



HAL
open science

An Ideal Bone for Traditional Dolls. Ruminants Metapodia Figurines: Archaeological And Ethnographical Examples From Africa And Europe

Isabelle Sidéra, Pierre De Maret

► **To cite this version:**

Isabelle Sidéra, Pierre De Maret. An Ideal Bone for Traditional Dolls. Ruminants Metapodia Figurines: Archaeological And Ethnographical Examples From Africa And Europe. Vitezović, Selena. Close to the Bone: Current Studies in Bone Technologies, Belgrade Institute of Archaeology, pp.315-323, 2016, 978-86-6439-006-4. hal-01548550

HAL Id: hal-01548550

<https://hal.parisnanterre.fr/hal-01548550v1>

Submitted on 28 Jun 2017

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Close to the bone: current studies in bone technologies

Publisher:

Institute of Archaeology, Belgrade

For publisher

Miomir Korać

Editor

Selena Vitezović

Editorial board

Steve Ashby (United Kingdom), Corneliu Beldiman (Romania), Alice Choyke (Hungary), Erik Hrnčiarik (Slovakia), Heidi Luik (Estonia), Sofija Petković (Serbia), Isabelle Sidéra (France)

Reviewers

Steve Ashby (United Kingdom), Corneliu Beldiman (Romania), Alice Choyke (Hungary), Idoia Grau Sologestoa (Spain), Erik Hrnčiarik (Slovakia), Heidi Luik (Estonia), Marko Janković (Serbia), Bernadeta Kufel-Diakowska (Poland), Matías E. Medina (Argentina), Sofija Petković (Serbia), Siniša Radović (Croatia), Isabelle Sidéra (France), James Symonds (Netherlands)

Graphic layout

Amalija Vitezović

ISBN 978-86-6439-005-7 (electronic)

ISBN 978-86-6439-006-4 (print)

Front cover illustration

Caričin Grad (Iustiniana Prima), 6th century AD

Back cover illustration

Niš (Naissus), 4th-6th century AD

This book is published with the financial support of the Ministry of Education, Science and Technological Development of the Republic of Serbia.

Institute of Archaeology

Close to the bone:

current studies in bone technologies

Editor:

Selena Vitezović

Belgrade

2016

TABLE OF CONTENTS

Introduction	7
Ch. Arabatzis , Bone industry from the prehistoric settlement Anarghiri IXa, Florina, Greece	9
S. Ashby , Worked bone on the Wolds: a review of what we know about bone industry and objects in the Chalk Hills of Yorkshire's North and East Ridings	18
J. Baron, M. Diakowski, T. Stolarczyk , Bone and antler artefacts from an 8-5 th century BC settlement at Grzybiany, South-Western Poland	28
C. Beldiman, D.-L. Buzea, D.-M. Sztancs, B. Briewig , Microscopy of prehistoric symbolic artefacts. Wietenberg decorated antler plate discovered at Șoimeni, Harghita County	48
V. Bikić, S. Vitezović , Bone working and the army: an early eighteenth-century button workshop at the Belgrade fortress	57
S. Vuković-Bogdanović, I. Bogdanović , Late Roman bone anvils from Viminacium	66
J. Bradfield , Fracture analysis of bone tools: a review of the micro-CT and macrofracture methods for studying bone tool function	71
N. Buc, D. Rivero, M. Medina , The late Holocene bone tools from Quebrada del Real 1 (Sierras of Córdoba, Argentina)	80
I. Bugarski , Carved antler tools from Nosa and Mandelos reassessed: a glimpse into the Avar pictorial evidence	86
M. S. Campos-Martínez, G. Pérez-Roldán , Worked human bone from Teotihuacan, Mexico (1 st -6 th centuries A.D.)	98
T. Čerškov, G. Jeremić, S. Vitezović , Zoomorphic decorations from osseous materials from Naissus (Niš)	104
É. David, C. Casseyas, P. van der Sloot, J.-M. Léotard , A cross-border use of in-growth antler, to face Neolithisation	112
E. Gál , Late Copper Age and Early Bronze Age bone tools from the site of Paks-Gyapa (South-Eastern Transdanubia, Hungary)	121
L. Gidney , Bone artefacts from medieval and post-medieval windmills: changing interpretations	128
E. Grassi , Bone anvils from the city of Sassari (16 th -18 th centuries AD)	133
E. Hrnčiarik , Roman bone artifacts from Iža	140
H. Kalafatić, S. Radović, M. Čavka, M. Novak, M. Mihaljević, R. Šošić Klindžić , A rare find of bone beads from the Late Bronze Age cemetery in the Southern Carpathian Basin	146
M. Kovač , Several observations on semi-finished bone products supporting the existence of a bone workshop in Mursa	154
Z. Kovancaliev , Bone cylindrical objects from Stobi	160
F. Lang , Objects made of antler and antler production in the Roman Municipium Iuvavum (Salzburg)	168
H. Luik , Bone working in the suburbs of Medieval and early modern Tallinn, Estonia	178
H. Luik, G. Piličiauskienė , Bone tools at the neolithic sites of Šventoji, Lithuania: raw materials and working methods	188
V. Manojlović-Nikolić , A contribution to the study of Medieval bone industry: bone and antler objects from the site of Pontes – Trajan's bridge (9 th –11 th century)	201

M. Mărgărit, Exploitation of the <i>Unio</i> sp. valves for non-alimentary purposes in the Romanian Eneolithic. Archaeological and experimental data	208
N. Marković, S. Stamenković, Antler workshop in Caričin Grad (<i>Justiniana Prima</i>): reconstruction of the technological process	218
G. Nuțu, S. Stanc, Carved bone and antler in northern Dobruja	226
J. Orłowska, Reading osseous artefacts – an application of micro-wear analysis to experimentally worked bone materials	236
G. Osipowicz, Technical approach of two mesolithic bone harpoon heads from Wiele 33, central Poland	248
S. Petković, Bone fibulae as grave gifts in Upper Moesia	257
S. Redžić, Roman buckles made from bone and ivory discovered at the site of Viminacium	261
I. Riddler, N. Trzaska-Nartowski, Production in Hamwic: six dials structure 15	265
M. Ružić, A strange bone object from late Roman necropolis Gladno polje in Bela Palanka (Remesiana)	284
T. Sekelj Ivančan, Early Medieval bone tools from Northern Croatia	289
A. Shatil, Bone figurines of the Early Islamic period: the so called “Coptic dolls” from Palestine and Egypt	296
I. Sidéra, P. de Maret, An ideal bone for traditional dolls. Ruminants metapodia figurines: archaeological and ethnographical examples from Africa and Europe	315
P. Stokes, A new interpretation of post-medieval bone scoops from the foreshore of the river Thames in London	324
D.-M. Sztancs, C. Beldiman, M. Gh. Barbu, M. M. Barbu, Artefacts made of perforated shells discovered in a Bronze Age ritual pit from Uroi, Hunedoara County, Romania	338
T. Tkalčec, Life in a mediaeval castle: bone artefacts as indicators of handicraft and leisure	356
Vinayak, Possible smoothening and polishing techniques practiced over bone and antler arrowheads at iron age sites of Atranjikhera and Jakhera	364
K. Winnicka, More than meets the eye: microscopic and technological studies on Early Bronze Age bone and antler beads from Kichary Nowe, south-eastern Poland	376
List of contributors	395

INTRODUCTION

Studies of worked osseous materials were neglected for a long time, but in the past two decades they are on the rise. In recent years, numerous methodological and theoretical innovations were introduced and the quantity and quality of publications increased, including numerous individual articles, PhD thesis, monographs. Particularly important were several conferences and thematic sessions held in Europe, North America and Asia, devoted to the problems of worked bone. As a result, several edited volumes appeared, with high quality and diverse papers – for example, those edited by H. Luik et al. (2005), Ch. Gates-St-Pierre and R. Walker (2007), A. Legrand-Pineau & I. Sidéra et al. (2010), J. Baron and B. Kufel-Diakowska (2011), F. Lang (2013), A. Choyke and S. O'Connor (2013), Märgärit et al 2014, to mention just a few.

Osseous materials began to be recognized as an important part of the archaeological finds first by the French school, and the most important theoretical and methodological work was done by French researchers. The most significant was the work by H. Camps-Fabrer, who initiated a large research program on bone industry, *La Commission de Nomenclature sur l'Industrie de l'Os Préhistorique*, later continued by other researchers. Work organized by M. Patou-Mathis on the *industrie osseuse peu élaboré* should also be mentioned. However, the most important role in spreading and promoting the research on bone artefacts and its importance in the past few decades has been that of the Worked bone research group (WBRG), formed almost 30 years ago, and one of the official working groups of the International Council for Archaeozoology (ICAZ) since 2000. The main role of the WBRG is to improve communication between individuals studying worked animal hard tissues (especially bone, antler, and ivory) with a special emphasis on archaeological finds. A broad diachronic and multi-disciplinary approach is emphasized in order to promote the exchange of ideas concerning attitudes towards and procurement of raw materials, technology, and cognitive aspects of bone working.

