

# SANEM 3

---

STUDIES ON THE ANCIENT NEAR EAST AND THE MEDITERRANEAN





SANEM

STUDIES ON THE ANCIENT NEAR EAST AND THE MEDITERRANEAN

INTRODUCTION TO THE EDITORIAL SERIES

The SANEM editorial series, 'Studies on the Ancient Near East and the Mediterranean', is the official channel for the scientific monographic studies of CAMNES, Center for Ancient Mediterranean and Near Eastern Studies, created with the support of the publishing house Arbor Sapientiae of Rome.

The logo of the series, a chimera with wings, was chosen as a symbolic embodiment of the close connections and merging traits of Eastern and Western cultures. Indeed, the iconography of the chimera was born within the Classical ambit, but its roots are to be found in the Near East as the examples found in Ebla (18<sup>th</sup> century BCE) and in Carchemish (11-9<sup>th</sup> century BCE) demonstrate.

Works of significant scientific value are published in the SANEM series regarding the broad fields of archaeology, anthropology, history, philology and art history of the ancient past of the Near Eastern and Mediterranean cultural areas. Particular attention is devoted to modern methods of investigation for the reconstruction and the interpretation of these cultures in a time span that stretches from prehistory to the Classical period.

According to the principles of CAMNES, the SANEM series is ideal not only for established scholars but also for the publication of the works of young researchers at the beginning of their academic careers and their research projects.

Given the international context in which CAMNES operates, the works of the series are predominantly published in English, and subjected to double-blind peer review by the SANEM Scientific Committee, created specifically for the editorial series. In special cases CAMNES may also rely on a peer review outside the Scientific Committee.

All volumes in the series are published following an irregular chronological sequence and are issued in paper and in digital editions.

INTRODUZIONE ALLA SERIE EDITORIALE

La serie editoriale SANEM, *Studies on the Ancient Near East and the Mediterranean*, nasce come sede ufficiale delle pubblicazioni scientifiche monografiche del CAMNES, *Center for Ancient Mediterranean and Near Eastern Studies*, per iniziativa del centro studi e grazie al supporto della casa editrice Arbor Sapientiae di Roma.

Il logo della serie, una chimera alata, è stato scelto come incarnazione simbolica delle strette connessioni e delle reciproche influenze tra le culture d'Oriente e quelle d'Occidente. Infatti, l'iconografia della chimera nasce in ambito Classico, ma le sue radici sono da ricercare nel Vicino Oriente come dimostrano gli esempi ritrovati a Ebla (XVIII secolo a.C.) e a Karkemish (XI-IX secolo a.C.).

Nei SANEM sono pubblicate opere di significativo valore scientifico inerenti l'archeologia, l'antropologia, la storia, la filologia e la storia dell'arte, con particolare attenzione ai moderni metodi di indagine volti alla ricostruzione e all'interpretazione dell'antico passato delle grandi aree culturali del Vicino Oriente e del Mediterraneo, in un arco cronologico che si estende dalla preistoria, passando per la protostoria, fino al periodo classico.

Secondo i principi ispiratori del CAMNES, i SANEM sono la sede editoriale ideale non solo per studiosi affermati, ma anche per la pubblicazione del lavoro dei giovani ricercatori all'inizio delle loro carriere accademiche e dei loro progetti di ricerca.

Dato il contesto internazionale nel quale opera CAMNES, salvo eccezioni, le opere della serie sono pubblicate in inglese, e sottoposte a *double-blind peer review* (autore e revisore saranno anonimi) dal Comitato Scientifico del SANEM, creato appositamente per la serie editoriale. In casi particolari CAMNES può avvalersi anche di un referaggio esterno al Comitato Scientifico.

Tutti i volumi della serie, che sono pubblicati senza una cadenza cronologica regolare, hanno un'edizione cartacea e un'edizione digitale.

*Guido Guarducci, Stefano Valentini*  
(Direzione CAMNES)

# BETWEEN SYRIA AND THE HIGHLANDS

*STUDIES IN HONOR OF  
GIORGIO BUCCELLATI & MARILYN KELLY-BUCCELLATI*

STEFANO VALENTINI - GUIDO GUARDUCCI  
*(editors)*



ARBOR SAPIENTIAE  
E D I T O R E

SANEM

STUDIES ON THE ANCIENT NEAR EAST AND THE MEDITERRANEAN

PEER-REVIEWED INTERNATIONAL SERIES

*International Scientific Committee:* Giorgio Buccellati, Giovanni Alberto Cecconi, Massimo Cultraro, Ian Hodder, Salima Ikram, Nicola Laneri, Mario Liverani, Daniele Morandi Bonacossi, Vincenzo Palleschi, Annamaria Ronchitelli, Adam Thomas Smith

*Editorial Board:* Maria Elisa Garcia Barraco, Guido Guarducci, Valentina Santini, Stefano Valentini

*Bibliographical Reference:* VALENTINI, S., GUARDUCCI, G. (Eds), *Between Syria and the Highlands. Studies in Honor of Giorgio Buccellati and Marilyn Kelly-Buccellati*, Studies on the Ancient Near East and the Mediterranean (SANEM 3), Arbor Sapientiae Editore, Roma 2019.

---

© 2019 - Arbor Sapientiae Editore S.r.l.  
Via Bernardo Barbiellini Amidei, 80  
00168 Roma (Italia) - tel. 06 887567202  
[www.arborsapientiae.com](http://www.arborsapientiae.com)  
[info@arborsapientiae.com](mailto:info@arborsapientiae.com)  
[redazione@arborsapientiae.com](mailto:redazione@arborsapientiae.com)  
ISBN: 978-88-31341-01-1



Nippur, 1966.



## TABLE OF CONTENTS

ACKNOWLEDGEMENTS	X
FOREWORD	XI
GIORGIO BUCCELLATI & MARILYN KELLY-BUCCELLATI	XIII
AUTHOR BIOGRAPHIES	XXV
MAAMOUN ABDULKARIM, AFAF LAILA Ruweiha, a Village from Northern Syria During Byzantine Period: Study of Preservation of Domestic Architecture	1
NEVILLE AGNEW, MARTHA DEMAS Integrating Conservation, Archaeology, and Community at Tell Mozan (Urkesh)	15
SILVIA ALAURA The Wandering Life of the Hittite Seal Dresden ZV 1769 at the End of the 19 <sup>th</sup> Century: New Archival Light	21
MOHAMMED ALKHALID Tales from the Desert Nomads: From Textual Sources till Gertrude Bell's Letters	33
ALFONSO ARCHI Šamagan and the Mules of Ebla. Syrian Gods in Sumerian Disguise	38
PIOTR BIELIŃSKI, DOROTA BIELIŃSKA A Tale of Two Temples of the Ninevite 5 Period	56
LUCA BOMBARDIERI Give a Man a Fish or Teach Him How to Fish? Situated Learning and the Emergence of Communities of Practice in Bronze Age Eastern Mediterranean and the Near East	61
MARCO BONECHI How Kirta's Love for Blue-Eyed Hurriya Clarifies Ebla Ophthalmic Terms and the 3 <sup>rd</sup> Column of the 'Barton Cylinder'	69
FEDERICO BUCCELLATI Houses of Nippur: An Architectural Study using EnCAB	85
AMALIA CATAGNOTI Symbol of Wisdom, Decorated with Earrings: The Ear in the Ebla Texts	92
DOMINIQUE CHARPIN Quelques Aspects Méconnus du Statut et du Rôle des Quartiers- <i>bâbtum</i> dans les Villes Paléo-Babyloniennes	100
CAITLIN CHAVES YATES Tell Mozan's Outer City in the Third Millennium BCE	113

MARTA D'ANDREA, AGNESE VACCA Alike but Different. Drinking Vessels in the Eastern Mediterranean around 2500-2000 BC	122
VITTORIA DALL'ARMELLINA, ELENA ROVA Beasts and Wine. Zoomorphic Vessels and the Northern Corridor of the Near East	139
RITA DOLCE On the Basalt Base from Susa (Sb5): A Reinterpretation	155
ERNESTINE S. ELSTER The Scepter of Sitagroi and Early Bronze Age Symbols of Power	161
STEFANIA ERMIDORO The Repentant God in the Flood Story. A Comparison Between <i>When Gods Were Men</i> and <i>Genesis 6-9</i>	168
DIANE FAVRO The Roman Bridge over the Chabinas: Meaning in Infrastructure	175
CANDIDA FELLI Ladies and Cups: A Reconsideration of some Akkadian Artefacts from Northern Syria	186
ELLERY FRAHM Seen Through a Glass Darkly: Reexamining Connections Between Mesopotamia and the Caucasus	198
PELIO FRONZAROLI About the Eblaite Names of the "Cultic Journey"	212
THOMAS GAMKRELIDZE La Patria Protoindeuropea e le Migrazioni Indeeuropee	217
RICK HAUSER Learning from <i>Canis 203</i> . Impressions of an Absent Artifact	219
FRANK HOLE, YUKIKO TONOIKE Traces of Third Millennium Pastoralism in the Jebel Abd al-Aziz Region	227
MARTA LUCIANI Between Enduring Symbols and Elite Identity: New Glyptic Evidence from Nuzi	238
YASMINE MAHMOUD Through the Eyes of the Ancients. The Perception of Beauty in 3 <sup>rd</sup> Millennium Syria	255
MASSIMO MAIOCCHI Thoughts on Ancient Textual Sources in Their Current Digital Embodiments	262
MARIA GRAZIA MASETTI-ROUAULT, OLIVIER ROUAULT Les Murs de Kilizu	269
PAOLO MATTHIAE A Note on Lions at Temple Entrances in Old and Middle Syrian Temples	279
STEFANIA MAZZONI Up and Down in Early Syrian Palaces: Spaces of Power Performance and Economic Wealth	285



MARIA GABRIELLA MICALE	
Some Considerations on Walter Andrae's "Urformen des Kultbaues", in <i>Mensch und Baukunst. Eine Correspondenz</i> 2 (1953): 1-5, or rather...On a Hidden <i>Grundthema</i> of Archaeological Research	296
RAUF M. MUNCHAEV, SHAHMARDAN N. AMIROV	
Collection of Seals from the Settlement of Tell Hazna 1 (Syria)	310
DAVIDE NADALI	
Miniatures of Wars: Fights, Skirmishes and Conflicts in Ancient Near Eastern Seals	317
LUCA PEYRONEL	
Il ruggito del Leone. Qualche Osservazione sulle Immagini Ferine nel Mondo Siriano del III Millennio a. C.	323
FRANCES PINNOCK	
A Game of Goddesses (and Thrones?). Some Reflection about a Cylinder Seal Impression from the Royal Palace G of Ebla (ca. 2300 BC)	335
DANIEL POTTS	
Wild Water Buffalo ( <i>Bubalus arnee</i> [Kerr, 1792]) in the Ancient Near East	341
MARINA PUCCI, SEBASTIANO SOLDI	
Going Red in The Iron Age II: The Emergence of Red-Slip Pottery in Northern Levant with Specific Reference to Tell Afis, Chatal Höyük and Zincirli Höyük	352
MARCO RAMAZZOTTI	
Nel Segno di Ebla. Memoria Topologica per la <i>Città del Trono</i> al Centro delle Quattro Parti del Mondo	365
MONICA SMITH	
The Terqa Cloves and the Archaeology of Aroma	373
MARIE-CLAUDE TRÉMOUILLE, ROBERTO DAN	
Between Philology and Archaeology. Some Comments on Urartian Landscape Management	378
WILLEKE WENDRICH	
Placentas, Sieves and the Ancestors	388

## ACKNOWLEDGEMENTS

This Festschrift would not have been possible without the participation and collaboration of the authors and their fine contributions. Thank you all for your support and involvement.

We are greatly in debt to Federico Buccellati, who immediately and enthusiastically welcomed our project, and subsequently assisted us during every stage of the production of this book. It was a great pleasure to work with him. Thank you, Federico, for your support and suggestions. You are by all means the third curator of this volume.

We also would like to thank Arbor Sapientiae, the publishing house, and in particular, Maria Elisa Garcia Barraco, the Editor in Chief, who accepted to create this project with great enthusiasm.

Finally, our gratitude goes out to our close collaborator, Valentina Santini, for providing us advice and assistance during all the development steps of the project, in particular for the editing and the revision of the manuscripts.

Thank you all!

*Stefano Valentini & Guido Guarducci*

## FOREWORD

STEFANO VALENTINI - GUIDO GUARDUCCI

Since the first time I met them at Tell Mozan in Syria, I think it was the Summer 1993, Marilyn and Giorgio have been a constant presence for me, not only in the field of archaeology, but also, and perhaps above all, from a human point of view. When I worked at Tell Barri under the direction of Paolo Emilio Pecorella, until 2005, we always met in Jezirah, every summer, during the excavation campaigns. It was precisely that year, on the tragic death of my Professor, that my relationship with Marilyn and Giorgio became elective. In those dramatic days, I was able to appreciate their affection, their great friendship, their human depth. In the following years, despite the physical distance and the vicissitudes of life, which unfortunately brought us elsewhere from Syria, I always felt them close to me. Whenever I asked them for advice, an opinion, they have always shown me their sincere closeness, with those manners that are so courteous and affable. Of Marilyn and Giorgio, I have always appreciated their empathy and their intellectual honesty, supported by an innate ability to communicate, share and involve the scientific community with the ultimate goal of giving life to an archeology full of humanity: made up of people and of faces, not only of pottery and of dust. Thanks to them, I gained the awareness that the archaeologist, wherever he is working, must also fulfill his task as cultural mediator: between the cultures of the past and those of the present, and between our Western culture and that of the countries that we host.

Long life to both!

*Stefano*

It is for me a great honor to have curated together with Stefano this volume dedicated to Giorgio and Marilyn. I had the pleasure to meet them during the tragic event that took place at Tell Barri in 2005. Not only they were the first to visit us after the loss of our *Müdir*, Pamî, they stood next to us, consoling and cheering us up. Last but not least, we receive a huge crate of ice-cold beer from Tell Mozan. It may not appear as so, but that was a very special gift coming after a month of hard work and the loss of our professor, besides the rarity of such a commodity! Trust me when I say that all of us who were there, still remember that crate, almost as a symbol of solidarity for our grief, and the words of comfort expressed by Giorgio and Marilyn. That same year we went to visit their site and I was amazed by the welcoming atmosphere of the Mission House and greatly fascinated by the site of Urkesh that Giorgio, Federico and Marilyn thoroughly illustrated us. Thank you very much for your kind and fundamental support during those days. Finally, I would also like to deeply thank Giorgio for accepting since the very first day, back in 2010, to become a member of Scientific Committee of the newborn Center for Ancient Mediterranean and Near Eastern Studies, CAMNES, as well as his and Marilyn's constant support in the following events that we organized. Thank you Giorgio, thank you Marilyn, for your remarkable academic and scientific effort and for your precious friendship.

Con affetto e stima,

*Guido*



## GIORGIO BUCCELLATI & MARILYN KELLY-BUCCELLATI

Giorgio Buccellati and Marilyn Kelly-Buccellati have worked for many years in the Near East, especially in Syria, Iraq and Turkey. They are at present co-directors of the archaeological expedition to Tell Mozan/Urkish in North-Eastern Syria. They work closely together both in the field and on the publication reports from their excavations, of which five volumes, plus audio-visual presentations, have appeared so far. They lead an international staff comprising colleagues and students from the US, Europe, the Near East and Asia and have given joint lectures on the excavations, and workshops on methods used, at major archaeological centers around the world as well as holding positions as visiting professors in various European universities.

### GIORGIO BUCCELLATI

Giorgio Buccellati studied at the Catholic University (Milan, Italy), Fordam University and received his Ph.D. from the Oriental Institute at the University of Chicago. He is Research Professor in the Cotsen Institute of Archaeology at UCLA, and Professor Emeritus in the Department of Near Eastern Languages and Cultures and in the Department of History at UCLA. He founded the Institute of Archaeology at UCLA, of which he served as first director from 1973 until 1983 and where he is now Director of the Mesopotamian Lab. He is currently the Co-Director of the Urkish/Mozan Archaeological Project as well as Director of IIMAS – The International Institute for Mesopotamian Area Studies and Director of AVASA – Associazione per la Valorizzazione dell’Archeologia e della Storia Antica.

His research interests include the ancient languages, the literature, the religion, the archaeology and the history of Mesopotamia, as well as the theory of archaeology. His publications include site reports, text editions, linguistic and literary studies as well as on archaeological theory, historical monographs and essays on philosophy and spirituality. He has published a structural grammar of ancient Babylonian, two volumes on Mesopotamian civilization (on religion and politics; two more are forthcoming on literature as well as on art and architecture), a volume on archaeological theory dealing with the structural, digital and philosophical aspects of the archaeological record. He has authored two major scholarly websites on the archaeology of Urkish and on archaeological theory. As a Guggenheim Fellow, he has traveled to Syria to study modern ethnography and geography for a better understanding of the history of the ancient Amorites. In his field work, he has developed new approaches to the preservation and presentation of archaeological sites and to community archaeology. He has spearheaded the Urkish Extended Project, responding to the crisis of the war in Syria by maintaining a very active presence at the site.

### MARILYN KELLY-BUCCELLATI

Professor Marilyn Kelly-Buccellati has been excavating and conducting research on the archaeology and art history of the ancient Near East for over 50 years. Her Ph.D. from the Oriental Institute at the University of Chicago was on the third millennium B.C. in the Caucasus. She taught archaeology and art history in California State University, Los Angeles and is now Visiting Professor at the Cotsen Institute of Archaeology, UCLA.

She is Director of the Urkish/Mozan Archaeological Project, a site spanning the fourth to the second millennia BC which has provided crucial to our understanding of the history, art and architecture of northern Mesopotamia.

Her research interests include Syro-Mesopotamian seal iconography, ceramics, ancient identification markers, pre-history in the southern Caucasus. She has published many site reports based on work in Terqa and especially Mozan/Urkish, and is currently finishing a digital volume on the excavated ceramics from Urkish, to be published within the Urkish Global Record website. One of her important publications was on the function of the necromantic pit excavated in Urkish, unique in its monumentality and significance; her research on the seal impressions of the AP Palace has brought to light the artistic value of these objects as well as the complex royal court to which they give witness.

With the cessation of excavations in Syria due to the war she has returned to the Republic of Georgia to work with the Italian team from the Ca’ Foscari University, Venice. This fieldwork activity lead her to curate an exhibit entitled “Georgia Paese d’oro e di fede. Identità e alterità nella storia di un popolo” on the archaeological and artistic heritage of the Republic of Georgia.

## BIBLIOGRAPHY

### GIORGIO BUCCELLATI

- Buccellati, G., 2 Re II, 20, *Bibbia e Oriente* 1, 1959a, 81.
- , Da Saul a David: Le Origini della monarchia israelitica alla luce della storiografia contemporanea, *Bibbia e Oriente* 1, 1959b, 99-128.
- , La Redenzione come 'conquista, *Bibbia e Oriente* 1, 1959c, 64.
- , Popolo del paese, *Bibbia e Oriente* 1, 1959d, 77.
- , Ai rapporti tra S. Scrittura e dogma, *Bibbia e Oriente* 2, 1960a, 188.
- , Gli Israeliti di Palestina al tempo dell'esilio, *Bibbia e Oriente* 2, 1960b, 199-209.
- , Il protestantesimo americano e la Bibbia, *Bibbia e Oriente* 2, 1960c, 189-190.
- , L'Emanuele, *Bibbia e Oriente* 2, 1960d, 76-77.
- , L'evoluzione dottrinale del Deutero-Isaia, *Bibbia e Oriente* 2, 1960e, 77.
- , Proverbi e Giobbe, *Bibbia e Oriente* 2, 1960f.
- , Un avviamento ai rotoli, *Bibbia e Oriente* 2, 1960g, 190.
- , Diritto israelitico, *Bibbia e Oriente* 3, 1961a, 69-71.
- , Il giorno di Jahve, *Bibbia e Oriente* 3, 1961b, 69-70.
- , Review of *Il Semitico di Nord-Ovest*, by G. Garbini, *Rivista degli Studi Orientali* 37, 1961c, 135-136.
- , In Lam. 2,5, *Bibbia e Oriente* 3, 1961d, 37.
- , Religione egiziana, *Bibbia e Oriente* 3, 1961e, 101.
- , Un'importante storia d'Israele, *Bibbia e Oriente* 3, 1961f, 228.
- , 2 Sam. 2, 5-7, *Bibbia e Oriente* 4, 1962a, 233.
- , Campo del gualcheraio, *Bibbia e Oriente* 4, 1962b, 204.
- , Review of *De herem in het Oude Testament. Nijmegen: Centrale Drukkerij, 1959*, by C.H.W. Brekelmans, *Bibbia e Oriente* 4, 1962c, 69-70.
- , Herem, *Bibbia e Oriente* 4, 1962d, 69-70.
- , I discendenti di David dopo l'esilio, *Bibbia e Oriente* 4, 1962e, 70-73.
- , La «carriera» di David e quella di Idrimi, re di Alalac, *Bibbia e Oriente* 4, 1962f, 95-99.
- , Lessicografia ebraica, *Bibbia e Oriente* 4, 1962g, 73-74.
- , Ricompensa di servizi politici resi al re, *Bibbia e Oriente* 4, 1962h, 99.
- , Storia politica del regni israelitici, *Bibbia e Oriente* 4, 1962i, 70.
- , Review of *Toldot bet David me-ḥurban mamleket Yehudah ye-'ad le-'ahar ḥurban ha-bayit ha-sheni. Yerushalayim: Magnes, 1959*, by J. Liver, *Bibbia e Oriente* 4, 1962j, 70-72.
- , 1 Re 18, 20, *Bibbia e Oriente* 5, 1963a, 10-13.
- , 1 Sam. 13, 1, *Bibbia e Oriente* 5, 1963b, 29.
- , Due note ai testi accadici di Ugarit, *Oriens Antiquus* 2, 1963c, 223-28.
- , I testi economici della III dinastia di Ur, *Bibbia e Oriente* 5, 1963d, 117-118.
- , La storia della Siria antica ha molta, *Bibbia e Oriente* 5, 1963e, 118-119.
- , Review of *Sumerian Economic Texts from the Third Ur Dynasty. Minneapolis, University of Minnesota Press, 1961*, by T.B. Jones and J.W. Snyder, *Bibbia e Oriente* 5, 1963f, 117-118.
- , Testi babilonesi antichi, *Bibbia e Oriente* 5, 1963g, 116-117.
- , The Enthronement of the King and the Capital City in Texts from Ancient Mesopotamia and Syria, in *Studies Openheim*, University of Chicago, Chicago, 1964, 54-61.
- , Review of *Amorite Personal Names in the Mari Texts: A Structural and Lexical Study. Baltimore: Johns Hopkins Press, 1965*, by H. B. Huffmon. *Journal of the American Oriental Society* 86(2), 1966a, 230-233.
- , *Bibbia e Oriente*, in *Diakonia tou Logou. Numero speciale della rivista "Bibbia e Oriente", dedicato al Prof. P. Giovanni Rinaldi in occasione del suo LX compleanno*, *Bibbia e Oriente*, Genova, 1966b, 151-156.
- , *The Amorites of the Ur III Period*, Pubblicazioni Del Seminario de Semitistica. Ricerche 1, Istituto Orientale di Napoli, Napoli, 1966c.
- , *Bibbia e Oriente*, In *Studi sull'Oriente e la Bibbia offerti al P. Giovanni Rinaldi nel 60° compleanno da allievi, colleghi, amici*, Studio e vita, Genova, 1967a, 267-272.
- , *Cities and Nations of Ancient Syria*, *Studi Semitici* 26, Istituto di Studi del Vicino Oriente, Roma, 1967b.
- , An Interpretation of the Akkadian Stative as a Nominal Sentence, *Journal of Near Eastern Studies* 27, 1968, 1-12.
- , Review of *A Bibliography of the Cuneiform Tablets of the Kuyunjik Collection in the British Museum. London: Trustees of the British Museum, 1964*, by E. Leichty, *Journal of Near Eastern Studies* 28, 1969a, 143-144.
- , Review of *Das Königtum in Israel: Ursprünge, Spannungen, Entwicklung. Berlin: A. Topelmann, 1967*, by A. Soggin, *Oriens Antiquus* 8, 1969b, 175-177.
- , Review of *Mitologia Sumerico-Accadica. Torino: Soc. Ed. Internazionale, 1967*, by G.R. Castellino. *Journal of the American Oriental Society* 89 (1): 1969c. 165-66.

