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Introduction
Images, Gestures, Voices, Lives
What Can We Learn from Palaeolithic Art?

Palaeolithic Art – Where Do We Stand?

There can be little doubt that one of the most profound events of European archaeology has been the discovery and recognition of the first painted Palaeolithic cave at Altamira, Spain. In 1879 and inspired by Palaeolithic decorated artefacts that he had seen at the Universal Exhibition in Paris, Marcelino Sanz de Sautuola started excavations near a cave on his property in Cantabria. While he was busy excavating, his daughter Maria examined the roof of the cave and discovered those paintings that have similarly intrigued academic and general audiences for more than 100 years. This discovery has fundamentally changed the understanding of the Palaeolithic period and the perception of humanity's deep past. Not surprisingly, the discovery also created a significant amount of controversy. This first encounter with Palaeolithic cave art also has a tragic dimension, because its substantial antiquity was only accepted by the contemporary scientific community around 1900 and long after Marcelino Sanz de Sautuola's death. Since then, the existence of European Palaeolithic cave paintings and figurative objects has been confirmed by thousands of well-dated and well-contextualized pieces of evidence. Palaeolithic figurative and abstract expressions are most prominently known from Western and Southwestern Europe but they also occur across Central and Eastern Europe and can be found in Eastern Eurasia, mostly in the form of mobile statuettes and decorated items (Bahn and Vertut 1988; David 2017). Within this vast area, a traditional focus still exists on the Franco-Cantabrian region and the famous painted caves that were found here. This emphasis is reflected in long and well-established

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research traditions, several UNESCO World Heritage determinations, and the highly visible recognition of many sites as prominent tourist destinations (Palacio Pérez 2024; Duval et al. 2019). For a long time, the largely mobiliary art in other parts of Eurasia did not receive an equal amount of academic and public attention (Palacio Pérez 2013). An exception are the figurative objects discovered in caves of the Swabian Jura, Germany, which are not only among the earliest known examples of such a practice in the world; they have also been recognized as UNESCO World Cultural Heritage in 2017, which is both an acknowledgement of the importance of the finds themselves as well as the extensive research that has been conducted in the region (see Conard et al. in this volume). However, research into Palaeolithic art and its public perception continues to suffer from a Eurocentric bias. The origin story outlined above was certainly impactful at the time and it continues to serve as a romantic example of the formative stages of archaeological research. But it also hides the fact that the history of rock art research has been a globalized story at least since the early 19th century. It reflects the global distribution of rock art itself as an expression of human creativity and meaning-making practices (Moro Abadía et al. 2024a; Hampson et al. 2022). While this volume is restricted to different conceptual engagements with to figurative and non-figurative non-utilitarian objects and markings from the European Upper Palaeolithic that are conservatively dated between 40,000 and 10,000 years ago, all authors and original participants are aware that rock art, image making, and so-called symbolic items are a world-wide phenomenon with a considerable antiquity. When we ask questions about universal features of human becoming, we must be aware of the global character of humanity and humanity's becoming. Therefore, even though the volume foremost focusses on European material evidence, Palaeolithic archaeology needs to adopt a global perspective – both in deep time and today, considering and incorporating global exchanges and collaborations.

In archaeological research contexts, art remains a key phenomenon that is perceived to reflect fundamental and genuinely human characteristics. Often, art is argued to make us truly human, which fuels a global race to find and securely date humanity's oldest artistic expressions (Sauvet 2024). Art seems to reflect a uniquely human aesthetic sense of beauty and exclusively human capacities for cultural behaviours and cognition (Heyd and Clegg 2005; Henshilwood and d'Errico 2011). Art is furthermore widely regarded to reflect the use of symbolic language, possibly the most important trait that is viewed as uniquely human (Nowell 2010; Grosos 2017). Questions surrounding the origins of art are directly and indirectly entangled in questions about human becoming and human origins in the deep past. These aspects consequently affect everyone in some way because they reflect the definition and understanding of humanity itself. The *explanandum* is not any phenomenon; the aim is to explain *us*, an aim that must fundamentally engage with questions about similarity and difference, and questions about human nature and human diversity.

