painted pottery of the earlier, Amratic era, there are two later iconographic sources for this type. The first one is the painted brick wall from tomb 100 in Hierakonpolis (Quibell and Green 1902: Part III), where of six depicted vessels, five are of this type. It is interesting to note that though this iconographic source is from a few centuries later than that of the Amratic era (Kantor 1944: Fig. 3, L), they do not differ much, both in their hull-shape and the upper structures. Unlike the depictions from the painted vases, which seem to show only divine figures of deities, this wall painting describes human figures on the boats, probably in more realistic scale. If this is the case, the actual length of the white boats from Hierakonpolis was as much as 17–30 m and their height just over 1.5 m (Vinson 1994: 14–15). The other Protodynastic iconographic source is the famous Gebel el Arak knife. This flint blade knife has a carved handle which was made of hippopotamus tusk, decorated on both sides in an elaborate Protodynastic fashion (Emery 1961: Fig. 1). On one side there are various wild animals, typical of the mountainous region of both sides of the Upper Nile area, including hunting dogs. This side is crowned by a typically Mesopotamian antithetical scene of a hero, with a Sumerian type of helmet or hairdress, controlling two lions.

On the other side there are pairs of combatants fighting each other, with maces, clubs and sticks. All human figures are dressed and look like typical predynastic inhabitants of the Nile Valley. The lower part of this side depicts two groups of boats, with drowning people in the area between them. The two boats of the upper group have been studied and discussed by many scholars. The close resemblance of these boats to ones depicted on contemporary Mesopotamian cylinder seals of the Jemdat Nasr style, combined with the antithetical motif on the other side, has led scholars to consider the decoration as a symbolic depiction of an ethnic, political or cultural conflict between the two main cradles

of civilizations at birth (Emery 1961: 38-39). Others saw it as an indication for ever-growing Mesopotamian influence in Protodynastic Egypt, coming from the north, via Syria and Palestine (Helck 1962: 6-9). Kantor, in her thorough study (1965: 6-17), tried to incorporate the scenes and motifs within a sequence of seaborne connections between Mesopotamia and the Upper Nile Valley via the Red Sea, the Indian Ocean and Wadi Hammamat, starting from sporadic, indirect maritime voyages in the Amratic and early Gerzean periods and culminating in a more direct and steady borrowing in the late Gerzean and Protodynastic eras. Lately, there has been an attempt to re-read these intrusive Mesopotamian elements and to see the Gebel el Arak knife decorations as a depiction of a culture combat between the culture of the Upper Nile (represented by the lower group of boats) and the people of the Delta region, as a phase on the way to political unification (Hoffman 1979: 340-44). Basch (1987: 60) suggests that the Mesopotamian boats on the knife represent the invading 'Dynastic Race' which were east Semitics who entered Egypt through the Delta (and see above). The lower group includes three boats of the same type and double cabins as those 'white' boats from Hierakonpolis, though much shorter and with an additional device that looks like a bovine head at the prows of two of them, replacing the traditional branches.

There have not been many three-dimensional models of predynastic boats found. Of a dozen or so found in burials of the period, five are clearly of the 'boomerang' shaped type. The earliest, which is dated to the Amratic, or Early Gerzean era, is now in the Museum of Berlin (Göttlicher and Werner 1971: Taf. VII: 1-4). It is made of clay and decorated with dark paint from without. The hull is composed of two parts, with one end (the prow?) made separately and lashed to the hull after the model was baked. The shape of the hull is symmetric, with two cross benches at either pointed end. Yet at one (the prow?) there is an additional cross beam, behind the bench, with two narrowing slots towards the boat's tip. Judging from other depictions, these slots might have been used for insertion of prow branches. There is a painted area at midship, similar to the intercabins, one on the side of the largest boat from Hierakonpolis (Kantor 1944: Fig. 3.A). It is characteristic of the type that the sides of the model are not pointed or tapered off, but somewhat broader than the sides of the midship. The floor is flat and the section is U-shaped. The length:breadth ratio is 5:1, much smaller than the estimated 12:1 ratio of long riverine canoes.

The next group is of three small clay models found at Naqada and presently on display at the Ashmolean Museum in Oxford (Basch 1987: Fig. 95). All three have rather crude flat bottomed hulls, similar in shape to the aforementioned one, except for one detail: the upper parts of both ends have been trimmed, so as to give them a triangular profile, of which the point is the continuation of the curved line of the bottom.

