Introduction: So Close, No Matter How Far? Sketching the Relationship between Water- and Landscapes across Europe

Eda Gross & Renata Huber

165 years after the discovery of pile dwellings in Switzerland, the 25th annual meeting of the EAA in Bern under the motto "Beyond Paradigms" was an excellent occasion to relate archaeological waterscapes to their surrounding landscapes. Due to their inherent fluidity and their impact on cultural phenomena, waterscapes are destined to make us look beyond rigid paradigms, dichotomies, and categories, in order to dissolve them and merge the results into something new.

Relating and integrating the various aspects of life in waterscapes and landscapes, as well as their transitional areas, creates new and unexpected narratives. Archaeological remains in waterscapes (in/at lakes and the sea, in peatlands, bogs etc.) must be seen in their relationship to and their symbiosis with water (Hussain & Floss, 2016; Rönnby, 2007; Vianello, 2015). The traditional, somewhat hydrophobic, territorial models (HASENFRATZ & GROSS-KLEE, 1995) still common amongst some today, which saw dwellings or infrastructure sites as simply located by the water, limited the field of vision. This terrestrial view may also partly be a result of the fact that in today's landscape wetlands have been made to disappear almost completely (Gross & Huber, 2018; Naumov, 2019). From a post-processual perspective, these models are no suitable analytical instruments. We would like to leave them behind us and instead focus on the habitat as a whole. When doing so, it has to be remembered that whether or not archaeological sites are recognised as such is largely dependent on taphonomic conditions (SOMMER, 1991, 59-64). Habitat here includes not only dwellings but also infrastructure installations such as bridges (e.g. KOVACIC & COLLAS, 2019), fisheries (e.g. KOIVISTO, 2017) and mills (e.g. Dumont et al., 2014; Harding, 2013; SCHUCANY & WINET, 2014) as well as natural facilities like ports (DAIM ET AL., 2018), fords (e.g. EDGEWORTH, 2011, 121-124), deltas (Huber et al., 2020), estuaries (Severn Estuary Levels Research Committee) and portages (e.g. Westerdahl, 2004). We are talking about an entire space that was and still is being used, paddled through (e.g. CIPOLLA & Allard, 2019), trekked through (Coles & Coles, 1986; Heumüller, 2016), engineered (e.g. Giannini, 2019) and inhabited. In particular research in estuaries (e.g. Cohen, 2012; Haughey, 2009; Kranendonk et al., 2015; Maiklem, 2019; Monuments and Archaeology, City of Amsterdam) has shown how diverse finds can be and how hard it often is to determine whether a deposit is deliberate or accidental (e.g. waste vs. deposition). This ambiguous picture puts the spotlight on ritual depositions or "territorial" markers, which can only be recognised when looking at them from a wider context (Grøn, 2020; Stevens, 2019). Due to its distinctly liminal nature, water has heavily charged cosmological-religious connotations (Larsson, 2011).

In order to understand waterscapes, the microarchaeological frog's eye perspective (Fahlander, 2008; Gross, in prep.; Mainberger, 2020), which examines the local aquatic environment, must be supplemented with a broader perspective, for water does not separate – it connects (Johnson, 2019; Maixner, 2020). Thus, archaeological sites must be viewed in relation to the water- and land-scapes around them, in relation to each other, and as part of a wide and far-reaching network of similar relationships (Gross & Huber, 2018).

These "amphibious" networks are the result of a lively, diverse and constantly changing interplay between different actors (humans, animals, plants and other matters), factors, and forces (Dolbunova et al., 2019). As we move between land and water, new perspectives open up in front of us; the dichotomy between the two is dissolved. This paradigm shift has given rise to a now broad field of research with contributions from scholars such as Matt Edgeworth 2011 on rivers and Christer Westerdahl 1992 on coasts.

