



**HAL**  
open science

# Mesolithic engraved bone pins: the art of fashion at Téviec (Morbihan, France)

Éva David

► **To cite this version:**

Éva David. Mesolithic engraved bone pins: the art of fashion at Téviec (Morbihan, France). D. Borić; D. Antonović; B. Mihailović. Foraging assemblages, 2, Serbian Archaeological Society/The Italian Academy for Advanced Studies in America, Columbia University, pp.610-618, 2021, 978-86-80094-15-1. halshs-03216415

**HAL Id: halshs-03216415**

**<https://shs.hal.science/halshs-03216415>**

Submitted on 4 May 2021

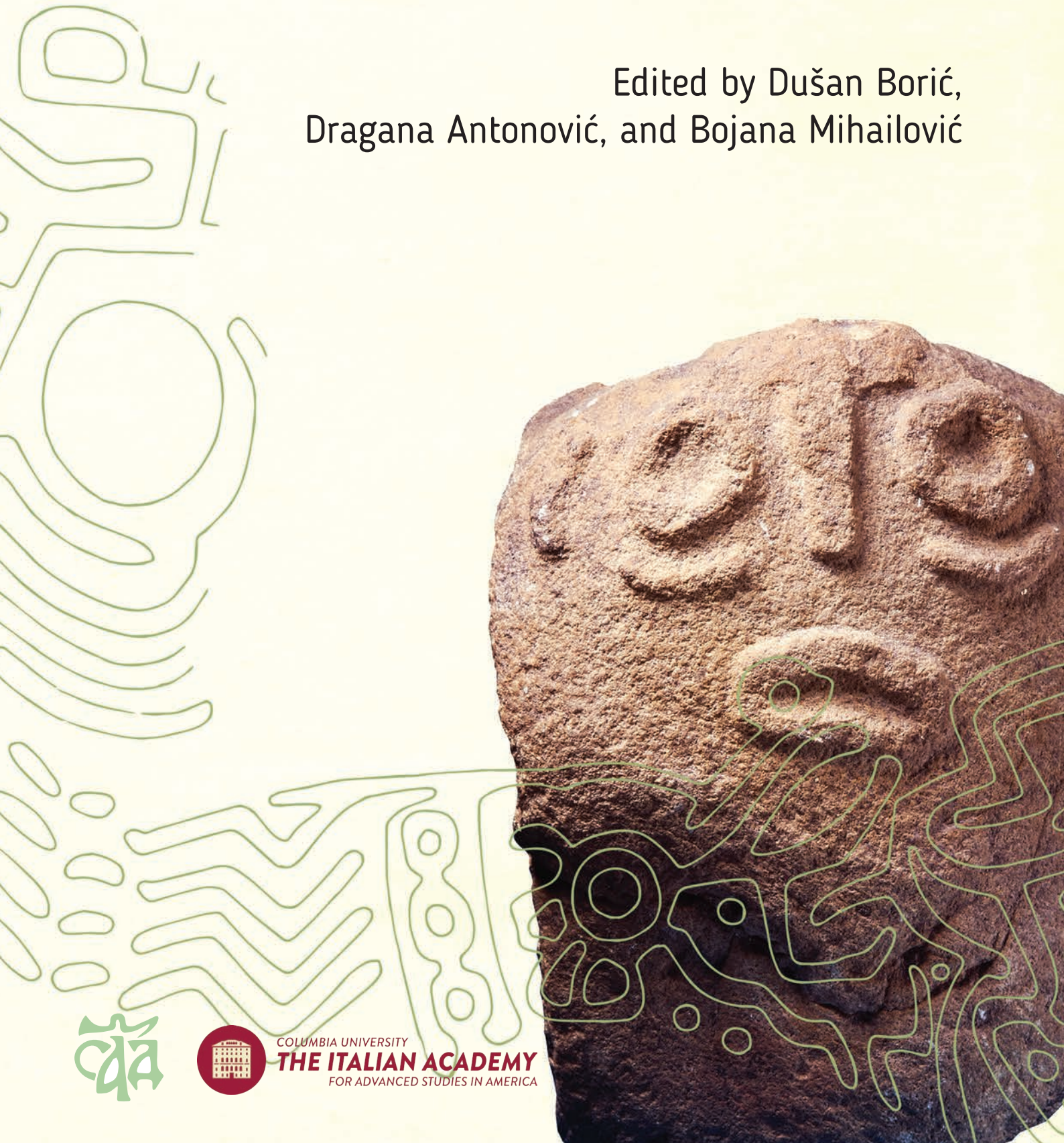
**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

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.

# Foraging Assemblages

Volume **2**

Edited by Dušan Borić,  
Dragana Antonović, and Bojana Mihailović



COLUMBIA UNIVERSITY  
**THE ITALIAN ACADEMY**  
FOR ADVANCED STUDIES IN AMERICA

# Foraging Assemblages

Volume  2

Edited by Dušan Borić,  
Dragana Antonović, and Bojana Mihailović

Serbian Archaeological Society  
The Italian Academy for Advanced Studies in America, Columbia University

Belgrade & New York

The NOMIS Foundation provided a grant in support of preparation and publication of this book



**Publishers**

Serbian Archaeological Society, Belgrade, Republic of Serbia

The Italian Academy for Advanced Studies in America, Columbia University, New York, USA

**For Publishers**

Adam Crnobrnja

David Freedberg

**Edited by**

© Dušan Borić, Dragana Antonović, Bojana Mihailović 2021

This publication is in copyright. No reproduction of any part may take place without the written permission of the authors.

First published 2021

**Peer-reviewed by**

Pablo Arias

Nuno Bicho

Clive Bonsall

Dušan Borić

Chantal Conneller

Emanuela Cristiani

Vesna Dimitrijević

Federica Fontana

Ole Grøn

Judith Grünberg

Lars Larsson

Dušan Mihailović

Nicky Millner

T. Douglas Price

Rick Schulting

Robert Whallon

**Copy-editing and proof-reading**

Hannah Elmer

Dušan Borić

**Design**

Dušan Pavlić

**Index compiled by**

Mia Borić

Dušan Borić

**Desktop publishing**

Marko Huber

Print run 400

Printed by Publikum

**ISBN**

978-86-80094-15-1

978-86-80094-16-8

A CIP record of this book is available from the National Library of Serbia, Belgrade

Front Cover Illustration: Sculpted sandstone boulder named 'Progenitor' (inv. no. 41) from Lepenski Vir (National Museum in Belgrade)

Back Cover Illustration: Lepenski Vir during excavations (Photograph courtesy of Alan McPherron)

CIP - Каталогизacija у публикацији  
Народна библиотека Србије, Београд

903(4)"632/633"(082)

902.2(4)(082)

**FORAGING Assemblages**. Vol. 2 / edited by Dušan Borić, Dragana Antonović, and Bojana Mihailović. - Belgrade : Serbian Archaeological Society ; New York : The Italian Academy for Advanced Studies in America, Columbia University, 2021 (Belgrade : Publikum). - VIII str., str. 353-820 : ilustr. ; 29 cm

Tekst štampan dvostubačno. - Tiraž 400. - Napomene i bibliografske reference uz tekst. - Bibliografija uz svaki rad. - Registar.

ISBN 978-86-80094-15-1 (SAS)

ISBN 978-86-80094-16-8 (niz)

1. Borić, Dušan, 1973- [urednik] 2. Antonović, Dragana, 1960- [urednik]  
3. Mihailović, Bojana, 1963- [urednik]

a) Археолошка налазишта, праисторијска -- Европа -- Мезолит -- Зборници  
б) Археолошка истраживања -- Европа -- Зборници