The last model is one made of wood, from the Cairo Museum (Basch 1987: Fig. 94). It is similar in shape to the group from Naqada, but more slender, with a length:breadth ratio of about 11:1.

The most universal feature is the adhered sides of the boats on both ends. This unique feature does not typify canoes which have been derived from a Monoxyle pirogue (Landström 1970: 12-16). It has only one constructive logic—the adhered (sewn or stitched) side boards were made of planks, long enough and properly fastened to each other in order to enable the needed curvature. Such curvature would hardly fit a prototype made of unsawn logs, such as in log rafts (Kapitän 1990).

The prototype of the 'boomerang' shaped boats should therefore have been fashioned by building materials with the affinities of long, flexible wooden planks. Such a conclusion is carefully suggested by Basch (1987: 57 n. 19). Yet if one were to take two boards of thin wood and sew them face to face at both ends for about 15 per cent of their total length at each side, and then were to hold each side in one hand and push inward (and a little upward), an exact replica of the 'boomerang' shape would be produced. One has to cut and shape a spearhead form for the floor, which would maintain the proper curvature of the model, in order to complete the replica (Landström 1970: 20-22, Figs. 54-59).

Why is it that the typical boat for the Upper Nile, from the earliest phase of water transportation in that region, is characterized by building materials that could not be found there, or even in other nearby areas? From the iconographic depictions described above we know that these 'boomerang' shaped boats were slim, long canoes, not broad enough for rowing, but propelled by paddling in regular canoe fashion. Such a type of canoe must have been formed along water courses where long, straight tree trunks were at hand, and quality saws fit for the task of cutting planks from trees were manufactured. Having the offspring of that alleged prototype depicted in Nubia and Upper Egypt early in the fourth millennium BCE indicates either: (a) that there were long, straight tree trunks along the Upper Nile at that period, or sometimes

earlier, or (b) that the people of this region came to settle here, bringing with them the tradition and technical know-how for long plank boats from elsewhere. They must have migrated from a place where this type of boat fitted the available building material and nautical practice. At their alleged place of origin they must have had saws big enough for slicing tree trunks. This type of saw could have been made of metal, but not as an exclusive choice. The archaeological finds from the prehistoric (Neolithic) settlements of the Nile Valley and the Western Sahara include flint saws of size and quality that might have done the job. There was also the alternative of using a composite tool, a saw made of microliths inserted along a bone or stick of hardwood, much like the Neolithic sickles (see, for example, Emery 1961: pl. 40).

Having no remnants of conifers or other long, straight tree trunks in the vicinity of the Nile Valley since the beginning of the Holocene, we have to consider the other explanation. This is backed by many scholars who have suggested looking for highly cultured migrants who would have allegedly entered the Nile Valley during the late fifth and early fourth millennia BCE, triggering the technical and social evolution of the Amratic and Gezrean cultures and eventually facilitating the unification of Egypt under the Pharaonic reign. Some scholars consider these invaders to be of the dolichocephal race (Negroid? Indo-Arian?), which is documented in Gerzean burials of nobles in Upper Egypt (Derry 1956). Others would question the validity of anthropomorphic data for such a case and would follow the Mesopotamian connection (Emery 1961: 40; Kantor 1965: 14-17). The Antidiffusionists, such as Renfrew and Kemp, would side with Hoffman's claim of 'almost local' fertilizing immigrants from the 'almost farmers' of the Eastern Sahara (the western desert) and the highlands of the Red Country (Hoffman 1979: 303-305). More problematic in terms of accessibility is the theory of Nubia and even Ethiopia (Adams 1984; Larsen 1957). It is true that there is a resemblance between some Gerzean decorations and the aloe plant of Ethiopia, but the cataracts and the distances would have made it hard to bring down the timbers from the Blue Nile. There is also no good geographical candidate for the combination of trees and water courses in East Africa that might have evolved the alleged prototype of the 'boomerang' shaped boats.

An eastern Mediterranean provenance is quite tempting, particularly so since we know of Byblos and the Cilician coasts as the prime sources for timbers into Egypt since the beginning of the dynastic era.