While these considerations probably make immediate sense to most readers, it is much more difficult to define what 'art' is and how it can be inferred from material remains in the archaeological record (Palacio Pérez 2013). Within Palaeolithic archaeology and related fields, extensive discussions around these issues are continuing and they are far from resolved. Some researchers are comfortable with the use of the term while others have rejected it because of its problematic connotations and

history (Porr 2019). Many archaeologists think that the term is better replaced with references to 'Pleistocene visual cultures' (Nowell 2006), 'Upper Palaeolithic visual cultures' (Nowell 2017) or 'Pleistocene images and symbols' (Conkey et al. 1997; Moro Abadía and Gonzales Morales 2020). In this way, the respective authors want to avoid a Eurocentric bias in the definition of creative human expressions and Western ideas related to beauty and aesthetics. In this volume, we have decided to retain the term but also offer critical reflections of its history and its uses (see Moro Abadía and Tapper in this volume). The term 'art' continues to be a powerful signifier we do not want to abandon completely. While the material expressions we are engaging with are not products of the modern cultural and socio-economic system of art (Bourdieu 1996), they are still reflective of aspects of human behaviours we are familiar with. We can recognise them as expressions of communication and meaningful relationships with the world, even if the respective details will remain inaccessible to us.

This tension between familiarity and strangeness continues to fuel the ongoing fascination with Palaeolithic art forms. Since the acceptance of its antiquity in the early 20th century, the phenomenon of Palaeolithic art has influenced a wide range of disciplines and fields with very different theoretical perspectives, orientations, and views. Within the wider field of the humanities and social sciences as well as the public sphere, it has also shaped the notion of 'art' itself and has affected the understanding of humanity's past and present, notions of time and progress in complex ways (Pfisterer 2007). Palaeolithic art has also intrigued many artists in their engagement with the breadth and depth of creative aspects of the human experience. Consequently, art historians continue to return to Palaeolithic art to reflect on the idea of a global 'art history', its time depth and its applicability across cultural boundaries (Pfisterer 2008; Bredekamp 2019). Similarly, the understanding and assessment of Palaeolithic art is linked in complex ways with a wide range of orientations and notions that have a long and complex intellectual history. These exchanges continue to participate implicitly and explicitly in the establishment of some foundational aspects of modern thought, the definition of basic features of humanity and humanity's origins (Stavrinaki 2022; Geroulanos 2024).

Palaeoanthropology and Palaeolithic archaeology are in the equally fascinating and challenging position to enhance our understanding of the events and processes leading towards humanity as we know it today. As such, the scientific concern with the deep human past must navigate – in one form or another – the boundary between nature and culture, between humanity and animality, and between the natural and the social sciences. The conference from which this book originated was designed in a spirit of a diversity in approaches and perspectives beyond the divide between the sciences and humanities. Following a recent paper by McManus (2017), one could say that the conference was designed to avoid *epistemologies of replacement*. Within the academic fields of Palaeolithic archaeology and palaeoanthropology, it is often biological and evolutionary frameworks that play a dominant role, and there can be little doubt about their importance and relevance. However, how far can these explanations be extended? When do we have to engage with new forms of causality and processes that are linked to symbolic forms of cognition and communication? In these contexts, questions about appropriate ontological assumptions need to be addressed and, consequently, assumptions about appropriate epistemologies and inferences.

These are questions that not only have to engage with questions of temporal scales; these are questions that must involve insights from the social sciences and humanities. Following McManus (2017, 31) again, we would want to make the case here that the most valuable course of action is the establishment of an "interdisciplinary dialogue among fields in which no theory claims to be all encompassing, and no discipline pretends to be the architect of knowledge". The engagement with Palaeolithic art is one area in which such a dialogue can and should take place.