- , Review of *Phonétique Comparée Des Dialectes Moyen-Babyloniens Du Nord et de l'oues.* (= *Bibliothèque Du Muséon*, Vol. 53). *Institute Orientaliste: Louvain*, 1966, by G. Jucqouis, *Oriens Antiquus* 10(1), 1971, 79-83.
- , Review of *Altbabylonische Briefe in Umschrift Und Übersetzung, 4. Briefe Aus Dem Archive Des Šamaš-Ḥāzīr in Paris Und Oxford.* Leiden: Brill 1968, by F. R. Kraus, *Oriens Antiquus* 11(2), 1972a, 147-152.
- , Gilgamesh in chiave sapienziale: L'umilta' dell'anti-eroe, *Oriens Antiquus* 11, 1972b, 1-36.
- , Il Dialogo del Pessimismo: La Scienza degli opposti come ideale sapienziale, *Oriens Antiquus* 11, 1972c, 81-100.
- , La Teodicea: Condanna dell'abulia politica, *Oriens Antiquus* 11, 1972d, 161-178.
- , Le Beatitudini Sullo Sfondo Della Tradizione Sapienziale Mesopotamica, *Bibbia e Oriente* 14, 1972e, 241-264.
- , Review of *Nairi e Ir(u)Aṭri. Contributo Alla Storia Della Formazione Del Regno Di Urartu*, Roma: Edizioni Dell'Ateneo, 1967, by M. Salvini, *American Oriental Society* 92(2), 1972f, 297-298.
- , On The Use of the Akkadian Infinitive after Ša or Construct State, *Journal of Semitic Studies* 17(1), 1972g, 1-29.
- , Review of *Studi sui pronomi determinativi semitici.* Napoli: Istituto Orientale, 1968, by F. A. Pennacchietti, *Journal of the American Oriental Society* 92(2), 1972h, 296-297.
- , Adapa, Genesis and the Notion of Faith, *Ugarit-Forschungen* 5, 1973a, 61-66.
- , ed, *Approaches to the Study of the Ancient Near East: A Volume of Studies Offered to Ignace Jay Gelb on the Occasion of His 65th Birthday October 14, 1972*, Biblical Institute Press. Rome, 1973b.
- , Methodological Concerns and the Progress of Ancient Near Eastern Studies, in G. Buccellati, ed., *Approaches to the Study of the Ancient Near East: A Volume of Studies Offered to Ignace Jay Gelb on the Occasion of His 65th Birthday October 14, 1972*, Biblical Institute Press, Rome, 1973c, 9-20.
- , Review of *The Cambridge Ancient History, Vol. I, Part I: Prolegomena and Prehistory*, by E. S. Edwards and C. J. Gadd, *International Journal of Middle East Studies* 4(2), 1973d, 245-248.
- , Review of *I Hurriti.* Firenze: Sansoni, 1964, by F. Imparati, *Oriens* 23/24, 1974a, 492.
- , Korucutepe Excavations, *Archeology at UCLA*, 1974b, 24-25.
- , The Institute of Archaeology, *Archeology at UCLA* 1(3), 1974c, 1-4.
- , The Institute of Archaeology-Foreword, in *Annual Report to the Chancellor and Fellows of the Institute*, The Institute of Archeology, UCLA, Los Angeles, 1974d, 1-4. 1.
- , Foreword, in *The Institute of Archaeology UCLA: Second Annual Report*, Institute of Archaeology UCLA, Los Angeles, 1975a, 1-5.
- , Research Collaboration Group, in *The Institute of Archaeology UCLA: Second Annual Report*, The Institute of Archeology, UCLA, Los Angeles, 1975b, 22-23.
- , On the Akkadian 'Attributive' Genitive, *Afroasiatic Linguistics* 3(2), 1976a, 19-27.
- , The Case Against the Alleged Akkadian Plural Morpheme -Ānu, *Afroasiatic Linguistics* 3(2), 1976b, 28-30.
- , Towards a Formal Typology of Akkadian Similes, in *Kramer Anniversary Volume: Cuneiform Studies in Honor of Samuel Noah Kramer*, Butzon & Bercker, Kevelaer, 1976c, 59-70.
- , 'Apirū and Munnabtūtu – The Stateless of the First Cosmopolitan Age, *Journal of Near Eastern Studies* 36(2), 1977a, 145-147.
- , Review of *Divination et Rationalité.* Paris : Éd. Du Seuil, 1990, by J. P. Vernant, L. Vandermeersch, J. Gernet, J. Bottero, R. Crahay, L. Brisson, J. Carlier, D. Grodzynski, and A. Retel Laurentin, *Oriens Antiquus* 16, 1977b, 239-241.
- , Review of *Field Methods in Archaeology.* Palo Alto: Mayfield Pub. Co., Cop. 1975, by T. R. Hester, R.F. Heizer, and J. A. Graham, *Bibliographical Leaflets in Archaeology* 7, 1977c.
- , Terqa Preliminary Report, No. 2: A Cuneiform Tablet from the Early Second Millennium B.C., *Syro-Mesopotamian Studies* 1(4), 1977d, 1-8.
- , The Old Babylonian Linguistic Analysis Project: Goals, Procedures and First Results, in *Computational and Mathematical Linguistics: Proceedings of the International Conference on Computational Linguistics: Pisa, 27/VIII-1/IX 1973.*, L. S. Olschki, Firenze, 1977e, 385-404.
- , The «Urban Revolution» in a Socio-Political Perspective, *Mesopotamia* 12, 1977f, 19-39.
- , Comparative Graphemic Analysis of Old Babylonian and Western Akkadian, *Ugarit-Forschungen* 11, 1979a, 89-100.
- , *Terqa Preliminary Report, 10: The Fourth Season - Introduction and the Stratigraphic Record*, Bibliotheca Mesopotamica 10, Undena Publications, Malibu, 1979b.
- , Principles of Stylistic Analysis, in Y. D. Arbeitmann, A. R. Bomhard, eds., *Bono Homini Donum: Essays in Memory of J. A. Kerns*, Amsterdam Studies in the Theory and History of Linguistic Science 4, John Benjamins, Amsterdam, 1981a, 807-836.
- , Stratigraphic Sections, in B. D. Dillon, ed., *The Student's Guide to Archaeological Illustrating*, Institute of Archaeology UCLA, Los Angeles, 1981b, 51-64.
- , The Origin of Writing and the Beginning of History, in G. Buccellati, C. Speroni, eds., *The Shape of the Past: Studies in Honour of Franklin D. Murphy*, Institute of Archaeology UCLA, Los Angeles, 1981c, 3-13.
- , Wisdom and Not: The Case of Mesopotamia, *Journal of the American Oriental Society* 101(1), 1981d, 35-47.
- , Studies in Ebla Graphemics, 1, *Studi Eblaiti* 5, 1982, 39-74.
- , Allocution Du Representant Des Participants, in *Symposium International: Histoire de Deir Ez-Zur et Ses Antiquités*, Publication du Ministère de la Culture, Damascus, 1983a, 21-23.
- , The Descent of Inanna as a Ritual Journey to Kutha?, *Syro-Mesopotamian Studies* 4(3), 1983b, 1-7.
- , Introduction, in O. Rouault, ed., *Terqa Final Reports Vol. 1: L'Archive de Puzurum*, Bibliotheca Mesopotamica 16, Undena Publications, Malibu, 1984a, 7-18.

- , Introduction, in C. Saporetti *The Middle Assyrian Laws*, *Cybernetica Mesopotamica Graphemic Categorization* 2, Undena Publications, Malibu, 1984b, 1-20.
- , Review of *The Cambridge Ancient History Vol. 3 Part 1. The Prehistory of the Balkans; an the Middle East and the Aegean World, Tenth to Eighth Centuries B.C. 2d Ed.* Cambridge: CUP, 1982, by J. Boardmann, *The American Historical Review* 89(4), 1984c, 1054-1055.
- , Computer Projects, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA* 1, 1986a, 3.
- , Review of *The Forms of Violence: Narrative in Assyrian Art an Modern Culture.* New York: Schocken Books, 1985, by L. Bersani and U. Dutoit, *Los Angeles Times*, March 3, 1986, sec. F., 1986b, 4.
- , On the Distribution of Epigraphic Finds at Terqa, *Annales Archéologiques Arabes Syriennes* 36/37, 1987, 102-106.
- , Ancient Syria: Introduction, *Bulletin of the American Schools of Oriental Research* 270, 1988a, 1-2.
- , Architectural, Stratigraphic and Typological Recording in Archaeology, in *SN/G: Report on Data Processing Projects in Art*, 418–20. Pisa/Los Angeles: Scuola Normale Superiore /Getty Art History Information Program. 1988b.
- , Review of *The Ancient Arabs: Nomads on the Borders of the Fertile Crescent, 9th-5th Centuries B.C.* Jerusalem: Magnes Press, Hebrew University, 1984, by I. Eph'al, *The American Historical Review*, 1988c, 673-674.
- , The Kingdom and Period of Khana, *Bulletin of the American Schools of Oriental Research* 270, 1988d, 43-61.
- , The 'State' of the Stative, in Y. D. Arbeitmann, ed., *Fucus. A Semitic/Afrasian Gathering in Remembrance of Albert Ehrman*, *Current Issues in Linguistic Theory* 58, John Benjamins, Amsterdam, 1988e, 153-189.
- , Review of *Ancient Damascus: A Historical Study of the Syrian City-State from Earliest Times until Its Fall to the Assyrians in 732 B.C.E.* Winona Lake: Eisenbrauns, 1987, by W. T. Pitard, *The American Historical Review* 95(1), 1990a, 141.
- , *Cybernetica Mesopotamica*, in E. M. Cook, ed., *Sopher Mahir: Northwest Semitic Studies Presented to Stanislav Segert*, *MAARAV* 5/6, 1990b, 23-32.
- , Experiments in Salt Production at Tell Qraya, *Syrian Archaeology Bulletin* 2, 1990c, 9-10.
- , From Khana to Laqe: The End of Syro-Mesopotamia, in Ö. Tunca, ed., *De La Babylonie à La Syrie En Passant Par Mari: Mélanges Offerts à J.-R. Kupper à l'occasion de Son 70e Anniversaire*, Université de Liège, Liège, 1990d, 229-253.
- , On Poetry - Theirs and Ours, in T. Abusch, J. Huehngard, and P. Steinkeller, eds., *Lingering over Words: Studies in Ancient Near Eastern Literature in Honor of William L. Moran*, *Harvard Semitic Studies* 37, Scholars Press, Atlanta, 1990e, 105-134.
- , 'River Bank,' 'High Country' and 'Pasture Land': The Growth of Nomadism on the Middle Euphrates and the Khabur, in S. Eichler, M. Wäfler, and D. Warburton, eds., *Tell Al-Hamidiyah 2*, Vandenhoeck & Ruprecht, Göttingen, 1990f, 87-117.
- , Salt at the Dawn of History: The Case of the Bevelled Rim Bowls, in P. Matthiae, M. van Loon, and H. Weiss, eds., *Resurrecting the Past. A Joint Tribute to Adnan Bounni*, Uitgaven van Het Nederlands Historisch-Archaeologisch Instituut Te Istanbul 67, Nederlands Historisch-Archeologisch Instituut te Istanbul, Istanbul, 1990g, 17-40.
- , The Ebla Electronic Corpus: Graphemic Analysis, *Annales Archéologiques Arabes Syriennes* 40, 1990h, 8-26.
- , The Rural Landscape of the Ancient Zor: The Terqa Evidence, in B. Geyer, ed., *Techniques et Pratiques Hydro-Agricoles Traditionnelles En Domaine Irrigué. Approche Pluridisciplinaire Des Modes de Culture Avant La Motorisation En Syrie*, Bibliothèque Archéologique et Historique 136, Librairie Orientaliste Paul Geuthner, Paris, 1990i, 155-169.
- , A Note on the Muskênum as a 'Homesteader', in R. J. Ratner, ed., *Let Your Colleagues Praise You: Studies in Memory of Stanley Gevirtz*, Western Academic Press, Rolling Hills Estates, MAARAV 7, 1991a, 91-100.
- , Akkadian, in *International Encyclopedia of Linguistics* 1, Oxford University Press, New York/Oxford, 1991b, 39-42.
- , Tell Ziyada: The First Three Seasons of Excavation (1988-1990): Introduction, in M. Fortin, ed., *Lost Civilizations of the Desert: Recent Archaeological Research in Third Millennium Syria*, *Bulletin of the Canadian Society for Mesopotamian Studies* 21, Canadian Society for Mesopotamian Studies, Toronto, 1991c, 31-61.
- , The Ebla Electronic Corpus: Onomastic Analysis, in C. H. Gordon, G. A. Rendsburg, eds., *Eblaitica: Essays on the Ebla Archives and Eblaite Language* 3, Publications of the Center for Ebla Research at New York University, Eisenbrauns, Winona Lake, 1992, 107-128.
- , Gli Amorrei e l' 'addomesticamento' della steppa, in O. Rouault, M. G. Masetti-Rouault, eds., *L'Eufrate e il tempo: le civiltà del medio Eufrate e della Gezira siriana*, Electa, Milano, 1993a 67-69.
- , Through a Tablet Darkly. A Reconstruction of Old Akkadian Monuments Described in Old Babylonian Copies, in M. E. Cohen, D. C. Snell, and D. B. Weisberg, eds., *The Tablet and the Scroll. Near Eastern Studies in Honor of William W. Hallo*, CDL Press, Bethesda, 1993b, 58-71.
- , The Kudurrus as Monuments, in *Cinquante-Deux Reflexions Sur Le Proche-Orient Ancien: Offertes En Hommage à Léon De Meyer*, *Mesopotamian History and Environment, Occasional Publications* 2, Peeters, Leuven, 1994, 283-291.
- , Eblaite and Amorite Names, in E. Eichler, H. Loeffler, H. Steger, and L. Zgusta, eds., *Namenforschung: Ein Internationales Handbuch Zur Onomastik = Name Studies: An International Handbook of Onomastics = Les Noms Propres : Manuel International d'onomastique* 1, Handbücher Zur Sprach- Und Kommunikationswissenschaft / Handbooks of Linguistics and Communication Science (HSK), 11,1, De Gruyter, Berlin/New York, 1995a, 856-860.
- , Ethics and Piety in the Ancient Near East, in J. Sasson, ed., *Civilizations of the Ancient Near East* 3, Scribner, New York, 1995b, 1685-1696.



- , On Christic Polytheism and Christian Monotheism, *Communio: International Catholic Review* 22, 1995c, 113-138.
- , *A Structural Grammar of Babylonian*, Harrassowitz, Wiesbaden, 1996a.
- , Amorite, in J. Turner, ed., *The Dictionary of Art* 1, Grove, Macmillan/New York, 1996b, 795.
- , Review of *Les Tribus Amurrites de Mari. Freiburg (Schweiz); Göttingen: Universitätsverlag: Vandenhoeck Und Ruprecht, 1991 (= Orbis Biblicus et Orientalis, 108)*, by M. Anbar. *Archiv Für Orientforschung* 42/43, 1996c, 233-234.
- , Mesopotamian Magic as a Mythology and Ritual of Fate: Structural Correlations with Biblical Religion, in S. J. Denning-Bolle, E. Gerow, eds., *The Persistence of Religions: Essays in Honor of Kees W. Bolle*, 185-196, Other Realities 9, Undena Publications, Malibu, 1996d.
- , Religious Vows and the Structure of Love, *Communio: International Catholic Review* 23, 1996e, 562-578.
- , The Role of Socio-Political Factors in the Emergence of 'Public' and 'Private' Domains in Early Mesopotamia, in M. Hudson, B. A. Levine, eds., *Privatization in the Ancient Near East and Classical World: A Colloquium Held at New York University, November 17-18, 1994*, Peabody Museum Bulletin 5, Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, 1996f, 129-151.
- , Akkadian, in R. Hetzron, ed., *Semitic Languages*, 69-99, Routledge, London, 1997a.
- , Akkadian and Amorite Phonology, in A. Kaye, ed., *Phonologies of Asia and Africa (Including the Caucasus)* 1, Eisenbrauns, Winona Lake, 1997b, 1-37.
- , Syria in the Bronze Age, in *The Oxford Encyclopedia of Archaeology in the Near East*, 5:126-31. New York/Oxford: Oxford University Press. 1997c.
- , Review of *Archaeology's Publication Problems. Washington, DC: Biblical Archaeology Society, 1996*, by J. Aviram and H. Shanks, *Near Eastern Archaeology* 61(2), 1998a, 118-120.
- , Ascension, Parousia, and the Sacred Heart: Structural Correlations, *Communio: International Catholic Review* 25, 1998b, 69-103.
- , Preface, in J.M. Pagan, *A Morphological and Lexical Study of Personal Names in the Ebla Texts*, ARES 3, Missione archeologica italiana in Siria, Roma, 1998c, 1-3.
- , Urkesh as Tell Mozan: Profiles of the Ancient City, in G. Buccellati and M. Kelly-Buccellati, eds., *Urkesh and the Hurrians Studies in Honor of Lloyd Cotsen*, Bibliotheca Mesopotamica 26, Undena Publications, Malibu, 1998d, 11-34.
- , The Royal Storehouse of Urkesh, in M. Fortin, F. Tremblay, eds., *Syria, Land of Civilizations*, Musée de la Civilisation, Québec, 1999a, 170.
- , Urkesh and the Question of Early Hurrian Urbanism, in M. Hudson, B. A. Levine, eds., *Urbanization and Land Ownership in the Ancient Near East*, Peabody Museum Bulletin 7, Peabody Museum of Archaeology and Ethnology, Harvard University, Cambridge, 1999b, 229-250.
- , On Poetry and Friendship: Linear and Tensional Elements in the Old Babylonian Episode of Gilgamesh and Enkidu, in P. Negri Scafa, P. Gentili, eds., *Donum Natalicium. Studi in Onore Di Claudio Saporetti in Occasione Del Suo 60° Compleanno*, 63-76, Borgia, Roma, 2000a.
- , Urkesh: archeologia, conservazione e restauro, *Kermes: la rivista del restauro* 40, 2000b, 41-48.
- , Review of *A Sketch of Neo-Assyrian Grammar. State Archives of Assyria Studies, Vol. 13. Helsinki: The Neo-Assyrian Text Corpus Project, 2000*, by J. Hämeen-Anttila, *Journal of the American Oriental Society* 122(4), 2002a, 874-875.
- , Beyond Clay and Beyond Paper, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2002b, 4-5.
- , Review of "Wenn Du Mein Bruder Bist, ..." *Interaktion Und Textgestaltung in Altbabylonischen Alltagsbriefen. Cuneiform Monographs, 16 Gröningen: Styx, 1999*, by W. Sallaberger, *Zeitschrift Für Assyriologie Und Vorderasiatische Archäologie* 22, 2002c, 303-305.
- , A LU E School Tablet from the Service Quarter of the Royal Palace AP at Urkesh, *Journal of Cuneiform Studies* 55, 2003a, 45-48.
- , Review of *Conquête de La Steppe et Appropriation Des Terres Sur Les Marges Arides Du Croissant Fertile. (= Travaux de La Maison de l'Orient Méditerranéen, Vol. 36)*, by B. Geyer, *Archiv Für Orientforschung* 50, 2003b, 455-457.
- , Il cemento dell'estro e della ragione: la dimensione scribale della cosiddetta 'Teodicea Babilonese, in *Semitic and Assyriological studies: presented to Pelio Fronzaroli by pupils and colleagues*, Harrassowitz, Wiesbaden, 2003c, 97-104.
- , Sacramentality and Culture, *Communio: International Catholic Review* 30, 2003d, 1-48.
- , Tell Mozan (Ancient Urkesh), in J. Aruz, ed., *Art of the First Cities. The Third Millennium B.C. from the Mediterranean to the Indus*, 224-227, Yale University Press, New Haven/London, 2003e.
- , Review of *Akkadisch in Der Ur III-Zeit. (Imgula 5). Münster: Rhema, 2002*, by M. Hilgert. *Zeitschrift Für Assyriologie Und Vorderasiatische Archäologie* 94, 2004a, 106-108.
- , Il secondo millennio nella memoria epica di Giuda e Israele, *Rivista della Facoltà di Teologia di Lugano* 9(3), 2004b, 521-543.
- , Review of *La Civiltà Dei Hurriti. La Parola Del Passato. Rivista Di Studi Antichi, Vol. 55 Napoli: Gaetano Macchiaroli, 2000*, by Anon, *Die Welt Des Orients* 34, 2004c, 209-214.
- , Present at Creation, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2004d, 1-4.
- , The Monumental Urban Complex at Urkesh. Report on the 16th Season of Excavations, July-September 2003, *Studies on the Civilization and Culture of Nuzi and the Hurrians* 15, 2005a, 3-28.
- , The Perception of Function and the Prehistory of the State in Syro-Mesopotamia, in B. D. Dillon, M. A. Bost, eds., *Archaeology without Limits: Papers in Honor of Clement W. Meighan*, Labyrinthos, Lancaster, 2005b, 481-492.

