



Essay: Theory in the Context of Danish Marine Archaeological Practice

Mads Bloch Kristiansen

Keywords: History; Viking ship; Stone Age; Tybrind Vig; Skuldelev Ships; Marine Archaeology

Abstract

Marine archaeology is a relatively new branch of archaeology that only in the mid-1900s became an academic field of study. This period of pioneering was especially prominent in Denmark. Two great excavations would dominate the field and develop the methods and theories for marine and experimental maritime archaeology. My question is, how have marine archaeological methods and theory developed in Denmark, and does the theoretical framework, or methodology, in marine archaeology fit with the methods after 60 years of development? I have come to this conclusion after analysing the development of theory and methods within marine archaeology, with reference to the excavations of the Skuldelev ships and Tybrind Vig, the current stage of modern marine archaeology and the theory in experimental maritime archaeology. The excavations and academic development have made marine archaeology a strong academic discipline with advanced methods in a dialectic and holistic methodology of natural science and humanistic understanding. I believe the current development should continue as it is, to learn as much about the past with the best scientific grounding to combat misinformation.

Introduction

Marine archaeology is a relatively new branch of archaeology, only becoming a proper academic field in the mid-to-late 1900s (Bass, 2012, pp. 5-6). This pioneering period was especially important for Danish archaeology. Two underwater discoveries, and their subsequent excavations, would not only expand our knowledge of Danish history and prehistory, but also develop the discipline itself in method and theory.

But being an offshoot of archaeology from over 60 years ago, have the methods of marine archaeology outdated the theoretical framework, or methodology, for the interpretation of the excavated material? Has the theory developed within marine archaeology, and does it properly interpret the materials found underwater? Is there a disconnect between method and theory? And what part has marine archaeology in Denmark played in this development?

To find the answers to these questions, I will try to answer an overarching question: How have marine archaeological methods and theory developed in Denmark, and does the methodology properly interpret the archaeological material from the methods? I will first go over how the theories and methods used within marine archaeology came to be, and how that could have possibly led to misinterpretations of human history. I will do so while relating the issue to the development of marine archaeology in Denmark, including the excavations of the Skuldelev Ships and Tybrind Vig that defined the field and its theories. I will then describe marine archaeological method and theory as they are today, and how theory and interpretation could be developed in the future. I will end with a conclusion on the state of marine archaeology then and now. Then I will give my suggestions on the challenges of the methodology. It is important to note that "proper interpretation" will always be up for debate, and this is only my conclusion on the topic. This essay is an adapted version of an unpublished paper from the course in Scandinavian Archaeology at the University of Copenhagen (Kristiansen, 2023).

Theory within Marine Archaeology

In archaeology, theory is the framework archaeologists use to interpret material into conclusions about the past. The late Colin Renfrew defines it as "...a means to make explicit the assumptions and models used to understand material evidence and to reconstruct the past" (Renfrew, 2024, p. 12). Matthew Johnson describes how theory is a difficult word to define, but can be explained as "...the order we put facts in" (2021).

He explains how facts put in a certain order answer why a site was elected for excavation, and how material facts are silent about the past without theory to create a "...meaningful account of the past" from those facts (Johnson, 2025; Johnson, 2021, pp. 2-7). These theories can be used as lenses to look at material from different viewpoints of study. Different questions can

then be asked of the same material to create multiple interpretations. This understanding of theory in archaeology fits under the term *methodology*, which is "...the theoretical framework to support the methods chosen. It is a perspective taken on the research, which dictates how it is approached" (UWA, 2025, pp. 1).

