

## Research Output List – Caroline Franziska Heitz – 2022

### 1. Publications in peer-reviewed scientific journals

- In press** Deza-Araujo, M., Morales-Molino, C., Conedera, M., Henne, P., Krebs, P., Hinz, M., **Heitz, C.**, Hafner, A., Tinner, W., (in press) New indicator approach to reconstruct agricultural land use in Europe from sedimentary pollen assemblages. *Journal of Palaeogeography, Palaeoclimatology, Palaeoecology*.
- Affolter, J., Wehren, H., Emmenegger, L., **Heitz, C.**, Stapfer, R., Hinz, M., Thierrin-Michael, G., Hafner, A. (in press) Linking Neolithic lakeshore settlements through raw material of siliceous artefacts. *Journal of Lithic Studies*.
- 2021** **Heitz, C.**, Hinz, M., Laabs, J., Hafner, A. (2021) Mobility as resilience capacity in northern Alpine Neolithic settlement communities. In: L. Brainerd, S. Russo (eds.). *Resilience and Archaeology: Human response to past hardship. The Archaeological Review from Cambridge* 36.1., 75–105. <https://arc.soc.srcf.net/current.html>
- Affolter, J., Emmenegger, L., Hafner, A., **Heitz, C.**, Hinz, M., Stapfer, R., & Wehren, H. (2021) From flint provenance to mobility studies: New raw material determinations from Late Neolithic wetland sites at Lake Biel and Lake Constance. *Quaternary International*. <https://doi.org/10.1016/j.quaint.2021.05.027>
- 2020** Deza-Araujo, M., Morales-Molino, C., Henne, P., **Heitz, C.**, Pezzatti, G. B., Hafner, A., Tinner, W., Conedera, M. (2020) A critical assessment of human impact indexes based on anthropogenic pollen indicators. *Quaternary Science Reviews*. <https://doi.org/10.1016/j.quascirev.2020.106291>
- 2019** Stapfer, R., **Heitz, C.**, Hinz, M., Hafner, A. (2019) Interdisciplinary examinations carried out on heterogeneous coarse ceramics from Neolithic lakeside settlements: Analysis strategy and preliminary results from a test series using pXRF. *Journal of Archaeological Science: Reports*. <https://doi.org/10.1016/j.jasrep.2019.03.018>
- 2017** **Heitz, C.**, (2017) Rezension zu „Massendinghaltung in der Archäologie. Der Material turn und die Ur- und Frühgeschichte“. *Archäologische Informationen* 40, 503–512. <https://doi.org/10.11588/ai.2017.1.42540>.
- 2007** Leuzinger, U., Auf der Mauer, F., Cornelissen, M., **Heitz, C.**, Huber, R., Imhof, W., Jagher, R., Kissling, J., Moser, P., Pümpin, C., Schlumbaum, A., Spichtig, N., Warburton, M. (2007) Höhlen, Balmen, Flösche - archäologische Prospektion im Muotatal, Kanton Schwyz. *Jahrbuch Archäologie Schweiz* 90, 117–126.

### 2. Peer-reviewed\* books/monographs

- In press\*** **Heitz, C.**, (im Druck) *Keramik jenseits von 'Kulturen'. Mobilität, Verflechtungen und Transformationen im nördlichen Alpenvorland (3950-3800 v. Chr.)* Open Series in Prehistoric Archaeology (OSPA) 3. Leiden: Sidestone.
- 2020\*** **Heitz, C.** (2020) *Abseits der grossen Seen. Archäologie und Erhaltung der neolithischen Unesco-Welterbestätte Seedorf, Lobsigensee.* Hefte zur Archäologie im Kanton Bern 7. Bern: Archäologischer Dienst des Kantons Bern. <https://boris.unibe.ch/145073/>
- 2017** **Heitz, C.**, Stapfer, R. (Eds.) (2017) *Mobility and Pottery Production: Archaeological and Anthropological Perspectives*. Leiden: Sidestone. <https://www.sidestone.com/books/mobility-and-pottery-production>