- , A Browser Edition of the Royal Palace of Urkesh: Principles and Presuppositions, in P. Butterlin, M. Lebeau, J.-Y. Montchambert, J. L. Montero Fenollós, and B. Muller, eds., *Les Espaces Syro-Mésopotamiens. Dimensions de l'expérience Humaine Au Proche-Orient Ancien. Volume d'hommage Offert à Jean-Claude Margueron*, Subartu 17, Brepols, Turnhout, 2006a, 49-55.
- , An Archaeologist on Mars, in S. Gitin, J. E. Wright, and J. P. Dessel, eds., *Confronting the Past. Archaeological and Historical Essays on Ancient Israel in Honor of William G. Dever*, Eisenbrauns, Winona Lake, 2006b, 17-21.
- , Conservation qua Archaeology at Tell Mozan/Urkesh, in N. Agnew, J. Bridgland, eds., *Of the Past, for the Future: Integrating Archaeology and Conservation, Proceedings of the Conservation Theme at the 5th World Archaeological Congress, Washington D.C. 22-26 June 2003*, The Getty Conservation Institute, Los Angeles, 2006c, 73-81.
- , Review of *La Basse Vallée de l'Euphrate Syrien Du Néolithique à l'avènement de l'Islam: Géographie, Archéologie et Histoire, 2 Vols.*, Beyrouth : Institut Français Du Proche-Orient, 2003, by B. Geyer and J.-Y. Monchambert, *American Journal of Archaeology* 110(3), 2006d, 511-513.
- , On (e)-Tic and -Emic, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2006e, 12-13.
- , Presentation and Interpretation of Archaeological Sites: The Case of Tell Mozan, Ancient Urkesh, in N. Agnew, J. Bridgland, eds., *Of the Past, for the Future: Integrating Archaeology and Conservation, Proceedings of the Conservation Theme at the 5th World Archaeological Congress, Washington D.C. 22-26 June 2003*, The Getty Conservation Institute, Los Angeles, 2006f, 152-156.
- , The Prophetic Dimension of Joseph, *Communio: International Catholic Review* 33, 2006g, 44-99.
- , Foreword, in R. Hauser, *Reading Figurines. Animal Representations in Terra Cotta from Royal Building AK. Urkesh/Mozan Studies 5*, Bibliotheca Mesopotamica 28, Undena Publications, Malibu, 2007a, 17-23.
- , Non-Linear Archaeology, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2007b, 37-39.
- , Yahweh, the Trinity: The Old Testament Catechumenate, *Communio: International Catholic Review*, 2007c, 38-75, 292-327.
- , The Origin of the Tribe and of 'Industrial' Agropastoralism in Syro-Mesopotamiam, in W. Wendrich, H. Barnard *The Archaeology of Mobility*, Cotsen Advanced Seminars 4. Cotsen Institute of Archaeology University of California, Los Angeles, 2008, 141-159.
- , An Architectural 'Logogram' at Urkesh?, in P. Negri Scafa, S. Viaggio, eds., *Dallo Stirone Al Tigri, Dal Tevere All'Eufrate: Studi in Onore Di Claudio Saporetti*, Aracne, Roma, 2009a, 23-29.
- , Value and Equivalence: The Role of Monetheism in Early Economic Systems, *Communio: International Catholic Review* 36, 2009b, 427-446.
- , The Question of Digital Thought, in T. M. Nikolaeva, ed., *Studies in Linguistics and Semiotics. A Festschrift for Vyacheslav V. Ivanov*, Languages Slavic Cultures, Moscow, 2010a, 46-55.
- , The Semiotics of Ethnicity: The Case of Hurrian Urkesh, in J. C. Finke, ed., *Festschrift Für Gernot Wilhelm Anlässlich Seines 65. Geburtstages Am 28. Januar 2010*, ISLET, Dresden, 2010b, 79-90.
- , The Urkesh Temple Terrace: Function and Perception, in J. Becker, R. Hempelmann, and E. Rehm, eds., *Kulturlandschaft Syrien: Zentrum Und Peripherie: Festschrift Für Jan-Waalke Meyer*, Alter Orient Und Altes Testament 371, Ugarit Verlag, Münster, 2010c, 87-121.
- , Digital Edition and Graphemic Analysis of the Ebla Texts, in L. Milano, ed., *Cybernetica Mesopotamica*, CD 4, ARED Edizione Digitale 1, Undena Publications, Malibu, 2011a.
- , Giorgio Buccellati Receives Newly Established Award, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2011b, 11.
- , Public Impact, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2011c, 100.
- , Aten in Amurru?, in G. B. Lanfranchi, D. Morandi Bonacossi, C. Pappi, and S. Ponchia, eds., *Leggo!: Studies Presented to Frederick Mario Fales on the Occasion of His 65th Birthday*, Leipziger Altorientalistische Studien 2, Harrassowitz Verlag, Wiesbaden, 2012a, 95-98.
- , Coerenza e storia. La Mesopotamia nell'ottica storiografica di «Ordine e Storia»: Istituzioni politiche, trasmissione del pensiero e percezione dell'assoluto, in N. Scotti Muth, ed., *Prima della filosofia. Dinamiche dell'esperienza nei regni dell'Oriente antico e in Israele*, Vita e Pensiero, Milano, 2012b, 113-122.
- , La Trinità in un'ottica mesopotamica, *Rivista di filosofia neo-scolastica* 104, 2012c, 29-48.
- , The Floodwaters of Urkesh and the Structural Coherence of the Urkesh Temple Complex, in P. Quenet, M. al-Maqdisi, "L'heure Immobile" *Entre Ciel et Terre : Melanges En l'honneur d'Antoine Souleiman*, Subartu 31, Brepols, Turnhout, 2012d, 21-33.
- , Towards A Linguistic Model For Archaeology, *Revue d'assyriologie et d'archéologie Orientale* 106(1), 2012e, 37-43.
- , Trinity Spermatiké: The Veiled Perception of a Pagan World (Part 1), *Communio: International Catholic Review* 39, 2012f, 594-640.
- , *Alle origini della politica: la formazione e la crescita dello Stato in Siro-Mesopotamia*, Paese delle quattro rive 1, Jaca Book, Milano, 2013a.
- , The History of the Cotsen Institute of Archaeology as a Research Paradigm, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2013b, 14-20.
- , Trinity Spermatiké: The Veiled Perception of a Pagan World (Part 2), *Communio: International Catholic Review* 40, 2013c, 99-131.
- , When Were the Hurrians Hurrian? The Persistence of Ethnicity in Urkesh, in J. Aruz, S. B. Graff, and J. Rakić,

- eds., *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium B.C.*, Metropolitan Museum of Art Symposia, The Metropolitan Museum of Art, distributed by Yale University Press, New York/New Haven, 2013d, 84-95.
- , Courage among the Ruins: A Sustainable Conservation Program in Time of War, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2014a, 102-112.
- , *Dal profondo del tempo: all'origine della comunicazione e della comunità nell'antica Siria*, Società editrice fiorentina, Firenze, 2014b.
- , The Threefold Invention of Time: Transcendental, Transcendent, Trans-Temporal, *Euresis Journal* 7, 2014c, 69-85.
- , Un'invasione profetica, *Tracce* 2, 2014d, 44-49.
- , L'archeologia come presenza morale a Tell Mozan in Siria, *Bollettino dell'Associazione Archeologica Ticinese* 27, 2015a, 20-25.
- , Tensional Factors and Compositional Analysis. Crossovers Between Linguistics and Art Criticism, in P. Ciafardini, D. Gianessi, eds., *From the Treasures of Syria. Essays on Art and Archaeology in Honour of Stefania Mazzoni*, PIHANS 126, Nederlands Historisch-Archeologisch Instituut in het Nabije Oosten, Leiden, 2015b, 289-298.
- , The Transcendental Revolution, in H. Amstutz, A. Dorn, M. Ronsdorf, and S. Uljas, eds., *Fuzzy Boundaries. Festschrift Für Antonio Loprieno. Vol. I*, Widmaier Verlag, Hamburg, 2015c, 47-54.
- , Abramo e il desiderio di un 'noi' in armonia reciproca, *Il sussidiario.net*, September, 2015d. <https://www.ilsussidiario.net/news/cultura/2015/9/7/letture-abramo-e-il-desiderio-di-un-noi-in-armonia-reciproca/636247/>.
- , *An Invitation to Tell Mozan, Ancient Urkesh*, Translated by R. Elendari, A. Slivi, and G. Rammo, The Urkesh Press, Mozan, 2016a.
- , The Creation of the City of Man, *Communio: International Catholic Review* 43, 2016b, 617-641.
- , The Digital Itinerary of the Texts of Ebla, in P. Corò, E. Devecchi, E. De Zorzi, and M. Maiocchi, eds., *Libiamo Ne' Lieti Calici. Ancient Near Eastern Studies Presented to Lucio Milano on the Occasion of His 65th Birthday by Pupils, Colleagues and Friends*, Alter Orient Und Altes Testament 436, Ugarit Verlag, Münster, 2016c, 703-719.
- , Urkesh: For a Semiotics of the Hurrian Sacred, in P. Matthiae, M. D'Andrea, eds., *Ebla e La Siria Dall'età Del Bronzo All'età Del Ferro*, Atti Dei Convegni Lincei / Accademia Nazionale Dei Lincei 304, Bardi, Roma, 2016d, 117-136.
- , *A Critique of Archaeological Reason Structural, Digital and Philosophical Aspects of the Excavated Record*, Cambridge University Press, Cambridge, 2017.
- , A Children's Hermeneutics, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2018, 32-37.
- Buccellati, G., R. D. Biggs, *Cuneiform Texts from Nippur: The Eighth and Ninth Season*, Assyriological Studies 17, The University of Chicago Press, Chicago, 1969.
- Buccellati, G., S. Bonetti, Conservation at the Core of Archaeological Strategy. The Case of Ancient Urkesh at Tell Mozan, *The Getty Conservation Institute Newsletter* 18(1), 2003, 18-21.
- Buccellati, G., F. Buzzi, "Quando in alto i cieli ...": *La spiritualità mesopotamica a confronto con quella biblica*, Paese delle quattro rive 4, Jaca Book, Milano, 2012.
- Buccellati, G., I. Carbajosa, Nella storia, la compagnia del destino all'uomo, in E. Belloni, A. Savorana, eds., *Le periferie dell'umano*, Saggi, BUR Biblioteca Univ. Rizzoli, Milano, 2014.
- Buccellati, G., R. Clayton, Audio-Visual Modules in Archaeology, in *The Institute of Archaeology UCLA: Second Annual Report*, The Institute of Archeology, UCLA, Los Angeles, 1975, 30-32.
- Buccellati, G., T. W. Linick, H. E. Suess, and M. I. Venkatesan, Asphalt in Carbon-14-Dated Archaeological Samples from Terqa, Syria, *Nature* 295(5849), 1982, 517-519.
- Buccellati, G., Y. Mahmoud, *Archaeology for a Young Future. An Exhibit at the American University of Beirut*, The Urkesh Press, Mozan, 2017.
- Buccellati, G., S. Reimer, Tell Ziyada, *Syrian Archaeology Bulletin* 2, 1990, 7-9.
- Buccellati, G., O. Rouault, Computer Aided Research in Near Eastern Studies: An Introduction, *Computer Aided Research in Near Eastern Studies* 1(1), 1983a, 1-2.
- , Terqa Preliminary Report, N. 12: Digital Plotting of Archaeological Floor Plans, *Computer Aided Research in Near Eastern Studies* 1(1), 1983b, 3-40.
- Buccellati, G., C. Speroni, eds., *The Shape of the Past: Studies in Honor of Franklin D. Murphy*. Institute of Archaeology UCLA, Los Angeles, 1981.
- Goetze, A., G. Buccellati, Esarhaddon's Inscriptions from the Inanna Temple in Nippur [Cuneiform Copies], *Journal of Cuneiform Studies* 17(4), 1963, 119-131.
- Loon, M. van, G. Buccellati, The 1968 Excavation at Korucutepe near Elazig, *Türk Arkeoloji Dergisi* 17(1), 1968, 79-82.
- , The University of Chicago - University of California Excavations at Korucutepe, 1968, in *1968 Summer Work*, Keban Projesi Yayınları 1, METU Keban Project Publications, Ankara, 1970, 73-102.

#### GIORGIO BUCCELLATI AND MARILYN KELLY-BUCCELLATI

- Buccellati, G., and M. Kelly-Buccellati, Archaeological Survey of the Palmyrene and the Jebel Bishri, *Archaeology* 20(4), 1967, 305-306.
- , Ma sua moglie guardò indietro...(Gen.19:26), *Bibbia e Oriente* 13, 1971, 226.

- , *New Archaeological Harvests from Syria*, Ambassador International Cultural Foundation, Pasadena, 1977a.
- , Syro-Mesopotamian Studies: A Preface, *Syro-Mesopotamian Studies* 1(1), 1977b, 1-2.
- , Terqa Preliminary Reports, No. 1: General Introduction and the Stratigraphic Record of the First Two Seasons, *Syro-Mesopotamian Studies* 1(3), 1977c, 73-133.
- , The Terqa Archaeological Project: First Preliminary Report, *Annales Archéologiques Arabes Syriennes* 27, 1977d, 71-96.
- , *IIMAS, Field Encoding Manual (Non-Digital)*, Aids and Research Tools in Ancient Near Eastern Studies 2, Undena Publications, Malibu, 1978a.
- , Terqa Preliminary Reports, No. 6: The Third Season: Introduction and the Stratigraphic Record, *Syro-Mesopotamian Studies* 2(6), 1978b, 1-36.
- , The Jewels of Ninkarrak, *Archaeology at UCLA* 1(21), 1980, 1-4.
- , Terqa 7, *Archaeology at UCLA*, 2(9), 1982, 1-4.
- , Terqa: The First Eight Seasons, *Annales Archéologiques Arabes Syriennes* 33, 1983, 47-67.
- , Terqa and the Kingdom of Khana, in H. Weiss, ed., *Ebla to Damascus: Art and Archaeology of Ancient Syria*, Washington D.C.: Smithsonian Institution Traveling Exhibition Service, 1985, 217-222.
- , The Glory of Ancient Syria Part 1, *Terra* 24(4), 1986a, 6-13.
- , The Glory of Ancient Syria Part 2, *Terra* 24(5), 1986b, 22-29.
- , Introduction, in K. Simpson, *Qraya Modular Reports: Soundings 1977-79 and 1984-85*, Monographic Journals of the Near East. Syro-Mesopotamian Studies 4, Undena Publications, Malibu, 1988a, 3-7.
- , *Mozan 1: The Soundings of the First Two Seasons*, Bibliotheca Mesopotamica 20, Undena Publications, Malibu, 1988b.
- , Mozan: Soundings on the High Mound During The First Two Season, in *Photographic Data Sets 1 IIMAS*, Undena Publications, Malibu, 1990a, 1-15.
- , Tell Mozan, *Syrian Archaeology Bulletin* 2, 1990b, 4-7.
- , Tell Mozan, *Mille et Une Capitales de Haute-Mésopotamie, Les Dossiers d'Archéologie* 155 (December), 1990c, 18-23.
- , Introduction, in L. Milano, *Mozan 2 The Epigraphic Finds of the Sixth Season*, Monographic Journals of the Near East. Syro-Mesopotamian Studies 5, Undena Publications, Malibu, 1991a, 3-7.
- , Mozan, *American Journal of Archaeology* 95, 1991b, 712-714.
- , Mozan, *American Journal of Archaeology* 98, 1994a, 131-133.
- , Mozan: Tales from a Hurrian (?) Storehouse, 2300 BC, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA* 1, 1994b, 4-5.
- , Mozan, Tall, in *Reallexikon Der Assyriologie Und Vorderasiatischen Archäologie* 8, De Gruyter, Berlin/Boston, 1995a, 386-393.
- , The Identification of Urkesh with Tell Mozan, *Orient Express* 3, 1995b, 67-70.
- , The Royal Storehouse of Urkesh: The Glyptic Evidence from the Southwestern Wing, *Archiv Für Orientforschung* 42/43, 1996a, 1-32.
- , The Seals of the King of Urkesh: Evidence from the Western Wing of the Royal Storehouse AK, *Wiener Zeitschrift Für Die Kunde Des Morgenlandes* 86, 1996b, 65-100.
- , Mozan, Tell, in *The Oxford Encyclopedia of Archaeology in the Near East* 4, Oxford University Press, New York/Oxford, 1997a, 60-64.
- , Terqa, in *The Oxford Encyclopedia of Archaeology in the Near East* 5, Oxford University Press, New York/Oxford, 1997b, 188-190.
- , The Seventh Season of Excavations at Tell Mozan, 1992, *Chronique Archéologique En Syrie* 1, 1997c, 79-84.
- , Una manciata di secoli, *Bollettino dell'Associazione Archeologica Ticinese* 9, 1997d, 16-23.
- , Urkesh. The First Hurrian Capital, *Biblical Archaeologist* 60, 1997e, 77-96.
- , The Courtiers of the Queen of Urkesh: Glyptic Evidence from the Western Wing of the Royal Storehouse AK, in M. Lebeau, ed., *About Subartu. Studies Devoted to Upper Mesopotamia. Volume II: Culture, Society, Image* 2, Subartu 4, 1998a, 195-216.
- , eds., *Urkesh and the Hurrians. Studies in Honor of Lloyd Cotsen*, Bibliotheca Mesopotamica 26, Undena Publications, Malibu, 1998b.
- , Das archäologische Projekt Tall Mozan/Urkesh, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 131, 1999, 7-16.
- , The Royal Palace and the Daughter of Naram-Sin. Report on the 12th Season of Excavations June October 1999, *The Urkesh Bulletin* 3, 2000a, 3-28.
- , The Royal Palace of Urkesh. Report on the 12th Season at Tell Mozan/Urkesh: Excavations in Area AA, June-October 1999, *Mitteilungen Der Deutschen Orient-Gesellschaft Zu Berlin* 132, 2000b, 133-183.
- , In Search of Hurrian Urkesh, *Archaeology Odyssey* 4(3), 2001a, 16-27.
- , Überlegungen zur funktionellen und historischen Bestimmung des Königspalastes von Urkeš. Bericht über die 13. Kampagne in Tall Mozan/Urkeš: Ausgrabungen im Gebiet AA, Juni-August 2000, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 133, 2001b, 59-96.
- , Die Große Schnittstelle. Bericht über die 14. Kampagne in Tall Mozan/Urkeš: Ausgrabungen im Gebiet AA, Juni-Oktober 2001, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 134, 2002a, 103-130.

- , Tar'am-Agade, Daughter of Naram-Sin, at Urkesh, in L. Al-Gailani Werr, *Of Pots and Plans. Papers on the Archaeology and History of Mesopotamia and Syria Presented to David Oates in Honour of His 75th Birthday*, NABU, London, 2002b, 11-31.
- , Der monumentale Palasthof von Tall Mozan/Urkeš und die stratigraphische Geschichte des ābi. Bericht über die 15. Kampagne 2002, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 136, 2004, 13-39.
- , Naming Names: The 2004 Season of Excavations at Ancient Urkesh, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA* 2-4, 2005a, 11.
- , Urkesh as a Hurrian Religious Center, *Studi Micenei Ed Egeo-Anatolici* 47, 2005b, 27-59.
- , Between Heaven Ad Hell in Ancient Urkesh, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2007a, 68-73.
- , Qurayya, Tall, in *Reallexikon Der Assyriologie Und Vorderasiatischen Archäologie* 11, De Gruyter, Berlin/Boston, 2007b, 207.
- , Urkesh and the Question of the Hurrian Homeland, *Bulletin of the Georgian National Academy of Science* 175(2), 2007c, 141-151.
- , The Ceramics of Urkesh: Statistics for a Browser Edition, in D. Bonatz, R. M. Czichon, and F. J. Kreppner, eds., *Fundstellen Gesammelte Schriften Zur Archäologie Und Geschichte Altvorderasiens Ad Honorem Hartmut Kühne*, Harrassowitz Verlag, Wiesbaden, 2008, 315-326.
- , The Great Temple Terrace at Urkesh and the Lions of Tish-Atal, in G. Wilhelm, ed., *General Studies And Excavations at Nuzi 11/2 in Honor of David I. Owen on the Occasion of His 65th Birthday October 28, 2005*, Studies on the Civilization and Culture of Nuzi and the Hurrians 18, CDL Press, Bethesda, 2009, 33-69.
- , ... Nor North: The Urkesh Temple Terrace, in P. Butterlin, J.-C. Margueron, B. Muller, M. Al-Maqdissi, D. Beyer, and A. Cavigneaux, eds., *Mari, Ni Est, Ni Ouest : Actes Du Colloque "Mari, Ni Est Ni Ouest" Tenu Les 20-22 Octobre 2010 à Damas, Syrie*, Syria (Paris, França), Supplément 2, Presses de l'Ifpo, Beyrouth, 2014, 439-462.
- , 26. Tell Mozan/Urkesh (Hassake), in Y. Kanjou, A. Tsuneki, eds., *A History of Syria in One Hundred Sites*, Archaeopress Publishing LTD, Oxford, 111-114, 2016.
- , Community Archaeology 1984: At the Interface between Practice and Theory, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2017a, 34-38.
- , Conserviamo il futuro, *Tracce*, February, 2017b, 26-29.
- , Analisi strutturale e percettiva della terrazza templare di Urkesh, in M. G. Micale, S. Pizzimenti, and A. Vacca, eds., *A Oriente del Delta Scritti sull'Egitto ed il Vicino Oriente antico in onore di Gabriella Scandone Matthiae*, Contributi e materiali di archeologia orientale 18, Roma: Scienze e lettere, Roma, 2018, 109-132.
- Buccellati, G., Y. Al-Khalesi, M. Kelly-Buccellati, and P. Michalowski, For Thorkild Jacobsen on His Seventy-Second Birthday, *Mesopotamia* 12, 1977, 17-18.
- Buccellati, G., M. Kelly-Buccellati, and M. Liverani, The Scribes of Terqa, *Archaeology at UCLA* 2(14), 1983, 1-4.

## MARILYN KELLY-BUCCELLATI

- Elster, E. S., M. Kelly-Buccellati, Statistics in Archaeology and Its Application to Ancient Near Eastern Data, *Orientalia* 42, 1973, 195-211.
- Frahm, E., M. Kelly-Buccellati, M. Nikolaidou, Using Image Analysis Software to Correlate Sherd Scans in the Field and X-Ray Element Maps in the Laboratory, *Society for Archaeological Sciences Bulletin* 31(2), 2008, 8-12.
- Kelly-Buccellati, M., The Excavations at Korucutepe, Turkey, 1968-70: Preliminary Report, Part III: Statistical Description of Significant Groups of Pottery, *Journal of Near Eastern Studies* 32(4), 1973, 434-439.
- , The Early Trans-Caucasian Culture: Geographical and Chronological Interaction, PhD, University of Chicago, Chicago, 1974a.
- , The Excavations at Korucutepe, Turkey, 1968-70: Preliminary Report, Part V. The Early Bronze Pottery and Its Affinities, *Journal of Near Eastern Studies* 33(1), 1974b, 44-54.
- , Towards a Quantitative Analysis of Mesopotamian Sphragistics, *Mesopotamia: Rivista Di Archeologia, Epigrafia e Storia Orientale Antica* 12, 1977, 41-52.
- , Tall Asharah-Terqa, *Archiv für Orientforschung*, 1978a, 149-151.
- , The Early Bronze Age Culture - Descriptive and Comparative Analysis, in *Korucutepe: Final Report on the Excavations of the Universities of Chicago, California (Los Angeles) and Amsterdam in the Keban Reservoir, Eastern Anatolia, 1968-70* 2, Studies in Ancient Civilization, Elsevier, Amsterdam/Oxford, 1978b, 67-88 Pls. 112-129.
- , Iconographic and Formal Analysis of Mesopotamian Cylinder Seals, *Annales Archéologiques Arabes Syriennes* 29/30, 1979a, 273-284.
- , Second Millenium Strata. The Residential Quarter in Area C, *Biblioteca Mesopotamica* 10, 1979b, 31-35.
- , The Evidence of Artifactual Evidence: Early Third Millenium Pottery at Terqa, *Biblioteca Mesopotamica* 10, 1979c, 71-75.
- , The Outer Fertile Crescent Culture: Northeastern Connections of Syria and Palestine in the Third Millenium B.C., *Ugarit-Forschungen* 11, 1979d, 413-430.