Since the first meeting, held in London in 1997, eight other meetings took place and in 2014 Belgrade was the host of the jubilee 10th Meeting of the WBRG (for more information, see www.wbrg.net).

Over sixty oral and poster presentations were held during the five conference days, contributed by 100 authors. Thirty-nine papers were selected for this volume, and I. Riddler, the organiser of the very first meeting in London, also contributed a paper with N. Trzaska-Nartowski.

Selected papers encompass the wide chronological and geographical range – from the Mesolithic period to the 18th century AD, from South America to the Eurasia

and South Africa. Selected case studies do not simply present interesting archaeological material, but they also cover a wide range of topics – methodological issues, in particular traceological investigations, reconstructions of technological procedures, problems related to the interpretation of functions, problems of the identification of workshops, and also symbolic use of osseous raw materials in both prehistoric and historic times. Papers are organised by alphabetical order, since the topics overlap and it was not possible to create distinctive thematic groups.

Such a variety in topics, as well as an increasing number of researchers focusing on studies of osseous raw materials, clearly shows that these studies have an important potential to contribute to the more general archaeological studies. Osseous artefacts are no longer disregarded, but are slowly gaining more and more space and are slowly taking place alongside with lithic industries and other classes of raw materials. However, there is still much work to be done, and bone tool studies still have to show all the potential they have.

Last but not least, I would like to thank all the people who helped during the conference and afterwards, during the preparation of the book. Special thanks to all the colleagues from the Institute of Archaeology and to all the colleagues and staff from the National museum in Belgrade, which generously offered the room for the conference and also helped with the lovely post-conference excursion to the Lepenski Vir. I would also like to thank for the hospitality to Dragan Janković, curator of the City museum, who welcomed us at the site of Vinča-Belo Brdo, and to dr Mira Ružić, who welcomed us at the Archaeological collection of the Faculty of Philosophy.

Finally, special thanks to the reviewers, who helped to enhance the scientific value of this volume.

The conference and the publication of this book were financially supported by the Ministry of education, science and technological development of the Republic of Serbia.

Choyke, A. M. and Bartosiewicz, L. (eds.) 2002. *Crafting Bone: Skeletal Technologies through Time and Space. Proceedings of the 2nd meeting of the (ICAZ) Worked Bone Research Group Budapest, 31 August – 5 September 1999*. Oxford: British Archaeological Reports International Series 937

Gates St-Pierre, Ch. and Walker, R. B. (eds.) 2007. *Bones as Tools: Current Methods and Interpretations in Worked Bone Studies*. Oxford: British Archaeological Reports International Series 1622.

Close to the bone...

Kufel-Diakowska, B. and Baron, J. (eds.) 2011. *Written in Bones. Studies on technological and social contexts of past faunal skeletal remains.* Wrocław. Uniwersytet Wrocławski–Instytut Archeologii.

Lang, F. (ed.) 2013. *The Sound of Bones. Proceedings of the 8th Meeting of the ICAZ Worked Bone Research Group in Salzburg 2011.* Salzburg: Archaeo Plus. Schriften zur Archäologie und Archäometrie der Paris Lodron-Universität Salzburg 5.

Legrand-Pineau, A., Sidéra, I., Buc, N., David, E. and Scheinsohn, V. (eds.) 2010. *Ancient and Modern Bone Artefacts from America to Russia. Cultural, technological and functional signature.* Oxford: British Archaeological Reports International Series 2136.

Luik, H., Choyke A., Batey, C. & Lougas, L. (eds.), *From Hooves to Horns, from Mollusc to Mammoth – Manufacture and Use of Bone Artefacts from Prehistoric Times to the Present. Proceedings of the 4th Meeting of the ICAZ Worked Bone Research Group at Tallinn, 26th–31st of August 2003.* Tallinn : Muinasaja teadus 15.

Mărgarit, M, Le Dosseur, G., Averbouh, A. (eds.) 2014. *An Overview of the exploitation of hard animal materials during the Neolithic and Chalcolithic. Proceedings of the GDRE PREHISTOS Work-Session in Târgoviște, Romania, november 2013.* Târgoviște: Editura Cetatea de Scaun.

Selena Vitezović

AN IDEAL BONE FOR TRADITIONAL DOLLS. RUMINANTS METAPODIA FIGURINES: ARCHAEOLOGICAL AND ETHNOGRAPHICAL EXAMPLES FROM AFRICA AND EUROPE

Isabelle Sidéra
Pierre de Maret

Abstract: In this paper will be discussed the use of ruminant metapodial bones for making figurines during Neolithic in the Old world. The context of these objects is either settlements or graves. Though, their value is clear, but remains quite mysterious. In the publication they often considered as idols. Many examples of these objects can be cited, either from archaeological or ethnographical contexts. Ruminant metapodial is a frequent support for making dolls in Africa. After having depicted the characteristics of those we know in Neolithic, we will discuss the fonction of such objects, on the basis of use-wear and ethnographical comparison.

Apstrakt: U ovom radu će se raspravljati o upotrebi metapodijalnih kostiju preživara za pravljenje figurina tokom neolita u Starom svetu. Kontekst ovih predmeta je ili iz naselja ili iz grobova. Njihova je vrednost očita, ali ostaje misteriozna. U brojnim publikacijama smatraju se idolima. Brojni primeri ovih predmeta mogu se pomenuti, kako iz arheoloških, tako i iz etnografskih konteksta. Metapodijalne kosti preživara često su korišćene za izradu lutki u Africi. U ovom radu ćemo dati opis osnovnih odlika primeraka koje poznajemo iz neolita i raspravljati o njihovoj funkciji, na osnovu tragova upotrebe i etnografskih poređenja.

These past five decades have seen a development in the study of prehistoric bone industries based on an increasingly skilful and in-depth analysis of the objects. This improved knowledge of the tools has provided a better understanding of the way they have been transformed, which helped form an image of the industries as processes fashioning objects – sometimes quite intensely – in accordance with narrow cultural norms (Camps-Fabrer, 1964; Choyke, 1984; Goutas, 2003; Legrand, 2007; Sidéra, 1993 & 2012). In order to complete the picture of the bone tool kit, we drew attention, in the 5th conference of the WBRG, to the existence of previously unrecognised elementary pieces consisting of simple traversal segments of broken bones. These are scarcely distinguishable from butcher's scraps or left-overs after consumption, but in reality are tools without apparent shaping. Only the wear traces - smoothing, striations, macro- or micro-flaking and deformations of volume in the active parts - identifiable with microscopic equipment – indicate they were real cutting tools probably used as adzes. We therefore previously termed them “crude adzes” (Sidéra, 2010).

Here again we should like to draw attention to unknown objects, but of another type. They are made from ruminant metapodia, more or less fashioned, to which the expressive metaphoric properties of the human body had been assigned: they were in fact dolls. Like the “crude adzes” they exploited the bones' natural forms. These objects, well documented in Africa by ethnography, are worth studying to be able to identify them within archaeological assemblages. Attested in diverse places and periods of prehistory and history these anthropomorphic bone figurines are often highly worked. They are known in the Upper Palaeolithic (de Saint Périer, 1924: 82; Hahn, 1971: 234) (fig. 1, no. 1), in the Balkan Neolithic

and Chalcolithic (Todorova 1978; Ivanov 1988; Lichardus 1988; Sidéra 1998; Biehl 2003) (fig. 1, no. 2), in Antiquity (Bianci, 2012) (fig. 1, no. 3), in the Byzantine period (fig. 1, no. 4), as well as at the beginning of the Islamic period in the Middle East and Africa (Early Islamic period) (Shatil, 2013 & this volume) (fig. 1, no. 5). Here we will examine the characteristics of the pieces made from ruminant metapodia and the attributes that make them artefacts, as well as the contexts in which they are found and in which they were used.

DOLLS: DATA FROM AFRICAN ETHNOGRAPHY

Ethnography provides multiple examples of dolls in varied forms and made from various materials – including bone. These dolls are associated with diverse uses, some of them for play, but also ritual or magic. The three aspects are often mixed at the same time or successively in the same doll (Lusardy, 2006) – as we shall see below through concrete examples. For the sub-contemporary periods western and southern Africa are known for important series of metapodial dolls. They illustrate the variety of treatments bones used for these purposes can undergo and provide clues with which to identify such objects within archaeological collections. We shall describe them while emphasizing how the material is treated and the wear traces that may be found on them.

