

# Early Farmers, Late Foragers, and Ceramic Traditions



Early Farmers, Late Foragers,  
and Ceramic Traditions:  
On the Beginning of Pottery  
in the Near East and Europe

Edited by

Dragos Gheorghiu

**CAMBRIDGE  
SCHOLARS**

---

P U B L I S H I N G

Early Farmers, Late Foragers, and Ceramic Traditions:  
On the Beginning of Pottery in the Near East and Europe,  
Edited by Dragos Gheorghiu

This book first published 2009

Cambridge Scholars Publishing

12 Back Chapman Street, Newcastle upon Tyne, NE6 2XX, UK

British Library Cataloguing in Publication Data  
A catalogue record for this book is available from the British Library

Copyright © 2009 by Dragos Gheorghiu and contributors

All rights for this book reserved. No part of this book may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

ISBN (10): 1-4438-0159-3, ISBN (13): 978-1-4438-0159-1

To my mother, whose efforts and sacrifices made everything possible, but who is no longer here to see it



# TABLE OF CONTENTS

List of Illustrations .....	ix
List of Tables.....	xvii
Contributors.....	xviii
Preface.....	xx
Acknowledgements .....	xxi
 Introduction.....	 1
Early Pottery: A Concise Overview Dragos Gheorghiu	
 Chapter One.....	 22
Earliest Use of Pottery in Anatolia Mehmet Özdoğan	
 Chapter Two .....	 44
Variations on the Neolithic Transition in Eastern and Western Hungary Eszter Bánffy	
 Chapter Three .....	 63
Cultural Diversities: The Early Neolithic in the Adriatic Region and Central Balkans. A Pottery Perspective Michela Spataro	
 Chapter Four.....	 87
Early Neolithic Ceramics in Southern Italy: Relationships between Pottery Technology and Production Organization Italo M. Muntoni	
 Chapter Five .....	 116
From Galicia to the Iberian Peninsula: Neolithic Ceramics and Traditions M. Pilar Prieto-Martínez	

Chapter Six .....	150
The Pottery of Hunter-Gatherers in Transition to Agriculture, Illustrated by the Swifterbant Culture, the Netherlands Jutta Paulina de Roever	
Chapter Seven.....	167
First Appearance of Pottery in Western Europe: The Questions of La Hoguette and Limburg Ceramics Anne Hauzeur	
Chapter Eight.....	189
What Is the Evidence and Consequences of Exchanging Bone and Antler and Pottery Designs Between Ertebølle and TRB Danubian Communities? George Nash	
Chapter Nine.....	215
Early Pottery among Hunter-horticulturalists and Hunter-gatherers in Central Fenno-Scandinavia Fredrik Hallgren	
Chapter Ten .....	239
Pots, Pits and People: Hunter-Gatherer Pottery Traditions in Neolithic Sweden Åsa M. Larsson	
Index .....	271



## LIST OF ILLUSTRATIONS

- 0-1 Plastered baskets for grain storage, early 20<sup>th</sup> century Romania, Museum of Agriculture, Slobozia, Romania, (*photographs by D. Gheorghiu*)
- 0-2 Ceramic painted vase, proto-Criș, Cârcea, 6<sup>th</sup> millennium B.C., Museum of Art and History, Craiova, Romania. (*photograph by F. Alexa*)
- 0-3 Carved wooden vase, proto-Criș, 6<sup>th</sup> millennium B.C., Grădinile, Museum of Art and History, Craiova, Romania. (*photograph by F. Alexa*)
- 0-4 Bonfire using dried dung as principal fuel. Note the fire clouds on several vases. Experiments carried in Vadastra village by the author in 2001 (*photograph by D. Gheorghiu*)
- 0-5 An up-draught kiln after firing. The bright round area around the vent is the ceramic wall of the kiln. Experiments carried in Vadastra village by the author in 2002 (*photograph by D. Gheorghiu*)
- 1-1 Unbaked mud-brick vessels from the Pre-Pottery Neolithic Layers of Çayönü
- 1-2 Mezraa Teleilat Phase II early, simple ware
- 1-3 Mezraa Teleilat Phase II early, simple ware
- 1-4 Çayönü Pottery Neolithic simple ware
- 1-5 Çayönü Pottery Neolithic simple ware
- 1-6 Early monochrome pottery of western Anatolia. (First row: Çatal Höyük after Mellaart 1962, Fig. 9:3, 8, 17, 23, Lower rows Fikirtepe)
- 1-7 Hoca Çeşme, red slipped ware
- 2-1 Eastern Hungary, sites mentioned
- 2-2 Western Hungary, sites mentioned
- 2-3 Szentgyörgyvölgy-Pityerdomb, pottery
- 2-4 Szentgyörgyvölgy-Pityerdomb, carinate vessels
- 2-5 Szentgyörgyvölgy-Pityerdomb, pedestalled vessels
- 3-1 Distribution map of the IW, Danilo and Hvar sites analysed. Keys to sites: DB: Danilo Bitin; FC: Fornace Cappuccini; FG: Fagnigola; FM: Fiorano Modenese; GDM: Grotta delle Mura; GRV: Gravina di Puglia; JNS: Jami na Sredi; KNV: Konjevrata; MDM: Maddalena di Muccia; RDM: Ripabianca di Monterado; SCA:

- Scamuso; SML: Smilčić; TN: Tinj; VJ: Vela Jama; VS: Vela spilja; VRB: Vrbica; VZ: Vižula (*redrawn by J. Meadows, after Spataro, 2002: 9*)
- 3-2 Micrograph of a thin section of a potsherd from the site of Konjevrate (Croatia). The sample shows a red iron-rich fabric with some quartz inclusions and abundant added crushed calcite (N+, X40; *photograph by M. Spataro*)
- 3-3 Concentration of magnesia (MgO) and potash (K<sub>2</sub>O) in sherd samples from IW sites on the Adriatic coasts of Italy (SCA, MDM, RDM; Fig 1) and Croatia (JNS, VJ, KNV, SML; Fig 1), measured by SEM/EDS (*analysis by M. Spataro, figure by J. Meadows*)
- 3-4 Micrograph of a thin section of a *figulina* potsherd from the site of Smilčić, Danilo phase (Croatia). The sample shows a very fine red fabric with some fine inclusions of quartz and iron oxides (N+, X40; *photograph by M. Spataro*)
- 3-5 Map of the Balkans showing the locations of the sites sampled (after Spataro, in press). Key to sites: CC - Cauce Cave; DBR - Donja Branjevina; DDV - Dudeștii Vechi; FGZ - Foeni Gaz; FNS - Foeni Sălaș; FRT - Fratelia; GBC - Gura Baciului; GLV - Giulvăz; GLK - Golokut-Vizić; LMB - Limba Bordane; MST- Mostonga; MRS - Miercurea Sibiului Petriș; PRT: Parta; OCS - Ocna Sibiului; ORS - Orăștie; SLM - Șeușa La-cărarea morii; VNK - Vinkovci; ZDR – Ždralovi
- 3-6 Micrograph of a thin section of a potsherd from the site of Fratelia (Banat, Romania). The sample shows a non-micritic and micaceous fabric rich in naturally present fine quartz sand and abundant added organic matter (N+, X40; *photograph by M. Spataro*)
- 4-1 Geomorphological map of south-eastern Italy with the location of the main Early Neolithic sites. 1. Baselice; 2. Ripa Tetta; 3. Masseria Candelarò; 4. Monte Aquilone; 5. Coppa Nevigata; 6. Defensola; 7. Rendina; 8. Grotte Santa Croce; 9. Pulo di Molfetta; 10. Balsignano; 11. Scamuso; 12. Madonna delle Grazie; 13. Torre delle Monache; 14. Trasano; 15. Terragne; 16. Serra Cicora; 17. Torre Sabea; 18. Grotta San Michele di Saracena; 19. Favella della Corte; 20. Capo Alfieri
- 4-2 Impressed sherds from the Early Neolithic (6000-5600 BC) inner ditch of the Masseria Candelarò village (modified after Cassano and Manfredini 2005, fig. 6.12; photograph: Università di Roma “Sapienza”)
- 4-3 The Early Neolithic (6100-5880 BC) dry-stone wall enclosing the Pulo di Molfetta settlement (after Muntoni 2003, plate II;

- photograph: Soprintendenza per i Beni Archeologici della Puglia)
- 4-4 Reconstruction of Early Neolithic (6100-5880 BC) jar (2), collared jar (8), dishes (3-4, 6) and bowls (1, 5, 7) from the Pulo di Molfetta settlement (modified after Muntoni 2003, figs. 24: 1-6, 26: 1 and 28: 3)
  - 4-5 One of the two Early Neolithic (5600-5450 BC) rectangular domestic structures, with internal stone footings, and the related external functional areas of the Balsignano settlement (after Muntoni 2003, plate III; photograph: Soprintendenza per i Beni Archeologici della Puglia)
  - 4-6 Early Neolithic (5600-5450 BC) impressed, and finely impressed and brown-painted sherds from different contexts of the Balsignano settlement (after Muntoni 2003, plate IX; photograph: Soprintendenza per i Beni Archeologici della Puglia)
  - 4-7 Reconstruction of Early Neolithic (5600-5450 BC) jars (1-2), collared jars (3-4), dish (5) and bowl (6) from the Balsignano settlement (modified after Muntoni 2003, figs. 40: 2-5 and 41: 7-8)
  - 4-8 Early Neolithic (6000-5650 BC) impressed sherds and reconstruction of jar (5), collared jar (4), dishes (2-3) and bowl (1) from the Favella della Corte settlement (photograph: Soprintendenza al Museo Preistorico Etnografico “L. Pigorini”; drawings modified after Natali 2004, figs. 1: 1, 3, 5 and 2: 2-3)
  - 5-1 Location of Neolithic sites in Galicia (NW Spain)
  - 5-2 Open air Neolithic sites in Galicia
  - 5-3 Location of the Neolithic sites from the Iberian Peninsula used in this study
  - 5-4 Formal and contextual scheme for pottery from the Early and Mid-Neolithic in Galicia
  - 5-5 Selection of significant pottery elements from (1) Early and (2) Mid-Neolithic Sites in Galicia
  - 5-6 Selection of significant pottery elements from Early and Mid-Neolithic Sites in the Iberian Peninsula. (1) Cardial pottery from the Spanish Levant (after Bernabeu 1989), Cova de l’Or and Cova de les Cendres (\*\*) sites. (2) Incised-impressed pottery from Granada (after Navarrete *et al.* 1991)
  - 5-7 Formal and contextual scheme of pottery from the Late Neolithic in Galicia
  - 5-8 Selection of significant pottery elements from Late Neolithic Sites in Galicia
  - 5-9 Selection of significant pottery elements from Late Neolithic Sites in the Iberian Peninsula. (1) From the western area of the Iberian