The Senckenberg Conference at the University of Tübingen and Beyond

To discuss recent perspectives within this research field, the research centre *The Role of Culture in Early Expansions of Humans* (ROCEEH) of the Heidelberg Academy of Sciences and Humanities organized an international, interdisciplinary conference in cooperation with the *Senckenberg Centre of Human Evolution and Palaeoenvironment* (HEP). Supported by the *Deutsche Forschungsgemeinschaft* (DFG) and the *Senckenberg Gesellschaft für Naturforschung*, the conference took place from 30 May to 02 June 2018 at the Alte Aula of the University of Tübingen, Germany. The invited researchers presented their results in 30 talks altogether. Focused on European Palaeolithic art, the conference was aimed at critically exploring the mutual influences between Palaeolithic archaeology, palaeoanthropology, art history, literary/cultural studies, philosophy, social/cultural anthropology, and digitization methodologies. The conference also critically engaged with foundational interpretative frameworks, concepts, and ideas to create a forum to discuss aspects that are often not given enough space. This form of engagement and reflexivity seems even more valuable when we consider that the results that are produced within the academic sphere will also have consequences outside of it. In Southwest Germany, where the conference was held, one of the most significant developments in this respect took place with the recognition of the caves of the Swabian Jura Mountains as UNESCO World Heritage.[1] This listing gave new significance to archaeological sites and a region that traditionally received relatively little attention within the study of Palaeolithic art in comparison with the painted caves of the Franco-Cantabrian region as briefly mentioned above. While this aspect was not a major theme at the conference, it needs to be recognized that archaeological evidence is always also contemporary heritage and is assessed and evaluated in the present by different communities and stakeholders (Moro Abadía et al. 2024b; García-Bustos et al. 2022).

A key topic of research into Palaeolithic art continues to be its origins and antiquity. Following discoveries in East and South Africa in the last decades (Scerri and Will 2023), the respective discussions in the European context have shifted towards the question of the presence of art or symbolic practices in Neanderthal populations. This issue continues to be a field in which different aspects of more general considerations about the definition of humanity are being debated (Wragg Sykes 2020; Nowell 2010). Since the conference, several important discoveries have been made in this respect, which have contributed considerably to our understanding of these aspects directly

1 https://whc.unesco.org/en/list/1527/ (accessed 03.09.2024)

and indirectly. New insights were generated about the timing and presence of anatomically modern humans in the Mediterranean and Central Europe with possible implications for the duration and intensity of interactions with Neanderthal populations (Mylopotamitaki et al. 2024; Slimak et al. 2022). Shortly before the conference, new radiometric dates were published that suggested that pigment markings in several Iberian caves were made between 60,000 and 65,000 years ago (Hoffmann et al. 2018). These dates place the markings well before the arrival of *Homo sapiens* in the region and would provide the first evidence for the use of pigments for cave wall markings by Neanderthals. The results, however, have been criticized on technical grounds and the respective discussions are ongoing (White et al. 2020; Aubert et al. 2018). A study of the general cognitive abilities of Neanderthals revealed nevertheless that they were able to use indexical or symbolic elements to interact with the environment (Capín 2025). The evidence of a wide range of non-utilitarian, decorative, ornamental, and, hence, symbolic behaviours in Neanderthals is growing, which contributes to the increasing appreciation of the behavioural and cognitive complexity of these hominins (Pitarch Martí et al. 2021; Peresani et al. 2021; Shaham et al. 2019; Baquedano et al. 2023; Leder et al. 2021). These new insights also include evidence for non-figurative engravings made by Neanderthals on cave walls at the site of La Roche-Cotard in France (Marquet et al. 2023). It becomes increasingly difficult to find behaviours that are exclusive to modern humans in comparison to contemporaneous Neanderthals and consequently, it becomes more difficult to deny the latter the full range of modern behavioural capabilities.

The conference demonstrated the diversity of approaches and disciplines that either have an interest in Palaeolithic art or are involved in its analysis and interpretation. The field is not only very diverse but also very dynamic. Since the conference, some significant developments have shaped the field both conceptually and practically. While we will not be able to survey the field comprehensively here, we want to draw attention to some key aspects and advances.