Theory in marine archaeology took off from the theories of general archaeology in the pioneering period of the 1960s and forward. The most prominent theory of that time was called *processualism* (Ravn, 2014, p. 53; Flor, 2005, pp. 62-63). Processualism, earlier called *new archaeology*, focused on cultural evolution, systems thinking, adaptation to the external environment and the cultural process of past human cultures. All of this with an emphasis on the scientific approach and variability of archaeological sites, while also being transparent about their biases and aims (Johnson, 2021, pp. 25-29, 33). The scientific approach in processualism followed the positivistic ideal of science. This ideal stated that a hypothesis about the past should be tested with measurable data to draw generalised conclusions, much like the development of natural science (Johnson, 2021, pp. 42-45; Ravn, 2014, p. 53; Flor, 2005, pp. 62-63; Beck, 2011, p. 168).

Processualism, and its positivistic ideal, came under criticism in the 1980s when it was argued that a strict insistence on objective data could not create objective statements on ancient society and culture (Ravn, 2014, p. 53; Johnson, 2021, pp. 46-53). The critics argued that human behaviour and societal thoughts were, and are, too complicated to be properly understood with measurements. These critiques, and subsequent theories, would be categorized under the umbrella term *post-processualism* (Ravn, 2014, p. 53; Olsen, 1997, pp. 59-67). Post-processualism works from an ideal of interpretation, with the understanding that archaeologists are people with individual prejudices derived from their own lives (Beck, 2011, pp. 183-184; Brattli & Johnsen, 1991, p. 49; Black Trowel Collective et al., 2024, p. 137). This undermines the processual ideal of objective truth discovered by archaeological science and moves the aim of archaeology from explaining the past to understanding the past (Beck, 2011, pp. 183-184).

Marine archaeology, or underwater archaeology (Bass, 2012, p. 4), is the study and excavation of human remains and artefacts found underwater. This academic discipline is furthermore divided into other branches like coastal archaeology, maritime archaeology, nautical archaeology and deep-submergence archaeology (Bass, 2012, p. 4). Because of the natural barrier of water between the archaeologist and the material, this field of archaeology could only be possible after the invention of stable diving equipment (Bass, 2012, p. 5).

Diving is an endeavour that requires the diver to understand the physics of water, gases and the human body to function properly and not risk terminal damage. Underwater archaeology combines diving with excavation, salvaging and conservation, all of which require precise mathematical calculations of physics, for the equipment and the archaeological material.

The processual theory became a significant part of nautical archaeology, or ship archaeology, with the studies of ship reconstruction and experimental maritime archaeology. The need for extensive measurements in reconstruction and the experiments in experimental maritime archaeology came naturally to processual theory with its positivistic ideal (Beck, 2011, p. 168; Ravn et al., 2012, p. 233; Lemée, 2006, p. 97). This specific research is a big part of Danish marine archaeology, which ties back to one of my two excavation examples.

The Skuldelev Ships

Danish marine archaeology started in 1957 when the National Museum of Denmark assigned Olaf Olsen and Ole Crumlin-Pedersen the job of investigating and mapping out a sailing lane in Roskilde Fjord named Peberrende Channel (Crumlin-Pedersen, 2010, pp. 20-21). They concluded that they had found the wrecks of six (in truth, five) sunken ships from the mid-1000s (Crumlin-Pedersen, 2010, pp. 20-22). This would be the very first archaeological underwater excavation in Denmark, and it facilitated the very first Danish law for the protection of historical shipwrecks and more in 1963.

The archaeologists constructed a cofferdam around the Skuldelev Ships in 1962 (Crumlin-Pedersen, 2010, p. 22). It allowed for the draining of the water with pumps, thus creating a small dry area in the fjord for excavation. They excavated the ships and took extensive measurements before they preserved them with polyethene glycol for exhibition at the new Roskilde Viking Ship Museum. The museum would go on to be a centre of marine-, maritime- and experimental archaeology for Denmark and the world (Crumlin-Pedersen, 2010, pp. 22-26).

The Tybrind Vig Excavation

This was the first extensive and systematic excavation of an underwater settlement from the Danish Stone Age (Dal, 2014, p. 7). It was a new method of excavation for the archaeologists and divers of that time, and the methods, equipment and work structure they developed would be used in future excavations of underwater Stone Age settlements (Dal, 2014, p. 8).