- Peninsula (after Jorge, S. 1986). (2) From the eastern area of the Iberian Peninsula (after Díaz del Río 1998).
- 5-10 Pottery traditions in the Neolithic in the Iberian Peninsula: (1) between the seventh and fourth millennium cal. BC, (2) between the end of the fourth millennium and mid-third millennium cal. BC, (3) pottery traditions according to their stylistic development throughout the Neolithic
- 6-1 Sites of the Swifterbant culture in the Netherlands (after Peters *et al.* 2004: p. 15). 1- Bronneger; 2- Schokland; 3- Urk; 4- Swifterbant; 5- Hoge Vaart; 6- Harnaspolder; 7- Wateringen; 8- Bergschenhoek; 9- Hardinxveld-Giessendam; 10 – Hazendonk; 11- Bandkeramik culture.
- 6-2 The Swifterbant area. (after Deckers 1979: fig. 1)
- 6-3 Pottery of the early phase of the Swifterbant culture, from Hardinxveld-Giessendam, Polderweg (after Raemaekers 2001a)
- 6-4 Vessels in coiling technique with round and point bases, of the middle phase of the Swifterbant culture, Swifterbant site S3 (after De Roever 2004)
- 6-5 Body decoration and coiling technique, middle phase, Swifterbant S3 (after De Roever 2004)
- 6-6 Sites of hunter-gatherer groups with pottery comparable to that of the Swifterbant culture (based on Price *et al.* 2001)
- 6-7 Point-base vessels from Africa to Russia (Jeunesse *et al.* 1991). a: Tanger and southern Spain; b: Leucate (France); c: Roucadour (France); d: Dautenheim (Germany); e: Swifterbant (Netherlands); f: Hüde am Dümmer (Germany); g: Tybrid Vig (Denmark); h: Narva culture (North-east Europe); k: Bug-Dniestr culture (Ukraine); l: "Caspian tradition Neolithic" (Maghreb, North Africa)
- 6-8 Point-base vessels from the Baltic to eastern Russia (Van Hoof 2005). 1: Ust'-Karenga core area; 2: eastern Siberia; 3: western Siberia; 4: Altaj (Tytkesken'2, level 5); 5: Ural area; 6 and 7: European Russia; 8: Baltic area
- 7-1 Distribution map of La Hoguette and Limburg Ceramics. 1: La Hoguette cairn (Dpt. Calvados, France); 2: Cologne-Lindenthal (North Rhine-Wesphalia, Germany); 3: Bruchenbrücken (Hessen, Germany) 4: Stuttgart Bad Canstatt (Baden-Württemberg, Germany); 5: Bavans (Dpt. Doubs, France); 6: Ambérieu-en-Bugey (Dpt. Ain, France)
- 7-2 Examples of La Hoguette pottery. 1: Fontenay-le-Marmion, cairn La Hoguette (France, after Caillaud and Lagnel 1972); 2: Liège (Belgium; after van der Sloot *et al.* 2003)
- 7-3 Examples of La Hoguette pottery. 1: Steinfurth (Germany; after Lüning *et al.* 1989); 2: Filderstadt-Bernhausen (Germany; after

- Lüning *et al.* 1989); 3: Bruchenbrücken (Germany; after Lüning 1997)
- 7-4 Examples of Limburg Ceramic pottery. 1: Berry-au-Bac (France; after van Berg 1990); 2: Horn (Germany; after van Berg 1990); 3: Cologne-Lindenthal (North Rhine-Wesphalia, Germany; after van Berg 1990); Xanten (Germany; after van Berg 1990)
- 7-5 Examples of Limburg Ceramic pottery. 1 and 3: Weiler-la-Tour (Luxemburg; after Hauzeur 2006); 2: Elsloo (Netherlands; after van Berg 1990); Kesselijk (Netherlands; after Constantin 1985)
- 7-6 Hypotheses for the appearance and diffusion of the first ceramics in Western Europe. Map after Roudil 1990 and Guilaine 2007
- 7-7 Examples of Impressa ceramics. a: Arene Candide (Ligurian group, Italy); b: Molfetta (Italo-Adriatic group, Italy). Without scale, after Müller-Karpe 1978
- 7-8 Examples of Pre-Cardial ceramics. Portiragnes, Peiro Signado (Dpt. Hérault, France). 1-2: after Debusscher, 1987; 3-5: after Guilaine and Manen 1997; 6: after Roudil 1990
- 7-9 Examples of Pre-Cardial ceramics. Portiragnes, Pont de Roque-Haute (Dpt. Hérault, France). After Manen and Guilaine 2007
- 7-10 Examples of Pre-Cardial ceramics. Castellar, Abri Pendimoun (Dpt. Alpes-Maritimes, France). After Binder 1990
- 8-1 Exchanging trades: Economic movements between Ertebølle and the Danubian areas
- 8-2 The Bogø vig axe, Langeland with multiple *wheatsheaf* motifs (after Andersen 1980, *fig.* 7)
- 8-3 The Ertebølle Ring: the distribution of the *wheatsheaf* motif in Eastern Jutland (after Nash 1998)
- 8-4 Linear decoration including multiple chevrons and vertical and horizontal banding motifs on a LBK bowl from southern Sweden (*photograph: G.H. Nash*)
- 8-5a Linear decoration on an LBK bowl and selected Mesolithic antler [axe shaft from Bjernede, Denmark] (*photographs: G.H. Nash*)
- 8-5b Linear decoration on an LBK bowl and selected Mesolithic antler [axe shaft from Bjernede, Denmark] (*photographs: G.H. Nash*)
- 8-6 Locally made S-shaped pointed-base jars (after Müller 1918)
- 8-7 The elaboration of design of the Torpegård axe, west Funen (after Andersen 1980: 14, *fig.* 6)
- 8-8 Face pot from the Svinö passage grave, Southern Sweden, constructed from simple repeated decoration, Middle Neolithic in date (Photograph: G.H. Nash)