Certain African dolls consist of a metapodium left as it is without any technical intervention or addition. Sometimes, the proximal extremity is just planed down slightly. Lutten (1933: pl.1) reproduces a photo of three young girls from Metteboulou in Senegal, one of whom is holding a simple metapodium without any artifice – in reality a doll.

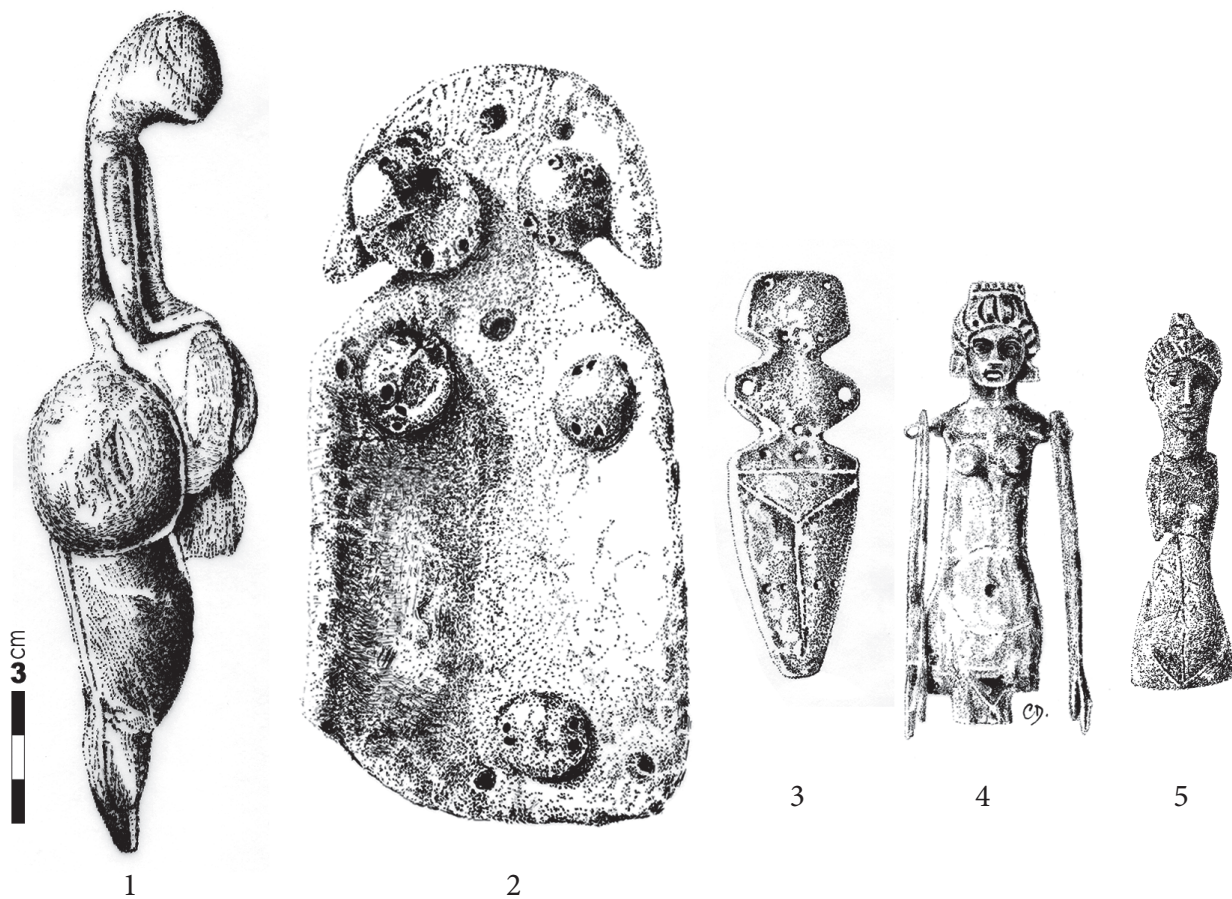


Fig. 1: Figurines through time. 1. Venus of Lespugne – France (ivory), Gravetian, from de Saint Perrier, 1924 fig. 1. 2. Figurine of Varna – Bulgaria (bone) Karanovo VI-Gumelnitza, From Lichardus, 1988 fig. 73. 3. Figurine Gumelnitza (bone), no specific source. 4. Roman Doll (ivory), Italie, IIIth c. AD, from Le Louvre. 5. Doll of Zeugma (bone), Turquie IIIth c. AD, from Feugère 2014.

Along the coast of West Africa (fig. 2) whole goat metapodia above all, but also from cows and sometimes pigs, are used. Once the bone has been dried and cleaned, rings made of leather, metal, or fine glass beads are added - representing necklaces or belts, or again ear-rings (fig. 3, no. 1, 2 & 3). In this case the father of the girl pierces, from one side to the other, the epiphysis, which is to form the doll's "head" (fig. 3, no. 2). These piercings are the only direct technical interventions on the bone. Unlike the previous example in this case there is an explicit reference to the human body. The personal ornamentations, evoking a woman's attire, give all its dimensions to the object - thereby becoming a metonym for the feminine body. With the Balantes of Guinea Bissau, Landumas of Guinea Conakry and Himba of Namibia one can even tie a string to your bone doll to carry it over the shoulder (fig. 4). All these dolls are called "di kori", which means "bone son/daughter". They are used to favour young women's fertility. According to Allainmat (1942) a women treats this "bone son" like a real child and when she bears her own child she will give it to him as a toy. An important element is apparent here concerning the ambiguous and multiple statuses of these *di Kori* dolls. They have a role that is both profane and magical; for they are endowed with propitiatory virtues. Rossie, whose study concerns the dolls of the Moroccan Atlas (2005: 200), also under-

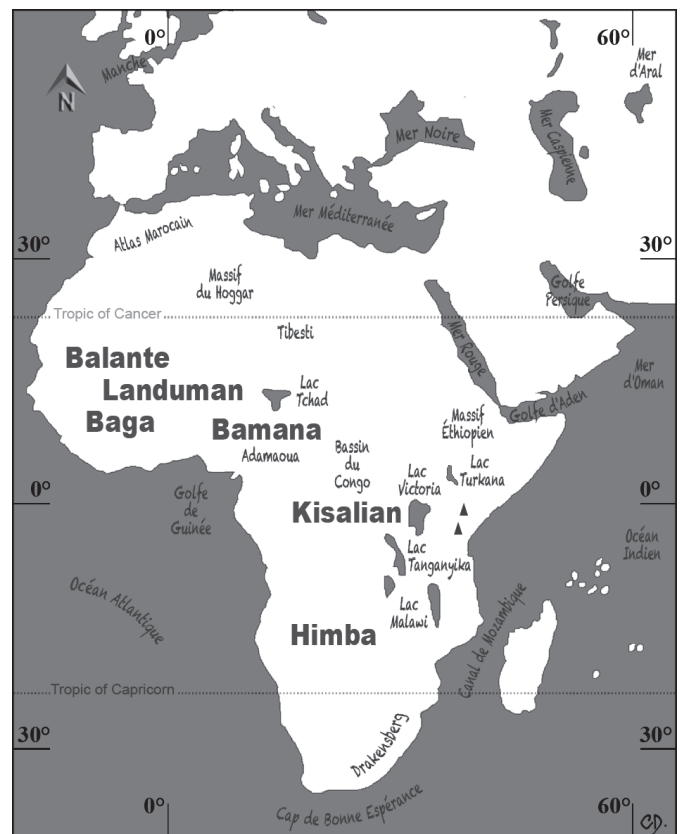


Fig. 2: Location of identified metapodian dolls in Africa.