COBISS.SR-ID 35939593



## VOLUME I

	List of Contributors	ix
	Preface	xxv
	The Danube Gorges Mesolithic: The first fifty years ( <i>Dušan Borić</i> )	xxvii
	<b>Transitions – Beginnings</b>	1
1	Introduction: Transitions – Beginnings ( <i>Dušan Mihailović and Robert Whallon</i> )	3
2	Transition and tradition: Lithic variability in the cave of Vlakno, Croatia ( <i>Dario Vujević and Mario Bodružić</i> )	5
3	Workspace organization of a Final Palaeolithic hunter-gatherer camp ( <i>Anton A. Simonenko and Olesya I. Uspenskaya Aleksandrova</i> )	12
4	The problem of the Palaeolithic to Mesolithic transition on the Upper and Middle Don River (central Russia) ( <i>Alexander N. Bessudnov and Alexander A. Bessudnov</i> )	20
5	Early Holocene human adaptation and palaeoenvironment of the north-western Caucasus (Elena V. Leonova, Olesya I. Uspenskaya, Natalia V. Serdyuk, Elena A. Spiridonova, Alexey S. Tesakov, Elena V. Chernysheva, Pavel D. Frolov, and Elena V. Syromyatnikova)	29
6	Early Mesolithic of northern Bohemia: 2015 excavations ( <i>Jiří Svoboda</i> )	36
7	The last hunter-gatherers of South Arabia: A review of the Terminal Pleistocene and Early Holocene archaeological record ( <i>Yamandú Hieronymus Hilbert</i> )	45
	<b>Colonization</b>	53
8	Introduction: Colonization	55
9	First Mesolithic occupations at high altitudes in Vercors (Isère, France): The case studies of Les Coins I, Roybon, and Gerland ( <i>Alexandre Angelin and Régis Picavet</i> )	57
10	The Mesolithic site of Borovskoye 2 in light of the Pre-Boreal habitation in Karelia ( <i>Sergey Lisitsyn, Alexey Tarasov, Nataliya Tsvetkova, and Stanislav Belsky</i> )	64
11	The Mesolithic of Fontanella rockshelter (Vilafranca, eastern Mediterranean Iberia) and the last hunters-gatherers of northern Valencian country ( <i>Dídac Román, Inés Domingo, and Jordi Nadal</i> )	74
	<b>Landscapes</b>	83
12	Introduction: Landscapes ( <i>Dušan Borić</i> )	85
13	The missing landscapes and territories of Mesolithic Portugal ( <i>Ana Cristina Araújo and Ana Maria Costa</i> )	88
14	A comparative perspective on Mesolithic assemblages from different landscapes in Bohemia ( <i>Katarína Kapustka, Jan Eigner, and Matthew Walls</i> )	94
15	The Early Mesolithic of the Piave River basin: Mountain tops, riverbanks, and seashores? ( <i>Federica Fontana, Davide Visentin, and Stefano Bertola</i> )	102
16	Integrating communities and landscape: A wetland perspective from the Lower Rhine area ( <i>Luc W. S. W. Amkreutz</i> )	110

17	Tracing raw materials: Procurement strategies and movements in the Early Mesolithic, a case study from Larvik, south-eastern Norway ( <i>Guro Fossum</i> )	118
18	Local or imported? Tracking the provenance of flint raw materials of the Mesolithic habitants of Estonia and northern Latvia with the help of geochemical methods ( <i>Kristiina Johanson, Aivar Kriiska, Jaan Aruväli, Peeter Somelar, Kaarel Sikk, and Liina Sepp</i> )	123
19	The Upper Dee Tributaries Project: Finding the Mesolithic in the mountains of Scotland (Shannon M. Fraser, Gordon Noble, Graeme Warren, Richard Tipping, Danny Paterson, Wishart Mitchell, Ann Clarke, and Caroline R. Wickham-Jones)	129
20	Surviving Doggerland ( <i>Caroline R. Wickham-Jones</i> )	135
21	A Mesolithic moment in time: The Drumnaglea Cache ( <i>Peter Woodman† and Sarah Close</i> )	142
22	Transient campsites, logistic campsites, and the cumulative taphonomy of Malham Tarn site A: A persistent place in the northern Pennines ( <i>William A. Lovis and Randolph E. Donahue</i> )	148
	<b>Settlement</b>	157
23	Introduction: Settlements, dwellings, pits, and middens – still very far from a theory of everything! ( <i>Ole Grøn and Nuno Bicho</i> )	159
24	Of space and time: The non-midden components of the Cabeço da Amoreira Mesolithic shell mound (Muge, central Portugal) ( <i>João Cascalheira, Nuno Bicho, Célia Gonçalves, Daniel García-Rivero, and Pedro Horta</i> )	162
25	Looking for the ‘Asturian’ dwelling areas: New data from El Alloru and Sierra Plana de la Borbolla (Asturias, Spain) ( <i>Pablo Arias, Miriam Cubas, Miguel Ángel Fano, Esteban Álvarez-Fernández, Ana Cristina Araújo, Marián Cueto, Patricia Fernández Sánchez, Eneko Iriarte, Inés L. López-Dóriga, Sara Núñez, Christoph Salzmann, Carlos Duarte, Felix Teichner, Luis C. Teira, and Paloma Uzquiano</i> )	169
26	Habitation areas in Asturian shell middens and site formation processes: Mazaculos II cave (La Franca, Asturias, northern Iberia) and the new sites of El Total III and El Mazo ( <i>Manuel R. González Morales</i> )	177
27	Mesolithic settlement patterns and occupation of central and eastern Cantabria (Spain) ( <i>Mercedes Pérez-Bartolomé</i> )	184
28	Domestic life by the ocean: Beg-er-Vil, c. 6200–6000 cal BC ( <i>Grégor Marchand and Catherine Dupont</i> )	191
29	Mesolithic pit-sites in Champagne (France): First data, key issues ( <i>Nathalie Achard-Corompt, Emmanuel Ghesquiere, Christophe Laurelut, Charlotte Leduc, Arnaud Remy, Isabelle Richard, Vincent Riquier, Luc Sanson, and Julia Wattez</i> )	198
30	Some observations on the archaeological record of the (Late) Mesolithic in the northern Netherlands ( <i>Marcel J. L. Th. Niekus</i> )	202
31	Life on the lake edge: Mesolithic habitation at Star Carr ( <i>Nicky Milner, Chantal Conneller, Barry Taylor, Mike Bamforth, Julian C. Carty, Shannon Croft, Ben Elliott, Becky Knight, Aimée Little, Harry K. Robson, Charlotte C. A. Rowley, and Maisie Taylor</i> )	210
32	Late Mesolithic shallow pithouse from Sąsieczno 4 (central Poland) ( <i>Grzegorz Osipowicz</i> )	216
33	Mesolithic complexes on the right bank of the Vyatka River (the middle Volga Basin) ( <i>Tatyana Gusentsova</i> )	223
34	Mesolithic hearth-pits and cooking-pits in western Sweden and south-eastern Norway: When, where, how, and a bit about why ( <i>Robert Hernek</i> )	227
35	Mesolithic ‘ghost’ sites and related Stone Age problems with lithics ( <i>Ole Grøn and Hans Peeters</i> )	233
36	Sømmevågen. A Late Mesolithic–Early Neolithic settlement complex in south-western Norway: Preliminary results ( <i>Trond Meling, Hilde Fyllingen, and Sean D. Denham</i> )	240
37	Mesolithic settlement on Utsira, western Norway: Mesolithic hunter-gatherers in transition as reflected by dwellings and site patterns ( <i>Arne Johan Nærøy</i> )	246
38	Mesolithic dwellings from Motala, Sweden ( <i>Ann Westermark</i> )	252

<b>Regional Identities</b>	259
39 Introduction: Regional identities ( <i>Rick Schulting</i> )	261
40 Holocene foraging in the Dinaric Alps: Current research on the Mesolithic of Montenegro ( <i>Dušan Borić, Emanuela Cristiani, Ljiljana Đuričić, Dragana Filipović, Ethel Allué, Zvezdana Vušović-Lučić, and Nikola Borovinić</i> )	264
41 New perspectives on the Mesolithic of the Sado Valley (southern Portugal): Preliminary results of the SADO MESO project ( <i>Pablo Arias, Mariana T. Diniz, Ana Cristina Araújo, Ángel Armendariz, and Luis C. Teira</i> )	274
42 The 'Asturian' and its neighbours in the twenty-first century: Recent perspectives on the Mesolithic of northern Spain ( <i>Pablo Arias, Esteban Álvarez-Fernández, Miriam Cubas, Miguel Ángel Fano, María J. Iriarte-Chiapusso, Mercedes Pérez Bartolomé, and Jesús Tapia</i> )	281
43 The Mesolithic in the northwest of the Iberian Peninsula (Galicia, Spain): The state of art ( <i>Eduardo Ramil Rego, Natividad Fuertes Prieto, Carlos Fernández Rodríguez, Eduardo González Gómez de Agüero and Ana Neira Campos</i> )	289
44 The last foragers in the north-east of the Iberian Peninsula: New evidence of human occupation during the seventh/sixth millennia cal BC ( <i>Antoni Palomo, Igor Bodganovic, Raquel Piqué, Rafel Rosillo, Xavier Terradas, Marta Alcolea, Marian Berihuete, and Maria Saña</i> )	295
45 The Late Mesolithic of the south-western coast of Portugal: The lithic industry of Vale Marim I in focus ( <i>Joaquina Soares, Niccolò Mazzucco, and Carlos Tavares da Silva</i> )	301
46 The temporality of the Mesolithic in southern France ( <i>Thomas Perrin</i> )	308
47 Re-evaluating the old excavation from Pinnberg, Germany ( <i>Daniel Groß, Steffen Berckhan, Nadine Hauschild, Anna-Lena Räder, and Anne Sohst</i> )	312
48 Exploring early Ertebølle: Results of preliminary assessments at a submerged site in the Kiel Bay (Baltic Sea, Germany) and its potential ( <i>Julia Goldhammer, Annika B. Müller, Laura Brandt, Steffen Wolters, and Sönke Hartz</i> )	318
49 Identifying regional practices in cave use during the Mesolithic in south-western Britain ( <i>Caroline Rosen</i> )	324
50 About time for the Mesolithic near Stonehenge: New perspectives from Trench 24 at Blick Mead, Vespasian's Camp, Amesbury ( <i>David Jacques, Tom Lyons, Barry Bishop, and Tom Phillips</i> )	330
51 Secrets of Blue Maiden: The archaeology of a virgin island in the Baltic Sea ( <i>Kenneth Alexandersson, Anna-Karin Andersson, and Ludvig Pappmehl-Dufay</i> )	337
52 Mesolithic site locations in the river valleys of Karelia, west of Ladoga Lake, Russia ( <i>Hannu Takala, Mark. M. Shakhnovich, Aleksey Yu. Tarasov, and Anssi Malinen</i> )	345