- 8-9 The rolled out multi-phased design on the Ystad Axe, Skåne (after Clark 1975: 151)
- 9-1 The Scandinavian peninsula during the Early Neolithic, with the approximate border between the northern Early Neolithic Funnel Beaker Culture (TRB) and the Early Neolithic Slate Culture. Whereas the hunter-gatherers of the Slate Culture chose not to adopt ceramic technology during the Scandinavian Early Neolithic, the hunter-gatherers of the eastern Baltic Sea region (Comb Ware Culture, Narva Culture, Zedmar Culture, Neman Culture) had been using ceramics for a millennium by this time. The region Mälardalen is marked by the letter “M”, the archipelago of Åland is marked by an “Å”. Shoreline map adopted from Munthe 1940
- 9-2 A comparison between AMS-datings of organic remains (“food-crust”) on TRB pottery and directly dated remains of domesticated animals (cremated bones from cattle) and plants (carbonized cereal grains) from Mälardalen (Kihlstedt *et al.* 1997; Segerberg 1999; Hallgren 2004b; Hallgren 2008; Ahlbeck and Isaksson 2007; Welinder *unpublished data*). Regarding <sup>14</sup>C-dating of cremated bones, see Lanting and Brindley (1998), Lanting *et al.* (2001), van Strydonck *et al.* (2005), Naysmith *et al.* (in press)
- 9-3 Examples of Early Neolithic funnel-beakers from Mälardalen. (*reconstruction and drawing by Gunlög Graner*)
- 9-4 Sherds from collared flasks and clay disks from Early Neolithic TRB sites in Mälardalen. (*drawings by Gunlög Graner and Jonas Wikborg*)
- 9-5 The local stone industry of the TRB of Mälardalen include point/thin-butted porphyrite axes, saddle querns (the picture depicts the hand stone of a saddle quern) and polygonal battle-axes. After Lekberg (*manuscript* 1996), Lidström Holmberg (2004: 218), Hallgren (2008). (*drawings by Mikael Söderblom and Alicja Grenberger*)
- 9-6 Imported stone tools found at the TRB site Skogsmossen in Mälardalen. Flint axes were brought from the TRB of Southern Scandinavia, slate knives from the hunter-gathers of the Slate Culture of Northern Scandinavia. (*drawings by Alicja Grenberger*)
- 9-7 Slate tools and an imported TRB axe found at the Early Neolithic Slate Culture settlement site Persmyra in Hedmark, eastern Norway (from Boaz 1997)
- 9-8 Slate tools found at the Early Neolithic Slate Culture site Överveda in Ångermanland, northern Sweden (from Bakka 1976)

- 9-9 Sherds of Sperrings I pottery from the sites Östra Jansmyra I and Vargstensslätten II on Åland, Finland. Organic remains (“food-crust”) on the sherds have been  $^{14}\text{C}$ -dated to around 5000 cal. BC (Hallgren 2004). (*drawings by Alicja Grenberger*)
- 9-10 Early Neolithic funnel-beaker pottery from Mälardalen with traits reminiscent of comb ware designs (pit impressions, thickened rim, surface covering compositions of comb-stamps and cord-stamp, decoration on the inside of the vessel). From Segerberg (1999), Graner (2003), Hallgren (2006), Hallgren (2008). (*drawings by Gunlög Graner and Alicja Grenberger*)
- 9-11 Sherds from an imported asbestos tempered pot of the Kierikki tradition of central Finland, found at the early Middle Neolithic site Västra Mårtsbo in Gästrikland, eastern Central Sweden. Organic remains (food-crust) on the sherds have been  $^{14}\text{C}$ -dated to  $4515 \pm 70$  BP (Ua-14836)
- 10-1 Map of southern Baltic Sea region: The thick line marks the region referred to as South Sweden in the article, and the thinner line marks the sub-regions. Eastern Central Sweden is marked by an oval. During the Middle Neolithic the Baltic Sea level was much higher, and the lake Mälaren of eastern Central Sweden was a deep bay stretching into Närke (Modified after Åkerlund 1996: Fig 2:1a)
- 10-2 Vessel profiles from Fagervik, Östergötland: Fagervik I (late TRB) have mainly profile (a), but also (b); Fagervik II (early PWC) had mostly profile (b), but sometimes (a); Fagervik III (PWC) mainly profile (c), occasionally (b); Fagervik IV (late PWC) only profile (c). (Bagge 1951: Fig 8)
- 10-3 Examples of the pitted-ware phases at Fagervik, Östergötland: II (MN A), III (MN A–B) and IV (late MN B). The porosity noticeable on sherds from mainly Fagervik III and IV is the result of dissolved calcareous temper. (from Bagge 1951)
- 10-4 Complete vessels are uncommon in Pitted Ware burials, except as mini-vessels/cups. Additional grave traditions seem to be including “be-headed” bases, and/or individual sherds. (A) Examples of vessel bases from burials at Västerbjers, Gotland; (B) Grave 36, Adult (indet.), with a vessel base above the head; (C) Grave 42, Adult male, with a mini-vessel/cup by the head: (Stenberger et al. 1943); (D) Examples of mini-vessels from Siretorp, Blekinge (Bagge and Kjellmark 1939: Pl. 33)
- 10-5 Clay selection in pitted-ware ceramics in different regions. Based on microscopy of thin sections from Eastern Central Sweden (no. 75), Öland (no. 39), and Gotland (no. 14). Data from current project