The excavation began officially in 1978 and concluded in 1987, but the first steps began in 1957 when the magazine *Hjemmet* sponsored a competition in cooperation with the National Museum (Dal, 2014, pp. 15-17, 32, 37, 147). This competition encouraged all scuba divers in Denmark to find the oldest possible submarine Stone Age settlement in Denmark (Dal, 2014, pp. 15-17). The divers Hans Find Larsen and his partner Knud Pihl found Stone Age material in Tybrind Vig (Dal, 2014, p. 19). The competition spread the method of scuba diving in marine archaeology, and a scuba club from Vejle searched Tybrind Vig again in 1970.

They found more Stone Age material and contacted the Moesgaard Museum in Aarhus (Dal, 2014, pp. 19-29). This became a partnership between the local museums and scuba divers to excavate Tybrind Vig. The divers were taught archaeology and developed methods of underwater excavation with custom-made methods and equipment (Dal, 2014, pp. 28-85). The Tybrind Vig project ended in August 1987, and it would only be the beginning of dedicated submarine excavations on Danish Stone Age settlements. The technique and tools for precise submarine excavation were invented, and the project was great news both locally and internationally. This spread recognition and wider support for the field of marine archaeology (Dal, 2014, pp. 97-101).

Danish Marine Archaeology Today

Today, Danish marine archaeology is still going strong. It has been leading in the field for years because of its ideal geography and the number of enthusiastic divers working in cooperation with archaeologists (Dal, 2014, p. 135; Fischer, 2001, p. 2). The Danish territorial waters contain around 20.000 registered wrecks from different vehicles. These are positioned on maps in databases open to the public by the Ministry of Culture and others (Bangsbo, 2022; Kulturministeriet, 2025 (2); Vragguiden, 2023). There are, furthermore, at least 2300 registered Stone Age sites located underwater around the Danish coasts (Fischer, 2001, p. 3). This large amount of archaeological material underwater has encouraged the organised development of marine archaeology in Denmark, with the waters of Denmark divided into archaeological jurisdictions between multiple museums. (Dal, 2014, p. 30; Kulturministeriet, 2023).

Internationally, marine archaeology is a well-respected academic discipline with dedicated university courses around the world (Bass, 2012, p. 8). International cooperation has made marine archaeology a dynamic field of shared methods and theories. Students are taught many related topics outside diving and archaeology, such as historical seafaring, palaeography for archival studies, technical knowledge for model construction and laboratory work, and the legal codes regarding marine archaeology (Bass, 2012, p. 8).

Sadly, in Denmark, the only master's degree course in marine archaeology closed in 2020 (Pedersen & Kristiansen, 2017). Marine archaeology can be practised by combining an archaeological degree with a certificate in industrial diving. Several technological tools like sonar, GPS, metal detectors, underwater vehicles and digital 3D modelling and measuring programs are also used in marine archaeology (Tuttle, 2012, pp. 118, 124-125; Wachsmann, 2012, p. 212). The use of 3D models and measurements would especially figure in the field of archaeology, most studied at the Roskilde Viking Ship Museum. A field where the criticisms of processual theory would be significant. The field of experimental maritime archaeology.

Theory of Experimental Maritime Archaeology

After the Skuldelev Ships were excavated and measured, a new field of experimental ship reconstruction was created at the Roskilde Viking Ship Museum (Crumlin-Pedersen, 2010, p. 22). The number of different types of ships, and the well-preserved material, allowed for archaeologists and craftspeople to create full-scale reconstructions using materials, tools and techniques authentic to the time the original ships were built in (Crumlin-Pedersen, 2010, p. 22). The reconstruction using authentic techniques, combined with experimental sailing, is meant to give new practical knowledge and perspective on how people back then did it, and what it required of them to do so (Crumlin-Pedersen, 2010, pp. 32-40; Ravn et al., 2012, p. 244). Experimental archaeology is a useful method to study a variety of topics in archaeology. Its foundation in processual theory, of stringent measuring of everything possible as a basis for interpretation, could arguably mark it as a processual method of archaeology (Ravn, 2014, p. 53).