- , Miniature Art from Terqa 1700 B.C.: New Sources for Mid-Second Millennium Art in Mesopotamia, in G. Buccellati, C. Speroni, eds., *The Shape of the Past: Studies in Honor of Franklin D. Murphy*, Cotsen Institute of Archaeology, Los Angeles, 1981, 44-53.
- , Figurine and Plaques from Terqa, *Annales Archéologiques Arabes Syriennes* 34, 1984, 149-154.
- , Sealing Practices at Terqa, in *Insight Through Images: Studies in Honor of Edith Porada*, Undena Publications, Malibu, 1986, 133-142.
- , A New Third Millennium Sculpture from Mozan, in A. Leonard, B. Williams, eds., *Essays in Ancient Civilization Presented to Helene J. Kantor*, Studies in Ancient Oriental Civilization 47, University of Chicago Press, Chicago, 1989, 149-154.
- , Formal and Iconographic Analysis of Mesopotamian Cylinder Seals, in L. Corti, ed., *SN/G: Report on Data Processing Projects in Art*, Scuola Normale Superiore /Getty Art History Information Program, Pisa/Los Angeles, 1990a.
- , Three Seasons of Excavation at Tell Mozan, in S. Eichler, M. Waefler, and D. Warburton, eds., *Tall Al-Hamidiya 2*, Universitätsverlag Freiburg/Vandenhoeck und Ruprecht, Orbis Biblicus et Orientalis 6. Freiburg (CH)/Göttingen, 1990b, 119-132.
- , Trade Metals in the Third Millennium: Northeastern Syria and Eastern Anatolia, in P. Matthiae, M. Van Loon, and H. Weiss, eds., *Resurrecting the Past: A Joint Tribute to Adnan Bounni*, Uitgaven van Het Nederlands Historisch-Archaeologisch Instituut Te İstanbul 67, Nederlands Historisch-Archaeologisch Instituut, Leiden, 1990c, 117-130.
- , Nuzi Viewed from Urkesh, Urkesh Viewed from Nuzi: Stock Elements and Framing Devices in Northern Syro-Mesopotamia, *Studies on the Civilization and Culture of Nuzi and the Hurrians* 8, 1996a, 247-268.
- , Seals in Ancient Mesopotamia and Seals of God in Revelation, *Rivista Della Facoltà Di Teologia Di Lugano* 1, 1996b, 79-100.
- , Terqa, in J. Turner, ed., *The Dictionary of Art* 30, Grove, Macmillan/New York, 1996c, 492.
- , History of the Field: Archaeology in Syria, in *The Oxford Encyclopedia of Archaeology in the Near East* 3, Oxford University Press, New York/Oxford, 1997, 42-47.
- , Review of *The Early Glyptic of Tell Brak: Cylinder Seals of Third Millennium Syria*, by D. Matthews, *Ars Orientalis* 28, 1998a, 121-123.
- , The Workshops of Urkesh, in G. Buccellati, M. Kelly-Buccellati, eds., *Urkesh and the Hurrians: A Volume in Honor of Lloyd Cotsen*, Bibliotheca Mesopotamia 26, Undena Publications, Malibu, 1998b, 35-50.
- , Ein hurritischer Gang in die Unterwelt, *Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin* 134, 2002, 131-148.
- , Andirons at Urkesh: New Evidence for the Hurrian Identity of Early Trans-Caucasian Culture, in A. Sagona, ed., *A View from the Highlands: Archaeological Studies in Honour of Charles Burney*, ANES Supplement 12, Peeters Publishers, Herent, 2004, 67-89.
- , Introduction to the Archaeo-Zoology of the Ābi, *Studi Micenei Ed Egeo-Anatolici* 47, 2005a, 61-66.
- , Urkesh and the North: Recent Discoveries, *Studies on the Civilization and Culture of Nuzi and the Hurrians* 15, 2005b, 29-40.
- , Gilgamesh at Urkesh? Literary Motifs and Iconographic Identifications, in P. Butterlin, M. Lebeau, J.-Y. Montchambert, M. Fenollós, and B. Müller, eds., *Les Espaces Syro-Mésopotamiens. Dimensions de l'expérience Humaine Au Proche-Orient Ancien. Volume d'hommage Offert à Jean-Claude Margueron*, 403-414, Subartu 17, Brepols, Turnhout, 2006.
- , Mozan/Urkesh in the Late Chalcolithic Period, in J. Becker, R. Hempelmann, and E. Rehm, eds., *Kulturlandschaft Syrien: Zentrum Und Peripherie; Festschrift Für Jan-Waalke Meyer*, Alter Orient Und Altes Testament 371, Ugarit-Verlag, Münster, 2010a, 261-290.
- , Uqnitum Und Tar<sup>3</sup>am-Agade. Patronage and Portraiture at Urkesh, in J. C. Finke, ed., *Festschrift Für Gernot Wilhelm Anlässlich Seines 65. Geburtstages am 28. Januar 2010*, ISLET, Dresden, 2010b, 185-202.
- , Apprenticeship and Learning from the Ancestors: The Case of Ancient Urkesh, in W. Wendrich, ed., *Archaeology and Apprenticeship: Body Knowledge, Identity, and Communities of Practice*, University of Arizona Press, Tucson, 2012, 203-223.
- , Landscape and Spatial Organization: An Essay on Early Urban Settlement Patterns in Urkesh, in D. Bonatz, L. Martin, eds., *100 Jahre Archäologische Feldforschungen in Nordost-Syrien - Eine Bilanz*, Schriften Der Max Freiherr von Oppenheim-Stiftung 18, Harrassowitz, Wiesbaden, 2013, 149-166.
- , Premessa, in G. Buccellati, *Dal profondo del tempo: all'origine della comunicazione e della comunità nell'antica Siria*, Società editrice fiorentina, Firenze, 2014, 5-6.
- , Power and Identity Construction in Ancient Urkesh, in P. Ciafardoni, D. Gianessi, eds., *From the Treasures of Syria. Essays on Art and Archaeology in Honour of Stefania Mazzoni*, Uitgaven van Het Nederlands Instituut Voor Het Nabije Oosten Te Leiden 126, Nederlands Instituut voor het Nabije Oosten, Leiden, 2015, 111-130.
- , ed., *Georgia: paese d'oro e di fede. Identità e alterità nella storia di un popolo*, Società editrice fiorentina, Firenze, 2016a.
- , The Urkesh Ceramics Digital Book, in P. Corò, E. Devecchi, N. De Zorzi, and M. Maiocchi, eds., *Libiamo Ne' Lieti Calici Ancient Near Eastern Studies Presented to Lucio Milano on the Occasion of His 65th Birthday by Pupils, Colleagues and Friends*, Alter Orient Und Altes Testament 436, Ugarit-Verlag, Münster, 2016b, 721-734.

- , Urkesh: The Morphology and Cultural Landscape of the Hurrian Sacred, in P. Matthiae, ed., *L'archeologia Del Sacro e l'archeologia Del Culto. Sabratha, Ebla, Ardea, Lanuvio. Ebla e La Siria Dall'età Del Bronzo All'età Del Ferro*, Atti Dei Convegni Lincei 304, Accademia dei Lincei, Roma, 2016c, 99-113.
- , Women's Power and Work in Ancient Urkesh, in S. Budin, ed., *Women in Antiquity: Real Women across the Ancient World*, Routledge, London, 2016d, 48-63.
- , Celebrating Life in Mesopotamia, *Backdirt Annual Review of the Cotsen Institute of Archaeology at UCLA*, 2018a, 58-64.
- , Urkesh Insights into Kura-Araxes Social Interaction, in A. Batmaz, A. Michalewicz, and A. Robinson, *Context and Connection: Essays on the Archaeology of the Ancient Near East in Honour of Antonio Sagona*, Orientalia Lovaniensia Analecta 268, Peeters, Leuven, 2018b, 107-124.
- , Images of Work in Urkesh, In *Pearls of the Past. Studies on Near Eastern Art and Archaeology in Honour of Frances Pinnock*, edited by M. D'Andrea, M.G. Micale, D. Nadali, S. Pizzimenti, and A. Vacca, 413-28. Marru 8. Münster: Zaphon. 2019.
- Kelly-Buccellati, M., P. Matthiae, and M. Van Loon, eds., *Insight Through Images: Studies in Honor of Edith Porada*, Bibliotheca Mesopotamica 21, Undena Publications, Malibu, 1986.
- Kelly-Buccellati, M., L. Mount Williams, Terqa Preliminary Reports, No. 3: Object Typology of the Second Season: The Third and Second Millennia, *Syro-Mesopotamian Studies* 1(5), 1977, 143-169.
- Kelly-Buccellati, M., J. Omar, Urkesh Ceramics from the Palace Area, *Annales Archéologiques Arabes Syriennes* 47/48, 2004, 45-61.
- Kelly-Buccellati, M., W. Shelby, Terqa Preliminary Reports No. 4: A Typology of Ceramic Vessels of the Third and Second Millennia, *Syro-Mesopotamian Studies* 1(6), 1977, 171-236.
- , Middle Euphrates Ceramics in the Third and Second Millennia: A View from Terqa, in M. Al-Maqdissi, V. Matoïan, and C. Nicolle, eds., *Céramique de L'Âge Du Bronze En Syrie II L'Euphrate et La Région de Jézireh*, Institut français d'archéologie du Proche-Orient, Beyrouth, 2007, 119-151.





## AUTHOR BIOGRAPHIES

### MAAMOUN ABDULKARIM

Maamoun Abdulkarim graduated PhD from France in 1997 in classical archeology. He was appointed to the University of Damascus since 2000 and graduated to become a Full professor in the Department of Archeology since 2010. He appointed as Director of scientific affairs and Museums affairs between 2000 and 2004 in DGAM, Head of Department of archeology at the University of Damascus between 2009 and 2012. He appointed as Director General of Antiquities and Museums in Syria from August 2012 until September 2017. He is Co-Director of archaeological French-Syrian joint mission in Northern Syria since 2000. He published a number of books and dozens of scientific researches in several languages. He participated in dozens of scientific conferences in order to protect the cultural heritage during the wars. He received a number of international awards and honors for the efforts exerted to protect the Syrian cultural heritage during the years of war.

### NEVILLE AGNEW

Neville Agnew is a principal project specialist at the Getty Conservation Institute having joined the institute from Australia in 1988. His PhD is in chemistry. His work at the Getty has involved multi-year collaborative projects, mainly in archaeological and cultural site preservation in China, Egypt, Australia, and Africa. He has received awards from the Chinese government for heritage preservation. Currently he is developing a network for rock art promotion as global heritage.

### SILVIA ALAURA

Silvia Alaura, Hittitologist, works as a researcher at CNR, Rome. She studied at the University of Florence and carried out post-doctoral research at the Altorientalisches Seminar of the Freie Universität Berlin as a fellow of the Deutscher Akademischer Austauschdienst (DAAD) and the Gerda-Henkel-Stiftung. She has participated in archaeological excavations at Tell Barri and Tell Afis (Syria). Since 2014 she directs the project “Gruppo di Ricerca Interdisciplinare di Storia degli Studi Orientali” (GRISSE).

### MOHAMMED ALKHALID

PhD in Ancient Near Eastern Archaeology from Sapienza University of Rome, since 2006 Mohammed Alkhalid is member of Ebla expedition. His research focuses on the social transformation from third into second Millennium BC in inner Syria and the material culture of the middle Bronze Age in Ebla. Currently involved in the European founded project in the university of Bologna (Waladu) that deal with the development of the archaeological education and capacity building of Iraqi archaeologist.

### SHAHMARDAN N. AMIROV

Institute of Archaeology, Russian Academy of Sciences. Shahmardan N. Amirov is specialized on the archaeology of the late prehistoric period of Caucasus and Mesopotamia regions. Participant of the research project Tell Hazna. Scientific interests: quantitative methods of pottery analysis of Neolithic-Early Bronze periods, and investigation of climate fluctuations of the Holocene era.

### ALFONSO ARCHI

Former professor of Hittitology at the Università di Roma - La Sapienza. Epigraphist of the Missione Archeologica Italiana in Siria (La Sapienza).

### DOROTA BIELIŃSKA

Assistant researcher at the Institute of Mediterranean and Oriental Cultures of the Polish Academy of Sciences (Warsaw), member of several Polish field missions in northern Syria (Tell Rad Shaqrah and Tell Arbid) and afterwards in Kuwait (Bahra 1) and Oman. Author of papers on various categories of small findings from north Mesopotamia and recently works on collection of III<sup>rd</sup> mill. BC *cretulae* from Tell Arbid.

### PIOTR BIELIŃSKI

Professor of Archeology at the University of Warsaw, former Director of the Polish Centre of Mediterranean Archeology. Director of Polish archaeological missions in northern Iraq (Tell Rijim), northern Syria (Tell Djassa el-Gharbi, Tell Rad Shaqrah, Tell Arbid) and recently in Kuwait (Bahra 1) and Oman (Qumayrah Valley). He is specializing in Chalcolithic period and Bronze Age glyptics and as well as architecture of Greater Mesopotamia including settlement patterns.

### LUCA BOMBARDIERI

Associate Professor in Mediterranean Prehistory is Associate Professor in Mediterranean Prehistory at the University of Torino (Italy). He supervised the excavation of the Neo-Assyrian palace at Tell Barri/*Kahat* (Syria) and specialises in the

archaeology of Bronze Age Cyprus. He is director of the Erimi Archaeological Project and is currently leading the excavation at Bronze Age Erimi-*Laonin tou Porakou* (Cyprus). He is interested in the development of island identities and social changes in the emergence of eastern Mediterranean complex societies.

#### MARCO BONECHI

Marco Bonechi, Assyriologist, works as researcher at the Istituto di Studi sul Mediterraneo Antico (ISMA), CNR, Rome. Trained in Florence and Paris, his studies focus on cuneiform documentation of the Ancient and Middle Bronze Ages, and in particular on those found in Northern Levant and Upper Mesopotamia.

#### FEDERICO BUCCELLATI

Federico Buccellati is a Near Eastern Archaeologist specializing in architecture, cultural heritage and digital humanities. He is the Field Director of the Mozan/Urkish Archaeological Project and the Deputy Director of the International Institute for Mesopotamian Area Studies; he is also the General Editor of *Bibliotheca Mesopotamica*, published by Undena Publications. He received his PhD in 2014 from the Goethe Universität, Frankfurt a.M. and is currently a Research Associate at the Freie Universität Berlin.

#### AMALIA CATAGNOTI

Amalia Catagnoti is Associate Professor of Assyriology at the University of Florence. She specializes in the study of the 3rd millennium Ebla texts, publishing administrative and chancery documents. She has written the volumes “La grammatica della lingua di Ebla” (2012) and “La paleografia dei testi dell’amministrazione e della cancelleria di Ebla” (2013). She directs the project “The Prosopography of Ebla” whose results are available at <https://www.sagas.unifi.it/vp-336-prosopographyebbla.html>.

#### DOMINIQUE CHARPIN

Dominique Charpin is professor at the Collège de France. After being field epigraphist in Mari (Syria) and Larsa (Iraq), he has been working since 2015 with the *American mission which took over the excavation of Ur*. He is the author of *Lire et écrire à Babylone* (2008), *La Vie méconnue des temples mésopotamiens* (2017) and «*Tu es de mon sang !*» *Les alliances dans le Proche-Orient ancien* (2019). He is co-editor of the *Archives Royales de Mari*, director of the *Revue d’assyriologie et d’archéologie orientale* and responsible for the website [www.archibab.fr](http://www.archibab.fr).

#### CAITLIN C. YATES

Caitlin Chaves Yates is an archaeologist specializing in third-millennium BCE urbanism. From 2007 through 2016, she has been affiliated with the Tell Mozan/Urkish Project working at the excavations in Tell Mozan, Syria, and producing and editing digital publications. She received a PhD in Archaeology from Boston University in 2014, followed by a postdoctoral fellowship at the Berliner Antike-Kolleg, and the Andrew W. Mellon Curatorial Research Fellowship at the Metropolitan Museum of Art. She currently works in corporate trade relations.

#### MARTA D’ANDREA

Marta D’Andrea got her PhD at Sapienza University of Rome. She is an Italian archaeologist with extensive fieldwork and research experience in the Levant. She has participated in Italian and international projects in Syria, Lebanon, Palestine, and Jordan. She is a co-director of the *Archaeological Expedition to Khirbat Iskandar* Jordan and of the *Madaba Regional Archaeological Museum Project* in Jordan. She is also a senior staff member of the Italian Archaeological Expedition to Ebla (Syria) of Sapienza University of Rome.

#### VITTORIA DALL’ARMELLINA

Vittoria Dall’Armellina is a PhD candidate at Ca’ Foscari University of Venice who specialises in the archaeology of the Southern Caucasus and Anatolia and on their connections with the Aegean region. Her research project, “The aristocratic revolution. *Insignia dignitatis* in the Bronze Age, from the Southern Caucasus to the Aegean”, focuses on the diffusion of elite burials and precious metal objects and weapons over this vast region.

#### ROBERTO DAN

Roberto Dan is a member of ISMEO – International Association of Mediterranean and Oriental Studies and Research Fellow at Tuscia University. He is an archaeologist specialised in architecture, history and landscape archaeology of the Near East, focused on the 1st millennium BC (Urartu, Assyria, Mannea, Achaemenid Empire). He obtained his PhD from the ‘Sapienza’ University of Rome, with a thesis on the archaeological landscape of Urartu. Roberto has conducted fieldwork in Armenia, Georgia, Turkey and Iran. He is director of the Archaeological Mission to South Caucasus – ISMEO (AMSC), a project cofinanced by the Ministry of Foreign Affairs and International Cooperation of the Italian Republic, which involves archaeological activities in Armenia (Kotayk Survey Project since 2013; Vayots Dzor Project since 2015) and Georgia (Samtskhe-Javakheti Project since 2017), with excavations, among the others, in the Urartian sites of Solak-1 and Yelpin-1. In 2015, he published a book devoted to the analysis of historical and architectural relations between Urartu and the Achaemenid Empire.

#### MARTHA DEMAS

Martha Demas is a senior project specialist at the Getty Conservation Institute (GCI). She received her doctorate in archaeology and master's degree in historic preservation planning. Since 1990 when she joined the GCI, she has been involved in international field projects in China, Egypt, the Mediterranean, Belize, and Tanzania, and in developing methodologies, guidelines, and training courses, with a principal interest in conservation and management of archaeological sites.

#### RITA DOLCE

Associate Professor of Archeologia e Storia dell'Arte del Vicino Oriente Antico from 1998 at the Università degli Studi di Palermo and from 2008 at the Università degli Studi RomaTre. Member of the MAIS at Ebla (Tell Mardikh) from 1973. Her researches include the urban topography of larger towns in Mesopotamia and Syria during the 3rd mill. BC and the identification of the functions of main buildings, the iconography of royalty as an expression of the conception of power in its variables over time, and visual communication in the figurative documentation of artistic works and handicrafts, in particular on the theme of war, as a means of transmitting values and meanings aimed at dissemination and knowledge in different spheres of Near Eastern archaic societies.

#### ERNESTINE S. ELSTER

Ernestine S. Elster, Cotsen Institute of Archaeology (CioA), UCLA. Selected list of publications: *Sitagroi, Excavations in Northeast Greece 1968-1970: Final Report*, E. S. Elster and C. Renfrew, eds., MA 20, CioA, 2004; *Archaeology of Grotta Scaloria: Ritual in Neolithic Southeast Italy*, E. S. Elster, J. Robb, E. Isetti and A. Taverso, eds., MA 38, CioA, 2016; Textile Tools from Sitagroi in E. Andersson Strand and M.-L. Nosch, eds., *Tools, Textiles and Contexts*, Ancient Textiles Series, Oxbow Books, Oxford, 2015, 299-308; Marija Gimbutas: Setting the Agenda, in S. Hamilton, R. D. Whitehouse and K. I. Wright, eds., *Archaeology and Women*, Left Coast Press, Walnut Creek, CA, 2007, 83-120; Figuring Out Social Archaeology at Sitagroi, in J. Cherry, C. Scarre and S. Shennan, eds., *Explaining Social Change: Studies in Honor of Colin Renfrew*, McDonald Inst. Mono., Cambridge 2004, 81-91.

#### STEFANIA ERMIDORO

Stefania Ermidoro is an Ancient Near Eastern historian and Assyriologist, mainly working on aspects of first-millennium BCE social and cultural history; her research interests also cover the history of Assyriology and the rediscovery of Ancient Near East in modern times. Since 2008 she cooperates with the Tell Mozan/Urkish archaeological project, and since 2018 she is the Director of the *Associazione per la Valorizzazione dell'Archeologia e della storia antica* (AVASA).

#### DIANE FAVRO

Diane Favro is Distinguished Research Professor of Architecture and Urban Design, UCLA. Her publications include *Roman Architecture and Urban Design* (with Fikret Yegül, forthcoming), *The Urban Image of Augustan Rome* (1996), numerous articles on ancient architecture and cities, and award-winning digital visualizations. She was the Samuel H. Kress Professor at the National Gallery, Resident at the American Academy in Rome, and President and Fellow of the Society of Architectural Historians.

#### CANDIDA FELLI

Candida Felli lectures in Near Eastern Archaeology at the University of Florence. She has taken part into fieldwork activities in Syria and Iraq. Her publications include the books *Dopo la morte* (2015) and (as editor) *How to Cope with Death: Mourning and Funerary Practices in the Ancient Near East* (2016).

#### ELLERY FRAHM

Ellery Frahm is an archaeological scientist at Yale University. His doctoral thesis (University of Minnesota, 2010) involved the obsidian artifacts unearthed at Tell Mozan, where he conducted fieldwork with Giorgio Buccellati and Marilyn Kelly-Buccellati in 2006. Since then, his work has largely focused on the Southern Caucasus, although his other projects span from Kenya to China. He still publishes on Syrian archaeology, most recently on the sites of Yabroud Rockshelter II and Dura Europos.

#### PELIO FRONZAROLI

Pelio Fronzaroli – Emeritus Professor in the University of Florence, Fellow of the Accademia dei Lincei (Rome), Accademia La Colombaria (Florence). Member of the Italian Archaeological Expedition at Ebla since 1965, his publications include *Testi rituali della regalità*, 1993; *Testi di cancelleria: i rapporti con le città*, 2003; *Testi di cancelleria: il re e i funzionari*, I, 2010 (co-authored with A. Catagnoti); *Testi di cancelleria: il re e i funzionari*, II, forthcoming (co-authored with A. Catagnoti).

#### THOMAS GAMKRELIDZE

Thomas V. Gamkrelidze is a Georgian linguist and orientalist, Academic and honorary President of the Georgian Academy of Sciences (GAS), Foreign Associate of the American National Academy of Sciences and Academic of the Russian Academy of Sciences. Author of many scientific works, such as “Indo-European and the Indo-Europeans” (with V. V. Ivanov), he has received a number of prizes, among them Lenin Prize, Humboldt Prize and Ivane Javakhishvili Prize.

#### RICK HAUSER

Rick Hauser, senior staff member at Tell Mozan, is also a producer, director, and writer in television and media. His career is characterized by the creation of original formats to present arts, culture and social issues. Mentorship and interactive coaching across disciplines are central to this work. His published archaeological studies include volumes on Mozan's figurines, equid domestication in 3rd-millennium Mesopotamia and unprovenienced terracotta objects stolen from Syria.