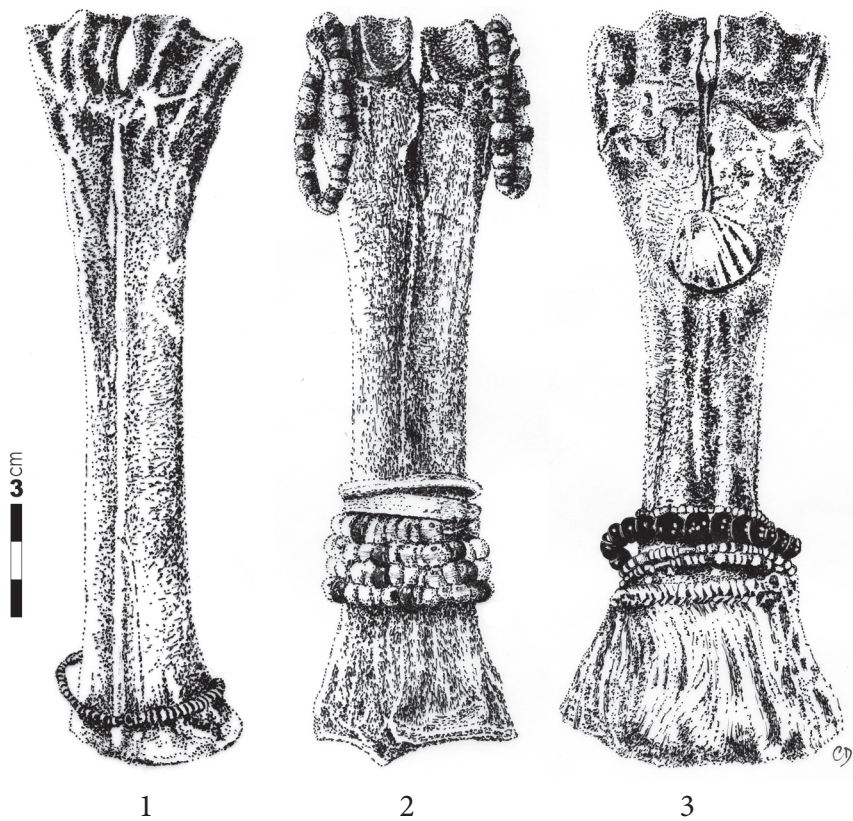


Fig. 3: Balante dolls “Di Kori”, Guinée-Bissau. 1: Bare Metapodium with a belt made of small glass beads. 2: Bare Metapodium with belt, necklace and earrings made of glass beads and leather. 3: Bare metapodium with a belt made of small glass beads, a shell glued to the bone, and a skirt of vegetal fibres.

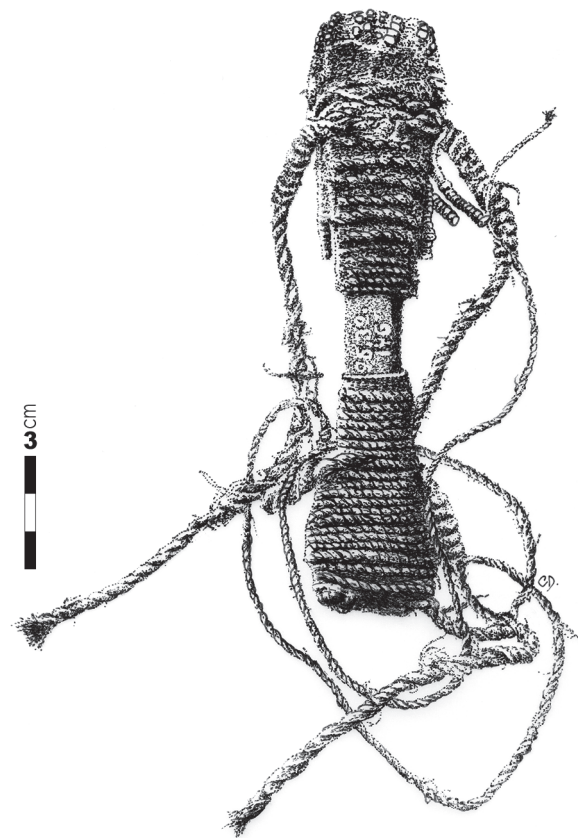


Fig. 4: Himba doll, Namibia. Covered Metapodium. String with bead ornaments, covered in red Mineral powder, which frames a decorated diaphysis. The doll includes a shoulder strap for carrying.

lines this ambiguity “... the distinction between ritual doll and child’s toy doll can become blurred as is the case for dolls used to simulate burials or for the wooden spoon dolls used to make rain”. Other authors have also underlined the connection between the African dolls and women’s fecundity (Dagan, 1990; Cameron, 1996; Leibhammer & Dell, 1998) which is connected to the fertility of the soil and are characteristic of agricultural cultures according to Lusardy (2006). Thus among the Bissagos of Guinea Bissau the “bone children” are cow metapodia that hang down girls’ backs until they are married; both toy and symbol of fecundity, the object represents the child to come (Duquette 1983: 132-133; Cameron 1996: 62). Moreover, in Senegal paired dolls exist made from two ruminant metapodia of different sizes – large and small – joined together with a coloured cord. This again suggests the clothing in the representation of the mother carrying her child on her back (fig. 5, no. 1 & 2). To designate these objects, on which all kinds of daily care are lavished, Gell, in his anthropological theory of art and agency, speaks of a “quasi-person” (1998, 133-134). These terms are perfectly adapted to these figurines.

What makes the object a “doll” are not the modifications made to the bone, which is most often left untouched, but all the external attributes that are added to it – numbers of which are of perishable materials. In many cases they will leave no trace once they have disappeared. They also prevent marking by wear traces, since they protect the bone by covering it (fig. 5). In the Moroccan Atlas the metapodial dolls have the following appearance: “A leg bone from a sheep slaughtered for the *aïd el-kebir*, that is the tenth day of the month of *dhu-el-hijjah* (the last month in the Muslim calendar and the month of pilgrimage), is used by girls in the region of Khouribga - near Settat and not far from Casablanca – to make a doll called *ashûra*. A stick is tied across this bone to represent the arms and the resulting frame is then dressed as a woman. The girls put henna on the doll’s head. The face is not indicated” (Rossie, 2005: 200). Clearly, if such objects were brought to light once their perishable adjuncts had decayed and with no information as to their purpose or context of use, there would be nothing to indicate their actual function and the archaeologist would be helpless. In certain examples bee’s wax can be placed on the bone to model the breasts or the features of the face (fig. 6, no. 1 and 2). The bone is also hidden under

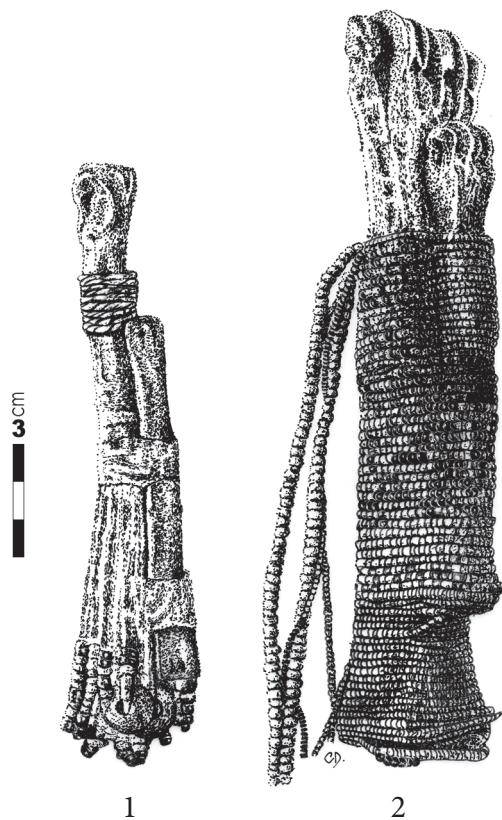


Fig. 5: Mother and child Dolls “Di Kori”. 1. Nigeria, coll. Meynet. Metapodia set together partially with string, leather, vegetal material, with glass beads, coins, and brass rings. 2. Togo. A string covers entirely the body, except the heads.

the covering material. Cameron (1996: 63) reproduces a doll from the Horstmann collection modelled on a cannon bone entirely covered with bee’s wax. This wax and bone doll represents a woman with her baby on her back. It has two small white beads for eyes and is ascribed to the Bamanas of Mali. In the centre of Togo the wax can be applied at certain points on the bone, for the purpose of modelling the face with eyes made of two grains, a pair of breasts and a conic base (Bachmann & Hansmann 1973: 19, fig. 9). The two examples illustrated, attributed to the Hausa – but this needs to be confirmed – are additionally decorated with small necklaces, belts, and ear-rings made with small glass beads, which also underlines the feminine character of the dolls (fig. 6, no. 2). Much further south, in Namibia amongst the Himbas, dolls are also found made out of goat or antelope metapodia. They are covered at both ends with fine cords - the whole covered with the mixture of grease and red mineral powder. Women anoint themselves with this from head to toe (fig. 4). In its collections, the Belgian Royal Museum for Central Africa in Brussels possesses several examples, for which the reference to the feminine world is suggested by the red paste ointment.