Anna Severine Beck, PhD, Danish archaeologist at Museum Southeast Denmark (Kulturministeriet, 2025 (1); 2011,167), explains that the processual methodology in overall experimental archaeology did not change with the shift from processualism to post-processualism. This was, according to her, due to and a product of the lack of theoretical debate within experimental archaeology, which led to experiments being based on a post-processual framework but still judged by the positivistic ideal (Beck, 2011, pp. 167-168). This lack of development, and its subsequent disagreements, in the methodology would last from about the 1980s to the 2000s, until Marianne Rasmussen published a new model for experimental archaeology in 2001 (Rasmussen, 2001; Beck, 2011, p. 168).

This model explains experimental archaeology as having two separate approaches: One *controlled* approach, which focuses on isolating as many variables as possible to create repeating results to prove or disprove hypotheses. And one *contextual* approach, which keeps variables in the experiment to create further inspiration and argumentation to evaluate the relevance of the context (Rasmussen, 2001, p. 6; Ravn, 2014, p. 54; Beck, 2011, pp. 181-182). Anna Beck (2011, p. 183) elaborates how the two approaches each have their origins in processual theory (controlled approach) and post-processual theory (contextual approach).

Morten Ravn, Danish archaeologist (Ravn, 2014, p. 54), adds that no experiments within experimental archaeology have only one of these two approaches, but that they usually lean more toward one or the other. He finally concludes that whether an experiment leans towards one of the two approaches, it must still start from the archaeological material and be in dialogue or *dialectical* with other research on society and culture. All in a dynamic process based on *sense* and *reason* (Ravn, 2014, p. 54).

The lack of theoretical debate in experimental archaeology until that point did not impede the development of its methods and principles. Experimental archaeology as a field has developed strong methods and principles, based on defined academic processes, multidisciplinary craftsmanship, and evidence recorded as precisely as possible (Coates et al., 1995; Crumlin-Pedersen, 1995). Ravn, M., Bischo, V., Englert, A. & Nielsen, S. (2012, 233) compare the late Welsh naval architect John Coates' (1995) and Crumlin-Pedersen's (1995) methodologies in experimental archaeology. Coates et al. (1995) follow the principles of natural science with the test of a hypothesis, and Crumlin-Pedersen (1995) is focused on creating a plan of research to lay down the potential of the experiment.

Ravn (2012, 233) then elaborates on the potential issues in the interrelations between craftsmanship and recorded archaeological evidence, bringing up the disconnect between the ancient tradition of shipbuilding, which created the ships, and modern shipbuilding with archaeological reconstruction (Eldjarn, 2008; Andersen et al., 2005). This harkens back to the critiques of processual theory; how human culture could not be understood through theories of positivistic science alone. Ravn, M. (2014, 53) describes this issue further by mentioning a rising critique against experimental archaeology from the 1990s into the 2000s. This critique was of experimental archaeology's tendency to lean too much into the methods of natural science without considering the human experience, comparable to past human experiences, from the experiments (Ravn, 2014, p. 54). This issue would be addressed with Rasmussen's model.

Future Development of Marine Archaeology

The descriptions of theory within experimental archaeology are from publications almost a decade old as of writing, but the same framework holds true for the works on the ships in the Roskilde Viking Ship Museum. The experimental archaeology at Roskilde Viking Ship Museum studies the cultural process, environmental adaptation and systems of construction for the Viking ships. This would be in line with processualism. This methodology and the surrounding debate are appropriate for experimental maritime archaeology, but they seem disconnected from the methods used in excavation.