- and other published studies: (Hulthén 1996; 1997; 1998; Segerberg 1999; Brorsson 2000; 2006; Nilsson 2006; Papmehl-Dufay 2006; Sundström *et al.* 2006)
- 10-6 Temper materials used in pitted-ware ceramics divided by regions. Based on microscopy of thin sections. Sst/Qzite = Sandstone/Quartzite. Two sherds from Ire, Gotland, contained some grog temper in addition to plant material and crushed granite. As yet, these are the only examples of pitted-ware with grog temper. Data from current project and other published studies: (Hulthén 1996; 1997; 1998; Segerberg 1999; Brorsson 2006; Nilsson 2006; Papmehl-Dufay 2006; Sundström *et al.* 2006)
- 10-7 Temper materials used in pitted-ware ceramics divided by sites. Rough chronological order, with the oldest sites at the top. Sst/Qzite = Sandstone/Quartzite. TS = Thin section. Data from current project and other published studies: (Hulthén 1996; 1997; 1998; Segerberg 1999; Brorsson 2000; 2006; Nilsson 2006; Papmehl-Dufay 2006; Sundström *et al.* 2006)
- 10-8 Map of occurrence of “hybrid” vessels of the so-called “third group”, which is defined as a battle-axe beaker with row of pit impressions in the pitted-ware tradition. Hedningahällan and the cave Stora Förvar are both complex gathering sites, with remains from many different traditions. Examples of the “third group”: (A) Turinge, Turinge ps, Södermanland, drawing by Gunlög Graner (Lindström 2000) and (B) Vrå, Knivsta ps, Uppland, drawing by Eva Crafoord (Eriksson 2002). Not to scale. (Graner and Larsson 2004)



## LIST OF TABLES

*Table 4-1.* Variations observed in the Early Neolithic contexts in relation to the technological and formal variables under discussion.

*Table 5-1.* List of sites with C14 datings attributable to the Neolithic period in Galicia, based on work carried out by the Heritage, Paleoenvironment and Landscape Laboratory (Santiago de Compostela). All datings have been calibrated using the CALIB 4.3 programme developed by M. Stuiver, P. J. Reimer and R. Reimer: (<http://calib.org/calib/>).

*Table 5-2.* Characteristics of pottery decoration from the Early and Mid Neolithic in the Iberian Peninsula (ST4 is not documented in Galicia) (ST: Stylistic Tendency).

*Table 5-3.* Characteristics of pottery decoration from the Late Neolithic in the western half of the Iberian Peninsula (ST: Stylistic Tendency).

*Table 7-1.* Characteristics of La Hoguette and Limburg ceramics.

## CONTRIBUTORS

**Eszter Banffy** Archaeological Institute, HAS, Chair, H - 1014 Budapest I., Uri u. 49. Hungary

**Dragos Gheorghiu** Department of Research, National University of Arts, 19 Budisteanu, Bucharest, Romania

**Fredrik Hallgren** Centre for the Humanities, Uppsala University, Postbox 626, SE-751 26 Uppsala, Sweden

**Anne Hauzeur** Société Royale Belge d'Anthropologie et de Préhistoire, 29 Vautier, B-1000 Brussels, Belgium;  
Musée National d'Histoire et d'Art de Luxembourg, Section Préhistoire, Marché-aux-Poissons, L- 2345 Luxembourg

**Asa Larsson** Department of Archaeology and Ancient History, Centre for the Humanities, Uppsala University, Postbox 626, SE-751 26 Uppsala, Sweden

**Italo M. Muntoni** Museo delle Origini, Università di Roma “La Sapienza”, P.le Aldo Moro 5, 00185 Rome, Italy

**George Nash** Department of Archaeology and Anthropology, University of Bristol and SLR Consulting, Shrewsbury, Senate House, Tyndall Avenue, Bristol BS8 1TH, UK

**Mehmet Özdoğan**, Chair, Department of Prehistory, Istanbul University, 34459 Istanbul, Turkey

**M. Pilar Prieto-Martínez** Parga Pondal Program, Heritage, Paleoenvironment and Landscape Laboratory (IIT, USC). Associated Unit: Landscape Archaeology Laboratory, Padre Sarmiento Institute of Galician Studies (CSIC-XuGa), Spain

**J. P. de Roever** Groningen Institute of Archaeology, Poststraat 6, 9712 ER Groningen, The Netherlands

**Michela Spataro** Conservation and Scientific Research Department, The British Museum, Great Russel Street, London WC 1B 3DG, U.K.

## PREFACE

The discovery of ceramic objects within Palaeolithic and Mesolithic societies, occurring as early as the second part of the 20<sup>th</sup> century, contributed to a re-evaluation of the complexity of prehistoric societies and focused the attention of scholars on the emergence of pottery before the advent of the Neolithic. In the last decades, new discoveries in Europe, and re-interpretations of material culture brought into light the contribution of the forager indigenous populations to the process of formation of ceramic traditions, preparing the ground for a shift in the interpreting paradigm.

For this reason I salute **Cambridge Scholars Publishing Ltd.**'s decision to edit a book on such a fascinating, up to date subject in archaeology, history of technology and anthropology, which will be of interest both to scholars, and to the public at large.