#### FRANK HOLE

C. J. MacCurdy Professor of Anthropology, Emeritus, and Senior Research Scientist, Yale University, Frank Hole received his PhD from the University of Chicago in 1961. He was elected member of the National Academy of Sciences in 1980. His recent research in Syria includes survey and excavations in the Khabur region: Tells Ziyadeh, Kuran, and Umm Qseir. His recent monograph on Syria is *Homesteads on the Khabur: Tell Ziyadeh and Other Settlements*, with Y. Tonoike (2016).

#### AFAF LAILA

Afaf Laila graduated a PhD from Damascus University in 2012, in Classical Archeology, specializing in the study of architectural decoration in the ancient villages of northern Syria (Dead Cities) during the Early Byzantine Period. Professor of Classical Archeology at the University of Damascus - Faculty of Tourism. Member of the Syrian-French archaeological mission in northern Syria in 2009-2010, participated in a number of archaeological surveys in the Dead Cities, published two books on decorations in the dead cities in 2011 and 2014 by the Directorate General of Antiquities and Museums, and published several articles in Syrian Archaeological Encyclopedia and Damascus University revue, *Annals Archéologiques Arabes Syriennes*.

#### MARTA LUCIANI

Marta Luciani is Professor of Ancient Near Eastern Archaeology and History at the University of Vienna. She is Director of the Joint Archaeological Project at Qurayyah, Saudi Arabia and Co-Director of the Northwest Sulaimaniyah Survey and Excavations at Chemchemal, Iraqi Kurdistan.

She has headed interdisciplinary archaeological projects also in Syria and Turkey and has published extensively on ANE archaeology and history. She is a member of the Archäologischer Rat Österreichs. Since 2013 she has been studying the material from Nuzi and Tell Kheleifeh at the Harvard Semitic Museum.

#### YASMINE MAHMOUD

Yasmine Mahmoud graduated in 2010 from the University of Damascus, department of Archaeology. She is currently a PhD student at Università degli Studi di Pavia, focusing her research on human figurines from Urkesh/Tell Mozan. She participated in excavations and workshops in Tell Mozan, old city of Damascus, Georgia and Bordeaux. She has been working with the Urkesh project since 2008. And she is currently responsible for the activities of "Urkesh beyond Urkesh" project in Syria.

#### MASSIMO MAIOCCHI

Since 2017, Massimo Maiocchi is a research fellow at the Humanities Department of Ca' Foscari University of Venice. He is an expert in History of the Ancient Near East and Assyriology (Sumerian, Akkadian, Eblaite), with special regards to cuneiform texts from the fourth and third millennia BCE. Previously, he was a post-doc and lecturer at the Department of Near Eastern Languages and Civilizations of the University of Chicago, where he expanded his research interests as to include Grammatology (the comparative study of writing systems). He published two monographs concerned with the edition of Old Akkadian cuneiform tablets from southern Mesopotamia (Cornell University Studies in Assyriology and Sumerology 13 and 19), as well as several articles in specialized journals. His research primarily focuses on how writing affected social and urban development in early Mesopotamia, approaching ancient sources through the prism of traditional philology, textual criticism, and Digital Humanities. He is associate editor of the Ebla Digital Archives project (<http://ebda.cnr.it>, under the direction of L. Milano), providing the on-line edition of the entire cuneiform corpus unearthed at Ebla (modern Tell Mardikh Syria). He also took part to archaeological expeditions in Syria (Tell Mozan) and survey projects in Iraq.

#### MARIA G. MASETTI-ROUAULT

Maria Grazia Masetti-Rouault is Directeur d'études/Professor at École Pratique des Hautes Études - PSL University, Paris, Chair of Religions of the Syro-Mesopotamian World - History and Archaeology. After having worked, since 1987, in Terqa, Tell Masaikh-Kar-Assurnasirpal and Bir-el-Hadad (Lower Middle Euphrates valley, Syria), in the context of the Terqa Region Project, since 2015 she is the Director of the Qasr Shemamok French mission (Kurdistan, Iraq).

#### PAOLO MATTHIAE

Paolo Matthiae, Director of the Italian Archaeological Expedition at Ebla since 1964, Emeritus Professor of Archaeology and Art History of the Ancient Near East in Sapienza University of Rome, is Member of the National Academies of Italy, France, Austria, Sweden and of the German Archaeological Institute, received the ad Honorem Doctorate of the Universities of Madrid and Copenhagen, the Merit Syrien and the title of Knight of Great Cross of Italy. President of the International Congress of the Archaeology of Ancient Near East (ICAANE) since its foundation in 1998.

STEFANIA MAZZONI

Stefania Mazzoni, professor of “Archaeology and Art History of the Ancient Near East” (University of Florence), has conducted excavations in sites of Syria, and directed the archaeological mission of Tell Afis (Syria: Idlib), and Uşaklı Höyük (Turkey: Yozgat). She has investigated the 3rd millennium “Second Urbanization” of Syria, and the formation of the 1st millennium Luwian and Aramaean cultures, studying pottery and seals, visual arts and architecture.

MARIA G. MICALE

Maria Gabriella Micale is an archaeologist and art historian of the ancient Near East based at the FU in Berlin. Beside her extensive field activities in Syria as member of the Italian Archaeological Expedition at Ebla, she is an expert on Assyrian images of architecture and on the history of archaeological research in the Near East, with a special focus on graphic architectural documentation. She is currently P.I. of a project (DFG - funding scheme) on the reassessment of the unpublished materials from the Achaemenid levels of Tell Mardikh.

RAUF M. MUNCHAEV

Institute of Archaeology, Russian Academy of Sciences. Rauf M. Munchaev is specialized on the archaeology of the late prehistoric period of Caucasus and Mesopotamia regions. Field Director of several archaeology missions, including Yarim-Tepe (North-Western Iraq), and Tell Hazna (North-Eastern Syria).

DAVIDE NADALI

Davide Nadali is Associate Professor of Near Eastern Archaeology at the Sapienza University of Rome. He worked at Ebla (Syria). Since 2014, he is co-director of the archaeological excavation at Tell Zurghul/Nigin (Iraq); in 2019 he has been appointed Vice-Director of Ebla Expedition. His main interests concern: art, architecture and urbanism in the Assyria; incipient urbanism in Mesopotamia; ancient warfare; iconography and image science in Mesopotamia and Syria with articles as single author and co-authored studies on the impact of pictures in ancient societies.

LUCA PEYRONEL

Luca Peyronel is Professor of Near Eastern Archaeology and Art History at University of Milan. He is Director of the Italian Archaeological Expedition in the Erbil Plain, Kurdistan Region of Iraq, since 2013 and he carried out excavations at Ebla and Tell Tuqan in Syria since 1991. His main interests include ancient economics, craft and technologies in the Near East, and cultural interactions and commerce in the Persian Gulf, Iran and Mesopotamia.

FRANCES PINNOCK

Frances Pinnock is professor of Oriental Archaeology in the Sapienza University of Rome and is Co-Director with P. Matthiae of the Italian Expedition to Ebla since 2010. She is director of the journal “Contributi e Materiali di Archeologia Orientale”, responsible for the series “Materiali e Studi Archeologici di Ebla”; Redactor in Chief of the journal “Studia Eblaitica”. She is author of six monographs and of more than 150 scientific and popular articles.

DANIEL T. POTTS

Daniel T. Potts is Professor of Ancient Near Eastern Archaeology and History at the Institute for the Study of the Ancient World (New York University). A graduate of Harvard (AB 1975, PhD 1980), he previously taught in Copenhagen, Berlin and Sydney. He works primarily on the Iranian world and is currently engaged in a joint project involving the Directorate of Antiquities (Kamal Rasheed Raheem, Sulaimaniyah, Kurdistan Regional Government), the Ludwig-Maximilian University of Munich (Prof. Karen Radner) and New York University at the multi-period site of Gird-i Rostam, north of Penjwin.

MARINA PUCCI

Marina Pucci is a near eastern archaeologist, has a tenure track position at the Università degli studi di Firenze (Italy) and is research associate at the Oriental Institute in Chicago (USA). She completed her PhD at the FU-Berlin, has been working on the field since 1997 in Syria (Afis and Shech Hamad) and since 2011 in Turkey (Zincirli and Alalakh). She is PI in projects for the publication of long-dormant archaeological archives (German excavations in Zincirli and American excavations at Chatal Höyük).

MARCO RAMAZZOTTI

Marco Ramazzotti is researcher and professor of Archaeology and Art History of the Ancient Near East in the Sapienza University of Rome. He is director of the “Laboratory of the Analytical Archaeology and Artificial Adaptive Systems” (LAA&AAS), co-director of the “Atlas of the Ancient Near East” (AANE) and member of the directive committee of the Journal “Scienze dell’Antichità” at Sapienza Department of Classics. He combines researches on the relationships among Analytical Archaeology, Artificial Intelligence and Natural Computing and historical-artistic, semiotic and cognitive analysis of the ancient Syrian, Mesopotamian and Arabian cultural milieu. Since the 90s he has participated in many archaeological excavations, prospections, surveys, and restoration field projects in the Western Asia and Africa. In Syria, he has been the field director of excavations and coordinated different interdisciplinary scientific teams for the planning and opening of the Ebla (Tell Mardikh) Archaeological Park.

OLIVIER ROUAULT

Olivier Rouault, Honorary Professor of Near Eastern Archaeology in Lyon2 University, France, began his career as researcher at Collège de France and member of the team in charge of the publication of the Mari Archives. He started archaeological research with G. and M. Buccellati in Terqa (Syria). On 1989 he took on the direction of the mission, enlarging the research to all the Terqa region. Since 2010, he opened, with M. G. Masetti-Rouault a new archaeological project in Qasr Shemamok, ancient Kilizi (Iraqi Kurdistan).

ELENA ROVA

Elena Rova is professor of 'Near Eastern Archaeology' at Ca' Foscari University of Venice and co-director of the Georgian-Italian "Shida Kartli" and "Lagodekhi" archaeological projects. Her main research field is the archaeology of Upper Mesopotamia, Anatolia and the Southern Caucasus in the Chalcolithic and Bronze Age. She has been doing fieldwork in Northern Iraq, in the Syrian Jezirah and in Georgia, and has extensively published on the history and material culture of these regions.

MONICA L. SMITH

Monica L. Smith is Professor of Anthropology and Professor in the Institute of the Environment and Sustainability at the University of California, Los Angeles. Her research focuses on the economic and social implications of early urbanism through archaeological fieldwork in the Indian subcontinent. Her books include *Excavations at Sisupalgarh* (2008, co-authored with R.K. Mohanty), *A Prehistory of Ordinary People* (2010), and *Cities: The First 6,000 Years* (2019).

SEBASTIANO SOLDI

Sebastiano Soldi works as Collections Registrar at the Museo Archeologico Nazionale in Florence and is Research Associate at the Eberhard Karls Universität Tübingen for the Chicago-Tübingen Expedition at Zincirli (Turkey). Fellow of the Metropolitan Museum of Art, New York, he has taken part to archaeological projects in Syria and Turkey, carrying out his researches on Late Bronze and Iron Age material culture of the Northern Levant.

YUKIKO TONOIKE

Associate Research Scientist, Yale University, Yukiko Tonoike received her PhD from Yale University in 2009. She specializes in archaeometric approaches to ceramic analysis, particularly petrographic analysis of Near Eastern ceramics. She has excavated in Turkey, as well as Ecuador, Guatemala, and the US. She is currently working on the analysis of the ceramics from the Yale University surveys of the Middle Khabur River region in Syria.

MARIE C. TRÉMOUILLE

Marie Claude Trémouille is a philologist whose research mainly focuses on the Culture of the Hittites, the Hurrians and the Urartians. His primary interests concern the history and religion of those peoples, who lived in the Eastern Near East between the third and first millennium BC.

One of his specific research programs is dedicated to the region called in the Hittite texts "Kizzuwatna country", that is today's flat Cilicia. She also carries out specific studies of onomastics, lexicography and toponymy, as well as on important deities such as Hebat, Šarrumma or Haldi.

She collaborated on the Hethitische Forschungen project of the Akademie der Wissenschaften und der Literatur of Mainz, with the publication of two volumes of copies of tablets from Boghazköy (the ancient Hittite capital Hattusa)

She was acting director of the Institute of studies on the Civilizations of the Aegean and the Near East (ICEVO) of the CNR; today she is a member of ISMEO.

AGNESE VACCA

Agnese Vacca (PhD) is an archaeologist of the ancient Near East. She conducted research in Syria and Iraq since 2005, as field archaeologist and ceramic specialist. She is deputy-director of the Italian Expedition in the Erbil Plain (MAIPE, Iraqi Kurdistan) of the University of Milan. Her research interests focus on 4th and 3rd millennium BC urbanizations; the definition of local chronologies; social complexity and material culture; technology and ancient economies.

WILLEKE WENDRICH

Willeke Wendrich (PhD Leiden University, 1999) is director of the Cotsen Institute of Archaeology at the University of California, Los Angeles. She holds the Joan Silsbee Chair in African Cultural Archaeology and is professor of Egyptian Archaeology and Digital Humanities in the Department of NELC at UCLA. Her work in Egypt and Ethiopia focuses on community archaeology. She is the Editor-in-Chief of the online *UCLA Encyclopedia of Egyptology*, Board member of the Institute for Field Research and the Museo Egizio in Turin.

# BETWEEN SYRIA AND THE HIGHLANDS

*STUDIES IN HONOR OF  
GIORGIO BUCCELLATI & MARILYN KELLY-BUCCELLATI*



# BEASTS AND WINE. ZOOMORPHIC VESSELS AND THE NORTHERN CORRIDOR OF THE NEAR EAST

VITTORIA DALL'ARMELLINA - ELENA ROVA

*Dipartimento di Studi Umanistici, Università Ca' Foscari, Venezia*

## *Abstract*

The recent discovery in Georgia of two Kura-Araxes zoomorphic vessels with possible analogues in Anatolia and in the Aegean opens up the intriguing possibility that the diffusion of these containers for the ritual consumption of alcoholic beverages followed a corridor crossing in EW direction the northern sector of the Near East.

### 1. THE “NORTHERN CORRIDOR”

There is little doubt that Near Eastern archaeology profoundly changed in the course of the last thirty years. Starting from the First Gulf War, in the early 1990s, the traditional core of archaeological research, the Mesopotamian alluvium, has been plagued by a situation of almost continuous political instability and conflict. The persisting crisis that affects Syria and part of Iraq and the difficult – or worsening – conditions of work in neighbouring countries such as Iran and Turkey have forced many international archaeological expeditions to abandon field research in a large part of what we used to identify as the “Near East”.

On the other hand, new possibilities of field research have opened up in regions that, until recently, had been neglected by western researchers, which have, as a consequence, become the focus of intensive investigation. This is the case of the new independent states which occupy the territories of the Central Asian and Caucasian Republics of the former Soviet Union. The Southern Caucasus (Georgia, Armenia and Azerbaijan), in particular, attracted the attention of numerous Near Eastern archaeologists previously working in areas, like Upper Mesopotamia and Anatolia, which in the course of their history had deep and continuous contacts with this region located at the northern limit of the Near East.<sup>1</sup>

Typically, intense field research in new, or relatively unexplored regions causes researchers interest to focus on long-distance relations, “trade” and exchange of raw materials, artefacts, technologies, and ideas, as opposed to the internal development dynamics of each individual area.<sup>2</sup> Within this general framework, we have recently

drawn attention on the existence, within the Near East, of what we may call the “Northern Corridor”, i.e. a network of connections which crosses the northern portion of the Near East in East-West direction, and is largely independent from, even if not completely alien to, the “Levantine Corridor” which connects Iran and the Indus valley with the Mediterranean Sea via Mesopotamia and Syria. As becomes increasingly evident, the Southern Caucasus plays a crucial role in this “Northern Corridor”, which connects Northern Iran and the Southern Caspian area with Anatolia and parts of Northern Mesopotamia and continues, beyond these, towards the shores of the Aegean Sea to the west and towards Central Asia to the east.<sup>3</sup>

The existence of the “Northern Corridor” at least since the end of the 5<sup>th</sup> millennium BC (Late Chalcolithic period) and its continuation throughout the Bronze Age is suggested not only by the circulation of exotic materials (especially metals), but also by the presence, in the Southern Caucasus, in Anatolia and in the Aegean, of a number of artefacts types and cultural practices, which show a basic similarity with each other, and set these regions apart from the better known traditions of Mesopotamia and the Syro-Levantine region.

A case at issue is the diffusion of a series of characteristic items – weapons but also parade standards and different types of ornaments –,<sup>4</sup> which are apparently connected with a warlike symbolism, and characterise a sort of warrior aristocracy, whose concept apparently originated and developed in the 4<sup>th</sup> millennium BC between the Caucasus and Anatolia,

<sup>1</sup> For a discussion of this recent phenomenon and its implications, see Rova, Tonussi 2017; Rova, Gilibert 2018; Rova forthcoming a.

<sup>2</sup> In our case, this is well represented by work by the late Andrew Sherrat (Sherrat 2004) and by Toby Wilkinson (Wilkinson

2014) about the complex network of long-distance connections which crosses Eurasia and the Near East in particular during the Bronze Age.

<sup>3</sup> Rova forthcoming a, especially § 5 and 6.

<sup>4</sup> This phenomenon is the topic of the PhD research of the first author, which will be extensively discussed in her dissertation. See, in the meanwhile, Dall'Armellina 2017; forthcoming.



and spread from here toward mainland Europe and in particular towards the Aegean area.

The appearance in Anatolia and in the Caucasus between the mid-4<sup>th</sup> and the mid-3<sup>rd</sup> millennium BC of “royal tombs” with a marked “warrior” connotation, which can be considered as one of the first examples of heroisation of the deceased, is also part of the same phenomenon.<sup>5</sup> Later on, in the 2<sup>nd</sup> millennium, monumental tombs with an extraordinary funerary equipment, again characterised by a strong presence of weapons, are found in the Southern Caucasus, in particular in southern Georgia and in northern Armenia with the Trialeti culture.<sup>6</sup> Some of the weapons found inside these tombs, for example the so-called “rapiers” (or long swords),<sup>7</sup> are also attested in the shaft graves of the A<sup>8</sup> and B<sup>9</sup> circles at Mycenae, which are also considered the expression of a hierarchical social structure dominated by a military aristocracy.

In this article we would like to present what, in our opinion, may be another element of a long series of commonalities, which travelled along the “Northern Corridor”: zoomorphic vessels for the ritual consumption of liquids. Our reflections are inspired by the recent discovery, at Aradetis Orgora in Georgia, of a couple of zoomorphic vessels of the Kura-Araxes period, which most probably contained wine. It is a pleasure for us to dedicate them to Giorgio and Marilyn, precious friends of the “Georgian-Italian Shida Kartli Archaeological Project”, and in particular to Marilyn, who witnessed the discovery of the Aradetis Orgora vessels and first described them.

## 2. THE TWO VESSELS FROM ARADETIS ORGORA

Two unique zoomorphic vessels of the Kura-Araxes period were found in 2015 during the third excavation season of the “Georgian-Italian Shida Kartli Archaeological Project” at the Main Mound (Dedoplis Gora) of the Aradetis Orgora/Doghauri complex. This is one of the most important archaeological sites of the Shida Kartli region of Georgia, occupied almost without interruption from the end of the 4<sup>th</sup> millennium BC to the 6<sup>th</sup> century AD.<sup>10</sup>

<sup>5</sup> This is the case of the very rich kurgans of the North-Caucasian Maikop culture of the 4<sup>th</sup> millennium (Sagona 2017, 152-171), of the “royal tomb” of Arslantepe (Palumbi 2004), of the Alcahöyük cemetery in the second half of the 3<sup>rd</sup> millennium (Arik 1937; Kosay, Hakok 1966), and of the contemporary kurgans of the Early Kurgan (Martqopi, Bedeni) period in Georgia (Makharadze *et al.* 2016). For the heroisation of the deceased, see Hansen 2013.

<sup>6</sup> Kuffin 1941.

<sup>7</sup> Abramishvili 2001; Dall'Armellina 2017; forthcoming.

<sup>8</sup> Karo 1930.

<sup>9</sup> Mylonas 1973.

<sup>10</sup> Gagoshidze, Rova 2018a; 2018b.

The two vessels were lying, close to a Kura-Araxes jar, on the burnt floor of a large rectangular room with rounded corners delimited by a 20-30 cm wide wall of yellowish clay, whose size, supported by soil micromorphological analysis, suggests that it was not a normal domestic unit, but most probably a sort of village shrine (fig. 1: a, b).<sup>11</sup> The room belongs to Phase 4a of the local Kura-Araxes sequence, the absolute date of which falls between the end of the 31<sup>st</sup> and the end of the 30<sup>th</sup> century BC.<sup>12</sup> In terms of material culture and relative chronology, Phase 4 belongs to the (late) Kura-Araxes II phase.<sup>13</sup>

After reconstruction, the two vessels are quite similar to each other, differing only in few minor details (fig. 2: a, b).<sup>14</sup> The first one (2414-M-2) was nearly complete, missing only the head (fig. 2: a, d), while the second (2434-M-5 + 2414-C-3) was recomposed and integrated from several fragments (fig. 2: b, e).<sup>15</sup> As restored, the second vessel is ca 19.5 cm high, 25 cm long and 18 cm wide. What remains of the first one (i.e., without the head) is 13.2 cm high and 19.6 cm long; its width at the widest part of the body is 13.0 cm. We can thus suppose that both vessels were originally nearly 20 cm high, while their length varied between 20 and 25 and their width between 13 and 18 cm, with the body of the second one being not only slightly larger, but also of flatter proportions.

Both vessels are mineral-tempered<sup>16</sup> and exhibit a reddish-brownish burnished surface.<sup>17</sup> Their body is

<sup>11</sup> Gagoshidze, Rova 2018b, 503. A detailed discussion of the context of discovery of the two vessels is given in Kvavadze *et al.* 2019. For Kura-Araxes village shrines, cf. Sagona 2017, 248-250.

<sup>12</sup> For radiocarbon dates, see Passerini *et al.* 2016; for further discussion, also Kvavadze *et al.* 2019.

<sup>13</sup> Rova 2014, 52-55.

<sup>14</sup> The vessels are presently stored in the Dedoplis Mindori (Queen's field) fund of the Georgian National Museum in Tbilisi. Their museum inventory numbers are 27-977:11926 and 27-977:11927. One of them has recently been displayed at the exhibitions: “Georgia, cradle of viticulture” (Bordeaux, La Cité du Vin, 31 July 2017 - 5 November 2017) and “Gold und Wein. Georgiens älteste Schätze” (Archaeologisches Museum Frankfurt, 6 October 2018 - 10 February 2019); cf. Lordkipanidze 2017, 83; Giensch, Hansen 2018, 304 f., no. 142.

<sup>15</sup> One fragment (2414-C-3, corresponding to the figure's feet) was recovered separately from, and at a slightly higher level, than the remaining ones. Its fabric is also slightly different from those of the other fragments: it is lighter in colour and contains some brownish *chamotte*, while the other fragments contain only whitish mineral inclusions. It cannot be totally excluded, therefore, that it originally belonged to a third vessel, similar to the other ones.