The post-processual theory is about interpretation, but how can one make interpretations without some kind of baseline to work from? This baseline can be established with the positivistic ideal of a framework of natural science with controlled environments, proven methods of measurement and quantifiable results. But on the other hand, the positivistic ideal is an ideal, and the criticisms against it as the be-all and end-all in archaeological theory are valid. The processual theory could seem to have been tied closer to the practical application of archaeology, while post-processualism applies more to theoretical archaeology.

Anna Beck (2011, 192) describes how the lack of debate about theory within experimental archaeology was likely primarily because the archaeologists interested in excavations and practical work are often not the same archaeologists interested in theory and interpretation. Of course, most professional archaeologists work in both the practical and the theoretical fields, but they do more practical archaeology proportioned to the theoretical. Just like how a project in experimental archaeology would lean into one or the other of the two approaches in Rasmussen's model, so too do archaeologists usually lean into either practical or theoretical work.

In marine archaeology, fieldwork demands more technological equipment and more skill of the archaeologist than excavations on land, due to the work's nature of being underwater. As was explained by Hans Dal, a Danish amateur marine archaeologist (Dal, 2025; 2014, 40), the conditions and need for precise and controlled work demanded comprehensive skills and high workloads in both archaeology and diving. These practical aspects are, in my own experience, the main reason for new archaeologists to choose to work in marine archaeology, rather than its theory of interpretation. This is especially true for those enthusiastic divers interested in archaeology, as Dal (2014, 135) mentioned. These factors explain the disconnect. But it should not be accepted as inevitable. Especially since the holistic and dialectic symbiosis produces the most inclusive and contextual conclusions.

The methodology for marine archaeology is not particularly different from terrestrial archaeology, since the different environments of excavation only really change the method of excavation. The environment is a crucial detail in the context of the material and its history, but it has little impact on the overall theory of interpretation. What has an impact on theory is the societal context of the archaeologist at the time of excavation and documentation. Archaeological theory changes over time in academia, and this is because society changes with time. People and ideas change over generations, and with them change the questions we ask from the archaeological material. This was the same with the change from processual to post-processual theory. That period in history was a time of change in the societal understanding of people and social equality. The idea of *people* became more nuanced, and therefore so did the answers we sought from the past reflect this societal shift. This is a continuing process in archaeology (Black Trowel Collective et al., 2024; Sonne, 2021; Price, 2010).

Modern archaeological theory continues the search for a holistic understanding of the past, with more focus on phenomena like ancient climate changes, migration and long-distance trade, mirroring our modern society. This, of course, has a more practical element in where the funding lies, but funding and pure academic interest are both susceptible to contemporary society, and one driving force does not need to exclude the other in motivating the topics of study (Black Trowel Collective et al., 2024). I believe that we should strive for the most holistic picture of the past when we are interpreting archaeological material.

I want to know and understand as much as possible from the material of the past, and every new idea and angle in interpretation that could lead to more knowledge is welcome. I welcome every new angle of interpretation if it works from meticulous and proven measurements and documentation of the archaeological material. This foundation of traditional reason is important from a scientific and societal standpoint.

A current trend in modern society is the spread of politically and financially motivated misinformation and pseudoscience. This has led to disbelief in certain proven theories that contradict some political and monetary agendas, and a push for those with such agendas to try and take control of scientific research. This is completely against ethical scientific method and theory, and it is therefore important that all research and conclusions must be as provable as possible to stand against misinformation. This is even more important in archaeological theory because the past and the control thereof have long been important to justify national identity, the state and political movements (Black Trowel Collective et al., 2024, p. 138). These can have deadly consequences for people, and it is the archaeologist who finds the evidence, interprets it and, most importantly, communicates with the public.

We, as archaeologists, have a duty not only to find and preserve the past but also to teach the public how the past truly was, as best we can. We do this by reaching out and teaching in engaging ways that capture the interest and imagination of the audience. Like when we create museums dedicated not only to the preservation and display of remarkably well-preserved ships but also to the reconstruction of these ships using the methods of ancient people and sailing them as they did back then. Or when museums team up with the enthusiastic population to discover new archaeological sites and materials and evolve the field of marine archaeology in the process.