The present work has its origins in a session titled «Ceramic Traditions and Clay Cultures in the European Neolithic», co-organised by Dragos Gheorghiu and George Nash in 2005, at the 11<sup>th</sup> European Association of Archaeologists Meeting in Cork, which gathered most of the European experts in ancient ceramics, who authored the chapters of the volume. Its aim is to present some of the important ceramic traditions of the period between the 7<sup>th</sup> and the 4<sup>th</sup> millennia B.C., selected based on a geographical and chronological progression, so as to offer the reader a panoramic image of the phenomenon of the emergence of pottery in Europe; consequently, the first chapter begins with a re-evaluation of the process of emergence of pottery in Anatolia, considered by many scholars to have been the birthplace of the craft which then spread to Europe, other chapters deal with the Balkans and the Adriatic, the Mediterranean, represented by SE Italy and NW Spain, Central and western Europe and Southern Scandinavia.

Presented in ten case studies, the discovery of pottery is discussed in various societies: Neolithic farmers, Late-Mesolithic hunter-gatherers, and foragers transiting to farming, and is approached as an independent, as well as an interactive process between the abovementioned societies, making use of present concepts, but also challenging the limits of the current knowledge and preparing the ground for new interpretations of the subject.

## ACKNOWLEDGEMENTS

I would like to thank Cornelia Cătuna, Bogdan Capruciu, and Dr. George Nash for the help with the editing of the English version of the text, Dr. Michela Spataro for the cover illustration and Dr. Marin Nica for the images from Craiova Museum.

Last but not least, thanks to Amanda Millar and Carol Ckoulikourdi for the kind help in completing the present book.

The experiments mentioned in the introductory chapter were financed by a CNCSIS grant (No. 112).

D. G.  
Vadastra, August 2008



# INTRODUCTION

## EARLY POTTERY: A CONCISE OVERVIEW

DRAGOS GHEORGHIU

Ceramics, a first artificial material (resulting from an irreversible process of transformation of the clay; see David *et al.* 1988: 366), emerged in the dynamic prehistoric hunter-gatherer, or early Neolithic societies as pottery, a new material alternative to the design of massive non-transportable, or small transportable, containers (see de Roever 2004: 163), and a new kind of packaging with a high signalling potential (see Bliege Bird and Smith 2005: 234).

The improvements in the processing of food that occurred with the shift from indirect to direct cooking (Brown 1989: 207), the fermentation of cultivated plants, as well as the processing and consumption of the secondary products of the domestication process (Sherratt 1997) required a new material for an effective utilization and for support of the social competition (for a visualization of the various rituals employing pottery in a traditional society see Ionas 2000: 30 ff).

From the perspective of materiality, one may consider the emergence of pottery as being supported by a specific mystique, due to the symbolism of this new materiality (ceramics), whose skeuomorphic<sup>1</sup> character, manifested especially in the production of pottery, was considered most important. The skeuomorphic hypothesis of the advent of pottery from basketry, or other containers made of organic materials, has a long tradition which extends to Tylor (1871), and was resurrected by Childe (1951), Wormington and Neal (1951), and later employed by many others (for an extended bibliography see Brown 1989).

In the archaeological record of the 8<sup>th</sup>–7<sup>th</sup> millennia BC, the first unbaked clay and ceramic vases comprised miniature objects (Cauvin 1997: 69, fig. 18; Özdoğan, this volume). There is no possibility to infer

---

<sup>1</sup> “an object of feature copying the design of a similar artefact in another material”, *The Oxford Encyclopaedic English Dictionary*

whether these symbolic containers were skeuomorphs of valuable containers made of stone, wood (see Mellaart 1965: fig. 69) or lime (the so-called *vaisselle blanche*, Özdoğan, this volume), or of the less valuable plastered baskets used for storage (Fig. 0-1). This double source of skeuomorphism seems to be more evident in the later ceramic production, which was split into a prestige technology (Hayden 1995: 258) of the “fine” (or prestige) pottery (Fig. 0-2) copied after wooden (Fig. 0-3) and stone models, and a less sophisticated one of the “coarse” ware for food storage, which copied the plastered baskets.



Fig. 0-1. Plastered baskets for grain storage, early 20<sup>th</sup> century Romania, Museum of Agriculture, Slobozia, Romania. (photographs by D. Gheorghiu).





Fig. 0-2. Ceramic painted vase, proto-Criș, Cârcea, 6<sup>th</sup> millennium BC, Museum of Art and History, Craiova, Romania. (photograph by F. Alexa).



Fig. 0-3. Carved wooden vase, proto-Criș, 6<sup>th</sup> millennium BC, Grădinile, Museum of Art and History, Craiova, Romania. (photograph by F. Alexa).

In support of my hypothesis I consider the semiotic value of pottery decoration. In farming societies, coarse pottery patterned with rows of incisions, or grooves made of slip, could, for example, symbolize plastered wickerwork. In addition horizontal and vertical rows with incisions could stand for cordage, ropes and plaiting for the vase protection and manipulation. It is possible that the pinches and nail incisions or shell and grain impressions could convey a semiotic message about the content of the vessel. For fine pottery wares, painted patterns could have possibly illustrated woven textile decoration or protection (see Barber 1991: 9; Zhushchikhovskaya 2005: 59ff). Such a plaited fibre wrapping would efficiently protect the ceramic vases, while allowing for their safe mobility.