## VOLUME II

<b>People in Their Environment</b>	355
53 Introduction: People in their environment ( <i>Clive Bonsall and Vesna Dimitrijević</i> )	357
54 Late Glacial to Early Holocene environs and wood use at Lepenski Vir ( <i>Ethel Allué, Dragana Filipović, Emanuela Cristiani, and Dušan Borić</i> )	359
55 Plant use at the Mesolithic site of Parque Darwin (Madrid, Spain) ( <i>Marian Berihuete Azorín, Marta Alcolea Gracia, Raquel Piqué i Huerta, and Javier Baena Preysler</i> )	367
56 A tale of foxes and deer, or how people changed their eating habits during the Mesolithic at Vlakno cave (Croatia) ( <i>Siniša Radović, Victoria Pía Spry-Marqués, and Dario Vujević</i> )	374
57 Coastal resource exploitation patterns and climatic conditions during the Early Mesolithic in the Cantabrian region (northern Iberia): Preliminary data from the shell midden site of El Mazo ( <i>Asier García-Escárzaga, Igor Gutiérrez-Zugasti, David Cuenca-Solana, Adolfo Cobo, and Manuel R. González-Morales</i> )	382

58	How ‘marine’ were coastal Mesolithic diets? ( <i>Rick J. Schulting</i> )	389
59	The seasonality of hunting during the Mesolithic in southern Scandinavia ( <i>Ola Magnell</i> )	398
60	Incremental growth line analysis of the European oyster ( <i>Ostrea edulis</i> , Linnaeus, 1758) from the kitchen midden at Eskilsø, Denmark ( <i>Harry K. Robson, Søren A. Sørensen, Eva M. Laurie, and Nicky Milner</i> )	404
61	Skellerup Enge: Evidence for a distinctive subsistence economy in western Denmark during the early Ertebølle ( <i>Kenneth Ritchie, Søren H. Andersen, and Esben Kannegaard</i> )	410
62	Hunting beyond red deer: Exploring species patterning in Early Mesolithic faunal assemblages in Britain and north-western Europe ( <i>Nick J. Overton</i> )	416
63	Size estimations of sturgeons ( <i>Acipenseridae</i> ) from the Mesolithic-Neolithic Danube Gorges ( <i>Ivana Živaljević, Igor V. Askeyev, Dilyara N. Shaymuratova (Galimova), Oleg V. Askeyev, Sergey P. Monakhov, Dušan Borić, and Sofija Stefanović</i> )	422
	<b>Technology</b>	<b>429</b>
64	Introduction: Technology ( <i>Federica Fontana, Emanuela Cristiani, and Dušan Mihailović</i> )	431
65	<i>Couteaux de Rouffignac</i> : A new insight into an old tool ( <i>Davide Visentin, Sylvie Philibert, and Nicolas Valdeyron</i> )	434
66	The lithic assemblage of the Mesolithic station of Alp2 (pre-alpine mountain range of Chartreuse, northern French Alps): Preliminary data ( <i>Jocelyn Robbe</i> )	440
67	The First and Second Mesolithic of La Grande Rivoire (Vercors range, Isère, France): A diachronic perspective on lithic technology ( <i>Alexandre Angelin, Thomas Perrin, and Pierre-Yves Nicod</i> )	444
68	Techno-functional approach to a technological breakthrough: The Second Mesolithic of Montclus rockshelter (Gard, France) ( <i>Elsa Defranould, Sylvie Philibert, and Thomas Perrin</i> )	452
69	The late microblade complexes and the emergence of geometric microliths in north-eastern Iberia ( <i>Dídac Román, Pilar García-Argüelles, Jordi Nadal, and Josep Maria Fullola</i> )	457
70	Mesolithic raw material management south of the Picos de Europa (northern Spain) ( <i>Diego Herrero-Alonso, Natividad Fuertes-Prieto, and Ana Neira-Campos</i> )	464
71	New perspectives on Mesolithic technology in northern Iberia: Data from El Mazo shell midden site (Asturias, Spain) ( <i>Natividad Fuertes-Prieto, John Risetto, Igor Gutiérrez-Zugasti, David Cuenca-Solana, and Manuel R. González Morales</i> )	470
72	The conical core pressure blade concept: A Mesolithic <i>chaîne opératoire</i> ( <i>Tuija Rankama and Jarmo Kankaanpää</i> )	476
73	Middle and Late Mesolithic microblade technology in eastern Norway: Gradual development or abrupt change? ( <i>Svein Vatsvåg Nielsen and Torgeir Winther</i> )	482
74	Shaori II: An obsidian workshop in Javakheti, Georgia ( <i>Dimitri Narimanishvili, Petranka Nedelcheva, and Ivan Gatsov</i> )	490
75	Finding, shaping, hiding: Caching behaviour in the Middle Mesolithic of south-eastern Norway ( <i>Lucia Uchermann Koxvold</i> )	495
76	Hafting flake axes: Technological and functional aspects of an assemblage from north-western Norway ( <i>John Asbjørn Havstein</i> )	499
77	Quantifying Irish shale Mesolithic axes/adzes ( <i>Bernard Gilhooly</i> )	505
78	Technology of osseous artefacts in the Mesolithic Danube Gorges: The evidence from Vlasac (Serbia) ( <i>Emanuela Cristiani and Dušan Borić</i> )	512
79	Antler in material culture of the Iron Gates Mesolithic ( <i>Selena Vitezović</i> )	520
80	Tools made from wild boar canines during the French Mesolithic: A technological and functional study of the collection from Le Cuzoul de Gramat (France) ( <i>Benjamin Marquiebielle and Emmanuelle Fabre</i> )	526



81	Lost at the bottom of the lake. Leister prongs from the Early and Middle Mesolithic ( <i>Lars Larsson, Björn Nilsson, and Arne Sjöström</i> )	535
82	Late Glacial and Early Holocene osseous projectile weaponry from the Polish Lowlands: The case of a point from Witów ( <i>Justyna Orłowska</i> )	540
<b>Social Relations, Communication, Mobility</b>		<b>547</b>
83	Introduction: Social relations, communication, mobility ( <i>Chantal Conneller</i> )	549
84	Role of personal ornaments: Vlakno cave (Croatia) ( <i>Barbara Cvitkušić and Dario Vujević</i> )	551
85	Marine shells as grave goods at S'Ormu e S'Orku (Sardinia, Italy) ( <i>Emanuela Cristiani, Rita T. Melis, and Margherita Mussi</i> )	558
86	Visual information in Cabeço da Amoreira, Muge (Portugal): Shell adornment technology ( <i>Lino André and Nuno Bicho</i> )	567
87	Neighbours on the other side of the sea: Late Mesolithic relations in eastern Middle Sweden ( <i>Jenny Holm</i> )	574
88	Sedentary hunters, mobile farmers: The spread of agriculture into prehistoric Europe ( <i>T. Douglas Price, Lars Larsson, Ola Magnell, and Dušan Boric</i> )	579
<b>Rites and Symbols</b>		<b>585</b>
89	Introduction: Rites and Symbols ( <i>Judith M. Grünberg and Lars Larsson</i> )	587
90	A portable object in motion – Complex layers of meaning embedded in an ornamented sandstone-object from the Late Mesolithic site of Brunstad (Norway) ( <i>Almut Schülke</i> )	590
91	Net patterns in Mesolithic art of north-western Europe ( <i>Tomasz Płonka</i> )	595
92	Protective patterns in Mesolithic art ( <i>Peter Vang Petersen</i> )	602
93	Mesolithic engraved bone pins: The art of fashion at Téviec (Morbihan, France) ( <i>Éva David</i> )	610
94	Final destruction and ultimate humiliation of an enemy during the Mesolithic of southern Scandinavia ( <i>Erik Brinch Petersen</i> )	619
95	Archaeological remains of Mesolithic funerary rites and symbols ( <i>Judith M. Grünberg</i> )	622
96	Buried side by side: The last hunter-gatherers of the south-western Iberian Peninsula through the lens of their mortuary practices ( <i>Rita Peyroteo-Stjerna</i> )	629
97	Depositions of human skulls and cremated bones along the River Motala Ström at Strandvägen, Motala ( <i>Fredrik Molin, Sara Gummesson, Linus Hagberg, and Jan Storå</i> )	637
98	Human–animal symbolism within a ritual space in the Mesolithic wetland deposit at Kanaljorden, Motala ( <i>Fredrik Hallgren, Sara Gummesson, Karin Berggren, and Jan Storå</i> )	644
99	What are grave goods? Some thoughts about finds and features in Mesolithic mortuary practice ( <i>Lars Larsson</i> )	649
100	Mesolithic companions: The significance of animal remains within Mesolithic burials in Zvejnieki and Skateholm ( <i>Aija Macāne</i> )	655
101	Pit or grave? ‘Emptied’ graves from the cemetery at Dudka, Masuria, north-eastern Poland ( <i>Karolina Bugajska</i> )	660
102	Beware of dogs! Burials and loose dog bones at Dudka and Szczepanki, Masuria, north-eastern Poland ( <i>Witold Gumiński</i> )	668
103	Shamans in the Mesolithic? Re-analysis of antler headdresses from the North European Plain ( <i>Markus Wild</i> )	678
104	Birds in ritual practice of eastern European forest hunter-gatherers ( <i>Ekaterina Kashina and Elena Kaverzneva</i> )	685