In terms of theoretical and conceptual approaches, it can certainly be observed that the time of the grand theories is over. Recent attempts to find general structuring principles of European cave art, for example, in the spirit of a proto-writing system have not been met with great enthusiasm by Palaeolithic art researchers (Bacon et al. 2023; von Petzinger 2017; García-Bustos et al. 2023). The field currently does not have a dominant explanatory framework that could either provide a common ground for inferences or the focus for discussions as was previously the case with structuralism or shamanism (Solomon 2018; Moro Abadía and Gonzales Morales 2020; Conkey and Fisher 2020). This development is largely due to the increasing diversification, internationalisation, and professionalisation of the field. While research into Palaeolithic art is still dominated by the work that is being conducted in the Franco-Cantabrian region, the field is also increasingly affected by the realisation that Western Europe is only a small part of a global story. The recent radiometric dating results from the islands of Sulawesi and Borneo, Indonesia, have significantly contributed to this change in perspective (Brumm et al. 2021; Aubert et al. 2019; Aubert et al. 2018; Ilmi et al. 2023; Oktaviana et al. 2024). These new insights from Southeast Asia cannot rival the extent and complexity of the European evidence, which is the product of a much longer and intense research tradition. However, they contribute to an increasingly decentred understanding of the human story that is less dependent on the Eurocentric legacies of archaeology's research history.

Conceptually, there is an equally growing realisation that European research needs to be oriented towards a multiplicity of perspectives and in relation to other research traditions and countries (Ruiz-Redondo 2024; Moro Abadía and Tapper 2021). European Palaeolithic art research is increasingly engaging in discussions about the inclusion of Indigenous knowledges and related ontologies/epistemologies (Moro Abadía and Porr 2021). This development reflects a wider concern in archaeology and anthropology with the relationship between science and Indigenous knowledge systems and concerns (Moro Abadía and Lewis-Sing 2021; Smith et al. 2022). In Europe, there are no local communities with long-term cultural connections to (Palaeolithic) rock art sites. However, in the future, archaeological research and heritage management approaches will invariably be affected by more general developments in archaeology regarding community involvements and social justice issues (Black Trowel Connective et al. 2024; Montgomery and Fryer 2023).

Apart from theoretical developments, the field of Palaeolithic art research has also enormously profited from advancements in new methods and technologies that continue to allow unprecedented and detailed insights into past practices and decision-making processes as well as socio-cultural structures and non-utilitarian behaviours. Building on the foundational work by Conkey (1980), recent analyses have continued to infer social groups and networks from the detailed spatial and statistical analysis of cave and mobiliary art (Rivero and Sauvet 2014; Garate et al. 2020). These investigations examine the art as an expression of regional or continental movements of past people and their interactions. At the other end of the spectrum, detailed analyses of cave wall painting and manufacturing episodes of mobiliary art objects have allowed the reconstruction of social interactions through learning processes and the differential access by past individuals to significant painting locations (Rivero 2016; Fritz et al. 2016). Similarly detailed analyses enhanced by the use of digital technologies also allow new insights into the placement and related gestures of Palaeolithic cave paintings, enabling new insights into past skills, choices, and motivations (Garate et al. 2023; Tosello and Fritz 2005; Fritz and Tosello 2007). These approaches might also throw more light on the role of the structure of the cave walls in the design and location of cave art and the possible influence of pareidolia in the respective artistic choices (Wisher et al. 2024). The relationship between art expressions and the physical space of the cave has emerged as another important research trend in recent years. This work also relies on the careful analysis of cave sites and their geomorphological reconstructions. The analyses often demonstrate a complex interplay between the use of natural features and their intentional manipulation. They are partly inspired by work outside of Europe and the input by Indigenous communities, for example, in Australia (Delannoy et al. 2024; David et al. 2024; Delannoy et al. 2013).

It is, of course, not possible to address all current significant research areas that could be connected to the phenomenon of Palaeolithic art in a single volume. This is testimony to the intense interest in the subject and the multiplicity of perspectives surrounding the field as well as the length of the research history. The volume's main title 'Images, gestures, voices, lives' draws attention to the fact that archaeology is not only about objects and material evidence. It is about human lives and their expressions, both in the past and the present. It is about the people who have lived around and with the material evidence that we now call 'art'.