- 2011** **Heitz, C.,** Schüep, E. (2011) Annäherung an die soziale Wirklichkeit der SS-Ärzte. Sprachanalysen und sozialpsychologische Untersuchungen anhand von Hans Münchs Erinnerungserzählungen. In: H. Haumann (Ed.) Menschen und Strukturen 19. Frankfurt am Main: Peter Lang. <https://bit.ly/2K67jDe>

### 3. Peer-reviewed conference papers

- In press** **Heitz, C.** (im Druck) Wider die Krise? Archäologie nach der Postmoderne. In: M. Renger et al. (Hrsg.), Theorie | Archäologie | Reflexion. Kontroversen und Ansätze im deutschsprachigen Diskurs, Theoriedenken in der Archäologie 1. Heidelberg: Propylaeum.
- 2021** **Heitz, C.,** Laabs, J., Hinz, M., Hafner, A. (2021) Collapse and Resilience in Prehistoric Archaeology: Questioning Concepts and Causalities in Models of climate-induced Societal Transformations. In: P. Erdkamp, J.G. Manning and K. Verboven (eds.) Climate Change and Ancient Societies in Europe and the Near East. Diversity in Collapse and Resilience, Basingstoke: Palgrave MacMillan.
- Heitz, C.,** Stapfer, R. (2021) Itineraries of pottery. A mixed methods approach to mobility. In: C. Gibson, K. Cleary, C. Frieman, (Eds.) Making Journeys. Archaeologies of Mobility. Oxford: Oxbow.
- 2014** Hafner, A., **Heitz, C.,** Stapfer, R. (2014) Pile-dwellings of the Neolithic and the Bronze Age in Switzerland. Long-term research and future tasks. In: von Carnap-Bornheim, Claus (Eds.) Quo vadis? Status and Future Perspectives of Long-Term Excavations in Europe. Schriften des Archäologischen Landesmuseum Schleswig: Vol. 10. Neumünster/Hamburg: Wachholz Murmann Publisher, 59–83.

### 4. Contributions to books

- Accept.** **Heitz, C.,** Thierrin-Michael, G. Mobilität und Translokaltät der Siedlungsgemeinschaften von Sipplingen (SiA-C). Stilistische und materialanalytische Untersuchungen. In: I. Matuschik et al. (Hrsg.) Die Pfahlbausiedlungen von Sipplingen-Osthafen am Bodensee, Bd. 2: Die Funde. Siedlungsarchäologie im Alpenvorland, Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg. Stuttgart: Konrad Theiss.
- Heitz, C.,** From Communities of practice to translocal communities. A practice-theoretical approach to mobility socio-spatial configurations. In: **Heitz, C.,** Wunderlich, M., Furholt, M. (eds.) Rethinking Neolithic Societies – New Perspectives on Social Relations, Political Organization and Cohabitation. Open Series in Prehistoric Archaeology (OPSA). Leiden: Sidestone.
- Wunderlich, M., **Heitz, C.,** Furholt, M., Introduction – Towards bottom-up approaches in social archaeological Neolithic research. In: **Heitz, C.,** Wunderlich, M., Furholt, M. (eds.) Rethinking Neolithic Societies – New Perspectives on Social Relations, Political Organization and Cohabitation. Open Series in Prehistoric Archaeology (OPSA). Leiden: Sidestone.
- 2018** Stapfer, R., **Heitz, C.,** Hinz, M., Hafner, A. (2018) Portable Röntgenfluoreszenzanalytik (pXRF): Mit dem „Labor in der Hand“ der Vergangenheit auf der Spur. Mitteilungen der Naturforschenden Gesellschaft in Bern 75, 36–155.
- Thierrin-Michael, G., **Heitz, C.,** Stapfer, R. (2018) Herkunft und Herstellungstechnik archäologischer Keramik: die erdwissenschaftliche Perspektive. Mitteilungen der Naturforschenden Gesellschaft in Bern 75, 156–165.
- 2017** **Heitz, C.,** Stapfer, R. (2017) Mobility and Pottery Production: Archaeological and Anthropological Perspectives. Leiden: Sidestone, S. 11–38. <https://unibe-ch.academia.edu/CarolineHeitz/Books>
- Heitz, C.,** Stapfer, R. (2017) Mobility and Pottery Production, what for? Introductory remarks. In: C. Heitz, R. Stapfer (Eds.) Mobility and Pottery Production: Archaeological and Anthropological Perspectives. Leiden: Sidestone, 11–38. <https://bit.ly/2YjULIV>.
- Heitz, C.** (2017) Making things, being mobile: pottery as intertwined histories of humans and materials. In: **Heitz, C.,** R. Stapfer (Eds.) Mobility and Pottery Production: Archaeological and Anthropological Perspectives. Leiden: Sidestone, 257–292. <https://bit.ly/314CG8b>.