<b>Transitions – Endings</b>	<b>693</b>
105 Transitions – Endings: Introduction ( <i>T. Douglas Price</i> )	695
106 Modelling the empty spaces: Mesolithic in the micro-region of central Serbia ( <i>Vera Bogosavljević Petrović and Andrej Starović</i> )	699
107 How North Iberia was lost? The Early Neolithic in Cantabrian Spain ( <i>Miguel Ángel Fano and Miriam Cubas</i> )	706
108 Debating Neolithization from a Mesolithic point of view: The Sado Valley (Portugal) experience ( <i>Mariana Diniz, Pablo Arias Cabal, Ana Cristina Araújo, and Rita Peyroteo-Stjerna</i> )	713
109 The Caucasian route of Neolithization in the Pontic-Caspian region ( <i>Alexander Gorelik, Andrej Tsybriy, and Viktor Tsybriy</i> )	720
110 The Late Mesolithic and Early Neolithic of the Kama region, Russia: Aspects of the Neolithization process ( <i>Evgeniia Lychagina</i> )	727
111 The Late Mesolithic in western Lesser Poland: Spectators or participants in the Neolithization? ( <i>Marek Nowak, Mirosław Zajac, and Justyna Zakrzeńska</i> )	733
112 Wetland sites in a dry land area. A survey for Late Mesolithic and Early Neolithic sites in and around the Zwischenahner Meer Lake, Germany ( <i>Svea Mahlstedt</i> )	740
113 Forager-farmer contacts in the Scheldt Basin (Flanders, Belgium) in the late sixth-early fifth millennia BC: Evidence from the site of Bazel-Sluis ( <i>Erwin Meylemans, Yves Perdaen, Joris Sergant, Jan Bastiaens, Koen Deforce, Anton Ervynck, and Philippe Crombé</i> )	746
114 Ritual continuity between the Late Mesolithic Ertebølle and Early Neolithic Funnel Beaker cultures ( <i>Søren Anker Sørensen</i> )	750
115 Continuity and change: hunters and farmers in the Mesolithic-Neolithic transition, Östergötland, eastern middle Sweden ( <i>Tom Carlsson</i> )	756
116 The Mesolithic-Neolithic transition in South Norway: Cylindrical blade technology as an indicator of change ( <i>Dag Erik Færø Olsen</i> )	763
<b>Representing and Narrating the Mesolithic</b>	<b>771</b>
117 Introduction: Representing and Narrating the Mesolithic ( <i>Nicky Milner</i> )	773
118 Mesolithic movie stars: Analyzing rare film archives of the Muge excavations from the early twentieth century ( <i>Ana Abrunhosa and António H. B. Gonçalves</i> )	776
119 Elusive, perplexing, and peculiar? Presenting the Mesolithic to twenty-first century audiences ( <i>Don Henson</i> )	785
120 Public perceptions and engagement with the Jomon and the Mesolithic ( <i>Don Henson</i> )	789
121 Building Mesolithic: An experimental archaeological approach to Mesolithic buildings in Ireland ( <i>Graeme Warren</i> )	796
<b>Index</b>	<b>805</b>

## 93. Mesolithic engraved bone pins: The art of fashion at Tévéc (Morbihan, France)

Éva David

The revisiting of the Tévéc bone material by means of technological analysis, including taphonomy and use-wear, enabled us to separate bone implements from the rest of the osseous material discovered in Mesolithic burials at this site. As a result, we find that pointed pieces made from animal bones were associated with the deceased regardless of their age or gender. Except for five such pieces recognized by the excavators, the points or awls were all engraved (up to 14 to date). Engravings in the form of a series of notches on the point are interpreted as decorative. It turns out that such objects were intended for a functional purpose: to act as a safety pin for holding garments together on the body. A pairing of such points has even been attested along with other objects that constituted personal ornaments of some children. This suggests that wearing bone pins was common across age groups and was an expression of fashion or could act as a group identity marker at the end of the sixth millennium cal BC. In this regard, the bone technology supports a socio-cultural regionalism present in Brittany at the end of the Mesolithic.

**Keywords:** grave, bone point, art, function, group identity

### Interest in revisiting the Tévéc material

A recurrent problem with some recently published studies on the archaeological material from Tévéc is that the site has often been viewed as a single archaeological horizon (Marchand 2003, 2014). However, at Tévéc, there are burials, shell middens, and other archaeological structures and features, which the Péquarts mentioned in their publication, suggesting that these features actually reflect a series of successive human occupations (Péquart and Péquart 1937, 18). This has had a large impact on most of the offered interpretations, and notably on the use of the Tévéc material to emphasize an apparent growth in social complexity during the Early Holocene in Europe (Newell *et al.* 1990), or to suggest an initial Palaeolithic-Mesolithic substrate at the roots of the Neolithic megalithic tradition (*e.g.* Van Berg and Cauwe 1996), a complexity not yet reflected in the evolution of animal livestock and representations in such societies (Tresset 2005a). The presence of a few potsherds found close to the necropolis (the Carnac Museum staff, pers. obs.) suggests that diverse occupation phases, perhaps including the Neolithic, might have taken place on site soon or long after the Tévéc island saw a cemetery built from its rocky substrate, even though burials yielded neither ceramics nor any remains of domesticated animals (Tresset 2005a) or polished stone axes (Péquart and Péquart 1929).

If the original absolute dating of some human remains from the Tévéc cemetery (Schulting 1999) would theoretically fit either the Mesolithic or Neolithic (Meiklejohn *et al.* 2010), results obtained from collagen stable isotope (carbon) analysis of human bones attest to the fact that the population buried at Tévéc was essentially oriented towards a Mesolithic kind of subsistence (Schulting 2005; Schulting and Richards 2001; Schulting *et al.* 2004). This result is in keeping with those from the rest of Europe where, compared to Neolithic communities, Mesolithic groups largely hunted and gathered animal resources, mainly from aquatic biotopes (*e.g.* Dupont and Gruet 2005; Richards *et al.* 2003). Hence, the whole of the Tévéc archaeological material can be used to examine the development from a Mesolithic to a Neolithic society at the end of the sixth millennium cal BC. Taking only a part of this assemblage into account, we can see that it was used to define the Late Mesolithic *Tévécian* culture because of the use of indirect percussion for bladelet production (Guesquière and Marchand 2010). Tévéc is similar to other contemporaneous archaeological sites in modes of land-use strategies, lithic-resource exploitation, stone artefact-types, and technology (Marchand 2005). Discussed in this way, Brittany, where the site of Tévéc is located, can be viewed as a particular Mesolithic region used for at least ~400 years, from 5640 to 5220 cal BC (Meiklejohn *et al.* 2010).