<sup>16</sup> The fabric of the second vessel is described in the previous note. As far as it can be seen from the surface and the break on the neck, the fabric of the first vessel contains some *chamotte* and some small pebbles.

<sup>17</sup> The surface of the second vessel is partially abraded and shows traces of heavy burning, possibly due to the fire event which caused the destruction of the building. The smooth red surface of

hollow, with an access hole in the back<sup>18</sup>. It is squat and oval in shape, with a low crest in the middle of the back, and rests on three small feet (two in the front and one in the back). The solid ceramic neck rises vertically on a convex breast; it terminates in a flattened head. Only the head of the second vessel is preserved: it widens from the solid oval-section neck into a somewhat flattened triangle with a slightly curved top.

The head (fig. 2: c) shows stylised animal/human features: the sides suggest schematic ears and the nose is represented by an elongated clay pellet. The eyes are slightly recessed, with pupils represented by small protruding dots in the centre. Faint traces of the original painted decoration are preserved: a thin dark reddish band runs along the top of the head and continues on its back, one (or two?) black band(s) run around the neck, which is surrounded at the base by a wider band of lighter reddish colour. The feet of the first vessel are roughly conical, while those of the second one are formed more accurately and convey the impression that the figure is standing on its tiptoes.

As indicated by the slight ridge that, on the first vessel, extends from the side of the neck along the body to the hole in the back, the body was made in two parts. The legs were attached later. It is not clear when the neck was made but, since it is solid and therefore much heavier than any part of the body, it would have been difficult to attach after the body was constructed. In addition, if, as it seems, it functioned as a handle for the vessel, the presence of a join at its junction with the body would have presumably weakened it.

Palynological analyses conducted on three samples (two from the first, and one from the second vessel) highlighted the presence, in all of them, not only of numerous pollen grains of common grapevine (*Vitis vinifera*), but also of pollen from vineyard weeds and plants – e.g. walnut and hazelnut – which are usually grown close to the vineyards and, among non-pollen palynomorphs, of large amounts of vine starch, *Vitis* epidermis, and hairs of the tiny *Drosophila* flies, which typically fly around grapes and wine during the first stage of its production, and easily fall into the large vessels where wine is usually placed. All these elements characterise the spectra obtained from modern wine and from sediments collected in ancient wine containers of different periods. It can therefore be concluded that both vessels must have contained wine.<sup>19</sup>

---

the other vessel is covered by a net of microscopic cracks, which are characteristic of the Kura-Araxes ceramics. A small part of the upper body on the right side is darkened by fire.

<sup>18</sup> The hole on the first vessel, which is the only one which is preserved, is oval-shaped, 2.0 cm wide and has a flange around it on the interior only.

<sup>19</sup> For detailed discussion of the palynological evidence, see Kva-vadze *et al.* 2019.

Although their precise use (for libation, drinking, or pouring the liquid into another drinking vessel) is unclear, their peculiar shape, their context of discovery and their presumed content strongly suggest that the Aradetis Orgora items were connected with ritual practices.

Considering both the overall dimensions of the vessels' hollow body, and the location of the access hole, we may suppose that they may have contained less than half a litre of liquid. The position of the access hole makes it almost impossible to fill them in another way than by immersing the vessel into a larger container; an operation which could be easily accomplished by holding it by the solid animal's neck. The hole is located relatively high on the back side of the animal's body – so that it is theoretically possible that the half-filled vessel could be set down on a flat surface without the liquid flowing out of it – but too low for the vessel to be drained without lifting it by the neck, which would have likely provoked accidental spilling of its content. More probably, therefore, the vessel was drained just after filling it, first by lifting and then by tilting it, thus producing a stream of liquid which could be directed either toward the soil (in the case of a libation) or directly into the drinker's mouth, or into another drinking vessel, such as a cup or a mug.

In the present state of knowledge, the two vessels from Aradetis Orgora are unparalleled within the published Kura-Araxes corpus, in spite of their unquestionably Kura-Araxes fabric, colour and surface treatment, and of the fact that the stylised facial traits represented on the second vessel do not appear out of place in the Kura-Araxes period, as well, as they recall the numerous anthropomorphic or zoomorphic figures that decorate contemporary hearths and andirons<sup>20</sup> or pottery vessels.<sup>21</sup>

On the other hand, their hollow body connects them with six vessels with a globular body and a pedestal in the form of human feet, fragments of which were recently discovered at Arslantepe/Malatya in Level VIB1, which is roughly contemporary with Kura-Araxes Phase 4 at Aradetis Orgora.<sup>22</sup> Unlike the vessels from Aradetis Orgora, these are provided with two access holes, one on the “head” and the other at the end of one of the two “arms”, and have therefore been described by the excavators as “*rhyta*”. They were found in a hut (A 789) located near the eastern corner of a large public building (Building 36), in an

---

<sup>20</sup> Smogorzewska 2004. For the Shida Kartli region see, for instance, a four-legged prop of hearth the form of a turtle shell with a round back from Kvatskhela (Javakishvili, Glonti 1962, 32, pl. IV, nos. 336, 337).

<sup>21</sup> Sagona 1984, part III, *passim*.

<sup>22</sup> Frangipane 2012, 115, fig. 3; 2014, fig. 12; Palumbi *et al.* 2017, 92.

area which was probably used for ceremonial and ritual activities, as demonstrated by the presence, a.o., of a wood-lined basin. Although their contents have unfortunately not been analysed, the excavators supposed that they were used for the consumption or libation of some type of liquid (maybe an alcoholic beverage), in a ritual context.<sup>23</sup>

The general shape of the Aradetis Orgora vessels, their ovoid and slightly flattened body and their long neck were possibly inspired by water birds such as swans and geese. Images of birds are not alien to the Kura-Araxes iconographic repertoire, and in fact occur rather frequently in the decoration of Kura-Araxes vessels,<sup>24</sup> but vessels of this shape are unique in the Southern Caucasus, at least in this period. Interestingly enough, however, as we will argue below, they bear a distinctive resemblance to some Early Bronze Age vessels from two regions of the “Northern Corridor”: Anatolia and the Aegean.

### 3. THE TRADITION OF ZOOMORPHIC VESSELS IN THE ANCIENT NEAR EAST AND IN THE EASTERN MEDITERRANEAN

Animal-shaped vessels in pottery, metal, stone, and other materials were produced in many ancient cultures all over the world, and continue being occasionally produced to this day. They can be very different from each other both in their shape and in their use, and obviously not all of them can be traced to one and the same origin. However, as the volume accompanying the recent exhibition “Animal-Shaped Vessels from the Ancient World: Feasting with Gods, Heroes, and Kings”<sup>25</sup> well highlights, these fascinating objects, which in many cases are unique pieces, show widespread affinities.

Although they have always attracted scholars' and collectors' curiosity, and are therefore well represented in museums and private collections, they are relatively rare within the relevant assemblages, and often represent isolated finds. Both their elaborate shape and the contexts of discovery indicate that they were not intended for everyday use, but for special, ritual occasions. As already suggested by their same morphology, by iconographic sources and by ethnographic analogies, and most recently also confirmed by scientific analyses (chemical analysis of organic residues, palynological analyses etc.) carried out by “biological archaeologists” on ancient specimens, most of them were intended to contain liquids, in particular alcoholic beverages.

Despite the wide variety of animals represented,<sup>26</sup> there is also, in the Old World at least, a clear preference for certain species, *in primis* lions and bulls,<sup>27</sup> rams, stags and other horned animals, but also, interestingly enough, birds and, more rarely but still significantly, hedgehogs/pigs.

Finally, although a considerable number of zoomorphic vessels of all periods are made of pottery and, as a consequence, cannot be considered elite objects reserved to the wealthiest sectors of the population, one can observe, starting at least from the beginning of 2<sup>nd</sup> millennium BC, the development of special zoomorphic vessels made of precious materials (most often metals), which clearly play the role of status symbols and, more specifically, appear to belong to the paraphernalia of the ruling elite.

Scholars generally agree that these commonalities can be explained by the fact that zoomorphic vessels combine the social power of their contents (alcoholic beverages) and of the occasions in which they were consumed (feasts as communal events which shape and reinforce social relationships),<sup>28</sup> and the ambivalent fascination of human beings for animals, which are perceived as “other” but not completely alien, as objects of subjugation but, at the same time, as bearers of mysterious and potentially dangerous powers. It was probably believed that the act of filling the vessel with liquid somehow re-animated the animal, and allowed to transfer its vital essence and qualities to those who drank the fluid which flowed out of it.<sup>29</sup>

The tradition of zoomorphic vessels was especially well attested during the Bronze Age in the Near East and in the Eastern Mediterranean,<sup>30</sup> from which it spread, during the Iron Age and the Hellenistic and Roman periods, to large parts of Eurasia.<sup>31</sup>

Items not only show a large morphological variety, but were also clearly used in different ways and, according to their different uses, had a stable or an unstable base, were equipped with one or two openings or with one or no handle, etc. They have accordingly been classified in different, not always

<sup>23</sup> Palumbi *et al.* 2017, 92.

<sup>24</sup> See Sagona 1984, part III, *passim*.

<sup>25</sup> Ebbinghaus 2018.

<sup>26</sup> Along with containers in the shape of entire animals, vessels in the shape of animal parts, most often of animal heads, and sometimes also of animal protomes are also frequently attested. Although they are clearly part of the same widespread phenomenon, we will not discuss these groups of finds in detail in the following, as they cannot be directly related with the Aradetis Orgora vessels.

<sup>27</sup> In fact, their strength and aggressive behaviour made these two animals ubiquitous symbols of power in many civilisations.

<sup>28</sup> Dietler 2018.

<sup>29</sup> Patton 2018.

<sup>30</sup> For a general synthesis, besides Koehl 2018, see also Koehl 2013. General studies on the topic can be found in Tuchelt 1962 and Koehl 2006 (with a focus on Bronze Age Aegean).

<sup>31</sup> Ebbington 2018, chapters III-VII; Tuchelt 1962.

consistent ways by the various researchers, and are known under different names (*rhyta*,<sup>32</sup> *BIBRU*,<sup>33</sup> *askoi*<sup>34</sup>) in the different scholarly traditions. We will not consider these aspects, for which we refer to previous literature,<sup>35</sup> in the following discussion, but will concentrate on the general distribution of the zoomorphic vessels category instead.

In the Near East, containers in the shape of an animal first appear in the Neolithic period,<sup>36</sup> and remain sporadically attested, in its different regions, throughout the Chalcolithic.<sup>37</sup> Evidence from Uruk-period Mesopotamia<sup>38</sup> is especially interesting in this respect, as not only vessels, both in stone and in pottery, in form of different animals are known from sites in various regions of the Late Uruk “*koinè*” (Khafajah Susa, Jebel Aruda), but similar items are also depicted, among other offers and cultic paraphernalia, on the upper register of the famous Warka vase,<sup>39</sup> which confirms that they played a role in the emerging centrally organised religion of the first urban centres.

After the Uruk period, however, the tradition of animal-shaped vessels almost disappears from the south-Mesopotamian alluvium and becomes rather rare in the rest of Mesopotamia as well. From about 3000 BC, the main focus of distribution of this category of objects apparently shifts westwards, toward Anatolia but especially toward the East Mediterranean Aegean area, where their tradition continues down to the end of the Bronze Age. In the Aegean, zoomorphic vessels give rise to the specific class of vessels known as *rhyta*, whose distinctive feature is the presence of two different openings, a larger and a smaller one.<sup>40</sup>

In the 2<sup>nd</sup> millennium, however, an equally important focus of the distribution of zoomorphic vessels is the Anatolian mainland. Here, they are present in large numbers already during the Assyrian

colony period,<sup>41</sup> and continue being attested, with examples in precious metals and abundant textual evidence attesting their important ritual function, until the fall of the Hittite Kingdom.<sup>42</sup>

While trying to explain the origin of Hittite zoomorphic vessels, scholars have until now tentatively advocated possible Mesopotamian influences in addition to original creation<sup>43</sup>. Similarly, the origins of the widespread fashion of such vessels in the later Achaemenid period has been connected to Mesopotamian influences coupled with an indigenous tradition dating back to the early 1<sup>st</sup> millennium in North-Western Iran.<sup>44</sup>

Material from the Southern Caucasus has not been included in the Harvard exhibition, although recent literature highlights the presence of an enduring tradition of wine-drinking containers, including a number of animal-shaped ones, in the region.<sup>45</sup> In fact, the Southern Caucasus appears as an empty spot on the distribution maps which illustrate the Harvard exhibition catalogue. The Aradeti Orgora vessels offer us the opportunity to integrate this region and its connections with the neighbouring ones in the discussion of the ancient distribution of zoomorphic vessels.

#### 4. ZOOMORPHIC VESSELS ALONG THE “NORTHERN CORRIDOR” IN THE EARLY BRONZE AGE

Although the two vessels from Aradeti Orgora are approximately contemporary with the Uruk specimens discussed above, they are very different, in all respects, from them. Early Bronze Age Anatolia, the nearest western neighbour of the Southern Caucasus,<sup>46</sup> provides some more convincing parallels. Zoomorphic vessels are in fact present in this region since the Neolithic<sup>47</sup>, but their number significantly increases in the Early Bronze Age.

An item from Demircihüyük-Sariket in the north-western part of the region<sup>48</sup> dates to the very beginning of the 3<sup>rd</sup> millennium: while it proves the existence in the area of this category of finds, it is admittedly not particularly similar to the Georgian specimens. More

<sup>32</sup> *Strictu senso*, the term *rhyton* (which derives from the Greek verb *ῥέω*, to flow) refers to vessels provided with two different openings, and its use should be limited to them (Koehl 2006), although numerous scholars apply it to other types of animal-shaped – or otherwise complex – vessels as well.

<sup>33</sup> This term is generally used for Hittite zoomorphic vessels, as it often appears on Hittite texts mentioning such items. However, it derives from an Akkadian word (meaning “bird”); it has therefore been proposed to use it as a general term for Near Eastern zoomorphic vessels (Koehl 2013).

<sup>34</sup> *Askos* (literally “wineskin”) is used by classical archaeologists to describe any squat or flattened vessel with an off-centre spout (Koehl 2018, 52). The term is traditionally used to define Bronze Age Aegean and North-West Anatolian zoomorphic vessels of similar proportions (Misch 1992).

<sup>35</sup> See Koehl 2013, 2018 with further literature.

<sup>36</sup> E.g. at Bouqras, in Syria, but also at Hacilar in Anatolia and at Arpaciya in Northern Mesopotamia (Koehl 2018, 47-48).

<sup>37</sup> Koehl 2018, 48-49.

<sup>38</sup> Koehl 2013, 239-240; 2018, 50-52.

<sup>39</sup> See Bahrani 2002.

<sup>40</sup> Koehl 2006; see also Koehl 2013; 2018, 52-54, 64-65, 75-83.

<sup>41</sup> Kulakoğlu, Kanhal 2010, *passim*.

<sup>42</sup> Koehl 2013; 2018, 59-63, 66-71. Zoomorphic vessels in 2<sup>nd</sup> millennium Anatolia are discussed in § 3. below, with further relevant literature.

<sup>43</sup> Koehl 2018, 59-60.

<sup>44</sup> Ebbington 2018, 106 ff., 121-124, 144.

<sup>45</sup> Lordkipanidze 2017; Giemsch, Hansen 2018; see also Kvaavadze *et al.* 2019.

<sup>46</sup> For a recent overview of the relations between the two regions in the 4<sup>th</sup> and 3<sup>rd</sup> millennium BC, see Rova forthcoming b.

<sup>47</sup> See above, § 2. It may also be interesting to observe, in this respect, that vaguely zoomorphic *askoi* and zoomorphic vessels are also sporadically attested in the Neolithic and Chalcolithic cultures of Greece and the Balkans (Misch 1992, 14-36).

<sup>48</sup> Korfinann 1980, 10, pl. 13, fig. 1-3; cf. Tonussi 2007, 275, 283, pl. 15, cat. CZ20-2.

interesting analogies are offered by the so-called *askoi* of the North-West Anatolian “Yortan culture” (fig. 3a, b).<sup>49</sup> These vessels are not properly in the shape of an animal, but some of them clearly evoke the figure of a bird.<sup>50</sup> They have a posteriorly elongated piriform body and a long neck, open at the top, that reminds one of a bird’s beak, and are equipped with a handle on the back. Interestingly enough, they have three small conical feet, which are very similar to those of the vessels from Aradētis Orgora. This particular type of *askos* can be attributed to the first half of the millennium (EBA I-II); it reaches the West-Anatolian coast and partly spreads to the Aegean islands (Lemnos, Chios, Lesbos) as well.<sup>51</sup>

Zoomorphic vessels provided with three small feet are quite common in Western Anatolia in a slightly later period: for instance, several of them come from Troy II and III (fig. 3: c, d, e).<sup>52</sup> The shape of these vessels has evident similarities with the Yortan *askoi* (they have a globular or piriform body, an opening at the top of the neck, and a handle on top of the back). However, in this case we are not simply dealing with vases in the form of birds, as in fact they have a sort of zoomorphic protome on the back side, opposite to the neck, in place of the bird’s tail. It is difficult to establish the different animal species which inspired these compositions, although Schliemann tentatively identified pigs, rams, and moles. A similar item was also found at Boz Höyük.<sup>53</sup>

The cemetery at Karataş-Semayük yielded another three-footed zoomorphic vase.<sup>54</sup> It is rather small and perhaps represents a mole; unfortunately, the pouring spout is not preserved, but there is a large handle on the back of the animal. A further tripod vase, originally probably with a zoomorphic protome but now mutilated, was found in the Early Bronze Age levels of Aphrodisias (fig. 3: g).<sup>55</sup> Another example, similar in shape to the previous one, comes from Poliochni on the island of Lemnos (fig. 3: f).<sup>56</sup> It has the shape of a pig with three small feet in the lower part of the body. Its last reconstruction suggests that it was provided with a neck (with a hole on the top) and with a handle on the upper part of the body.

Interestingly, a similar ovoid-shaped vessel was found in a sounding dug into the Early Bronze Age levels at Alacahöyük in Central Anatolia.<sup>57</sup> The vase is not well preserved (it misses the head), but has an ovoid body, four conical legs and a tail. Further north in the same region, another find comes from Karaöğlan.<sup>58</sup> Central Anatolia, a still poorly known region at the crossroads of different communication corridors, may in fact represent the missing link between the West-Anatolian examples and some isolated mid-late 3<sup>rd</sup> millennium items from Northern Mesopotamia – Kurban Höyük (fig. 3: h).<sup>59</sup> Tell Brak (fig. 3: i)<sup>60</sup> –, which M. Tonussi already interpreted, some years ago, as possible imitations of Anatolian types.<sup>61</sup> If this were really the case, we should assume that similar zoomorphic vessels were in fact widespread, during the second half of the 3<sup>rd</sup> millennium, over the whole of Anatolia.<sup>62</sup>

On the other hand, during the Early Bronze Age zoomorphic vessels are also widely attested in the Aegean region. Most specimens come from Crete, where they occur in *tholos* tombs from the beginning of the 3<sup>rd</sup> until the end of the 3<sup>rd</sup>-beginning of the 2<sup>nd</sup> millennium, when this type of burial began to decline.<sup>63</sup> The Cretan vessels have different forms and sizes (most common are those in the shape of the bull, which were particularly appreciated on the island);<sup>64</sup> the oldest specimens, which date to the EM I-II periods,<sup>65</sup> however, are often in the shape of birds and somehow resemble the West-Anatolian *askoi*; they are also characterised by the presence of three or four low conical feet (fig. 3: j-l). The Cretan vessels have been variously classified as *askoi* or *rhyta*,

<sup>49</sup> For a general overview of the culture, see Kiamil 1980.

<sup>50</sup> Orthmann 1996, 21-23; Tuchelt 1962, 22-26; Kiamil 1980, 171-173.

<sup>51</sup> Misch 1992, 72.

<sup>52</sup> Schliemann 1881, 294, no. 160; 375, nos. 333, 334; 376, nos. 335, 337; 377, no. 333. Cf. also Podzuweit 1979.

<sup>53</sup> Tonussi 2007, 274, 284, pl. 16, cat. C/VZ23.

<sup>54</sup> Mellink 1967, 253, table 16, fig. 10; Tonussi 2007, 274, 278, cat. C/VZ3.

<sup>55</sup> Kadish 1969, 57, table 25, fig. 12.

<sup>56</sup> The object was found, in very fragmentary conditions, in space 650 of Megaron 605. For an extensive discussion of its context, parallels and possible use, see Cultraro 2005.

<sup>57</sup> Koşay, Akok 1966, 204-205, table 55, fig. 15; Tonussi 2007, 278, cat. C/VZ1.

<sup>58</sup> Tonussi 2007, 274 f., 283, cat. C/VZ19.

<sup>59</sup> Algaze 1990, 399, pl. 154.

<sup>60</sup> Oates *et al.* 2001, 168-169, 434-435, figs. 202-203, 382-386; cf. Tonussi 2007, 274-275, 278-280, pls. 14-15, cat. C/VZ4-9. The vessels are very fragmentary, one of them had three feet, while the others had four. They apparently represented rams or bulls.

<sup>61</sup> Tonussi 2007, 274-275.

<sup>62</sup> Cf. the distribution map Tonussi 2007, 276-277.

<sup>63</sup> Kohl 2018, 52-53. They generally do not belong to the burial goods, but were probably used during special ceremonies in honour of the deceased that included the ritual consumption of food and beverages. In fact, other suggestive ceramics types (such as cups and pitchers) and animal remains were found associated with them.

<sup>64</sup> For the complete catalogue, see Koehl 2006, 71-72.

<sup>65</sup> Examples come from Lebena (one in the shape of a bird and one in the shape of a bull: Koehl 2018, 53-53, fig. 7.27.3; see also Misch 1992, 83-84, figs. 62, 65), Koumasa (two bird-shaped ones from Tholos A, and one with bird’s body and the head of a ram from area AB: Koehl 2006, 75-76, pls. 3-4, figs. 26, 29; see Misch 1992, 83-84, figs. 63, 66) and Platanos (a bird-shaped vessel from Tholos B [MMI B] and one with a bird-shaped body with bovine features and horns from Tholos G: Koehl 2006, 75-76, pls. 3-4, figs. 28, 30).

since many of them are provided with two different openings, one on the animal's snout and the other on the back or close to the tail, an innovation which apparently originated there.<sup>66</sup>

*Askoi/rhyta* in the shape of, or vaguely reminiscent of, different animals, in particular birds, are also found in the Cyclades,<sup>67</sup> in mainland Greece,<sup>68</sup> and even in Cyprus.<sup>69</sup> Most of them are later than the earliest Cretan examples and date in the second half or around the end of the 3<sup>rd</sup> millennium, but the chronology of many of them is in fact uncertain. In many cases, they show some affinities with, or they occur together with, West-Anatolian types, a fact that at the very least suggests the existence of continuing connections with this region.

#### 5. ZOOMORPHIC VESSELS ALONG THE "NORTHERN CORRIDOR" IN THE MIDDLE-LATE BRONZE AND EARLY IRON AGES: A CONTINUING TRADITION?