- 2011** **Heitz, C.,** Schwarz, P.-A. (2011) Anhang 5: Zusammenstellung und Kommentar zu den 14C-datierten Bestattungen aus dem Bereich des Basler Münsters. In: H.-R. Meier, P.-A. Schwarz (Hg.) Die Grabfunde des 12. bis 19. Jahrhunderts aus dem Basler Münster. Repräsentation im Tod und kultureller Wandel im Spiegel der materiellen Kultur. Materialhefte zur Archäologie in Basel 23. Basel: Archäologische Bodenforschung des Kantons Basel-Stadt, 289–302.

## **5. Patents and licenses** N/A

## **6. Oral contributions to conferences**

- 2022** **Heitz, C.,** 'Theorizing Resilience and Vulnerability for Social Archaeology – First Thoughts Different Concepts and their Potentials', 15 September 2022, University of Bergen.

- 2021** **Heitz, C.,** 'Mobility as resilience capacity in northern Alpine Neolithic settlement communities', International Workshop 'Resilience in Archaeological Research. Different Concepts and their Potentials', 24 September 2021, University of Oxford.

**Heitz, C.,** 'From 'Communities of Practice' to 'Translocality'. – Reviewing two Conceptual Tools regarding their Social Archaeological Potential', Session #120. What Is "Social" in Social Archaeology? 27th Annual Meeting of the European Association of Archaeologists (EAA), 6-11 September 2021, Kiel.

Hinz, M., **Heitz, C.,** 'Unsupervised Classification of Swiss Neolithic Pottery using t-SNE and HDBSCAN', Session #445. 'Digital Methods and Typology. New Horizons'. '27th Annual Meeting of the European Association of Archaeologists (EAA), 6-11 September 2021, Kiel.

Hinz, M., **Heitz, C.,** Kolar, J. 'Estimating absolute population numbers using Bayesian demographic modelling', Session #421 'Demography in Archaeology beyond Boom and Bust? 27th Annual Meeting of the European Association of Archaeologists (EAA), 6-11 September 2021, Kiel.

Hinz, M., **Heitz, C.,** 'Reversing Bayesian Forecasting: developing a tool for prehistoric population estimates', Session #S22 Bayesian Approaches to Archaeological Questions Virtual Symposium: CAA 2021 "Digital Crossroads", 14-17 June 2021.

**Heitz, C.,** Introduction to 'Vulnerability', International Virtual Workshop 'Theorizing Vulnerability and Resilience in Ancient Studies (TRAVAS)', RGZM Mainz, University of Bern, University of Freiburg, 19-20 January 2021.

- 2020** **Heitz, C.,** 'Mobilität – Ein praxeologisch-sozialarchäologischer Zugang', Internationale Graduiertentagung im Rahmen des Doktoratsprogramms der Basler Altertumswissenschaften, 'Wohin des Weges? Mobilität und Migration im Altertum', 30 November 2020.

**Heitz, C.,** 'Wider die Krise. Mobilität als Resilienzpotential jungneolithischer Siedlungsgemeinschaften im nördlichen Alpenvorland', Forschungskolloquium CAU zu Kiel, Ur- und Frühgeschichte, 16 November 2020.

**Heitz, C.,** Session introduction on 'The materiality of surplus and the surplus of materiality', international Workshop 'Materialities of Challenges – Challenges of Materialities. Understanding the materialities of threats, scarcity, surplus and coping in premodern communities' of the top-level research area 40.000 years of human challenges of the Johannes Gutenberg-Universität Mainz, 2–3 November 2020.

**Heitz, C.,** Hinz, M., Laabs, J., Kolar, J. 'Introduction' to the Session #436 'Now You Can't See Me! – Searching for Resilience as an Archaeologically Observable Phenomenon'. 26th Annual Meeting of the European Association of Archaeologists (EAA), 24-30 August, Virtual/Budapest.