Indeed, the concept of territorial mobility is supported by the distribution of raw materials and lithic production where internal moves between various exploitation zones became gradually restricted to the main region (Gouletquer *et al.* 1996; Yven 2004). Whereas the cluster related to the Breton group, initially defined using the Tévéc craniometric data, could have resulted from an earlier shift in human morphological features, as a result of adaptation and stochastic long-term processes (Brewster *et al.* 2014), relevant data based on isotopic ratios support a regional (mobility) pattern. This is true even though that locally the pattern might have been more complex due to potential interactions between coastal and inland groups in the process of hypergyny (Schulting 2003). This being said, regionalism has not yet been supported by the whole set of faunal remains available for study. It has indeed been stressed that comparable patterns of behaviour are seen in animal procurement and consumption, notably towards large bird species (puffin, woodcock, mallard, etc.) along with most of the usual terrestrial mammals (large ungulates mainly), between Tévéc and other Mesolithic coastal sites situated in more northern regions of Europe (Tresset 2005b). But, from a tiny part of the Tévéc assemblage alone, the quasi-consistent behavioural patterns would actually fit with the marine transgressions of Brittany, equivalent to a regional or long-term use of the local Atlantic littoral. It seems that results vary the most depending on whether the studied assemblage derives from the whole of the Tévéc archaeological material or from only one of its stratigraphic units. In addition, certain artefact-types, such as pendants, are relevant enough to enable a large-scale study, which allows for the drawing of independent inferences based on that type of material alone (*e.g.* Rigaud *et al.* 2015).

As the Tévéc material thus provides potentially contradictory insights, perhaps also due to a relatively wide dispersal of the collection (Vigier 2007), there is a need to restore associations between artefacts and their original provenance at Tévéc. Here, this is done by means of articulating various fields within the technological approach, including taphonomy, refitting, and objects' biographies (*e.g.* David and Kjällqvist 2018). Regarding the Tévéc burial ground, which would represent the most informative material (Binford 1971) for reconstructing the sixth-millennium cal BC funerary practices and group identities in Brittany, we have tried to distinguish what might have been deposited by the group versus what belonged to the buried person during their lifetime versus what are accidental inclusions in the (re)filling of a vault. Therefore, a double aspect is discussed: artefact-burial associations and functions of the commonly associated artefacts.

### **Artefact-burial associations: The burial/bone taphonomic group III**

As assumption can be made that if human bodies and (un)worked animal parts were deposited at the same time, the remaining osseous component of these materials should

have altered in the same way (*e.g.* Meiklejohn *et al.* 2005). Regardless of the anatomical origin of finds or their precise location in burials, the anthropogenic-originated actions are seen as being part of the biostratigraphic and biodiagenetic (taphonomic) processes affecting deposits (Auguste 1994, 18). As identified by the Péquarts (1937), and recently confirmed by Boulestin (2016), 23 individuals can be recognized from 10 vaults. Once in their primary position, the deceased might have been wrapped in a burial cloth fixed at the level of the chest with a manufactured bone point. The dead were then 'encased' in a nest of both shed and unshed stag red deer antlers before being covered by stone cairns, thus leaving the grave visible.

Grouping specimens of hard organic origin was possible by principally considering their external aspects, since biochemical components of the burial environment generally affect osseous material by means of osmosis or direct contact (Efremov 1940). Thus, observations about the colour and surface quality of each piece (porosity, 'patina', and patterns of cortical alteration) enable one to group the osseous material in five general taphonomic categories, even though specific material (teeth, for instance) may show its own modification traits in relation to its peculiar structural properties (Espinoza *et al.* 1990). From a total of 71 osseous pieces recorded by the excavators (except for the antlers constituting each nest), the Carnac and Saint-Germain museum collections contain 61 manufactured items (weapons, tools, objects, and waste products) in addition to some faunal remains (David 2016). Based on the original data from publications and archives, apart from six additional pieces (David 2016) (Fig. 93.1:30–35) from layers not identified by the Péquarts, all pieces from taphonomic group III were found in graves only. Their taphonomic characteristics are comparable to those of Mesolithic human bones (Fig. 93.1). Moreover, considering the fact that these aspects relate to different skeletons and/or anatomical parts, all human bones are also assigned to group III (the Carnac Museum, pers. obs.). This implies that the process by which bodies became bones unfolded in a similar way for each burial (group III). Even though it is assumed that bodies must have been buried at distinct moments in time, the post-depositional factors did progress under similar conditions, independent of the burial context and type of osseous remains left there, be they skeletal remains or tools.

As for the differences in colour/shading within the group III assemblage, the presence of ochre in some graves and that of an older grave isolated inside a single burial vault ('K' skeleton no. 6) provide explanations for the fact that some pieces are more reddish (Fig. 93.1:36, 51) while others are more greyish (Fig. 93.1:54–55). However, six items initially attributed to graves 'D' (Fig. 93.1:23, 60–61) and 'K' (Fig. 93.1:6, 12, and 21) show another taphonomic aspect.





**Fig. 93.1.** Grouping of the Tévéc bone industry according to their taphonomic characteristics except for three pieces illustrated in Péquart and Péquart (1937, Pl. X:19, 21, Pl. IX:5) but not found in the collections; five bone awls (1937, Pl. XII:9–10, 15, 17–18) and a seal tooth illustrated and/or mentioned in the publication but not found in other museums (Graves A, B, E, and M; Grave L has no bone material) as well as all smaller shell beads and the large shed/unshed antler pieces were not available for this study. All anatomical identifications and photographs by Éva David.

*Group I* – Light coloured (light yellow brown), porous, rough-like cortex, vermiculated (12 pieces made from teeth and bones): 1: thin double bone point (no. R81.1.16); 2: tip end of a bone needle (no. R81.1.22); 3–4: tip ends of bone awls (nos. R81.1.18 & 390); 5: basal part of a bone awl (no. R81.1.385); 6: bone waste product (no. R81.1.224); 7: broken tooth



burin (no. R81.1.382); 8–9: pointed end of tooth tools (nos. R81.1.396 & 392); 10: stem of a tooth tool (no. R81.1.398); 11: tooth burin (no. R81.1.15); 12: bone awl (no. R81.1.225);  
**Group II – Dark coloured (dark yellow brown), not porous, glaze-like and/or desquamated cortex, vermiculated (seven specimens made from bones and antler tines):** 13: robust burnt bone awl (no. R81.1.11); 14: burnt red deer phalanx (no. R81.1.6); 15: burnt bone fragment (no. R81.1.407); 16–17: tip ends of bone awls, burnt (nos. R81.1.406 & -388); 18: burnt cervid tine antler fragment (no. R81.1.75); 19: burnt bone fragment (no. R81.1.400);  
**Group III – Light coloured (light rose greyish), not porous, desquamated cortex, not vermiculated (27 pieces made from teeth and bones; the two pecten are not illustrated here):** 28: small antler hammer (burr) showing a rhombic perforation as a handled part (no. 77579-138); 29: bone pointed tip or tang (no. R81.1.391); 30–33: tip ends of engraved bone awls (nos. R81.1.229, 19, 21, & 386); 34: mammal rib fragment (no. R81.1.226); 35–36: pig or human (?) rib diaphysis and a fish bone, both showing modern engravings (nos. R81.1.2 & 77579-139); 37–40: tooth beads (nos. R81.1.142, 139, 141, & 140); 41: engraved broken bone awl with a pointed tang (no. R81.1.143); 42–43: engraved bone awls that refit together from a red deer metatarsus (nos. R81.1.103 & 102); 44: engraved and perforated bone awl (no. R81.1.104); 45: engraved bone awl shortened at its base (no. R81.1.146); 46–48, 53: broken engraved bone awls (nos. R81.1.144, 145, 147 & 4); 49–52: engraved bone awls (nos. R81.1.14, 13, 77579-133 & R81.1.3); 54: hafted antler bevelled end tool (no. R81.1.7); 55: antler punch (no. R81.1.9);  
**Group IV – Dark coloured (dark yellow brown), porous, rough-like cortex, vermiculated (nine pieces made from bones and tine antlers):** 20: antler punch (no. R81.1.10); 21: straight antler handle (nos. R81.1.403 & 401); 22: antler crusher (no. R81.1.384); 23: basal part of a bone awl (no. 77579-134); 24: entire thin double bone point (nos. R81.1.17 & 394); 25–26: tip end of bone awls (nos. R81.1.315 & 389); 27: mesial part of a robust bone awl (no. R81.1.383);  
**Group V – Light coloured (dark orange brown), not porous, rough-like cortex, vermiculated (six pieces made from bones):** 56: split roe deer metatarsus (no. R81.1.8); 57: broken bone diaphysis (no. R81.1.12); 58–59: broken bone awls (nos. R81.1.20 & 387); 60–61: entire thin points with pointed tangs (nos. 77579-136 & -137).