There is no paradox in that pottery was produced equally in farmer and forager communities: the manufacturing of pottery was a rapid process which was developed by a society with a high degree of mobility (and in this respect both hunter-gatherers and farmers were very dynamic, bridging many landscapes). This is contrary to the ethnographic data which does not confirm the presence of pottery in contemporary forager societies (Arnold 1999; Binford 2001).

One can postulate a symbolic relationship between the pottery's technological rites of manufacturing (Gosselain 2002: 55ff), or pyrotechnology, and the diverse technologies of food and beverage preparation, or with particular rites of passage (David *et al.* 1988); in this scenario the paste (the mix of clay with water) could have been processed in an analogous way to the alimentary paste (bread or fermented dough for beverages).

Pottery is the result of a *chaîne opératoire* process applied to the clay paste, with some stages determined by the laws of firing, and with others which allow a subjective intervention of the community (see Gheorghiu 2008a: 167; Gheorghiu 2008b) to introduce its recognised symbols. Beside the weakening of the thermal shock (Walter *et al.* 2004) the choice of the temper was a symbolic action (Hultén 1985: 335), socially determined (see Arnold 2005: 16); for example, in the Pitted Ware culture (Larsson, this volume), bone temper could symbolize the « bone skeleton » of the vase, but could also be a symbol of a specific food.

The presence of this practice in the Linearbandkeramik (LBK) farmer communities in the northern part of continental Europe (Rauba-Bukowska *et al.* 2007) could be explained as an acculturation with forager populations.

Similar to the construction of the vases, their ritual destruction (see Chapman 2000; Chapman and Gaydarska 2007; Lukes 2004: 21; Larsson, this volume), represented a symbolic decision of the community.

The firing of the potteries by Neolithic farming communities could be regarded as an evolutionary process of protecting vases during the process of combustion, from the shallow pits (Fig. 0-4) to the up-draught kilns (Simson 1997: 39) generating temperatures of over 800°C (Fig. 0-5) for the production of *figulina* fine pottery. This technological improvement did not however eliminate the parallel use of diverse technologies of combustion (see Vitelli 1997: 32 ff).



Fig. 0-4. Bonfire using dried dung as principal fuel. Note the fire clouds on several vases. Experiments carried in Vadastra village by the author in 2001 (photograph by D. Gheorghiu).

Fig. 0-5. An up-draught kiln after firing. The bright round area around the vent is the ceramic wall of the kiln. Experiments carried in Vadastra village by the author in 2002 (photograph by D. Gheorghiu).

Beside its main function of containing or storing, diverse substances of value (Vitelli 1993: 254; Vitelli 1989: 26; Delpino and Tiné 2003: 65), another function of the early fine ceramics was to support symbolic information associated with social competition (Sherratt 1991: 229; Chapman 1988: 4). These ceramics would have possessed a high signalling potential (see Bliege Bird and Smith 2005: 234). Wealth through display, for example, would have been communicated via the quality of the manufacturing of the body shape and of its decoration, but also by the conspicuous consumption of the potlatch-like breakage of the vases (for an extended bibliography see Gebauer 1995: 108).

One explanation for the high social visibility of the fine pottery may lie in its use in collective rituals of consumption (Chapman 1988: 19), and the quality of the decoration (sometimes on the inside of the vases). Their use may be similar to the drinking rituals evident in the later prehistory (Dietler 1996; Vander Linden 2001; for the consumption of beverages in

prehistory see Sherratt 1987; Vencl 1994; Jennings *et al.* 2005). One possible interpretation for the fine pottery, such as the pedestaled cups to be found in Greece (see Vitelli 1993: 438) to the Balkans and Central Europe (see Keroualin 2003: 124; Vizdal 1997: 119, 122), would be that it represented prestige through public and visible feasting rites (Dietler 1996; Hayden 1996; Le Count 2001), in contrast to the coarse pottery which represented the private zone of food preparation, consumption and storage.

A ritual utilization of pottery seems to have also taken place in the (semi-sedentary) hunter-gatherers' communities at Lepenski Vir I (Budja 2003) or Padina (Jovanović 2008), as inferred by its presence in contexts with high symbolic value like hearths or ovens (Jovanović 2008: 293). The hunter-gatherer pottery execution not at high standards, the simplicity of its decoration and the small number of types are all factors that lead us to infer its functional use (de Roever 2004: 161; Gebauer 1995: 103; Andersen and Malmros 1985: 81), or a ritual-utilitarian syncretism.

Although looking apparently dissimilar, some farmer and forager ceramic traditions share common elements. This may be due to the spread of different ceramic traditions across Europe; the result of multifaceted processes of diffusion and acculturation by means of adoption or acquisition (for the explanation of the terms see Zvelebil 2001), as the consequence of a more or less direct contact between farmer and the hunter-gatherers communities. From the Neolithic "package" (containing domesticates, crops and tools; Pluciennik 1998, as well as modes of living, cult, symbolism, subsistence, technologies, social organization and status objects, Özdoğan 2005: 23), Late Mesolithic communities employed a selective adoption, or "acquisition" of "[m]aterial symbols associated with agriculture" (Armit and Finlayson 1992: 674), pottery being acquired *before* other components due to its important symbolic and ritual role. For example, at Lepenski Vir I (Borić and Stefanović 2004: 536) on the Danube, as well as in the Swifterbant or Ertebølle traditions (Raemaekers 1999: 186, fig. 5.1) of North Western Europe, pottery appears to have been adopted before the other Neolithic traits. One element of the *Neolithic package*, whose distribution can be traced from Western Asia (Cauvin 1997) to Central Europe, but was not present in the farmer communities of Western Mediterranean (Guilaine and Manen 2007: 29), nor in all hunter-gatherer communities, was the ceramic anthropomorphic figurine tradition (see King and Underhill 2002).