**Heitz, C.,** 'On the Edge of Metamodernity? Archaeology after Postmodernism'. Philosophy of Archaeology, A ROOTS Reflective Turn Symposium, 20–21 February 2020, Kiel, Germany.

**Heitz, C.,** Hinz, M., 'Keramik jenseits von Kulturen – Mobilität, Verflechtungen und Transformationen im nördlichen Alpenvorland (3950-3800 BCE)'. AGUS, 6 March, Bern, Switzerland.

**2019** **Heitz, C.,** Hinz, M., 'Layered cultural (trans)formations – Changing Pottery in Wetland Site Stratigraphies'. International Conference 'The Formation of Archaeological Layers in Stone Age Wetland Sites: Understanding complex Site Structures', 17–18 October 2019, Saint-Petersburg, Russia.

**Heitz, C.,** Stapfer, R., Hinz, M., Thierrin-Michael, G., Affolter, J., Wehren, H., Emmenegger, L., Hafner, A. 'Well connected - Mobility in settlement communities in the northern alpine foreland (3950-3550 BC)'. Session #251, 'The 4th M BCE in Europe: Exploring the supraregional entanglements as triggers for cultural, social and economic transformations'. 25th Annual Meeting of the European Association of Archaeologists (EAA), 4–7 September, University of Bern, Switzerland.

Stapfer, R., **Heitz, C.,** Hinz, M., Thierrin-Michael, G., Hafner, A. 'Introduction: Potential and Limits of Portable-ed-XRF to Investigate spatial Mobility in Neolithic Societies.' Session #237, 'From Element Concentration to (Pre)History - pXRF as tool for an Interpretative Archaeology'. 25th Annual Meeting of the European Association of Archaeologists (EAA), 4–7 September, University of Bern, Switzerland.

**Heitz, C.,** Hinz, M., Hafner, A. 'Mobility in Neolithic Societies - Pottery as Indication for vertical Social Organisation?' Session #239, 'Un-Packaging Neolithic Societies: From static notions to bottom-up models of social organization'. 25th Annual Meeting of the European Association of Archaeologists (EAA), 4–7 September, University of Bern, Switzerland.

**Heitz, C.,** Laabs, J., Hinz, M., Hafner, A. 'Concepts of Collapse, Resilience & Mobility in Prehistoric Archaeology'. Conference Climate and Society in Ancient Worlds. Diversity in Collapse and Resilience, 22–24 May 2019, Vrije Universiteit Brussel, Belgium.

Hinz, M., **Heitz, C.** 'Styles, Pottery and Complexity at the Swiss Plateau Neolithic ceramic production and consumption 3900-3500 BCE'. Session #6: Complexity in archaeology - Diachronic transformations of complex networks and theoretical aspects of complex systems. International Open Workshop 'Socio-Environmental Dynamics over the Last 15,000 Years: The Creation of Landscapes VI', 11–16 March 2019, Kiel University, Germany.

Hinz, M., **Heitz, C.** 'To perceive or to compute? Comparison of impressionistic and computer-aided vessel shape classification based on completely preserved late Neolithic pottery of Central Europe'. Session #28: Computational classification in archaeology. 48th Computer Applications and Quantitative Methods in Archaeology (CAA) international conference, 23–27 April 2019, Jagiellonian University of Krakow, Poland.

**Heitz, C.,** Hinz, M. 'Pottery beyond Cultures - A praxeological Approach to Mobility, Entanglements and Transformations in Prehistoric Societies'. International Workshop 'Frontiers or Interaction Zones? Borderlands as areas of communication and mobility', 28 February–2 March 2019, University of Bern, Switzerland.

Hinz, M., **Heitz, C.** 'Unsupervised classification and automated shape recognition as tool for computer-assisted reproducible typology'. International Colloquium 'Digital Archaeology: Quantitative approaches, spatial statistics and socioecological modelling', 4–6 February 2019, University of Bern, Switzerland.