**Fig. 93.2.** Mesolithic worked bones from Tévéc. a: Modern engraving made on a Mesolithic fish bone found in burial 'K' (see the text). b: Anatomical pairing between twin bone points made from a single large cervid (red deer-like) metatarsus bone (caudal face) and found in association with the 'king children' skeletons (grave 'C'). The bone was split lengthwise (*cassure-éclat*) probably after the distal end of the bone (in the anatomical sense) was detached. Each bone-blank represents one-fourth of the metatarsus in cross-section. To become an awl, the only broken-tip-end was made pointed by (convergent) scraping. The fracture planes from the splitting of the bone are still visible on the tang of each point and enable a straightforward conjoining, allowing for a perfect refit of the two manufactured points at their basal ends. Anatomical identifications and photographs by Éva David.



They could either be linked to a possible mixing of sediments of different origins or periods in the same grave or relate to the presence of remains connected to Mesolithic funerary practices but physically dissociated from the deceased and under the influence of other depositional processes, thus delivering different modification patterns (artefacts from another layer that was incidentally removed in order to fill the grave, or animal offerings placed close to the deceased or into a vault). Along with other specimens, the provenance of which the Péquarts linked to the midden, they mainly consist of split faunal remains (Fig. 93.1:6, 57), very thin, complete pieces (Fig. 93.1:60–61), and burnt artefacts (Fig. 93.1:14–16). By means of a taphonomic analysis, it is not possible to restore the exact provenance of every single piece, but, at least, it is possible to define the most probable initial osseous assemblage linked to Mesolithic burials, *i.e.* pieces that by all criteria correspond to both group III *and* artefacts recorded archaeologically as or in relation to particular individuals during excavations. In total, there are 22 pieces of bone industry (Fig. 93.1:28–29, 36–55) belonging to this ensemble of worked bones that clearly belong to certain burials. The remaining pieces belong to (four) other recorded taphonomic groups that are supposed to represent other events, perhaps connected to activities linked to burials (group II could refer to the ‘ritual’ fireplaces), or even other periods. This material shall be revisited together with the other ‘faunal’ remains described by Boule and Valois (Péquart and Péquart 1937), and which have not yet been studied. The vermiculation aspect, which all of these pieces exhibit, developed mainly in an open-air environment, and was caused by the roots of shrubs growing nearby.

Among the pieces originating from burials, we also aimed to recognize those artefacts that exhibit recent modifications in order to define the assemblage that can best represent Mesolithic material from the Tévéc burials. Manufacturing techniques leave specific patterns on bones (David 2004). Two main factors – the time during which the manufactured pieces were used and the period during which the objects were buried – leave specific patterns on the tools’ surface, not to mention the obvious fresh excavation breakage. Along with the patterns described above, the aspects related to the manufacturing techniques as well as the presence of use-wear provide relevant diagnostic criteria.

The case of an engraved fish bone is of special significance (Fig. 93.2:a). The bone belongs to taphonomic group III as described above. The engraved groove-like marks on both surfaces are extremely straight. The colour of the bone inside these marks is slightly darker than the rest of the bone’s surface. The very large size of these marks along with the absence of internal *striae* and the absence of sediment deposited inside them – a commonly expected mark of the antiquity of an object – make us finally reject the engraving as an old one, even though the bone

itself is most probably ancient. In the absence of direct dating, it is the location of this piece, found down in the oldest grave (6) of vault ‘K’, which gives us its relative chronology.

An unworked rib with similar fresh engraving marks was never published by the Péquarts (Fig. 93.1:35). Direct comparisons of all engraved pieces from the site provided a referential technical understanding of patterns in ancient engraving (*e.g.* David 2010). As a result, the preliminary macro- and micro-observations of every single osseous tissue gave us ten supplementary engraved pointed pieces (compared to those mentioned in Schulting 1996), increasing the original number of the Tévéc Mesolithic ‘art’ pieces up to 14 (the Péquarts recognized five including the recently engraved fish bone). Except for the two that represent modern engravings on likely original Mesolithic pieces, the worked bone and antler material from specific Mesolithic burials (group III) at Tévéc is composed of 21 pieces (Fig. 93.1:28–29, 37–55). These are mainly long bone points or awls, and tooth beads. Antler tools – one of them a hammer-like tool with a burr that shows percussion impact traces (Fig. 93.1:28) – and numerous perforated shells (mainly *Nassa*, *Trivia*, and *Littorina* species), and pebbles are other goods found in graves. They come from graves ‘C’ (three children), ‘D’ (woman and infant), ‘H’ (two women and child), ‘K-5’ (woman no. 2), and ‘K-6’ (man with embedded flint arrowhead).

### Function of a common artefact: The long awl made from animal bone used as a safety pin

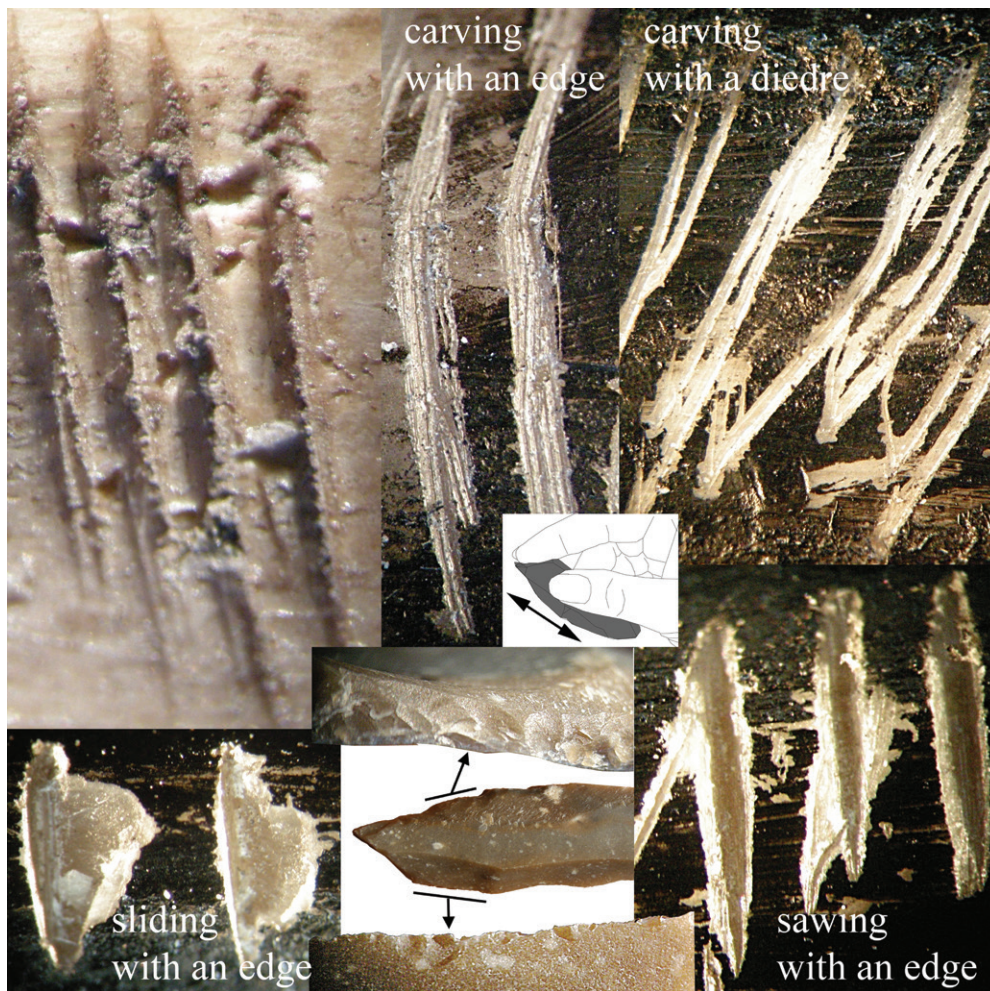
In addition to hundreds of shells that covered certain areas of the body, the presence of very long points made on thin limb bones (wild boar, dog fibula, splintered red deer metapodial) seems to have been a characteristic associated with each of the deceased. Most of these points display a motif in the form of one to several series of transverse notches replicated axially on the shaft, with no obvious meaning in their grouping or rhythm (Fig. 93.3). When considering the best preserved one from the Saint-Germain museum (grave ‘D’), a regular reshaping of the point shows that the notches do not correspond with the tip’s active-end; these were not reshaped as accurate notches after the tip-end was rejuvenated (Fig. 93.3:5, red shading). Moreover, axial planes show heavy use-wear patterns that are specifically distributed in zones, most of them placed in opposition, anatomically speaking (93.3:1, middle). This suggests that these damaged parts of the point were ‘outside’, when the rest of the point was probably turned ‘inside’ towards the body or garment; this would explain the alternate reverse zonations observed (yellow). Considering their recorded location on the human skeletons when found during excavations – with the tip-end of the awl pointing towards the hips of the body – the use patterns correspond indeed to a use of the point as a pin