The tradition of zoomorphic containers finds a good breeding ground in 2<sup>nd</sup> millennium Anatolia. Most famous for the earlier Middle Bronze Age are the numerous examples from Kültepe-Kanesh, which were apparently used in domestic ritual activities.<sup>70</sup> They have very different shapes and represent many species of animals – lions, birds, horned quadrupeds, hedgehogs or wild boars, etc. –; it is possible to divide them into two categories: vessels in the shape of complete animals (fig. 4: a, b), which continue the older tradition, and animal-head vessels, which represent an innovation.<sup>71</sup>

Zoomorphic vases continue in use, in Anatolia, during the Old Kingdom period (17<sup>th</sup>-16<sup>th</sup> century BC), as proved, e.g., by the two large-size bulls from Buyükkale displayed at the Museum of Anatolian Civilizations at Ankara (fig. 4: c).<sup>72</sup> For this time, we have the first evidence that similar containers were also produced in precious metals, namely in the form of a silver stag-shaped vessel from Shaft Grave IV at

Mycenae (fig. 4: e).<sup>73</sup> This has no local parallels, but its shape is very close to that of ceramic items from Kültepe. Metallurgical analysis confirmed that its silver came from the Taurus Mountains and, therefore, it was an import from Anatolia, an exotic object that probably reached Mycenae as a "royal gift".<sup>74</sup>

For the later Hittite Empire period, archaeological evidence is joined for the first time by textual sources. Besides items in pottery, which continue the earlier tradition of vessels in the shape of an entire animal, the former now includes items in precious metals in the shape of an animal head or terminating in the forepart of an animal, such as the famous vessels from the Norbert Schimmel collection now in the Metropolitan Museum of Art of New York, in the shape of a stag and respectively of a bull (fig. 4: d).<sup>75</sup>

These items have been identified with the vessels mentioned as *BIBRU* in contemporary Hittite texts, from which we learn that they were special drinking vessels for gods and kings. Indeed, the Hittites used this term for both zoomorphic and non-zoomorphic containers of different shapes and materials (metal, exotic stones, but also wood).<sup>76</sup> They were used for different types of rituals, one of which, "god-drinking", has especially attracted scholars' attention.<sup>77</sup> Various texts report that, during some special ceremonies, the king, or in some cases the royal couple, "drank the god (or the goddess)".<sup>78</sup> According to some Hittitologists, the texts simply refer to a toast in honour of the divinity. Other scholars, however, believe that the expression refers to ingesting some of the deity's power and/or establishing a close and direct contact with him/her through the medium of his/her sacred animal. More specifically, the act of pouring a liquid into the animal-shaped container and draining it from the latter would have been equal to "deifying" it by "passing through the god". "God-drinking" was often performed with alcoholic beverages (wine or beer), and it can be presumed that the intoxicating

<sup>66</sup> Kohl 2018, 52-53.

<sup>67</sup> Kohl 2018, 55-58; Minsch 1992, 74-79. For the origin of the so-called "duck vases" see also Rutter 1985.

<sup>68</sup> Minsch 1992, 57-62.

<sup>69</sup> Minsch 1992, 88-90.

<sup>70</sup> Koehl 2018, 59-63. For a large selection of zoomorphic vases from Kültepe the reader is referred to Kulakoğlu, Kanhal 2010, cat. 191 ff.

<sup>71</sup> Animal-head vessels were not pierced, and were apparently used as drinking cups. Those in the shape of complete animals mostly have two holes: one on the upper part of the animal's body and the other near its mouth or nostrils: they might have been used for pouring libations or for filling other drinking vessels or, according to Koehl, for drinking directly from them through drinking tubes (Kulakoğlu, Kanhal 2010; see also Koehl 2013, 240-241).

<sup>72</sup> Koehl 2018, 60 ff., figs. 2.26-27.

<sup>73</sup> Schliemann 1878, 257-260.

<sup>74</sup> Koehl 1995, 62-64.

<sup>75</sup> Güterbock 1981/83; 1989; cf. also Emre, Çinaroğlu 1993. Three bronze vessels in the shape of a bull's head come from the Kinik-Kastamonu hoard, which according to the excavators possibly originated from a sacked Hittite temple (Emre, Çinaroğlu 1993, 677, nos. 1-5, figs. 1-4, pls. 127-129). Similar vessels are also known in the shape of a human fist. For a complete inventory of Hittite metal items, see Reeves 2003.

<sup>76</sup> Koehl 2013, 241-243; Koehl 2018, 66-71: on *BIBRU* in general, see also the recent contribution by Heffron 2014.

<sup>77</sup> For a history of the question and for the different interpretations of this expression, see, a.o., Güterbock 1998, 121-129; Haas 1994, 520 ff.; Heffron 2014; Veeden, in Ebbinghaus 1918, 68-69.

<sup>78</sup> One or more deities are called into question: "He drinks the Sun-goddess of the Earth" (Kub 30.23 iii 19) or "He drinks thrice: the goddess Kataḫḫa, the Sun-god and the Protective Deity of the king" (IBoT 1.29 obv. 27).

character of these contributed to the effectiveness of the ritual. In fact, these Hittite text may shed light on the meaning of a much older tradition, which may go back even to the Kura-Araxes vessels from Aradetis Orgora.

During the Middle and Late Bronze Age, a parallel tradition of zoomorphic vessels of different types and shapes continues and further develops also in the Aegean region, in Crete (fig. 4: f, g) as well as on the Greek islands and on the mainland,<sup>79</sup> and beyond it. By the Late Bronze Age, the presence of this class of containers is in fact generalised all over the Eastern Mediterranean.<sup>80</sup> We will not dwell here on their morphological development and on the complex patterns of interconnections they highlight, which have been already sufficiently analysed by different scholars.<sup>81</sup> We would simply like to call attention to the fact that, although each region developed specific types and variants, similarities with Anatolian vessels remain particularly strong, and point to continuing influences and interchange. Just to make one example, it seems probable that the Minoan bull-head *rhyton* was inspired by the Anatolian bull-head cups of the Karum period.<sup>82</sup> In other words, zoomorphic vessels and, presumably, ideas and rituals connected with them continued to circulate widely through the western part of the “Northern Corridor”.

However, what about the eastern part of this? Although the tradition of wine-drinking and wine-drinking vessels clearly continued uninterrupted in the Southern Caucasus,<sup>83</sup> zoomorphic vessels do not seem to be attested for most of the 2<sup>nd</sup> millennium in this region. For the Middle Bronze Age, this may be due to the fact that very few settlements of this period have been found, and might be easily changed by future discoveries. It is interesting to observe, in this respect, that one of the objects lying on the banqueting table depicted on the second register of the famous silver vessel from Karashamb (Trialeti culture of Armenia) may in fact be a Hittite-type animal-head vessel.<sup>84</sup> On the other hand, they appear to be virtually absent during the Late Bronze Age, when both settlements and cemeteries are plentiful, as well.

Be that as it may, zoomorphic vessels reappear in considerable numbers in the region in the early 1<sup>st</sup> millennium BC. Several examples come, for instance, from two rich cremation burials from Treli

Gorebi (fig. 4: h), which should date approximately in the 8<sup>th</sup> century BC.<sup>85</sup> Roughly contemporary examples come from Azerbaijan<sup>86</sup> and still others from the Talysh region on the mountains close to the shore of the Caspian Sea, on both sides of the present border between Azerbaijan and Iran.<sup>87</sup> They represent rings of a chain which connects the examples from Eastern Georgia with those from North-Western Iran, best represented by the finds from the cemetery of Marlik,<sup>88</sup> which date between the late 2<sup>nd</sup> and the early 1<sup>st</sup> millennium. These are peculiar one-opening vessels that represent different types of animals (bulls, horses, leopards, deer, rams, bears etc.) in a rather stylised form (fig. 4: i).

It is admittedly difficult to hypothesise a direct connection between this renewed fashion for zoomorphic vessels at the eastern limit of the “Northern Corridor” and the earlier tradition which, we assumed, spread during the Early Bronze Age from the Southern Caucasus in western direction towards Anatolia and the Aegean; we can limit ourselves to observe that in both cases they seemed to have travelled along an east-west oriented network of interrelations, in which the Southern Caucasus was undoubtedly involved.

## 6. CONCLUSIONS

Zoomorphic vessels are diffused over a wide range of cultures, and obviously not all of them have the same origin and necessarily belong to the same network of interregional exchanges and communications. However, the discovery of the two Kura-Araxes vessels from Aradetis Orgora opens up the intriguing possibility to trace an hitherto overlooked early route of diffusion of this category of finds from the Southern Caucasus through Northern Anatolia toward the Aegean, i.e. via the “Northern Corridor”, which would date back at least to the late 4<sup>th</sup> millennium BC.

The use of zoomorphic vessels may have spread together with the tradition of ritual consumption of wine, and their origins may ultimately lie in the Southern Caucasus, a region where viticulture and

<sup>79</sup> Koehl 2018, 63-65; Koehl 2006 for a complete discussion.

<sup>80</sup> Koehl 2018, 71-83.

<sup>81</sup> For *rhyta*, Koehl 2006; for *askoi*, Misch 1992.

<sup>82</sup> Koehl 2018, 63.

<sup>83</sup> For a general review about Georgia, see the vessels recently exhibited at Bordeaux (Lordkipanidze 2017) and Frankfurt (Giemsch, Hansen 2018).

<sup>84</sup> Cf. the photo published in Aruz *et al.* 2008, 91, cat. 55, below.

<sup>85</sup> Unfortunately, these graves are still partially unpublished (see Sagona 2017, 418); for images of individual vessels, see Miron, Orthmann 1995, cat. nos. 381, 382; Gambaschidze *et al.* 2001; Lordkipanidze 2017, 86).

<sup>86</sup> A number of them are exhibited at the National Museum of History of Azerbaijan in Baku, where the second author of this article could recently see them.

<sup>87</sup> Some of these vessels, which probably come from graves, are discussed in the recent dissertation by Mathias Haze (Haze 2018, 288-291) who tentatively dates them to the end of the 2<sup>nd</sup> - early 1<sup>st</sup> millennium BC (1000-800 BC ca).

<sup>88</sup> Neghaban 1996, 117-120, pls. 36-38; see Ebbington 2018, 120-124.

wine-making are first attested in the Neolithic period and have since then played an important role both in the agricultural economy and in the cultural identity of the local population<sup>89</sup>.

The idea of zoomorphic vessels, particularly in the shape of birds, may have travelled through the connections (possibly stimulated by the developing exchange in metal ores and objects) between the Kura-Araxes communities – or their mid/late 3<sup>rd</sup> millennium successors – and their still poorly known Central Anatolian neighbours.<sup>90</sup> Via the Yortan culture of North-Western Anatolia and the site of Troy, it may have spread to Western Anatolia and found a sea outlet to the Aegean coast and the islands.

In Anatolia the tradition of zoomorphic vessels probably lingered during the second half of the 3<sup>rd</sup> millennium – as suggested by sparse finds from different areas, but in particular from its northern part – and was then revived at the time of the Assyrian colonies, when Central Anatolia was deeply involved in the Middle Bronze Age network of international relations. In this period, it may have intercepted the contemporary traditions of zoomorphic and other ritual vessels from the Aegean and from Mesopotamia, and intermingled with them, giving rise to the tradition of Hittite *BIBRU* vessels.

This phase probably witnessed the transformation of a ritual, which had originally developed in the contest of egalitarian communities who presumably practiced communal feasting and/or libations within individual households or in simple village shrines, into the Hittite practice of “god-drinking”, which not by chance appears to be restricted almost exclusively to the royal couple. From the point of view of material culture, this change is signalled by the appearance of *BIBRU* containers in precious materials, which also played a role in contemporary diplomatic exchanges.

Finally, although evidence for the 2<sup>nd</sup> millennium is hitherto lacking, it is not totally excluded that in the Southern Caucasus, at the opposite end of the “Northern Corridor”, the local tradition of commensality and wine-drinking through animal-shaped containers remained alive, and that it may in the future be possible to relate it with the remarkable revival of zoomorphic vessels that characterises Eastern Georgia, Azerbaijan and North-West Iran during the first centuries of the 1<sup>st</sup> millennium BC. The latter, in its turn, may be considered one of the factors (together with the Mesopotamian tradition

of animal-headed cups) which explains the later vogue of zoomorphic drinking vessels throughout the Achaemenid empire.

In conclusion, zoomorphic vessels represent another case where the inclusion of data from the Southern Caucasus may allow, in the future, to re-define the network of interregional connections crossing the Near East and the Eastern Mediterranean by focusing on specific wares, objects, ideas and traditions travelling along the “Northern Corridor”, of which this region constitutes a crucial node.

#### REFERENCES

- Abramishvili 2001  
Abramishvili, M., Transcaucasian Rapiers and the Problem of their Origin, in R. M. Boehmer, J. Maran, eds, *Lux Orientis, Archäologie zwischen Asien und Europa, Festschrift für Harald Hauptmann zum 65. Geburtstag*, Leidorf, Rahden/Westf., 2001, 1-8.
- Alexiou, Warren 2004  
Alexiou, S., P. Warren, *Early Minoan Tombs of Lebena, Southern Crete*, Studies in Mediterranean Archaeology 30, Paul Åströms Förlag, Sävedalen, 2004.
- Algaze 1990  
Algaze, G., ed., *Town and Country In Early Southeastern Anatolia, vol. II: The Stratigraphic Sequence at Kurban Höyük*, Oriental Institute Publications 110, University of Chicago Press, Chicago, 1990.
- Arik 1937  
Arik, R., *Les Fouilles d'Alaca Höyük entreprises par la Société d'Histoire Turque. Rapport préliminaire sur les travaux en 1935*, Türk Tarih Kurumu Basimevi, Ankara, 1937.
- Aruz et al. 2008  
Aruz, J., K. Benzel, J. M. Evans, eds, *Beyond Babylon. Art, Trade and Diplomacy in the Second Millennium B.C.*, Metropolitan Museum of Art, New York, Yale University Press, New Haven, 2008.
- Bahrani 2002  
Bahrani, Z., Performativity and the Image: Narrative, Representation, and the Uruk Vase, in E. Ehrenberg, ed., *Leaving no Stones unturned: Essays on the Ancient Near East and Egypt in Honor of Donald P. Hansen*, Eisenbrauns, Winona Lake, 2002, 14-22.
- Cultraro 2005  
Cultraro, M., Spazi di culto e luoghi di stoccaggio: una nota su un vaso zoomorfo da Poliochni, Lemnos, in R. Gigli, ed., *MEGALAI NHSOI. Studi dedicati a Giovanni Rizza per il suo ottantesimo compleanno*, Consiglio Nazionale delle Ricerche, I.B.A.M., Catania, 2005, 27-41.
- Dall'Armellina 2017  
Dall'Armellina, V., Power of Symbols or Symbols of Power? The ‘Long Sword’ in the Near East and the Aegean in the Second Millennium BC, *Ancient Near Eastern Studies* 54, 2017, 143-182.

<sup>89</sup> Lordkipanidze 2017; McGovern et al. 2017; Giensch, Hansen 2018; Kvavadze et al. 2019. Even today, in Georgia, the main toast of the festive parties is drunk from a particular type of drinking vessel – the *kantsi*, whose shape is inspired by the horns of domestic or wild animals (oxen, aurochs).

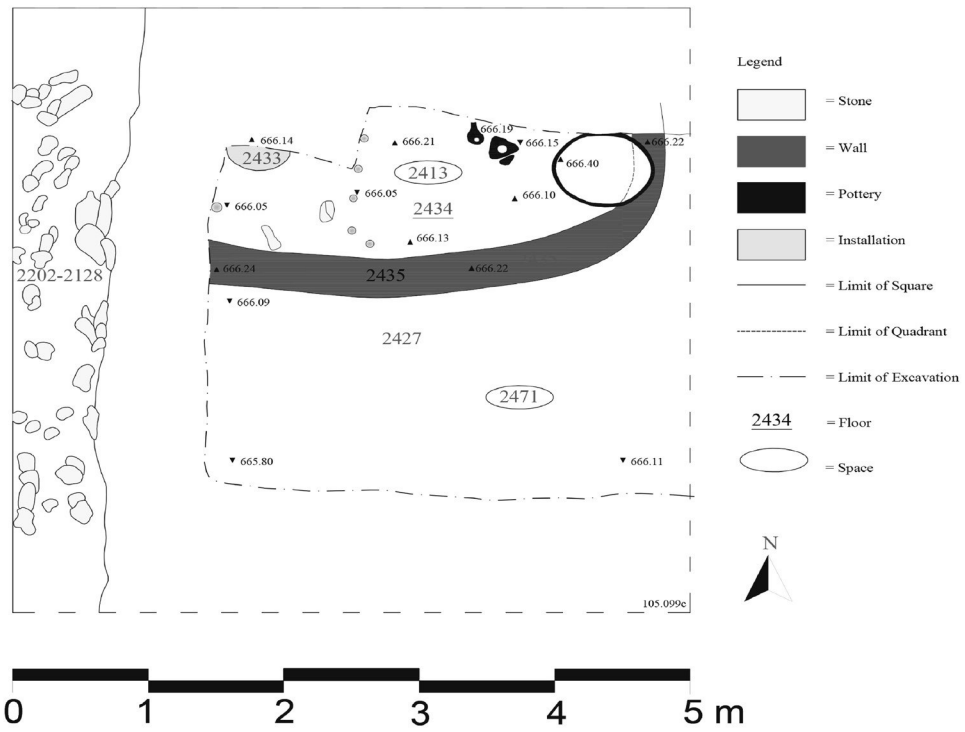
<sup>90</sup> Rova forthcoming b.



- Dall'Armellina forthcoming
- Dall'Armellina, V., From the Caspian to the Aegean, from the Caucasus to the Carpathians. The Circulation of the "Long-Sword" in the Second Millennium BC, in C. Coppini, F. Simi, eds, *Proceedings of the congress "Broadening Horizons 5"*, vol. 3: "Marine connections" and "Civilizations in contact" / Session 6 and Session 7, West and East, Supplementa, forthcoming.
- Dietler 2018
- Dietler, M., Alcohol as Liquid Material Culture: Feasting in Comparative Perspective, in S. Ebbinghaus, ed., *Animal-Shaped Vessels from the Ancient World: Feasting with Gods, Heroes, and Kings*, Yale University Press, New Haven, 2018, 25-31.
- Ebbinghaus 2018
- Ebbinghaus, S., ed., *Animal-Shaped Vessels from the Ancient World: Feasting with Gods, Heroes, and Kings*, Yale University Press, New Haven, 2018.
- Emre, Çinaroğlu 1993
- Emre, K., A. Çinaroğlu, A Group of Metal Hittite Vessels from Kinik-Kastamonu, in M. J. Mellink, E. Porada, and T. Özgüç, eds, *Aspects of Art and Iconography: Anatolia and its Neighbors. Studies in Honor of Nimet Özgüç*, Türk Tarih Kurumu Basımevi, Ankara, 1993, 675-717.
- Frangipane 2012
- Frangipane, M., The Collapse of the 4th Millennium centralised System at Arslantepe and the Far-reaching Changes in 3rd Millennium Societies, *Origini* 34, 2012, 237-260.
- Frangipane 2014
- Frangipane, M., After Collapse: Continuity and Disruption in the Settlement by Kura Araxes-linked Pastoral Groups at Arslantepe-Malatya (Turkey). New Data, *Paléorient* 40(2), 2014, 169-182.
- Gagoshidze, Rova 2018a
- Gagoshidze, I., E. Rova, New Investigations at Aradeti Orgora, a Multiperiod Centre of the Shida Kartli Region in Georgia, in A. Batmaz, G. Bedianashvili, A. Michalewicz, and A. Robinson, eds, *Context and Connection: Essays on the Archaeology of the Ancient Near East in Honour of Antonio Sagona*, *Orientalia Lovaniensia Analecta* 268, Peeters, Leuven, 2018, 521-546.
- Gagoshidze, Rova 2018b
- Gagoshidze, I., E. Rova, 2013-2015 Activities of the Georgian-Italian Shida Kartli Archaeological Project at Aradeti Orgora (Georgia), in R. B. Salisbury, F. Höflmayer, and T. Bürge eds, *Proceedings of the 10th International Congress on the Archaeology of the Ancient Near East 25-29 April 2016, Vienna*, Harrassowitz Verlag, Wiesbaden, 2018, 497-510.
- Gambaschidze et al. 2001
- Gambaschidze, I., A. Hauptmann, R. Slotka, and Ü. Yalcin, ed., *Georgien. Schätze aus dem Land des Goldenen Vlies*, Katalog der Ausstellung, Deutsches Bergbau Museum, Bochum, 2001.
- Giemsch, Hansen 2018
- Giemsch, L., S. Hansen, ed., *Gold und Wein. Georgiens älteste Schätze*, Archäologisches Museum Frankfurt, Nünnerich-Asmus Verlag & Media GmbH, Mainz am Rhein, 2018.
- Güterbock 1981/83
- Güterbock, H. G., A Note on the Frieze of the Stag Rhyton in the Schimmel Collection, *Anadolu* 22, 1981/83, 1-5.
- Güterbock 1989
- Güterbock, H. G., Hittite Kursa "Hunting Bag", in A. Leonard Jr., B. Beyer, eds, *Essays in Ancient Civilization Presented to Helene J. Kantor*, *Studies in Ancient Oriental Civilization* 47, University of Chicago Press, Chicago, 1989, 113-124.
- Güterbock 1998
- Güterbock, H. G., To Drink a God, in H. Erkanal, V. Donbaz, and A. Uğuroğlu, eds, *The Relations Between Anatolia and Mesopotamia* (RAI 34), Türk Tarih Kurumu Basımevi, Ankara, 1998, 121-129.
- Haas 1994
- Haas, V., *Geschichte der hethitischen Religion*, *Handbuch der Orientalistik* 1(15), Brill, Leiden, 1994.
- Hansen 2013
- Hansen, S., The Birth of the Hero. The Emergence of a Social Type in the 4th Millennium BC, in E. Starnini, E., ed., *Unconformist Archaeology. Papers in honour of Paolo Biagi*, *British Archaeological Reports International Series* 2528, Oxford, 2013, 101-112.
- Haze, 2018
- Haze, M., *Pratiques funéraires et culture matérielle à la fin de l'Âge du Bronze et au début de l'Âge du Fer dans le Talyche (Azerbaïdjan et Iran)*, unpublished Ph.D dissertation, Université Paris 1 Pantheon-Sorbonne, 2018.
- Heffron 2014
- Heffron, Y., The Material Culture of Hittite 'God-drinking', *Journal of Ancient Near Eastern Religions* 14(2), 2014, 164-85.
- Javakhishvili, Glonti 1962
- Javakhishvili, A., L. Glonti, *Urbnisi I: arkeologicheskie raskopki provedennye v 1954-1961gg. na selishche Kvatskhelebi (Tvlepie-qokhi) (Urbnisi I. Archaeological Excavations conducted at the Village of Kvatskhelebi [Tvlepie-qokhi])*, Tbilisi, 1962 (in Russian with Georgian summary).
- Kadish 1969
- Kadish, B., Excavations of Prehistoric Remains at Aphrodisias, 1967, *American Journal of Archaeology* 73, 1969, 49-65.
- Karo 1930
- Karo, G., *Die Schachtgräber von Mykenai*, F. Bruckmann, München, 1930.
- Kiamil 1980
- Kiamil, T., *The Yortan Culture within the Early Bronze Age of Western Anatolia*, unpublished Doctoral Thesis, UCL London, 1980.
- Koehl 1995
- Koehl R.B., The Silver Stag "BIBRU" from Mycenae, in J. B. Carter, S. H. Morris, eds, *The Ages of Homer. A Tribute to Emily Townsend Vermeule*, University of Texas Press, Austin, 1995, 61-66.
- Koehl 2006
- Koehl, R. B., *Aegean Bronze Age Rhyta*, INSTAP Academic Press, Philadelphia, 2006.
- Koehl 2013
- Koehl, R. B., Bibru and Rhyton: Zoomorphic Vessels in the Near East and Aegean, in J. Aruz, S. B. Graff, and Y. Rakic, eds, *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium B.C.*, Metropolitan Museum of Art, New York, 2013, 238-247.