Conclusion

For this paper, I wanted to study the methodology within marine archaeology. I wanted to study the research history of marine archaeology in Denmark, learn about the methods and theories used, and give my suggestions on how its methods and theories could be developed in the future. I asked how marine archaeological methods and theory have developed in Denmark, and whether the methodology properly interprets the archaeological material from the methods.

Through this paper, I found that marine archaeology started with a processual method and theory in the 1950s-60s, based on a positivistic ideal of science. It then changed through the 1980s to having a post-processual theory more inclined towards understanding and the subjective experience. The method in marine archaeology stayed processual because of the required technology and natural scientific method in submarine excavations.

Marine archaeology in Denmark started in 1957 with both the survey of Roskilde Fjord and the competition posted by Hjemmet-magazine to encourage scuba divers to discover Stone Age material underwater. Both were organised by the National Museum of Denmark. One led to the discovery of five Viking ships in good condition. This became the basis for one of the great centres of marine archaeology and experimental maritime archaeology in Denmark. The other would lead to a great pioneering underwater excavation of a Stone Age settlement in Tybrind Vig. This and further work have left marine archaeology as a strong academic discipline with advanced methods and a dialectic and holistic methodology of interpretation. International scholarship has furthermore shared the advances in Danish marine archaeology with the rest of the world. I believe that it should continue to advance its methods and theory to further our knowledge and understanding of the past while basing its interpretations on reasonable and well-documented data. This should be done to combat potential misinformation and bring more people into the exciting field of marine archaeology.

References

- Andersen, E., Damgård-Sørensen, T. & Nielsen, S. (2005). Skuldelevskibene. Rekonstruktion af arkæologiske skibsfund, *Kysten* 2005 (2), pp. 10–13.
- Backmann, E. & Fredriksson, C. (ed.) (1991). 'Experimentell arkeologi : rapport från Kontaktseminariet i Hällnäs, Västerbotten, 8-14 oktober 1989', in 1991 Umeå: Arkeologiföreningen.
- Bangsbo, S. M. (2022). "Hvor mange og hvor gamle skibsvrag findes der i de danske farvande?", <https://videnskab.dk/naturvidenskab/hvor-mange-og-hvor-gamle-skibsvrag-findes-der-i-de-danske-farvande/> (accessed: 23/03-2025)
- Bass, G. F. (2012). The Development of Maritime Archaeology, *The Oxford Handbook of Maritime Archaeology*, (ed. Catsambis, A., Ford, B. & Hamilton, D. L.) New York; Oxford: Oxford University Press, pp. 3-22.
- Beck, A. S. (2011). Working in the Borderland of Experimental Archaeology. On Theoretical Perspectives in Recent Experimental Work. In: *Experimental Archaeology. Between Enlightenment and Experience*, (ed. Petersson, B. & Narmo, L. E.) Acta Archaeologica Lundensia Series in 8', No 62. Lund, pp. 167-194.
- Black Trowel Collective, Berihuete-Azorín, M., Chelsea Blackmore, L. B., Flexner, J. L., Frieman, C. J., Herrmann, C. A., & Kiddey, R. (2024). Archaeology in 2022: Counter-myths for hopeful futures, *American Anthropologist* 126, pp. 135–148.
- Brattli, T. & Johnsen, H. (1991). Noen kritiske kommentarer til den eksperimentelle arkeologien, in: *Experimentell Arkeologi. Rapport från Kontaktseminariet i Hällnäs, Västerbotten 8-14 oktober 1989*, (ed. Backman, E. & Fredriksson, C.) Kontaktstencil 33, Umeå: Fællesnordisk Råd for Arkæologistuderende, pp. 49-52.
- Catsambis, A. & Ford, B. (eds.) (2011). *The Oxford handbook of maritime archaeology*. New York: Oxford University Press.
- Coates, J., McGrail, S., Brown, D., Gifford, E., Grainge, G., Greenhill, B., Marsden, P., Rankov, B., Tipping, C. & Wright, E. (1995). Experimental Boat and Ship Archaeology: Principles and Methods. In: *The International Journal of Nautical Archaeology*, Vol. 24:4, pp. 293-301.
- Crumlin-Pedersen, O. (1995). Experimental archaeology and ships - bridging the arts and the sciences. In: *The International Journal of Nautical Archaeology*. Vol. 24:4, pp. 303-306.
- Crumlin-Pedersen, O. (2010). *Archaeology and the sea in Scandinavia and Britain: a personal account*. Roskilde: Viking Ship Museum; S.l.: in collaboration with the Society of Antiquaries of Scotland.
- Dal, H. (2014). *Arkæologi på havbunden: Historien om udgravningen af en stenalderboplads i Tybrind Vig*. Moesgaard Museum & Odense Bys Museer: Jysk Arkæologisk Selskab.