If we review these examples from the archaeologist’s perspective, we may thus group these examples into two basic types:

1. The metapodium is entirely untreated without any technical transformation. Several models are then possible.

The first model – the most elementary – is a totally bare ruminant metapodium used as such. The bone’s anatomic features are intrinsically deemed to evoke the form of the human body. It is in a way naturally anthropomorphic. The metapodium’s distal end constitutes the head, the diaphysis – the body. It can also be viewed that its very rectilinear form evokes a phallus, in a masculine/feminine fusion having a propitiatory magic effect. In any event, the symbolic values attributed to the bone’s natural anatomic features are the basis for the meaning given to the object.

A second model, less elementary, is decorated. Items in perishable materials have been added to the simple bone such as wooden arms, modelled wax, string, rags, leather, hair, and grains, but also items made of hard material, such as unguents made of a mixture of grease and mineral material, and personal ornaments such as necklaces, belts, bead, earrings, or rings. The references to the human body are here explicit and external. They always – or nearly always – belong – to the world of women.

2. The metapodium receives a technical treatment that modifies the natural bone.

It is perforated to have items added to it – particularly earrings. The bone can also be

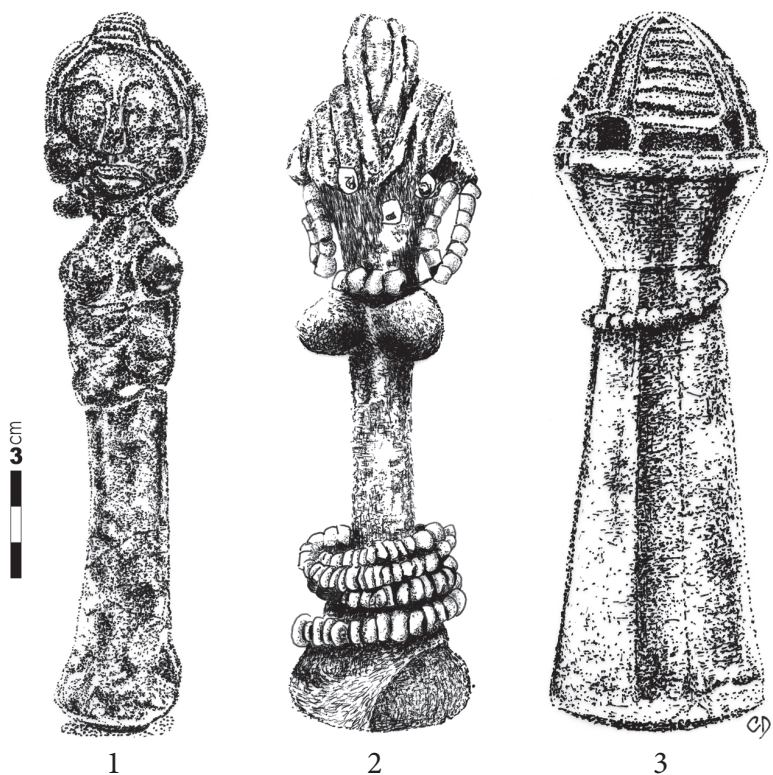


Fig. 6: Metapodium dolls covered with wax. 1. Bamana doll, Mali, entirely covered with wax shaped for the head, body and chest. Grains for eyes and vegetal string for hair. 2. No precise source. Chest shaped from wax. Glass bead belt and earrings, vegetal material for hair and unknown material for eyes and mouth. 3. Luba doll in wood, with anthropomorphic and phallic traits, and necklace.

smoothed in places. These modifications are discreet and not always representative of the “doll” as an object.

An object consisting of a bare and unworked metapodium will display, depending on its state of preservation, traces of smoothing due to manipulation that are identifiable on a microscopic scale. It may also show alterations in its initial volume, such as fractures, crushing, splintering, and smoothing, owing to falls and friction or through being banged together. When they are intact all archaeological metapodia are worth examining meticulously so as to reveal any form of wear trace which might identify an object of this type – especially if it is in a funerary context.

An object consisting of a metapodium that is bare but covered with various materials will be more difficult to identify as an artefact. None of the additions made to the bone to represent a face in wax or textiles or clothes with textile or cord will leave any trace in the long term, or else very basic and probably difficult for an archaeologist to interpret. The colour red may impregnate the bone or, through staining the fabric or cords, leave a coloured trace. These modifications in appearance are clues, as are, likewise, the drillings in the articulations. These modifications must in no case escape the archaeologist’s attention. In such cases the bone needs to be examined for modifications to its volume due to wear, such as smoothed areas and cracks. The “hard” items associated with the bone in imperishable material, such as personal ornaments, rings, or beads, would enable a symbolic meaning to be detected with more certainty, but do not allow any inference as to its intention. Here the importance should be stressed that archaeologists assign to these objects seeing in them “amulets” (Chauvet, 1938) or “idols” (Maier 1961; Todorova, 1978; Lichardus, 1988; Shade-Lindig, 2004). Biehl seems to have been one of the few to talk of dolls for certain figurines of the Chalcolithic in Eastern Europe (2003). It should be added these objects are never studied from a technological and functional point of view but typologically.

ARCHAEOLOGICAL DOLLS?

So the issue of archaeological dolls *stricto sensu* is worth raising. The Greek or Roman iconography, in which refined dolls are carved from bone or ivory for little and young girls (fig. 1, no. 4), is quite explicit. Funerary monuments for young girls include dolls, stressing the importance of such objects for Roman and Greek children (fig. 7, no. 1). But what about cultures without writing and a realistic iconography? How can it be demonstrated that we are dealing with dolls?

Let us go back to Africa and the upper Congo in the Democratic Republic of Congo. In the Upemba Depression archaeology has brought to light a series of entirely unworked metapodia which it has been successfully shown were probably used as dolls (de Maret, 1985: 166-



Fig. 7: Mortuary monuments from Greece and France (marble).
1. Funerary stela, Attic, IVth c. BC, Musée Calvet of Avignon. Young woman presenting a doll to a female child. Drawing from an original picture by Michaël Martin. 2. Sarcophagus of a Roman girl represented with her doll. From an original picture by Mary Harrsch.

168). In the numerous cemeteries scattered over this vast flood plain, for a period in which, between the 9th and 13th centuries, a refined culture referred to as “Classic Kisalien” flourished, the excavations have yielded abundant funerary goods – including metapodia from goats and various antelopes. These metapodia come from the burials of children, but also from a few graves of adults. Intact, occasionally with a slight patina, they were not found with any other bone from the same animal. They do not correspond therefore to quarters of meat left as a viaticum. The metapodia are positioned in view, sometimes several at a time, alongside or on the deceased child’s thorax. One of them is decorated with a copper ring. Their function remains mysterious (Hiernaux et al. 1971: 43) until it is realised that in other parts of the continent these bones could be used as dolls. This would explain why they are found in children’s graves. But how is it possible to find support for such a hypothesis as suggested by ethnography, without any parallel in recent periods in central Africa? As it happens that in the Kisalien period the orientation of the body is very systematic, the hypothesis seems plausible that if these bones were dolls their “heads” ought to point in the same direction as the

head of the corpse. In fact, wherever excavation data is sufficiently precise this is invariably the case. In one or two cases the cannon bone is placed horizontally, as if cradled by the child (de Maret, 1985: 166-168).

If the metapodia from Kisalian period children's graves do indeed represent the remains of dolls, this begs the question of their presence in adult burials, since of the 36 metapodia found in Kisalian graves, 8 are associated with adults. As dolls are - in Africa (Dagan 1990; Mattas 1999) as elsewhere - girls' toys, they are clearly associated with the female sex. After verification it appeared that where in the Kisalian the metapodia were found associated with adults, the graves always belonged to women - judging by the nature of their funerary goods (de Maret 1985: 181-184). Thus these metapodia never come from masculine graves. All this strongly suggests their use as dolls within the feminine world.

Multiple elements connect the Kisalian culture with the present inhabitants of the region, the Lubas, an ethnic group famous for the beauty of its art and the prestige of its ancient kingdom. With the Lubas of the last century the cylindrical dolls were made from clay, poker-worked banana tree trunk or wood. In the last case they are in general about ten centimetres tall and the cylindrical body terminates in a more or less rounded head - giving the whole a very schematic human form and a very explicit phallic look (fi. 6, no. 3). In Africa there are many ethnographic (Roumequère & Roumequère-Eberhardt 1960), and archaeological (Matenga 1997: fig.17) examples of wooden or clay dolls that also have a phallic form.

The choice of the metapodium, owing to its very rectilinear natural form, might refer precisely to the fusion of masculine and feminine organs in liaison with the propitiatory magic practices to do with women's fertility (Cameron 1996; Leibhammer & Dell 1998; Dagan 1990). This would provide a good explanation of these dolls' presence in the graves of adult Kisalian women.