**2018** Hinz, M., **Heitz, C.** 'Classifying vessel shapes using automated shape extraction and unsupervised classification. Session #24: Computational classification in archaeology'. 47th Computer Applications and Quantitative Methods in Archaeology (CAA) international conference, 19–23 March 2018, Eberhard Karls University of Tübingen, Germany.

**Heitz, C.** 'On the edge of metamodernity? Exploring 'third way'-epistemologies between realism and idealism in archaeology'. Session #397: Crisis of ideas in archaeology? 24th Annual Meeting of the European Association of Archaeologists (EAA), 5–8 September 2018, University of Barcelona, Spain.

Brunner, M., **Heitz, C.,** Steuri, N., Hinz, M., Hanfer, A. 'From deep lakes to mountain tops: Exploring long and short chronologies with Bayesian statistics'. Session #708: Data-driven chronology. 24th Annual Meeting of the European Association of Archaeologists (EAA), 5–

8 September 2018, University of Barcelona, Spain.

**Heitz, C.,** Hinz, M. 'Annäherung an Töpfereipraktiken? Qualitative und quantitative Klassifikation in Kombination'. Wahl der Qual oder Qual der Wahl: Klassifikation in der Archäologie. Trikantonales Doktorandenkolloquium, 18.–19. Januar 2018, Universität Basel.

**2017 Heitz, C.** 'Mobilities, Entanglements, Transformations. Pottery Practices in Neolithic Wetland Sites of the Swiss Plateau. Wetland archaeology and Prehistoric Networks in Europe'. NEENAWA International Scientific Conference, 15–18 September 2017, Kyiv-Kaniv, Ukraine. Taras Shevchenko State University, Kiev, Ukraine.

**Heitz, C.,** Hafner, A. 'Material culture entanglements of early wetland sites in central Switzerland (4300–3850 BC)'. Internationale Konferenz Kulturkontakte, kulturelle Grenzen und Innovationen im 5. Jahrtausend, 29.–30. September 2015, Westfälische Wilhelms-Universität Münster.

**Heitz, C.,** Stapfer, R. 'Itineraries of pottery: a mixed methods approach to mobility'. Session AM 13: Lost in space, or the inbetweeners: theorising movement, meshworks and materialities in the past. 21st Annual Meeting of the European Association of Archaeologists (EAA), 2–5 September, University of Glasgow, Scotland.

**2015 Heitz, C.,** Stapfer, R. 'Pottery as an indication of mobilities? Mobilities and Pottery Production Archaeological and Anthropological Perspectives', 5–6 June 2015, Institute of Archaeological Research (IAW), Prehistory, University of Bern.

**2014** Jennings, B., Stapfer, R., **Heitz, C.** 'Mobility, social networks and exchange relationships in Neolithic and Bronze Age societies of the Swiss Plateau'. The University of Bern, Institute of Archaeological Science (IAW), the Oeschger Centre for Climate Change Research (OCCR), and the IGBPs Past Global Changes (PAGES) program (org.). Culture, climate and environment interactions at prehistoric wetland sites, 11–4 June 2014, University of Bern.

**2012 Heitz, C.,** Guerra, C., 'Tagungsprogramm. Kulturelle Aneignung, kulturelle Verflechtung'. Interdisziplinäres Doktorierenden Kolloquium der Basler Altertumswissenschaften (DBAW), 16.–17. November 2012, Universität Basel.

**2011** Hafner, A., **Heitz, C.,** Stapfer, R. 'Pile-dwellings of the Neolithic and the Bronze Age in Switzerland since 1854 and present research and future tasks'. Quo Vadis? Long-term research projects in European Archaeology, 26–28 October 2011, Schloss Gottorf, Schleswig.

## 7. Outreach activities

**2019 Heitz, C.** (2019) Die frühen Bauern Europas waren mobil. UniPress 178, 12–13.

Archäologie aus dem Schlaf geweckt. SISA zu Gast im Wallis. Walliser Bote, 13.7.2019, 11.  
<https://unibe-ch.academia.edu/CarolineHeitz/Press>

**2017 Heitz, C.,** Stapfer, R. (2017) Mobil und weiträumig vernetzt: ein Ergebnis von Keramikanalysen. In: B. Röder, S. Bolliger-Schreyer, S. Schreyer (Hg.) Lebensweisen in der Steinzeit. Hier und Jetzt Verlag für Kultur und Geschichte, Baden, S. 156–162.