- Dal, H. (2025). "Hans Dal LinkedIn profile", <https://dk.linkedin.com/in/hans-dal-7a905379> (accessed 14/04 2025)
- Eldjarn, G. (2008). Båttbygging og båtbygging fru Blom. *Kysten 2008* (5), p. 32–33
- Fischer, A. (2001). *Mesolitiske bopladser på den danske havbund – udfordringer for forskning og forvaltning*.
- Flor, J. R., (2005). Positivism, in: *Humanistisk Videnskabsteori*, (ed. Collin, F. & Køppe, S.) København, pp. 61-96.
- Johnson, M. (2021). *Archaeological theory: an introduction*. Third edition. Hoboken, NJ: Wiley-Blackwell.
- Johnson, M. (2025). "ResearchGate: Matthew Johnson", <https://www.researchgate.net/profile/Matthew-Johnson-40> (accessed 28/06 2025).
- Kristiansen, M. (2023). *Theory in the Context of Danish Marine Archaeological Practice*. Unpublished project, University of Copenhagen.
- Kulturministeriet, Slots- og Kulturstyrelsen (2023). "Ansvarsområder og Kontakt", <https://slks.dk/omraader/kulturarv/arkaeologi-fortidsminder-og-diger/arkaeologi-under-vand/undersogelser-under-vand/ansvarsomraader-og-kontakt> (accessed 21/07-2024).
- Kulturministeriet (2025) (1). "Anna Severine Beck", <https://pure.kb.dk/da/persons/anna-severine-beck> (accessed 13/04 2025).
- Kulturministeriet, Slots- og Kulturstyrelsen, Fund og Fortidsminder (2025) (2). "kort", <https://www.kulturarv.dk/fundogfortidsminder/Kort/> (accessed 23/03-2025).
- Køppe, S. & Collin, F. (ed.) (2005). *Humanistisk videnskabsteori*. [Ny udg.], 2. opl. Søborg: DR Multimedie
- Lemée, C. P. P. (2006). Reverse naval architecture, In: *The Renaissance shipwrecks from Christianshavn: An archaeological and architectural study of large carvel vessels in Danish waters, 1580–1640*, Roskilde: Viking Ship Museum, pp. 97-98.
- Lemée, C. P. P. (2006). *The Renaissance shipwrecks from Christianshavn: an archaeological and architectural study of large carvel vessels in Danish waters, 1580-1640*. Roskilde: Viking Ship Museum in Roskilde.
- Morten Ravn (2025). "Morten Ravn", <https://mortenravn.dk/> (accessed 13/04 2025).
- Nautical Archaeology Society, issuing body et al. 1991 *International Journal of Nautical Archaeology (Online)*. London: Published for the Nautical Archaeology Society by Academic Press.
- Price, N. (2010). Passing into Poetry: Viking-Age Mortuary Drama and the Origins of Norse Mythology, *Medieval Archaeology* 54 (1), pp. 123-156.