Waterscapes and their archaeological remains today are at great risk (GIAGKOULIS, 2019; THEUNISSEN & VAN HEERINGEN, 2006). This is one of the reasons why the Prehistoric Pile Dwellings around the Alps have been designated a World Heritage site (CORBOUD ET AL., 2017, 35-37). People all around the globe who live in pile dwellings in amphibious areas today are at an even greater risk, e.g. Makoko in the town of Lagos, Nigeria (ADELEKAN, 2010). These resilient people, their settlements and culture are challenged to the ex-

treme by the prevailing political conditions, the global economy, and the environmental problems. As pile-dwelling researchers, it is our duty to show today's pile dwellers our respect and appreciation and to support them in the continuation of this amphibious way of life. Working together with them on an equal footing can lead to an exchange of information that can enrich the mutual perspectives (similarly to works proposed by Julia Watson, 2013) and, on our side, lead to a more comprehensive transdisciplinary understanding of pile dwellings. And even if our engagement with this topic only helps us appreciate the taphonomic impact of human-caused water pollution and recognise its importance in the archaeological context (Bleicher et al., 2018; Som-MER, 2017; STEINER ET AL., 2018), this would already be a worth-while lesson.

Translation: Olivia Linda Klee

Notes

¹ The following papers are some of the contributions to a session with the same title, organised by the authors together with Ekaterina Dolbunova, Tryfon Giagkoulis and Goce Naumov, at the 25th Meeting of the *European Association of Archaeologists* (EAA), 4-7 September 2019, in Bern. Abstracts of all the presentations can be found on the following web page: https://www.e-a-a.org/EAA2019/Programme.aspx?Program=3#Program [4.5.2020].

References

Adelekan, I. (2010). Vulnerability of poor urban coastal communities to flooding in Lagos, Nigeria. *Environment & Urbanization*, 22(2), 433-450. https://doi.org/10.1177/0956247810380141

Bleicher, N., Antolin, F. M., Heiri, O., Häberle, S., Hüster Plogmann, H., Jacomet, St., Pümpin, Ch., Rentzel, Ph., Schäfer, M., Schibler, J., Wiemann, Ph., van Hardenbroek, M., Tóth, M. & Zweifel, N. (2018). Middens, currents and shorelines: Complex depositional processes of waterlogged prehistoric lakeside settlements based on the example of Zurich-Parkhaus Opéra (Switzerland). *Journal of Archaeological Science*, 97, 26-41. https://doi.org/10.1016/j.jas.2018.06.010

Cipolla, C. N. & Allard, A. (2019). Recognizing River Power: Watery Views of Ontario's Fur Trade. *Journal of Archaeological Method and Theory*, 26, 1084-1105. https://doi.org/10.1007/s10816-018-9405-z

Cohen, N. (2012). Fieldwork on the Foreshore. *London Archaeologist*, 2011/2012, 66-69.

Coles, B. & Coles, J. M. (1986). Sweet Track to Glastonbury. The Somerset Levels in Prehistory. (New Aspects of Antiquity Series). London: Thames and Hudson.

Corboud, P., Schaeren, G. F. & Swiss Coordination Group UNESCO Palafittes (2017). *Pile Dwellings in Switzerland*. (Schweizerische Kunstführer, Serie 99, Nr. 988-989). Bern: Gesellschaft für Schweizerische Kunstgeschichte.

Daim, F., von Carnap-Bornheim, C., Ettel, P. & Warnke, U. (2018). *Harbours as Objects of Interdisciplinary Research*. (Monografien RGZM, 34). Regensburg: Schnell & Steiner.

Dolbunova, E., Mazurkevich, A., Kittel, P., Maigrot, Y., Kazakov, E., Gauthier, E., Wieckowska-Lüth, M., Danger, M. & Bernard, V. (2019). *Human-environmental interactions in Neolithic lacustrine landscapes: multidisciplinary research of the Serteya II site (W Russia)*. Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Dumont, A., Moyat, Ph., Stock, A. & Chateau, C. (2014). A Boat-Mill discovered in the Doubs River, at Sermesse, France. *Underwater Archaeology Proceedings*, 131-135.