Beyond Africa, at the end of the *Linear Pottery Culture* circa 5100 BC - the first continental European Neolithic - in the western part of Europe, Caprine metapodia materialising human faces constitute the funerary attributes of two children's graves. In one, north-east of Paris at Berry-au-Bac "le Vieux Tordoir" (burial no. 607), the bone is a metatarsus from a young Caprine, of which the distal part is decorated with fine mother-of-pearl discs glued on the bone as eyes and mouth. The nose is made more prominent with a halved-Dentalium shell. If the bone is transformed - which is not completely clear given its surface's substantial taphonomic deterioration - then this technical modification is discreet and confined to the diaphysis. The sides and front face may have been thinned down (Sidéra 2000: fig. 29, n°14 & 2009) (fig. 8, no. 2). In the other burial, in the east of France in Haute-Alsace at Ensisheim "les Octrois" (burial no. 13), it is a Caprine's unworked right metacarpus. The proximal part forms the head. It is perforated by two holes for the eyes set with disks made from shells. The central void is filled with birch tar (Gallay & Mathieu 1988; Mathieu 1992) (fig. 8, no. 1). In both cases the realism of the representation should be emphasised. One of the figurines mimics all

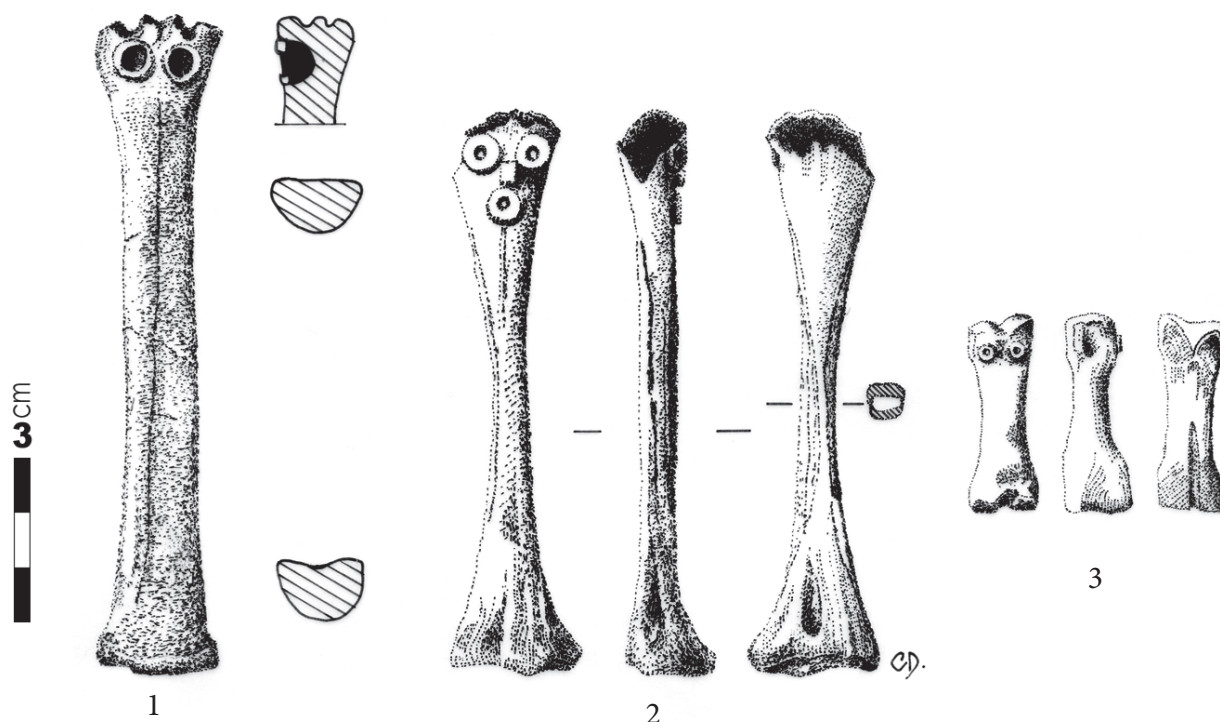


Fig. 8. Possible dolls of the Linear Pottery Culture. 1. Ensisheim "les Octrois" (burial no. 13): Caprine's Metacarpus with perforated holes for the eyes set with disks made from shells and central void filled with birch tar. From Gallay & Mathieu 1988. 2. Berry-au-Bac "le Vieux Tordoir" (burial no. 607): Caprine's Metacarpus with discs of mother-of-pearl for the eyes and a half Dentalium shell for the nose. 3. Caprine's phalanx with discs of mother-of-pearl for eyes and with abrasion on the posterior face. From Sidéra, 2000: fig. 29.

the features of the human face: eyes, nose, and mouth, right down to materialising the prominence of the nose. In the other case the whites of the eyes and the pupils are suggested by a ring of white nacre around a black central circle of birch tar.

The epiphysis of the Berry-au-Bac metapodium is missing, as if eroded. This may be a wear trace owing to manual manipulation – the only one on this piece. No surface abrasion is visible, but it should be remembered that coming from a young animal the bone was fragile and has been much deteriorated by roots: the roots have scored its original surface in every direction. The Ensisheim piece is better preserved. It is “much polished on its posterior part” (Mathieu, 1992: 28). However, never having been observed under the microscope it is difficult to come to a conclusion about this trace.

Both metapodium figurines – of very similar workmanship – are isolated, and the study of the traces is inconclusive. Both are associated with children’s graves – likely female – and we can thus reasonably associate them with the western Linear Pottery Culture on account of both the incorporation of standard doll types, and repetitive cultural-behavioural pattern.

We should add that the metapodial figurine from the Berry-au-Bac burial is associated with another figurine – also anthropomorphic – with mother-of-pearl discs for eyes. It is smaller in size as it is made from a whole Caprine’s phalanx. The bone presents a clear direct transformation: an abrasion of the two epiphyses – distal and proximal – of the phalanx’s posterior face, which flattens by the profile. This classic case of a technical action has made it possible to identify another object of the same type, but from a contemporaneous village in a detritus context – the lateral ditch of a house. It is a bare phalanx abraded in exactly the same way. Nothing was added to it, or else it was intentionally or accidentally stripped clean before being thrown away (Sidéra, 2009). These objects, of which at least two examples exist, suggest the existence of another model of doll, if this function is admitted: large made from metapodia and small from phalanx. In this way, might the Berry-au-Bac tomb be a striking illustration of a mother/baby pair – like the African double figurines (fig. 5)? Would the metapodium’s very flat profile and the phalanx figurine’s flat back have been deliberately shaped to make it easier to fit the pieces together? It is possible. The way the items were arranged in the tomb does not support this hypothesis: the two figurines are parallel to one another and face down (Allard *et al.*, 1997). In any case, they are exceptionally realistic and striking witnesses to life.

With their morphology – very different from the family of very schematic flat anthropomorphic figurines of the Linear Pottery Culture of central Europe and the later ones from the early south-east European Chalcolithic – the metapodium and phalanx figurines of the Late Linear Pottery Culture take full advantage of the bones’ natural

forms. They also aim at a greater realism, materialised by the volume of the bone and the detailed representation of the face. Attached to a limited geographic area – the Paris Basin and Haute Alsace at the very end of the Linear Pottery Culture – these figurines in volume manifest a rupture between the Classic Linear of central Europe and that of the Paris Basin and Haute Alsace, just as they illustrate the historico-cultural liaison between these last two regions (Constantin and Ilett, 1993; Jeunesse, 1995; Sidéra, 2000a; Sidéra, 2012). It should be noted these objects in volume and with an apparent face have equivalents in the peri-contemporary Mediterranean contexts, or later in Italy (Maier, 1961), and Syria (Kenyon, 1961). They may be associated with the appearance of artefacts of Mediterranean traditions – techniques and materials (Sidéra, 2009 & 2010). The doll hypothesis obviously rests more on the systematic association of the items with child burials rather than on concrete wear traces, which we have seen are fragile and not always representative of the African ethnographic examples. It should not be forgotten these objects are never – or rarely – analysed from a technological and functional angle but always typologically. At any rate, the existence of different models of dolls in vogue in the Linear Pottery Culture associating two figures – the mother and the child or baby – is solid. Here ethnography provides a useful framework for comprehending more fully these archaeological models and of how they fit into social practices and beliefs. Accordingly, one could take the view that these dolls or quasi-persons – to adopt Gell’s terms – are not only toys, but also principles of fertility. This would also go with the fertility of the land evoked by Lusardy, corresponding to cultures of farmers.