- Koehl 2018  
 Koehl, R. B., From the Near East to The Aegean, from Neolithic Times to the End of the Bronze Age, in S. Ebbinghaus, ed., *Animal-Shaped Vessels from the Ancient World: Feasting with Gods, Heroes, and Kings*, Yale University Press, New Haven, 2018, 45-86.
- Korfmann 1980  
 Korfmann, M., Demircihüyük. Eine vorgeschichtliche Festung an der phrygisch-bithynischen Grenze. Vorbericht über die Ergebnisse der Grabung von 1978, *Istanbuler Mitteilungen* 30, 1980, 5-21.
- Koşay, Hakok 1966  
 Koşay, H. Z., M. Hakok, *Ausgrabungen von Alaca Höyük. Vorbericht über die Forschungen und Entdeckungen von 1940-1948*, Türk Tarih Kurumu Basimevi, Ankara, 1966.
- Kulakoğlu, Kanhal 2010  
 Kulakoğlu, F., S. Kanhal, eds, *Anatolia's Prologue, Kültepe Kanesh Karum, Assyrians in Istanbul* (Exhibition Catalogue), Kayseri Metropolitan Municipality, Istanbul, 2010.
- Kvavadze et al. 2019.  
 Kvavadze, E., G. Boschian, M. Chichinadze, I. Gagoshidze, K. Gavagnin, I. Martkoplshvili, and E. Rova, Palynological and Archaeological Evidence for Ritual Use of Wine in the Kura-Araxes Period at Aradeti Orgora (Georgia, Caucasus), *Journal of Field Archaeology*, 44(8), 2019, DOI: 10.1080/00934690.2019.1669254.
- Kuftin 1941  
 Kuftin, B., *Arkheologischeskie Raskopki v Trialeti*, Akademii Nauk Gruzinkoj SSR, Tbilisi, 1941 (in Russian).
- Lordkipanidze 2017  
 Lordkipanidze, D., ed., *Georgia the Cradle of Viticulture*, Georgian National Museum, Tbilisi, 2017.
- Makharadze et al. 2016  
 Makharadze, Z., N. Kalandadze, and B. Murvanidze, eds, *Ananauri Big Kurgan 3*, Georgian National Museum, Tbilisi, 2016.
- McGovern et al. 2017  
 McGovern, P., M. Jalabadze, S. Batiuk, M. P. Callahan, K. E. Smith, G. R. Hall, E. Kvavadze, D. Maghradze, N. Rusishvili, L. Bouby, O. Failla, G. Cola, L. Mariani, E. Boaretto, R. Bacilieri, P. This, N. Wales, and D. Lordkipanidze, Early Neolithic wine of Georgia in the South Caucasus, *PNAS* 114(48), 2017. <https://www.pnas.org/content/114/48/E10309>.
- Mellink 1967  
 Mellink, M. J., Excavation at Karatas-Semayük in Lycia, 1966, *American Journal of Archaeology* 70, 1967, 251-256.
- Miron, Orthmann 1995  
 Miron, A., W. Orthmann, eds, *Unterwegs zum Goldenen Vlies. Archäologische Funde aus Georgien*, Museum für Vor- und Frühgeschichte, Saarbrücken, 1995.
- Misch 1992  
 Misch, P., *Die Askoi in der Bronzezeit. Eine typologische Studie zur Entwicklung askoider Gefäßformen in der Bronze- und Eisenzeit Griechenlands und angrenzender Gebiete*, Studies in Mediterranean Archaeology and Literature Pocket-book 100, Åströms Förlag, Jonsered, 1992.
- Mylonas 1973  
 Mylonas, G., *Ο Ταφικός Κύκλος Β των Μυκηνών*, Η εν Αθήναις Αρχαιολογική Εταιρεία, Atene, 1973 (in Greek).
- Neghaban 1966  
 Neghaban, E. O., *Marlik, the Complete Excavation Report*, University of Pennsylvania Press, Philadelphia, 1966.
- Oates et al. 2001  
 Oates, D., J. Oates, and H. McDonald, *Excavations at Tell Brak, vol. 2: Nagar in the Third Millennium BC.*, Cambridge, McDonald Institute, 2001.
- Orthmann 1996  
 Orthmann, W., Keramik der Yortankultur in den Berliner Museen, *Istanbuler Mitteilungen* 16, 1996, 1-26.
- Palumbi 2004  
 Palumbi, G., La più antica tomba "reale". Dati archeologici e costruzione delle ipotesi, in M. Frangipane, ed., *Alle origini del potere. Arslantepe, la collina dei leoni*, Electa, Milano, 2004, 114-119.
- Palumbi et al. 2017  
 Palumbi, G., C. Alvaro, C. Grifoni, and M. Frangipane, A 'Communal' Building of the Beginning of the Early Bronze Age at Arslantepe-Malatya (Turkey). Spatio-Functional Analysis and Interpretation of the Archaeological Context, *Paléorient* 43(1), 2017, 89-123.
- Patton 2018  
 Patton, K. C., Flowing In and Out of Beasts: Animal-Human Symbiosis in Antiquity, in S. Ebbinghaus, ed., *Animal-Shaped Vessels from the Ancient World: Feasting with Gods, Heroes, and Kings*, Yale University Press, New Haven, 2018, 33-43.
- Passerini et al. 2016  
 Passerini, A., L. Regev, E. Rova, and E. Boaretto, New Radiocarbon Dates for the Kura-Araxes Occupation at Aradeti Orgora, Georgia, *Radiocarbon* 58(3), 2016, 649-677.
- Podzuweit 1979  
 Podzuweit, C., *Trojanische Gefäßformen der Frühbronzezeit in Anatolien, der Ägäis und angrenzenden Gebieten. Ein Beitrag zur vergleichenden Stratigraphie*, Von Zabern, Mainz am Rhein, 1979.
- Reeves 2003  
 Reeves, L. C., *Aegean and Anatolian Bronze Age Metal Vessels: A Social Perspective*, unpublished Doctoral Thesis, UCL London, 2003.
- Rova 2014  
 Rova, E., The Kura-Araxes Culture in the Shida Kartli Region of Georgia: An Overview, *Paléorient* 40(2), 2014, 47-69.
- Rova forthcoming a  
 Rova, E., How Wide is the Near East? Some Reflections on the Limits of "Near Eastern Archaeology", in C. Coppini, F. Simi, eds, *Proceedings of the congress "Broadening Horizons 5"*, vol. 3: "Marine connections" and "Civilizations in contact" / Session 6 and Session 7, West and East, Supplementa, forthcoming.
- Rova forthcoming b  
 Rova, E., Georgia and Anatolia in the 4<sup>th</sup> and 3<sup>rd</sup> millennia BC. Which Relations?, in M. Işıklı, ed., *Proceedings of the International Symposium "Relationships between Georgia and Anatolia throughout History" (Uzundere – Erzurum 27-29th October 2018)*, forthcoming.
- Rova, Gilibert 2018  
 Rova, E., A. Gilibert, "Se la montagna non va a Maometto..." Per un'archeologia delle Alte Terre del Vicino Oriente, in M. Betrò, S. De Martino, G. Miniaci,

- and F. Pinnock, eds, *Egitto e Vicino Oriente antichi: tra passato e futuro. Studi e Ricerche sull'Egitto e il Vicino Oriente in Italia (I convegno nazionale, Pisa, 5-6 giugno 2017)*, Pisa University Press, Pisa, 2018, 265-275.
- Rova, Tonussi 2017
- Rova, E., M. Tonussi, eds, *At the Northern Frontier of Near Eastern Archaeology: Recent Research on Caucasia and Anatolia in the Bronze Age (Proceedings of the Humboldt Kolleg Venice, 09-12/01/2013)*, Publications of the Georgian-Italian Shida Kartli Archaeological Project 2, Subartu 38, Brepols, Turnhout, 2017.
- Rutter 1985
- Rutter, J. B., An Exercise in Form vs. Function: The Significance of the Duck Vase, in *Temple University Aegean Symposium 10*, 1985, 16-41 (reprinted in P. P. Betancourt, ed. *Temple University Aegean Symposium: A Compendium*, INSTAP Academic Press, Philadelphia, 2015, 573-598).
- Sagona 1984
- Sagona, A., *The Caucasian Region in the Early Bronze Age*, British Archaeological Reports International Series 214, BAR Publishing, Oxford, 1984.
- Sagona 2017
- Sagona, A., *The Archaeology of the Caucasus*, Cambridge University Press, Cambridge, 2017.
- Schliemann 1878
- Schliemann, H., *Mycenae: A Narrative of Researches and Discoveries at Mycenae and Tiryns*, Scribner, New York, 1878.
- Schliemann 1881
- Schliemann, *Ilios. The City and Country of the Trojans*, Harper & Brothers, New York, 1881.
- Sherrat 2004
- Sherrat, A., Trade Routes: Growth of Global Trade, *ArchAtlas, Version 4.1*, 2004. <http://www.archatlas.org/Trade/WEurasia.php> (last accessed: 18 December 2017).
- Smogorzewska 2004
- Smogorzewska, A., Andirons and their Role in Early Transcaucasian Culture, *Anatolica* 30, 2004, 151-177.
- Tonussi 2007
- Tonussi, M., *Dall'Eufrate allo Scamandro. Contatti e scambi nel III millennio a.C.*, Il Poligrafo, Padova, 2007.
- Tuchelt 1962
- Tuchelt, K., *Tiergefässe in Kopf- und Protomengestalt. Untersuchungen zur Formgeschichte tierförmiger Giessgefässe*, Istanbuler Forschungen 22, Gebr. Mann Verlag, Berlin, 1962.
- Wilkinson 2014
- Wilkinson, T. C., *Tying the Threads of Eurasia: Trans-regional Routes and Material Flows in Transcaucasia, Eastern Anatolia and Western Central Asia, c. 3000-1500BC*, Sidestone Press, Leiden, 2014.



a



b

Fig. 1. a) Aradeti Orgora, Field B, plan of the Kura-Araxes sub-phase 4a occupation; b) view of the finding spot of the zoomorphic vessels, from S (Georgian-Italian Shida Kartli Archaeological Project).



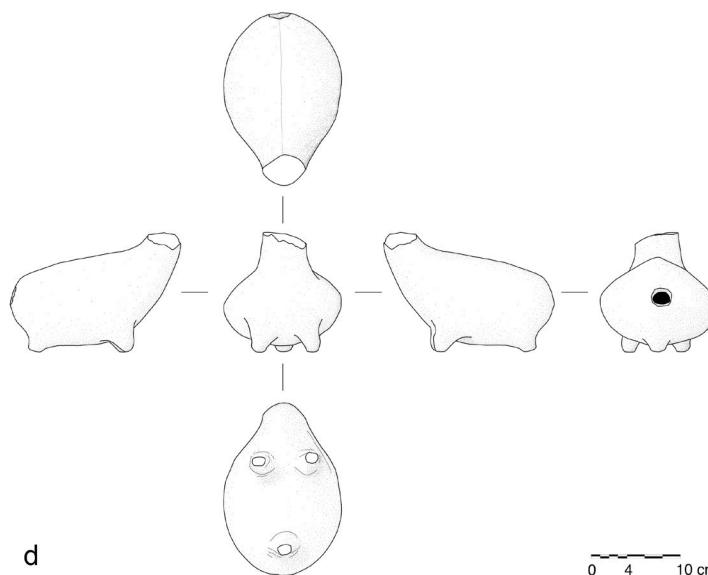
a



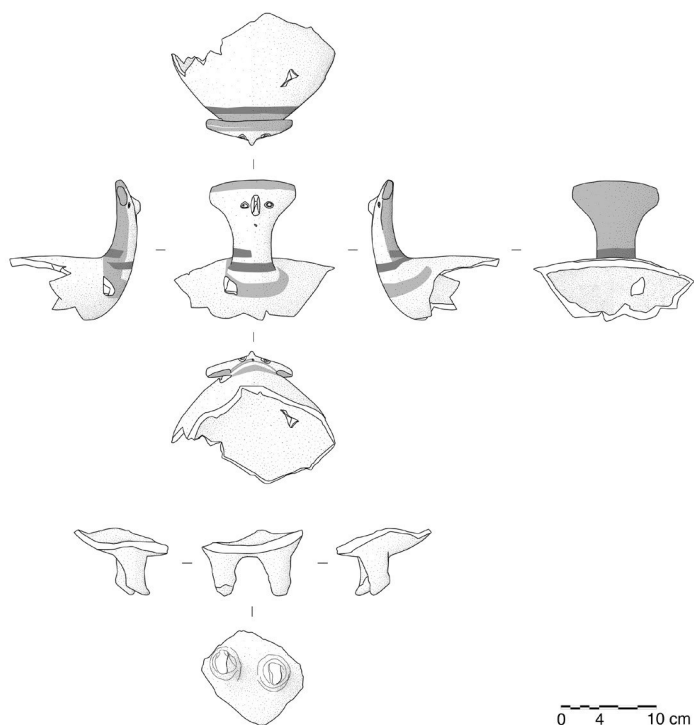
b



c

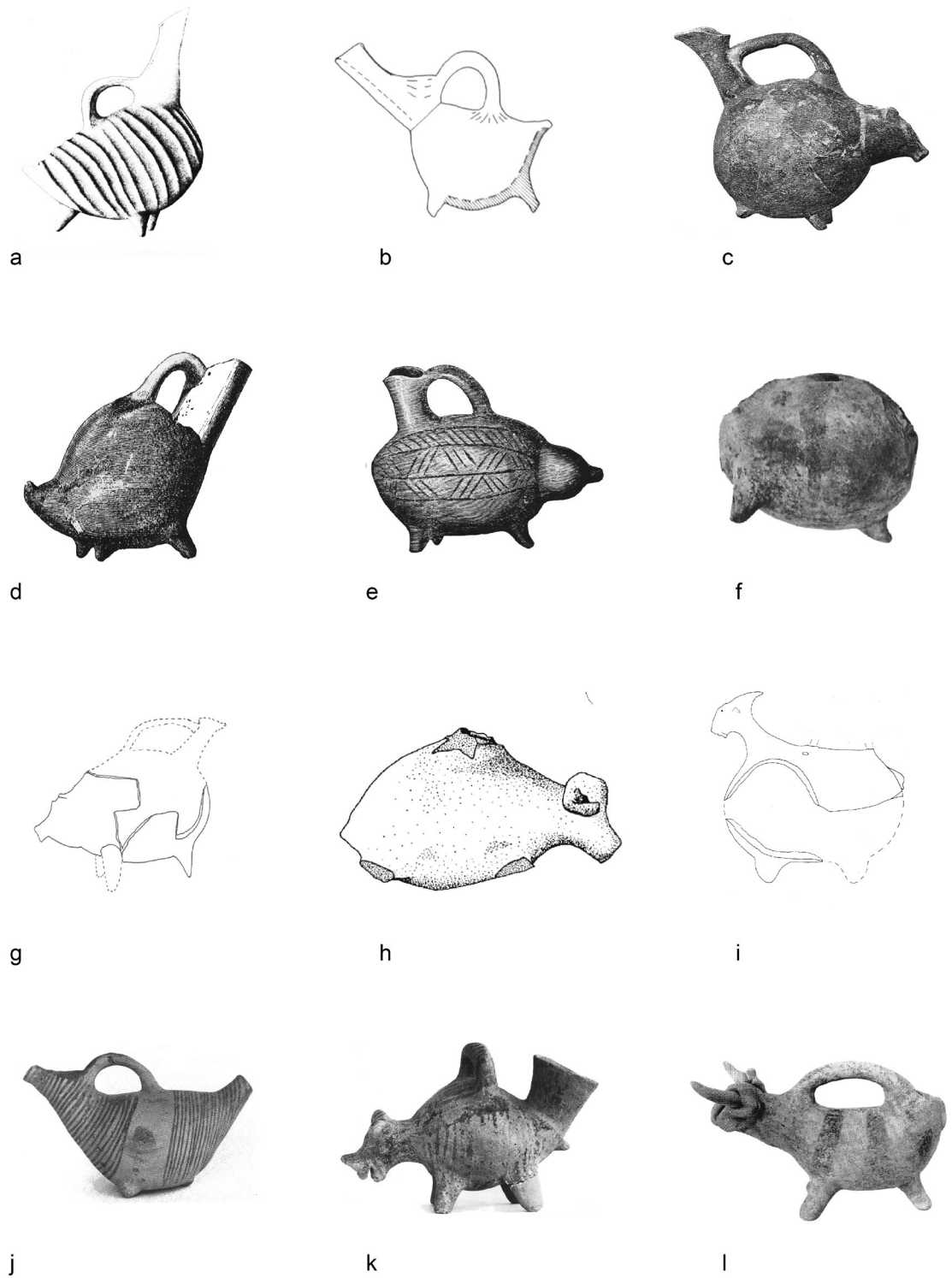


d



e

Fig. 2. a) Photo of the first zoomorphic vessel (2414-M-2) after restoration; b) photo of the second zoomorphic vessel (2434-M-5 + 2414-C-3) after restoration; c) detail of the head of the second zoomorphic vessel (2434-M-5) before restoration; d) drawing of the first zoomorphic vessel (2414-M-2); e) drawing of the fragments of the second zoomorphic vessel: 2434-M-5 (above) and 2414-C-3 (below) before restoration (Georgian-Italian Shida Kartli Archaeological Project).



NOT TO SCALE

Fig. 3. a, b) Yortan type vases (after Kiamil 1980, figs. 72-73); c, d, e) animal-shaped “tripod-vessels” from Troy (after Schliemann 1881, nos. 333, 335, 338); f) fragment of zoomorphic vessel from Aphrodisias (after Kadish 1969, pl. 25, fig. 12); g) reconstruction of the pig-shaped vessel from Poliochni (after Cultraro 2005, fig. 4); h) zoomorphic vessel from Kurban Höyük (after Algaze 1990, pl. 154a); i) fragmentary zoomorphic vessel from Tell Brak (after Oates *et al.* 2001, 435 cat. 383); j, k) zoomorphic *askoi* from Lebena Tomb II (Alexiou, Warren 2004, pl. 107 a, c); l) zoomorphic *rhyton* from Kumasa (Koehl 2006, pls. 1, 2).

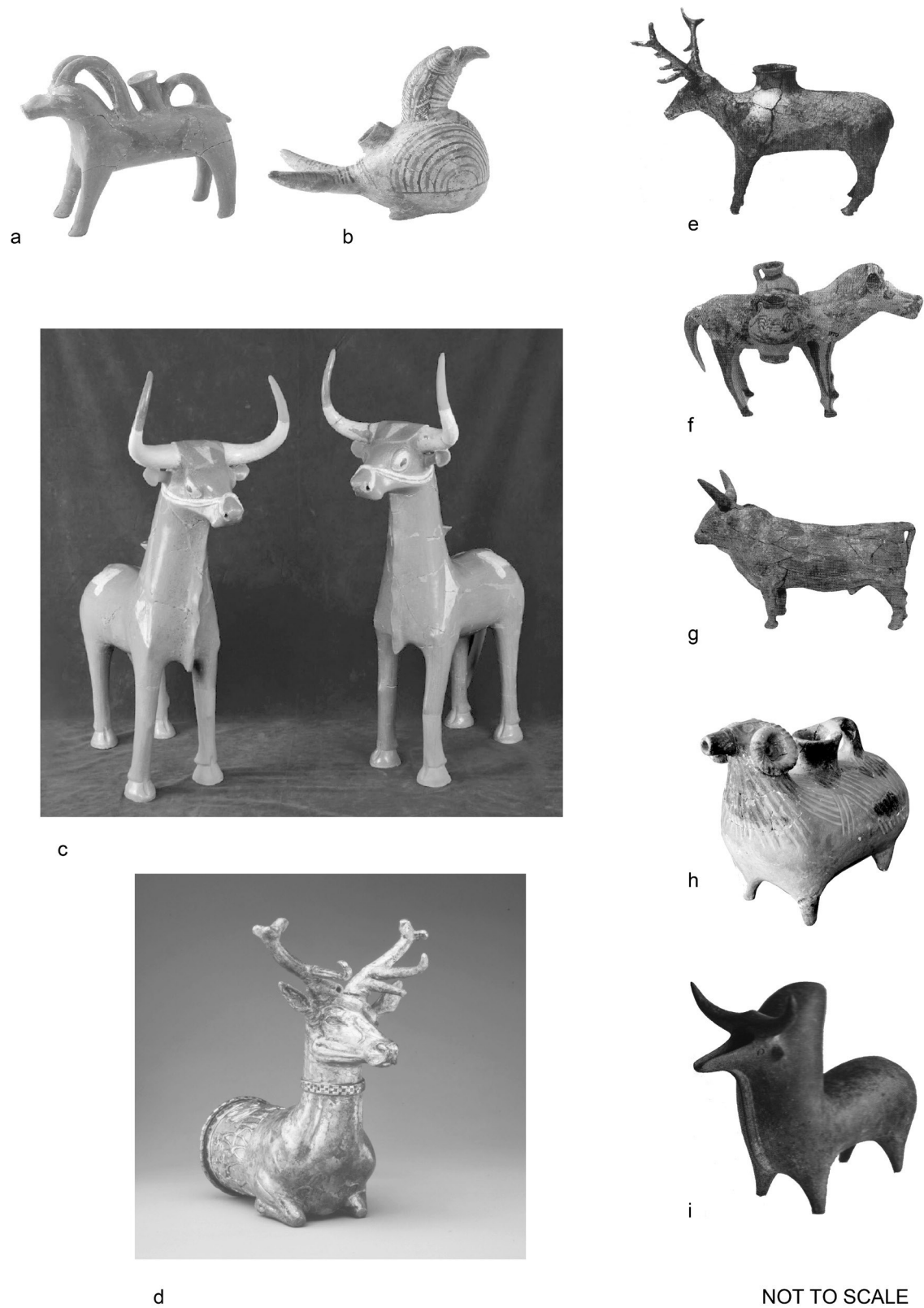


Fig. 4. a, b) Zoomorphic vessels from Kültepe Kanesh (after Kulakoğlu, Kanhal 2010, figs. 207, 209); c) Two bull *BIBRU* from Hattusha (after Koehl 2018, fig. 2.27); d) Hittite vessel in form of a stag (MET museum Public Domine <https://www.metmuseum.org/it/art/collection/search/327399>); e) Silver stag from Mycenae (after Koehl 2018, fig. 2.22); f, g) Late Minoan rhyta (after Koehl 2006, cat. 43, 24); h) Iron Age zoomorphic vessel from Treli, Georgia (after Lordkipanidze 2017, 96); i) Iron Age vessel in the form of a bull from Marlik (Iran) (after Tuchelt 1962, fig. 2).