Edgeworth, M. (2011). Fluid Pasts: Archaeology of Flow. Bristol: Bristol Classical Press.

Fahlander. F. (2008). Differences that matter. Materialities, material culture and social practice. In H. Glørstad & L. Hedeager (eds), *Six Essays on the Materiality of Society and Culture* (pp. 127-154). Göteborg: Bricoleur Press.

Giagkoulis, T. (2019). Does it really matter? Aspects of spatial organization of the prehistoric settlements in Amindeon Basin (Western Macedonia, Greece). Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Giannini, N. (2019). Water management as a marker of landscape changes in Medieval society. Methodology and case studies. Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Grøn, O. (2020). Late Mesolithic marine territoriality in coastal southern Scandinavia. *Archäologische Informationen*, 43 (this issue).

Gross, E. (in prep.). *A Frog's Eye Perspective – Pile Dwellings and Other Waterlogged Archaeological Deposits Under Scrutiny.*

Gross, E. & Huber, R. (2018). Thinking outside the Box: Life beyond 'House – Farmstead – Village' in Neolithic Wetland Sites. *Archäologische Informationen*, 41, 255-274. https://doi.org/10.11588/ai.2018.0.56946

Harding, L. A. (2013). *Water as a Resource: The Significance of Milling in the Early Medieval Landscape of the South-West Midlands of England.* Master Thesis, University of Exeter. http://hdl.handle.net/10871/15253 [4.5.2020].

Hasenfratz, A. & Gross-Klee, E. (1995). Siedlungswesen und Hausbau. In W. E. Stöckli, U. Niffeler & E. Gross-Klee (eds.), *Neolithikum*. (Die Schweiz vom Paläolithikum bis zum frühen Mittelalter, 2) (S. 195-229). Basel: Schweizerische Gesellschaft für Ur- und Frühgeschichte.

Haughey, F. M. (2009). *People and Water: A study of the relationship between humans and rivers in the Mesolithic and Neolithic with particular reference to that within the Thames Basin.* Doctoral Thesis, University of London. https://discovery.ucl.ac.uk/id/eprint/1460514/[4.5.2020].

Heumüller, M. (2016). Die vorgeschichtlichen Wege des Federseemoores. In Landesamt für Denkmalpflege (Hrsg.), Die früh- und mittelbronzezeitliche "Siedlung Forschner" im Federseemoor. Naturwissenschaftliche Untersuchungen. Bohlenwege, Einbäume und weitere botanische Beiträge. (Siedlungsarchäologie im Alpenvorland, 13; Forschungen und Bericht zur Vorund Frühgeschichte in Baden-Württemberg, 128) (361-488). Darmstadt: Theiss.

Huber R., Gross, E., Jecker, D., Reinhard, J. & Schaeren, G. (in press). Delta-(ge)Schichten: Das Delta der Lorze als Siedlungs- und Lebensraum vom Spätglazial bis heute. *Tugium*, *36*, 101-128.

Hussain, S. T. & Floss, H. (2016). Streams as Entanglement of Nature and Culture: European Upper Paleolithic River Systems and Their Role as Features of Spatial Organization. *Journal of Archaeological Method and Theory*, 23/4, 1162-1218. https://doi.org/10.1007/s10816-015-9263-x

Johnson, A. (2019). A surrounded sea: the Irish Sea as landscape or seascape during the medieval period. Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Koivisto, S. (2017). *Archaeology of Finnish wetlands: With special reference to studies of Stone Age stationary wooden fishing structures.* Doctoral Thesis at the University of Helsinki. http://urn.fi/URN:ISBN:978-951-51-3613-8 [4.5.2020].