## The Earliest Ceramic Traditions in Europe

Europe was the last geographic region of the *Old World* where the production of pottery emerged. Situated at a relatively same distance from two early centres of ceramic genesis, the first being the Near East, in the area including the Tigris-Euphrates basin (Mellaart 1975; Moore 1995; Nishiaki and Le Mière 2005) and Anatolia (Özdoğan and Başgelen 1999; Özdoğan, this volume), and the second North Africa (Barich 1984; Close 1995, Guilaine 2005: 91), 7<sup>th</sup> millennium BC Europe was the theatre of complex socio-political processes that included the spread of this new technology, which, in the next millennia would reach the north-western limits of the continent.

Contrary to Eastern Asia, where pottery was present as early as the early 13<sup>th</sup> millennium b.p. in the Mesolithic forager communities of Japan (Aikens 1995: 11; Kobayashi 2004), or in China (Zhushchikhovskaya 2005: 10), Europe was characterized by an aceramic Mesolithic until around the 6<sup>th</sup>–5<sup>th</sup> millennia BC, when some local productions (with no archaeologically supported connection to Eastern Asia) began to emerge (but for a possible Asiatic influence on European foragers see van Berg and Cauwe 2000; Cauwe 2004; Gronenbon 2003; Timofeev 1998a, 1998b).

The current theories on the emergence of the Neolithic, and consequently pottery, in Europe are divided into two main hypotheses: a) *diffusionism*, following Childe's migrationist model of expansion (e.g. Bogucki 2003) and where the early, initial theories proposed a farmers' continuous "wave of advance" (Ammerman and Cavalli-Sforza 1984; Cavalli-Sforza 1996; Cavalli-Sforza and Cavalli-Sforza 1995; Cavalli-Sforza *et al.* 1993; Gkiasta *et al.* 2003; Pinhasi *et al.* 2000), and latter ones suggesting a diffusion characterized by small scale movements of a "leapfrog colonization" (Zilhao 2001; Zvelebil 2000: 58; Spataro 2002: 15) and b) *indigenism* (Barker 1985; Whittle 1996; Pluciennik 1998; Tringham 2000), which insists on *autochtonism* through frontier contact and cultural diffusion, or on the cultural independence from Western Asia, to exemplify with the local invention of the monochrome pottery in Thessaly and the Balkans (see Budja 2001, 2004; Thiessen 2000).

Between these two opposing trends, *integrationism*, a post-colonial paradigm (for an extended bibliography see Zvelebil 2004), emphasizes the importance of sequential transition and transformation (Whittle and Cummings 2007) in order to explain the Neolithisation process beyond the simplistic level provided by the confrontation between diffusionists and indigenists (see Kotsakis 2001; Robb and Miracle 2007).

When analysed and applying the current operating models of *diffusionism* and *indigenism*, the emergence of pottery in Europe as a *longue durée* process in the 7<sup>th</sup>–6<sup>th</sup> millennia BC reveals the following major ceramic traditions:

**A)** a continental eastern Mediterranean tradition, with monochrome pottery in Western Asia (see Özdoğan, this volume), whose presence in Europe is still regarded as a slow demic diffusion, whose route and dating still remain a subject of caution (Guilaine 2005: 47; Perlès 2003a; 2003b). After a short punctuated aceramic horizon (Perlès 2004) characterised by unbaked clay containers (at Argissa, in Thessaly), a monochrome pottery (for a forager origin of it see Budja 2004) was followed in South Eastern Europe by *Impresso* (see Özdoğan, this volume) and painted pottery. It has been noted that in the first centuries of the 7<sup>th</sup> millennium BC there is a tendency of ignoring the Anatolian tradition design and to develop an indigenous European painted pottery (see Vitelli 1993; Phelps 2004).

If in some parts of Western Asia, in the later stages of the Pre Pottery Neolithic phase B (PPNB), the real pottery emerged, after an initial period of symbolic, miniature containers (Cauvin 1997: 69; Moore 1995: 46; Guilaine 2005: 30), in Europe the first monochrome ceramic vases seem to have been the result of a syncretism between symbolism and functionalism. It is still difficult to identify their utilitarian function since they were *not* used for cooking on an open fire or for the storage of grain, due to their small dimensions (Björk 1995: 80; Perlès 2001: 216).

After the monochrome episode a splitting-up of the pottery production into two categories (fine-prestige and utilitarian) occurred, with the development of the fine ware and a solid skeuomorphic tradition preserved for the utilitarian containers.

**B)** a continental First Temperate Neolithic (FTN; Nandris 1970) tradition (in the Balkans and the Lower Danube area) which, after a monochrome period followed by one with white painting, continued the tradition of southern painted pottery within the Starčevo-Körös-Criș (SKC) tradition. The conventional diffusionist model of farmers coming from West Asia (Perlès 2005; Özdoğan 2005), which created in the Balkans a first monochrome tradition and an *Impresso* pottery incised with shells on the Adriatic coast (Özdoğan 1997; Perlès 2001; Perlès 2003b), even if supported by recent genetic data (see King and Underhill 2002), is now challenged by indigenists theory (Thissen 2000; Budja 2001; Budja 2005: 41).

Monochrome-*Impresso* pottery was discovered near Late Mesolithic stone sculptures in trapezoidal buildings (Srejović 1971), at the semi-