This hypothesis (Basch 1987: 60; Kapitän 1990) cannot be accepted because of two main reasons: (a) if this type of boat and the people to whom it belonged would have come to the Nile Valley from the north, why do we find their material culture and nautical tradition first in the southern part (and exclusively so, for at least half a millennium)?, and (b) the technological idea of using canoes for maritime or riverine transportation had never appeared in the Levant, and would hardly be suitable for its coastal topography.

The last geographic region to be considered as a candidate for the place of origin of the alleged prototype of the 'boomerang' shaped boats has been the west: the southern part of the Sahara, Lake Chad and further to the west, in the region of the Upper Niger. As farfetched as it appeared at first, there are scores of clues and similarities that make this potential provenance attractive:

(a) During the time period of the early Holocene (7000–3000 BCE), the southern half of the Sahara was much more humid than now. Geomorphological and paleoclimatological studies made a strong case for perennial rivers flowing from the high, rocky plateaus of the Sahara, south to the Greater Lake Chad, southwest to the Great Bend of the Niger, and east from the Tibesti plateau toward the Nile. A series of oases in the Western Desert were then incorporated as agricultural areas within a Park-Savannah landscape (Butzer 1975; Hoffman 1979: 221–43).

(b) There is archaeological evidence to indicate that pastoral societies actually fared for long distances over the southern line of oases, from Haggat via Tibesti, Gilf Kebir and Nabta, to the Upper Nile Valley (McHugh 1971).

(c) There are several similarities between certain traditions of the Pharaonic culture of the Nile Valley and the sub-Saharan cultures of the area west of Lake Chad, such as Burnu, Mali and Songhai (Wainright 1949; Yurko 1989). Among those are the matrilineal inheritance system and the tradition of ceremonial procession by water, carrying the late chieftains to their afterlife across the river or lake. Although this intriguing theory is still in need of much more substantial data to support it, the west African venue is to be tried seriously (and see e.g. Diop 1974).

I do not pretend to present any conclusive evidence in this paper for the geographic origins of nations, cultures or ethnic groups, nor to reconstruct alleged conquests, colonies or mass migrations (Stieglitz

1933). I do not even try to take sides in the heated argument between diffusionists and purists of so-called 'New Archaeology', who claim to be able to explain everything on the basis of socio-anthropological paradigms and models.

As a marine archaeologist and a student of ancient shipping, I thought it would be right to share some of the ambiguities surrounding some types of predynastic boat depictions from Egypt. The discrepancies between the technological virtues of these boats and the nature of their provenance, as well as the spatial distribution of their typological offspring, seemed to me to be too significant to be overlooked, or dismissed as mere artistic shortcomings and primitivism. Though these artistic depictions date to prehistoric eras of humankind, they portray a reasonably advanced nautical technology of a rather complicated and sophisticated society. So, with all reservation and tentativeness, I have tried to follow the way of Cyrus H. Gordon, whom I love to think of as one of my true tutors and from whom I have learned to look at data as they are, using my own logic without surrendering my mind to current common notions which may be very trendy and respected.

Summing up the detailed discussion of fairly technical data, I want to suggest that three types of predynastic boats might have been used as additional argument in three debatable issues:

1. The angular high post type might be considered as the one used by the people of the southern and eastern Arabian peninsula, at least during the fourth millennium BCE. These sea-going vessels were used by these people for maritime voyages between the Gulf, Mesopotamia and the Egyptian coast of the Red Sea. Some of these people may have migrated to the Levantine coast of the Mediterranean toward the end of that millennium and later came to be known as Canaanites and Phoenicians by their neighbours (Salles 1993).
2. A canoe with a strange type of prominent prow, decorated by a special 'purifying' device, seems to have travelled from Protodynastic Egypt to the Aegean of the early third millennium BCE. This might be used as additional documentation for the biblical and Pharaonic claim for the origin of some migrants who contributed to the emergence of the Minoan culture.
3. The 'boomerang' shaped, crescentic boats of the Upper Nile Valley represent a type of long planked canoe that had to be

developed elsewhere, where long trunk trees were at hand by the banks of navigable rivers. The concept of building such boats and their divine affinity might have been brought to the Nile by migrants who had carried the traditional shape as part of their cultural heritage. These people might have been the ethnic component known as the 'Dynastic Race', and judging from their boats, the geographic sphere of the Niger should be considered to be their more probable provenance.

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