**Fig. 93.3.** A Mesolithic engraved bone point from grave 'D' at Tévéc with its anatomical provenance (no. 4). The depth, size, and morphology of the visible notches that compose the motif along with their overlap offer a reconstruction of the stages of engraving in the form of a series (nos. 1–3). It was freshly engraved by two axial series made anatomically opposite on the stem, firstly bilateral (no. 1) and secondly facial (no. 2) or bifacial (no. 3). The tip was reshaped on all sides and used again until it was broken, and was reshaped again, making the notches on the tip almost invisible (no. 5: middle picture at the bottom). The basal-end shows no use-wear at all, only two cutmarks (on the lateral anatomical face) probably linked to the initial extraction of the used blank from a tibia (no. 4). The rough end (shaded grey) clearly indicates a demarcation line in relation to the rest of the point and smoothed stem. On the stem, three zones, two of which are opposing, show clear use marks in the form of scratched areas (no. 5, upper picture). Parts of the stem were probably visible when the other remaining parts of the point were covered by a cloth, and thus protected from any further alteration due to use. The point was probably used as a kind of safety pin in conjunction with perishable organic matter that probably encompassed the basal-end of the point (sinew or hide?) that may have extended towards the tip and onto which it was somehow fixed in an efficient manner (no. 6). Photographs by Éva David.





**Fig. 93.4.** A reconstruction of the engraving technique used in the Tévéc Mesolithic bone industry on the basis of experimental tests conducted by the author – the sawing technique with the rough and mostly straight (untruncated) edge of a truncated blade in grey. Top left: an archaeological example. Drawing and photographs by Éva David.

that was fixed onto a cloth with an articular end (grey) that was somehow protected (wrapped with sinew?) from damage when the awl was in use. The rejuvenation of the broken tip suggests a long-term use, but not like when the object was kept apart for many years for the dead, unless the point itself had been retrieved from an older burial and reused in new burial contexts over generations. This is unlikely since the notches were made on a relatively fresh bone each time. The presence of additional use-wear patterns on the rejuvenated tip and on the notches themselves, the series of which shows various stages of curating the shaft over time, can be used as evidence of prolonged use as an everyday object for a Mesolithic person to wear until it finally became a component of the burial.

Thus, the engraved points from Tévéc are no classic ‘art’ pieces; they appear instead as functional items, which were notched so that the garment (a cape?) would not easily fall when worn. They were maintained by the notches that helped the pin stay attached (see a reconstructed cloth on a human body in Fig. 93.3). It is assumed here that the dead were strictly linked to only one bone point, as each point

was found generally associated *in situ* to one of the deceased. Nevertheless, without a precise reconstruction of the mode of burial, it is not possible to determine whether a bone point might have been offered by someone as a personal gift to secure the burial cloth of the dead, or if the dead person was buried with his own bone point still fixed on his own garment. However, the second possibility is more likely since points were not freshly reshaped despite the very poor broken-off state of use visible on some of them, not caused by post-depositional alterations. In the first case, one would expect to find a point to have been repaired for its proper last adjustment onto the dead in the preparation for their funeral; this is never the case.

#### *Associated animal symbolism*

These long awls were made from long bones of hunted game (wild boar, roe deer, red deer) and some carnivores (dog, pin-niped species), the latter rarely providing a few blanks (David 2016). The utilization of a single red deer metatarsus for making two equally long points, the length of these points corresponding to that of the original bone. Their almost

unworn state of use in the case of a children's burial vault suggests the same idea: a long-lasting tradition of wearing engraved points from childhood onwards (Fig. 93.2:b). This amazing pairing of points, for one child or perhaps twins, could also be further linked to worn canine teeth from the same animal species also found paired in this context, with all of the socio-symbolic meaning that this may suggest, notably in evidencing certain social representations (David 2016, 627).

### Associated flint material

Various aspects of engraving on these points show the use of a specific technique applied with a flint tool. Although the application of a technique may deliver a variety of markings, depending on the type of flint tool used, the motion itself during the action provides specific and reliable patterns that can aid in distinguishing the engraving technique used. As a result, the use of an unretouched edge of a blade as a saw created similar notch-like marks as those figured on the bone point (Fig. 93.4). Among the flint material yielded by the Tévéc graves, excellent candidates would be any used flint edges from truncated blades. Eleven people were buried together with one or several blades found in their hands or on their chest (see the list in David 2016). Depending on whether the flint edges found in the graves were actually used, one could conclude, like in the case of the unused flint objects deposited in grave no. 5 at Tågerup (Karsten and Knarrström 2003), that the blades deposited in Tévéc graves might have represented an offering from the community to their dead. In contrast, the manufactured bone points with some of the truncated blades might have represented the deceased individuals themselves, as an expression of a daily socio-cultural coding – the way people wore their garment during their lifetimes. More data are expected, from a lithic use-wear analysis.

### Conclusion

Understanding interactions between flint and bone by means of a similar technological approach appears to be a reliable way to reconstruct regional funerary practices in their entirety through the identification of differentiated values of grave goods: those representing the person and/or a common tradition shared by a part of or the whole group (ornaments/bone pins) versus those expressing common beliefs of the group (unused lithic artefacts as gifts). The studied bone points are otherwise unknown in Europe. At Tévéc, they were recurrently used as safety pins regardless of gender and age of the deceased and were made from animal bones otherwise well-represented as common remains of consumption. The deceased was also possibly associated with some of the lithic tools found in the Tévéc burial grounds. All these elements support the Breton regionalism at the end of the sixth millennium cal BC. However, more technological investigations on

contemporaneous materials are needed to further characterize Mesolithic groups through the reconstruction of funeral gestures and associated symbolism in tool making and using.

### Acknowledgments

This work has been supported by the French Fonds National pour la Science, ACI-Action Concertée Incitative 'La Néolithisation de la façade atlantique: Interactions culturelles, transferts techniques, implications des milieux naturels' directed by Grégor Marchand (CNRS), and I would like to acknowledge most sincerely his support. I would also like to express my sincere gratitude to the Carnac and MAN museums and especially to their respective curators Emmanuelle Vigier and Catherine Schwab for their unfailing support of our research. For the proofreading of the English text I thank Béatrice Cameron.

### References

- Auguste, P. (1994) Thème I. Actions climatiques et édaphiques, synthèse générale. In M. Patou-Mathis (ed.) *Outillage peu élaboré en os et bois de cervidés IV, 6<sup>e</sup> Table ronde Taphonomie, Bone Modification*, 17–27. Treignes, CEDARC.
- Binford, L. R. (1971) Mortuary practices: Their study and potential. *Memoirs of the Society for American Archaeology* 25, 6–29.
- Boulestin, B. (2016) *Les sépultures mésolithiques de Tévéc et Hoëdic: Révisions bioarchéologiques*. Oxford, Archaeopress.
- Brewster, C., Ch. Meiklejohn, N. von Cramon-Taubadel, and R. Pinhasi (2014) Craniometric analysis of European Upper Palaeolithic and Mesolithic samples supports discontinuity at the Last Glacial Maximum. *Nature Communications* 5, 4094.
- David, É. (2004) Transformation des matières dures d'origine animale dans le Mésolithique de l'Europe du Nord. In D. Ramseyer (ed.) *Industrie de l'os préhistorique. Matières et techniques* (Fiches de la Commission de Nomenclature de l'Industrie Osseuse cahier XI), 113–49. Paris, Éditions de la Société Préhistorique Française.
- David, É. (2010) Palaeolithic portable art and its relation to ungulate bones (metapods). In A. Legrand-Pineau, I. Sidéra, N. Buc, É. David, and V. Scheinsohn (eds.) *Ancient and Modern Bone Artefacts from America to Russia: Cultural, Technological and Functional Signatures* (British Archaeological Reports Int. Ser. 2136). Oxford, Archaeopress.
- David, É. (2016) The bone pins from Tévéc (Morbihan, France) illuminate Mesolithic social organization. In J. M. Grünberg, B. Gramsch, L. Larsson, J. Orschiedt, and H. Meller (eds.) *Mesolithic Burials – Rites, Symbols and Social Organisation of Early Postglacial Communities. International Conference Halle (Saale), Germany, 18th–21st September 2013* (Tagungen des Landesmuseums für Vorgeschichte Halle 13/II), 609–28. Halle (Saale), Landesamt für Denkmalpflege und Archäologie Sachsen-Anhalt, Landesmuseum für Vorgeschichte.
- David, É. and M. Kjällqvist (2018) Transmission of knowledge, crafting and cultural traditions, interregional contact and interaction, 7300 cal BC: A study of worked material from Norje Sunnansund, Sweden. In H. Glørstad, K. Knutsson, and J. Apel (eds.) *Technology of Early Settlement of Northern Europe*.