Kovacic, J. & Collas, R. (2019). *Bridge(s) over the River Seine: Connecting landscapes in the Seine Valley France.*

Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Kranendonk, P./Kluiving S. J. & Troelstra, S. R. (2015). Chrono- and archaeostratigraphy and development of the River Amstel: results of the North/South underground line excavations, Amsterdam, the Netherlands. *Netherlands Journal of Geosciences*, 94(4), 333-352. https://doi.org/10.1017/njg.2014.38

Larsson, L. (2011). Water and fire as transformation elements in ritual deposits of the Scandinavian Neolithic. Documenta Praehistorica 38, 69-82. https://doi.org/10.4312/dp.38.6

Monuments and Archaeology, City of Amsterdam, https://belowthesurface.amsterdam/en [4.5.2020].

Maiklem, L. (2019). *Mudlarking. Lost and found on the Thames River*. London: Bloomsbury Publishing PLC.

Mainberger, M. (2020). Elements of an Aquatic Cultural Landscape – a regional study from a frog's point of view. *Archäologische Informationen*, 43, (this issue).

Maixner, B. (2020). Connected by water, no matter how far. Viking Age central farms at the Trondheimsfjorden, Norway, as gateways between waterscapes and landscapes. *Archäologische Informationen*, 43, (this issue).

Naumov, G. (2019). Everything Else Matters: Reconsidering the Lacustrine Societies in the Prehistoric Balkans. Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Rönnby, J. (2007). Maritime Durées: Long-Term Structures in a Coastal Landscape. *Journal of Maritime Archaeology*, 2, 65-82. https://doi.org/10.1007/s11457-007-9021-7

Schucany, C. & Winet, I. (2014). Schmiede – Heiligtum – Wassermühle. Cham-Hagendorn (Kanton Zug) in römischer Zeit. Grabungen 1944/45 und 2003/04. (Antiqua, 52). Basel: Archäologie Schweiz.

Severn Estuary Levels Research Committee (eds). Severn Estuary Research Committee Annual Report and Archaeology in the Severn Estuary, various volumes. https://doi.org/10.5284/1044660

Sommer, U. (2017). Salt, fire, cress and fennel – how to create pollution. *Journal of Neolithic Archaeology*, 19, 61-96. https://doi.org/10.12766/jna.2017.3

Sommer, U. (1991). *Zur Entstehung archäologischer Fundvergesellschaftungen: Versuch einer archäologischen Taphonomie.* (Universitätsforschungen zur

prähistorischen Archäologie, 6) (51-193). Bonn: Habelt.

Steiner, B. L., Akeret, Ö., Antolín, F., Brombacher, Ch., Vandorpe, P. & Jacomet, St. (2018). Layers rich in aquatic and wetland plants within complex anthropogenic stratigraphies and their contribution to disentangling taphonomic processes. *Vegetation History & Archaeobotany*, 27(1), 45-64. https://doi.org/10.1007/s00334-017-0613-3

Stevens, F. (2019). *Still Points in a Moving World: An Archaeology of the Non-Visual Cultural Marker.* Unpublished conference presentation for Session 142 of the 25th Annual Meeting of the European Association of Archaeologists, 4-7 september 2019, Bern.

Theunissen, E. M. & van Heeringen, R. M. (2006). Hidden Heritage of the Dutch delta. Thoughts about the Preservation Capacity of Wetlands and the Sustainability of the Archaeological Resource. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*. 46, 245-273.

Watson, J. (2013). Landscape Architecture without Landscape Architects: Exploring CHANS in the Sacred Shadow Conservation Network. In A. Abbate & R. Kennedy (eds), Subtropical Cities 2013, Braving A New World: Design Interventions for Changing Climates (ACSA Fall Conference Proceedings) (571-575).

Westerdahl, Ch. (1992). The maritime cultural landscape. *The International Journal of Nautical Archaeology*. 21(1), 5-14. https://doi.org/10.1111/j.1095-9270.1992.tb00336.x

Westerdahl, Ch. (ed.) (2004). *The significance of portages. Proceedings of the first International Conference, Norway.* (BAR International Series, 1499). Oxford: Archaeopress.

Vianello, A. (ed.) (2015). *Rivers in Prehistory*. Oxford: Archaeopress.

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