However this may be, these examples illustrate the strong implicit meanings of which the bone – “ruminant metapodium” – is the bearer in many sub-present or past cultures. Nothing to eat around the metapodium. It is the bone “good to think” *par excellence*, to paraphrase Claude Lévi-Strauss (1962). Its straight form making it stand upright, the central lines on the bone’s anterior and posterior faces acting as a demarcation between two parts, and the foramen of the anterior face, which opens towards the bone’s interior, placed under the very round and symmetrical articulation are so many features that probably lead this bone to be a powerful metonymy for the human body. It naturally becomes anthropomorphic. This provides a further example of the selection of specific skeletal parts according to cultural values and the deeper symbolic meaning with which these objects are imbued.

For instance, whilst in Neolithic continental Europe the metapodium plays a very important role in the development of the industry, in the Mediterranean the tibia has also a prominent position. Thus – and as we have sought to show here – these differentiated choices, which may be termed cultural, are the signs of an interiorised aesthetic approach to bone matrices. Here it is argued

that they also incorporate metaphorical value beyond functional and aesthetic factors. Shedding light on such apparently simple objects provides a valuable contribution that makes more tangible the underlying complexity of ancient beliefs and symbolic practices.

REFERENCES

- Allainmat, Y. 1942. Poupées en os : le « Di Kori ». *Notes Africaines* 15 :1.
- Allard, P., Dubouloz, J., and Hachem, L. 1997. Premiers éléments sur cinq tombes rubanées de Berry-aubac (Aisne, France) : principaux apports à l'étude du rituel funéraire danubien occidental. In: *Le Néolithique danubien et ses marges entre Rhin et Seine*, Actes du 22e colloque interrégional sur le Néolithique, Cahiers de l'association pour la promotion de la recherche archéologique en Alsace, supplément 1997 : 31-43.
- Bachmann, M. and Hansmann, C. 1973. *Dolls. The Wide World Over. An Historical Account*. London: Harap.
- Bianchi, C. 2012. Le bambole in avorio e in osso. In: A.C. Mori, C. Lambrugo and F. Slavazzi (eds), *L'infanzia e il gioco nel mondo antico*, Materiali della Collezione Sambon di Milano, Anna Ceresa Mori, Claudia Lambrugo, Fabrizio Slavazzi eds, Milan: Edizioni E: 27-32.
- Biehl, P. 2003. *Studien zum Symbolgut der Neolithikums und der Kupferzeit in Südeseuropa*. Saarbrücker Beiträge zur Altertumskunde, 64, Saarbrück: Dr Rudolf Verlage.
- Cameron, E. L. 1996. *Isn't s/he a doll? Play and ritual in African sculpture*. Los Angeles: UCLA Fowler Museum of Cultural History.
- Camps-Fabrer, H. 1966. *Matière et art mobilier dans la préhistoire nord-africaine et saharienne*. Paris: Mémoires du Centre de recherches anthropologiques préhistoriques et ethnographiques d'Alger 5.
- Chauvet, S. 1938. A propos d'amulettes en os, anthropomorphes (fin du Néolithique). *Bulletin de la Société préhistorique de France*, 35 (11): 445-448.
- Choyke, A., 1984. *An analysis of bone, antler and tooth tools from Bronze Age Hungary*. Mitteilungen des Archäologischen Instituts der Ungarischen Akademie der Wissenschaften, 12/13: 13-57.
- Constantin, C., Ilett, M. 1997. Une étape finale dans le Rubané récent du Bassin parisien. In: *Le Néolithique danubien et ses marges entre Rhin et Seine*, 22e colloque interrégional sur le Néolithique, Mulhouse: Cahiers de l'association pour la promotion de la recherche archéologique en Alsace, supplément 1997: 281-300.
- Dagan, E.A. 1990. *African dolls for play and magic*. Montreal: Galerie Amrad African Arts.
- Dasen, V., and Schädler, U. 2013. *Jeux et jouets gréco-romains*, Archéothéma 31 (num. spe.).
- de Maret, P. 1985. *Fouilles archéologiques dans la vallée du Haut-Lualaba, Zaïre*. II Sanga et Katongo, 1974. Tervuren: Musée Royal de l'Afrique Centrale.
- de Saint-Périer, R. 1924. La Statuette féminine de Lespugue (Haute-Garonne). *Bulletin de la Société préhistorique de France* 21 (3): 81-84.
- Dieudonné-Glad, N., Feugère, M., Önal, M. 2013. *Zeugma V. Les objets*. Lyon, Travaux Maison de l'Orient, 67.
- Duquette, D. 1983. Dynamique de l'art 'bidjogol' (Guinée Bissau) : Contribution à une anthropologie de l'art des sociétés africaines. Lisbonne: Instituto de Investigaçao Cientifica Tropical.
- Feugère, M. 2014. Un nouveau type de poupée composite en os d'époque romaine, *Instrumentum* 39: 28.
- Gallay, G., Mathieu, G. 1988. Grabbeigaben der Bandkeramik von Ensisheim dep. Haut-Rhin (Elsass), *Germania* 66, 2: 371-389.
- Gell, A., 1998. *Art and agency. An anthropological theory*. Oxford: Clarendon Press.
- Goutas, N. 2004. *Caractérisation et évolution du Gravettien en France par l'approche techno-économique des industries en matières dures animales (étude de six gisements du Sud-ouest)*. Doctorat de Préhistoire de l'Université de Paris I – Panthéon Sorbonne.
- Hahn, J. 1971. La statuette masculine de la grotte du Hohlenstein-Stadel (Wurtemberg). *L'Anthropologie* 75: 233-244.
- Hiernaux, J., De Longrée, E. and De Buyst, J. 1971. *Fouilles archéologiques dans la vallée du Haut-Lualaba, Zaïre. I Sanga, 1958*. Tervuren : Musée Royal de l'Afrique Centrale.
- Jeunesse, C. 1995. Les relations entre l'Alsace et le Bassin parisien au Néolithique ancien vues à travers l'étude des pratiques funéraires. Actes du 20e colloque interrégional sur le Néolithique, *Revue Archéologique de l'Ouest*, supplément 7: 13-20.
- Kalicz, N. and Koós, J. 2001. Eine Siedlung mit ält-estneolithischen Gräbern in Nordostungarn, *Preistoria alpine* 37: 45-79.
- Kenyon, C. M., et al. 1961. *Excavations at Jericho*. Vol. 2: the tombs excavated in 1955-8. Jerusalem: British School of Archaeology of Jerusalem eds.
- Legrand, A. and Sidéra, I. 2007. Methods, Means, and Results When Studying European Bone Industry. In: Gates St-Pierre, Ch. and Walker, R.B. (eds.): *Bones as Tools: Current Methods and Interpretations in Worked Bone Studies*. Oxford, British Archaeological Reports International Series 1622: 291-304.
- Leibhammer, N. and Dell, E. (eds). 1998. *Evocation of the Child. Fertility Figures of the Southern African Region*. Johannesburg Art Gallery. Cape Town: Human and Rousseau eds.
- Levi-Strauss, C. 1962. *Le totémisme aujourd'hui*. Paris: PUF.
- Lichardus, I. 1988. *Der westpontische Raum und die Anfänge der kupferzeitlichen Zivilisation*. In: Fol A. and Lichardus J. eds, Macht, Saarbrücken: Herrschaft und Gold: 79-129.