- Transmission of Knowledge and Culture*, 231–76. Sheffield, Equinox Publishing Limited.
- Dupont, C. and Y. Gruet (2005) Malacofaune et crustacés marins des amas coquilliers mésolithiques de Beg-an-Dorchenn (Plomeur, Finistère) et de Beg-er-Vil (Quiberon, Morbihan). In G. Marchand and A. Tresset (eds.) *Unité et diversité des processus de néolithisation sur la façade atlantique de l'Europe (6e–4e millénaires avant J.-C.)*. Table ronde de Nantes, 26–27 Avril 2002 (Mémoire 36), 139–61. Paris, Société préhistorique française.
- Efremov, I. A. (1940) Taphonomy: New branch of palaeontology. *Pan-American Geologist* 74, 81–93.
- Espinoza, E. O., M.-J. Mann, J. P. Lemay, and K. A. Oakes (1990) A method for differentiating modern from ancient proboscidean ivory in worked objects. *Current Research in the Pleistocene* 7, 81–83.
- Ghesquière, E. and G. Marchand (eds.) (2010) *Le Mésolithique en France. Archéologie des derniers chasseurs-cueilleurs*. Paris, Éditions La Découverte (Archéologies de la France).
- Gouletquer, P., O. Kayser, M. le Goffic, and J.-M. Moullec (1996) Où sont passés les mésolithiques côtiers bretons? Bilan 1985–1995 des prospections de surface dans le Finistère. *Revue archéologique de l'Ouest* 13, 5–30.
- Karsten, P. and B. Knarrström (2003) *The Tågerup Excavations*. Lund, The National Heritage Board Sweden.
- Marchand, G. (2003) Les niveaux coquilliers du mésolithique final en Bretagne. Fonctionnement des habitats côtiers et intégration territoriale. *Varia* 12, 209–20.
- Marchand, G. (2005) Le Mésolithique final en Bretagne: Une combinaison des faits archéologiques. In G. Marchand and A. Tresset (eds.) *Unité et diversité des processus de néolithisation sur la façade atlantique de l'Europe (6e–4e millénaires avant J.-C.)*. Table ronde de Nantes, 26–27 Avril 2002 (Mémoire 36). Paris, Société préhistorique française, 67–86.
- Marchand, G. (2014) *Préhistoire atlantique. Fonctionnement et évolution des sociétés du Paléolithique au Néolithique*. Paris, Éditions Errance.
- Meiklejohn, Ch., D. C. Merrett, R. W. Nolan, M. P. Richards, and P. A. Mellars (2005) Spatial relationships, dating and taphonomy of the human bone from the Mesolithic site of Cnoc Coig, Oronsay, Argyll, Scotland. *Proceedings of the Prehistoric Society* 71, 85–105.
- Meiklejohn, Ch., G. Bosset, and F. Valentin (2010) Radiocarbon dating of Mesolithic human remains in France. *Mesolithic Miscellany* 21(1) 10–56.
- Newell, R. R., D. Kielman, T. S. Constandse-Westermann, W. A. B. Van Der Sanden, and A. Van Gijn (1990) *An Inquiry into the Ethnic Resolution of Mesolithic Regional Groups. The Study of Their Decorative Ornaments in Time and Space*. Leiden, E. J. Brill.
- Péquart, M. and S.-J. Péquart (1929) La nécropole mésolithique de Tévéc (Morbihan). Nouvelles découvertes. *L'Anthropologie* 39, 373–400.
- Péquart, M. and S.-J. Péquart with contributions by M. Boule and H. Vallois (1937) *Tévéc, station-nécropole du Mésolithique du Morbihan* (Archives de l'Institut de Paléontologie Humaine Mémoire 18). Paris, Masson.
- Richards, M. P., T. D. Price, and E. Koch (2003) The Mesolithic and Neolithic subsistence in Denmark: New stable isotope data. *Current Anthropology* 44(2), 288–94.
- Rigaud, S., F. d'Errico, and M. Vanhaeren (2015) Ornaments reveal resistance of north European cultures to the spread of farming. *PLoS ONE* 10(4), e0121166.
- Schulting, R. J. (1996) Antlers, bone pins and flint blades: The Mesolithic cemeteries of Tévéc and Hoëdic, Brittany. *Antiquity* 70, 335–50.
- Schulting, R. J. (1999) Nouvelles dates AMS à Tévéc et Hoëdic (Quiberon, Morbihan). Rapport préliminaire. *Bulletin de la Société Préhistorique Française* 96, 203–7.
- Schulting, R. J. (2003) The marrying kind: Evidence for a patrilineal postmarital residence pattern in the Mesolithic of southern Brittany. In L. Larsson, H. Kindgren, K. Knutsson, D. Loeffler, and A. Åkerlund. (eds.) *Mesolithic on the Move: Sixth International Conference on the Mesolithic in Europe, Stockholm 2000*, 431–41. Oxford, Oxbow Books.
- Schulting, R. J. (2005) Comme la mer qui se retire: Les changements dans l'exploitation des ressources marines du Mésolithique au Néolithique en Bretagne. In G. Marchand and A. Tresset (eds.) *Unité et diversité des processus de néolithisation sur la façade atlantique de l'Europe (6e–4e millénaires avant J.-C.)*. Table ronde de Nantes, 26–27 Avril 2002 (Mémoire 36), 163–71. Paris, Société préhistorique française.
- Schulting, R. J. and M. P. Richards (2001) Dating women and becoming farmers: New palaeodietary and AMS dating evidence from the Breton Mesolithic cemeteries of Tévéc and Hoëdic. *Journal of Anthropological Archaeology* 20, 314–44.
- Schulting, R. J., A. Tresset, and C. Dupont (2004) From harvesting the sea to stock rearing along the Atlantic façade of north-west Europe. *Environmental Archaeology* 9, 143–54.
- Tresset, A. (2005a) La place changeante des bovins dans les bestiaux du Mésolithique final et du Néolithique d'Armorique et des régions adjacentes. In G. Marchand and A. Tresset (eds.) *Unité et diversité des processus de néolithisation sur la façade atlantique de l'Europe (6e–4e millénaires avant J.-C.)*. Table ronde de Nantes, 26–27 Avril 2002 (Mémoire 36). Paris, Société préhistorique française, 273–86.
- Tresset, A. (2005b) L'avifaune des sites mésolithiques et néolithiques de Bretagne (5500 à 2500 av. J.-C.): Implications ethnologiques et biogéographiques. *Revue de Paléobiologie* 2005 (Special 10), 83–94.
- Van Berg, P.-L. and N. Cauwe (1996) 'Magdalithiques' et 'Mégaliéniens'. Essai sur les sources des structures spatiales du Néolithique européen. *Bulletin de la Société Préhistorique Française* 93(3), 366–87.
- Vigier, E. (2007) L'apport des Péquart au musée de Carnac – De la dispersion du matériel de Tévéc et d'Hoëdic. In *Marthe et Saint-Just Péquart, archéologues des îles. De Houat à Hoëdic, 1923–1934* (La revue des deux-îles 4), 275–82. Hoëdic, Melvan.
- Yven, E. (2004) *Approche spatiale et territoriale des industries lithiques – Constantes et variantes dans l'occupation du substrat géographique et la gestion des matières premières lithiques en Bretagne*. Unpublished PhD thesis, Brest University.

***Foraging Assemblages*** is the publication of the proceedings of the Ninth International Conference on the Mesolithic in Europe, held in Belgrade in September 2015. The two volumes of these proceedings gather 121 contributions on Mesolithic research in Europe, covering almost every corner of the continent. The book presents a cross-section of recent Mesolithic research, with geographic foci ranging from the Mediterranean to Scandinavia, and from Ireland to Russia and Georgia. The papers in the volumes cover diverse topics and are grouped into 11 thematic sections, each with an introduction written by prominent Mesolithic experts. The reader will learn about changes in forager lifeways and the colonization of new territories at the end of the Ice Age and the beginning of the Holocene warming; the use of diverse landscapes and resources; climatic instabilities that influenced patterns of settlement and subsistence; the organiza-



tion of settlements and dwelling spaces; the formation of regional identities expressed through various aspects of material culture and technologies of artefact production, use, and discard; aspects of social relations and mobility; symbolic, ritual, and mortuary practices; diverse ways in which Mesolithic communities of Europe were transformed into or superseded by Neolithic ways of being; and how we have researched, represented, and discussed the Mesolithic.

### Volume 1

- Transitions – Beginnings
- Colonization
- Landscapes
- Settlement
- Regional Identities

### Volume 2

- People in Their Environment
- Technology
- Social Relations, Communication, Mobility
- Rites and Symbols
- Transitions – Endings
- Representing and Narrating the Mesolithic