**2016 Heitz, C.,** Stapfer, R. (2016) „Fremde“ Keramik? Mobilität und Beziehungsnetzwerke zwischen 3900 und 3500 v. Chr. In: Archäologisches Landesmuseum Baden-Württemberg, Landesamt für Denkmalpflege im Regierungspräsidium Stuttgart (Hg.) 4000 Jahre Pfahlbauten. Katalog zur gleichnamigen Ausstellung vom 24.4.–9.10.2016., S. 150–151.

Stapfer, R.; Hafner, A.; **Heitz, C.** (2016) Frischer Fang aus dem See. Mobilität und Beziehungsnetze im Fokus. AS 39, 21–30.

**2014** Stafer, R., **Heitz, C.** (2014) Original oder Fälschung? Chemischer Fingerprint archäologischer Funde. Oral presentation and public information desk at the Bern Universities Night of ScienceS (Nacht der Forschung).

## 8. General contributions to science

I am the initiator and co-founder of two networks and training programs:

- 2019** The Swiss Theoretical Archaeology Group (Swiss TAG) that aims at fostering theoretical thinking and discussion in Swiss archaeology, founded on the 24<sup>th</sup> of January 2019:  
<https://swisstag.hcommons.org/> / <https://hcommons.org/groups/swiss-tag/>

The Archaeological Computer Applications Switzerland (ACA) that uses and develops computer-aided tools for archaeological research, founded on 24<sup>th</sup> of January 2019:  
<http://aca.archaeological.science/>

I am the initiator and co-editor of the following open access publication series:

The Open Series of Prehistoric Archaeology (OSPA), an international monographic e-/print-on-demand peer-reviewed series, which enables the open access and open data publication of high-quality research results in the spirit of open science.  
<http://openprehist.archaeological.science/>

- 2016** The Bern Working Papers on Prehistoric Archaeology, an online series dedicated to innovative research ideas and research findings on prehistoric societies.  
[http://www.iaw.unibe.ch/forschung/publikationen/bern\\_working\\_papers/index\\_ger.html](http://www.iaw.unibe.ch/forschung/publikationen/bern_working_papers/index_ger.html)

## 9. Other artefacts with documented use

- 2019** Hinz, M., Schmid, C., **Heitz, C.** XRONOS. Database for absolute chronological archaeological information.  
<https://www.xronos.iaw.unibe.ch>

- 2018** **Heitz, C.**, Stapfer, R., Hinz, M. MetDB. Database for archaeological information of prehistoric societies.  
<https://www.metdb.iaw.unibe.ch>

## 10. Submitted but not yet accepted/published publications

**Heitz, C.**, Schmuck aus Knochen und Geweih: Beziehungsnetze und kulturelle Verflechtung im späten Jungneolithikum des Schweizer Mittellandes. In: R. Ebersbach, Th. Doppler (Hg.) Von Kulturkästchen und Objektkreisen: über kulturelle Aussagekraft von Artefakten im Schweizer Feuchtbodenneolithikum.

Doppler, Th., **Heitz, C.** Über den Umgang mit Kultur(konzept)en: Ein Blick auf die Forschung zum Neolithikum in der Schweiz. In: R. Ebersbach, Th. Doppler (Hg.) Von Kulturkästchen und Objektkreisen: über kulturelle Aussagekraft von Artefakten im Schweizer Feuchtbodenneolithikum.

## 11. Unpublished work & publications in preparation

Hinz, M., **Heitz, C.**, Using unsupervised classification for Swiss Neolithic Pottery. A workflow using t-SNE and hdbscach. Journal of Computer Applications in Archaeology.

- 2018** **Heitz, C.** (unpubl.) Keramik jenseits von Kulturen: Ein praxeologischer Zugang zu Mobilität, Verflechtungen und Transformationen im nördlichen Alpenvorland (3950-3800 v.Chr.). PhD thesis, Bern University. <https://bit.ly/2Yz63hd>.
- 2010** **Heitz, C.** (unpubl.) Abseits der grossen Seen. Die jungneolithischen Moorsiedlungen von Seedorf-Lobsigensee (BE). Master thesis, Basel University.