- Lusardy, M. 2006. Ces poupées qui ne veulent pas être que des jouets, *Cahiers jungiens de psychanalyse* 117: 9-16.
- Lutten, E. 1933. Poupées d'Afrique occidentale recueillies par la Mission Dakar-Djibouti. *Bulletin du Musée d'Ethnographie du Trocadéro* 5: 8-19.
- Maier, R. A. 1961. Neolithische Tierknochen-Idole und Tierknochen-Anhänger Europas. *Bericht der Römisch- Germanischen Kommission*, 42: 171-305.
- Matenga, E. 1997. Images of a fertility complex: Iron Age figurine from Zimbabwe. In: W.J. Dewey (ed.), *Legacies of Stone: Zimbabwe Past and Present, vol. I*. Tervuren: Royal Museum of Central Africa: 57-75
- Mathieu, G. 1992. Une figurine stylisée dans une tombe d'enfant de la nécropole rubanée d'Ensisheim (Haut- Rhin). In: *Actes du 11e colloque interrégional sur le Néolithique*, Mulhouse: Association Internéo, 119-130.
- Rossie, J.-P. 2005. *Cultures Ludiques Sahariennes et Nord-Africaines. Poupées d'enfants et jeux de poupées*. Stockholm: Eds SITREC.
- Roumeguère, P., and Roumeguère-Eberhardt, J. 1960. Poupées de fertilité et figurines d'argile. Leurs lois initiatiques. *Journal de la Société des Africanistes* 30(2): 205-223.
- Schade-Lindig, S. 2002. Idol-und Sonderfunde der bankeramischen Siedlung von Bad Nauheim-Nieder-Mörlen Auf dem Hempler. *Germania* 80: 47-114.
- Shatil, A. and Behar, S. 2013. Chapter 17: The Bone Objects. In: Ben-Ami D. (ed.), *Jerusalem: Excavations in the Tyropoeon Valley (Givati Parking Lot), Vol. I. IAA Reports* 52. Jerusalem: 321-326.
- Sidéra, I. 2000. Animaux domestiques, bêtes sauvages et objets en matières animales du Rubané au Michelsberg. De l'économie aux symboles, des techniques à la culture. *Gallia Préhistoire* 42 (1): 108-194.
- Sidéra, I. 2008-2009. Figurines et outils anthropomorphes en os du Néolithique danubien, *Archeo-Situla* 28-29: 13-27.
- Sidéra, I. 2010. Crude adzes. Focal on a special and unknown artefact. In: Legrand-Pineau, A., Sidéra, I., Buc, N., David, E. and Scheinsohn, V. (eds.): *Ancient and Modern Bone Artefacts from America to Russia*. Cultural, technological and functional signature. Oxford, British Archaeological Reports International Series 2136: 227-233.
- Sidéra, I. 2012. *Nouveau regard sur la néolithisation. Les industries osseuses de l'Anatolie au Bassin parisien via la Méditerranée*. Paris: De Boccard (Travaux de la Maison René Ginouvès 15).
- Todorova, H. 1978. *The Eneolithic Period in Bulgaria in the Fifth Millennium B.C*. Oxford: British Archaeological Reports, International series 49.
- Aknowledgments: Traduction Timothy Seller and thanks to Nicholas Taylor. Drawings from originals pictures by Carole Duval, CNRS.*

LIST OF CONTRIBUTORS

- Ariel Shatil**, The Hebrew University in Jerusalem, Israel
- Björn Briewig**, German institute of Archaeology, Berlin, Germany
- Christian Casseyas**, Laboratoire d'archéologie expérimentale, Préhistomuseum, Flemalle, Belgium
- Christopher Arabatzis**, Institute of Archaeological Sciences, University of Bern, Switzerland
- Corneliu Beldiman**, University of Pitești, Faculty of Socio-Humanistic Sciences, Department of History, Pitești, Romania.
- Dan Lucian Buzea**, National Museum of the Eastern Carpathians, Sf. Gheorghe, Covasna County, Romania
- Diana-Maria Sztancs**, Central High School, Bucharest, Romania
- Diego Rivero**, CONICET – Área de Arqueología y Etnohistoria del Centro de Estudios Históricos “Prof. Carlos S. A. Segreti”, Córdoba, Argentina
- Elisabetta Grassi**, Dipartimento di Scienze della Natura e del Territorio, Università degli Studi di Sassari, Italia
- Erik Hrnčiarik**, Trnavská univerzita v Trnave, Filozofická fakulta, Katedra klasickej archeológie, Trnava, Slovakia
- Erika Gál**, Institute of Archaeology, Research Centre for the Humanities, Hungarian Academy of Sciences, Budapest, Hungary
- Éva David**, CNRS Laboratoire Préhistoire et technologie, Maison Archéologie et Ethnologie, Université Paris Ouest Nanterre La Défense, France
- Felix Lang**, University of Salzburg, Department of Classical Studies / Archaeology, Salzburg, Austria
- George Nuțu**, Eco-Museum Research Institute, Tulcea, Romania
- Giedrė Piličiauskienė**, Lithuanian Institute of History, Kražių 5, Vilnius, Lithuania
- Gilberto Pérez-Roldan**, Escuela de Ciencias Sociales y Humanidades, Universidad Autónoma de San Luis Potosí, Mexico
- Gordana Jeremić**, Institute of Archaeology, Belgrade, Serbia
- Grzegorz Osipowicz**, Institute of Archaeology, Nicolaus Copernicus University, Toruń, Poland
- Heidi Luik**, Institute of History, Tallinn University, Tallinn, Estonia
- Hrvoje Kalafatić**, Institute of Archaeology, Zagreb, Croatia
- Ian Riddler**, independent researcher, Stratton, Cornwall, UK
- Isabelle Sidéra**, CNRS, laboratoire Préhistoire et technologie, Maison Archéologie et Ethnologie, Université Paris Ouest Nanterre La défense, France
- Ivan Bogdanović**, Institute of Archaeology, Belgrade, Serbia
- Ivan Bugarski**, Institute of Archaeology, Belgrade, Serbia
- Jean-Marc Léotard**, Service Public de Wallonie, DG04 Direction de Liège 1, Service de l'Archéologie, Belgium
- Justin Bradfield**, Department of Anthropology and Development Studies, University of Johannesburg, Auckland Park Campus, Johannesburg, South Africa
- Justyna Baron**, Institute of Archaeology, Wrocław University, Wrocław, Poland
- Justyna Orłowska**, Institute of Archaeology, Nicolaus Copernicus University, Toruń, Poland
- Kinga Winnicka**, Institute of Archaeology, Wrocław University, Wrocław, Poland
- Louisa Gidney**, Archaeological Services, University of Durham, UK
- Marcin Diakowski**, Institute of Archaeology, Wrocław University, Wrocław, Poland
- Marija Mihaljević**, Municipal Museum Nova Gradiška, Croatia
- Marina Kovač**, Museum of Slavonia, Osijek, Croatia
- Mario Novak**, Institute for Anthropological Research, Zagreb, Croatia
- Marius Gheorghe Barbu**, Museum of Dacian and Roman Civilisation, Deva, Romania
- Matías E. Medina**, CONICET-Área de Arqueología y Etnohistoria del Centro de Estudios Históricos “Prof. Carlos S. A. Segreti”, Córdoba, Argentina
- Mihaela Maria Barbu**, Museum of Dacian and Roman Civilisation, Deva, Romania
- Mira Ružić**, Department of Archaeology, Faculty of Philosophy, University of Belgrade, Serbia
- Miriam Selene Campos Martínez**, Escuela de Ciencias Sociales y Humanidades, Universidad Autónoma de San Luis Potosí, Mexico
- Mislav Čavka**, University Hospital Dubrava, Zagreb, Croatia
- Monica Mărgărit**, Valahia University of Târgoviste, Romania
- Natacha Buc**, CONICET-Instituto Nacional de Antropología y Pensamiento Latinoamericano, Buenos Aires, Argentina
- Nemanja Marković**, Institute of Archaeology, Belgrade, Serbia
- Nicola Trzaska-Nartowski**, independent researcher, Stratton, Cornwall, UK
- Paul Stokes**, St. Cuthbert's Society University of Durham, Durham, UK
- Pierre de Maret**, Université Libre de Bruxelles, Belgique
- Pierre van der Sloot**, Service Public de Wallonie, DG04 Direction de Liège 1, Service de l'Archéologie, Belgium
- Christian Casseyas**, Laboratoire d'archéologie expérimentale, Préhistomuseum, Flemalle, Belgium

Close to the bone...

Rajna Šošić Klindžić, University of Zagreb, Faculty of Humanities and Social Sciences, Zagreb, Croatia

Saša Redžić, Institute of Archaeology, Belgrade, Serbia

Selena Vitezović, Institute of Archaeology, Belgrade, Serbia

Simina Margareta Stanc, Faculty of Biology, Alexandru Ioan Cuza University, Iași, Romania

Siniša Radović, Croatian Academy of Sciences and Arts, Institute for Quaternary Paleontology and Geology, Zagreb, Croatia

Sofija Petković, Institute of Archaeology, Belgrade, Serbia

Sonja Stamenković, Institute of Archaeology, Belgrade, Serbia

Sonja Vuković-Bogdanović, Laboratory of Bioarchaeology, Faculty of Philosophy, Belgrade, University of Belgrade, Serbia

Steven P. Ashby, Department of Archaeology, University of York, York, UK

Tajana Sekelj Ivančan, Institute of Archaeology, Zagreb, Croatia

Tatjana Tkalčec, Institute of Archaeology, Zagreb, Croatia

Tomasz Stolarczyk, Copper Museum in Legnica, Poland

Toni Čerškov, Institute for the cultural heritage preservation, Niš, Serbia

Vesna Bikić, Institute of Archaeology, Belgrade, Serbia

Vesna Manojlović Nikolić, Faculty of Philosophy, Department of History, University of Novi Sad, Serbia

Vinayak, Centre for Historical Studies, School of Social Sciences, Jawaharlal Nehru University, Delhi, India

Zlatko Kovancaliev, NI Stobi, Archaeological site Stobi, Gradsko, FYR Macedonia