- Olsen, B. (1997). *Fra ting til tekst. Teoretiske perspektiv i arkeologisk forskning*. Oslo.
- Pedersen, S. K. T. & Kristiansen, S. M. (2017). "Sjældnen uddannelse lukker i Esbjerg", <https://www.dr.dk/nyheder/regionale/syd/sjaelden-uddannelse-lukker-i-esbjerg> (accessed: 29/12-2022)
- Petersson, B. & Narmo, L. E. (ed.) (2011). *Experimental archaeology: between enlightenment and experience*. Lund: Lund University, Department of Archaeology and Ancient History.
- Rasmussen, M. (2001). Experiments in Archaeology – A View from Lejre, an "Old" Experimental Centre, *Zeitschrift für Schweizerische Archäologie und Kunstgeschichte* 58 (1), pp. 3-10.
- Ravn, M., Bischo, V., Englert, A. & Nielsen, S. (2012). Recent Advances in Post-excavation Documentation, Reconstruction, and Experimental Maritime Archaeology. In: *The Oxford Handbook of Maritime Archaeology*, pp. 232-249.
- Ravn, M. (2014). *Bygning og brug af skibe til krigsførelse i 1000-tallets danske rige*. Kbh.: Det humanistisk Fakultet, Københavns Universitet.
- Renfrew, C., DeMarrais, E., Bahn, P. (2024). *Archaeology: Theories, Methods and Practice*. Ninth edition. London: Thames and Hudson Ltd.
- Sonne, F. G. H. (2021). "10 trends i vikingeforskningen: Arkæologer vil ind under hjelmen på den enkelte viking", <https://videnskab.dk/kultur-samfund/10-trends-i-vikingeforskningen-arkaeologer-vil-ind-under-hjelmen-paa-den-enkelte-viking/> (accessed 13/04-2025).
- The University of Western Australia (UWA) (2025). "STUDYSmarter SurvivalGuide: METHODS AND METHODOLOGY", <https://www.uwa.edu.au/students/-/media/Project/UWA/UWA/Students/Docs/STUDYSmarter/HM4-Methods-and-methdology.pdf> (accessed 20/12-2025).
- Tuttle, M. C. (2012). Chapter 5: Search and Documentation of Underwater Archaeological Sites, in: *The Oxford Handbook of Maritime Archaeology*, (ed. Catsambis, A., Ford, B. & Hamilton, D. L.) New York; Oxford: Oxford University Press, pp. 114-132.
- Vragguiden (2023). "Oversigtskort", <https://www.vragguiden.dk/overview.asp> (accessed 23/03-2025).
- Wachsmann, S. (2012). Chapter 9: Deep-Submergence Archaeology, in: *The Oxford Handbook of Maritime Archaeology*, (ed. Catsambis, A., Ford, B. & Hamilton, D. L.) New York; Oxford: Oxford University Press, pp. 202-231.

About the author



Mads Bloch Kristiansen

Mads Bloch Kristiansen. holds a Cand.mag. in prehistoric archaeology (2025) and a bachelor/ undergraduate degree in Near Eastern Archaeology (2021), both from Copenhagen University. He currently works as a field archaeologist for Copenhagen Museum.

Mads Kristiansen is a certified marine archaeologist and commercial diver. He is a board member of Marinarkæologisk Udvalg (MAU), Dansk Sportsdykkerforbund (DSF), the student association Københavns Universitets Marinarkæologiske Gruppe (KUMAG) and the scuba diving club Kon-Tiki in Brøndby. Mads Kristiansen is also a member of the archaeological association KonfliktArkæologisk Møde og Præsentation (K.A.M.P).

Mads Kristiansen is very passionate about archaeology, history and diving. It was his interest in these subjects that inspired him to participate in the journal Curious Things, and here publish an essay on danish marine archaeology. The essay is based on an assignment he wrote during the master's degree course Scandinavian Archaeology. With this essay, Mads Kristiansen hopes to share his own curiosity and excitement for marine archaeology with as many as possible.