Structure and Outcomes of the Conference

The first session of the conference was titled "The origins of the eternal quest for beauty". The original speakers were Ingeborg Reichle/Vienna, Austria; Harald Floss/Tübingen, Germany; Thomas Heyd/Victoria, Canada; Ulrich Pfisterer/Munich, Germany; and Rémi Labrusse/Paris, France. This first section of the conference dealt with questions around the significance of Palaeolithic art in the context of the history of art and the understanding of the development of aesthetics. Art historians have been intrigued and puzzled by the antiquity and complexity of Palaeolithic art for a very long time. Like non-European ethnographic art objects, Palaeolithic art continues to challenge the traditional schemes of Western art history. The contributions at the conference demonstrated that Palaeolithic paintings and sculptures have been used by art historians to support Darwinian as well as anti-Darwinian arguments since 1900. Aesthetics remains an important approach to understanding the manufacture, use and the (ancient and modern) perception of those objects. However, it is equally recognized that the Palaeolithic gaze had many further dimensions. While Palaeolithic figurative objects and paintings are generally met with strong emotions, these reactions must be viewed as the result of long acculturation processes leading towards the current deep appreciation of Palaeolithic "art". In this context, it is important that the work of several modern artists has been influenced by Palaeolithic objects, which has, in turn, further affected the perception of Palaeolithic remains. In the keynote lecture, Nicholas Conard elaborated on the variety of artistic expressions in the Aurignacian of the Swabian Jura and their role in denomination of the cave sites as World Heritage sites.

The second session "The challenge of materiality" examined the interrelationships between the study of Palaeolithic art and more recent approaches in social anthropology and material culture studies. It included as speakers Hans-Peter Hahn / Frankfurt a. Main, Germany; Chris Low/Oxford, United Kingdom; Peter Vang Petersen/Copenhagen, Denmark; Shumon Hussain/Leiden, Netherlands; Olivia Rivero/Salamanca, Spain; and Randall White/New York, USA. The session revolved around the question of how we should engage with the materiality of Palaeolithic art. In recent years, a range of disciplines have developed an increasing interest into the material dimensions of human existence and its ontological variabilities. This has inspired a reassessment of established anthropological concepts and notions, and a renewed engagement with Indigenous worldviews. At the conference, it also became apparent that processes of production and stabilization of meaning need further assessment. These re-evaluations will have to engage with the agency of materials, dynamic processes of production and use as well as the biography of objects that are entwined with the life-histories of human beings.

In the third session, speakers engaged with the topic "Beyond evolution and history" to address the relationship between Palaeolithic art objects and the origins of modern cognition and humanity. As original speakers, it included Margaret Conkey/Berkeley, USA; Oscar Moro Abadía/St. John's, Canada; Niels Weidtmann/Tübingen, Germany; Thomas Junker/Tübingen, Germany; Ewa Dutkiewicz/Tübingen, Germany; and Duilio Garofoli/Tübingen, Germany. A core theme in Palaeolithic archaeology has always been the question of human origins. Entangled in this field are the definition of humanity and human nature and the distinction between history and evolution as well as nature and culture. These aspects have a long history within the Western intellectual

tradition and form (often unacknowledged) core elements of modern science. The speakers discussed if art objects – as traditionally defined – have any specific role to play in these contexts. They also discussed how art objects could be productively integrated into biological frameworks of explanation and a respective understanding of human evolution. Issues of the constitution of meaning, including social memory, and the representational qualities of so-called art objects were critically discussed.

The fourth session engaged more closely with the gestures and voices that are mentioned in the title of the conference. It was titled "Perception, practice and performance" and included Inés Domingo Sanz/Barcelona, Spain; Adeline Schebesch/Erlangen, Germany; Antonio Batarda/Vila Nova de Foz Côa, Portugal; Beth Velliky et al./Tübingen, Germany; Andreas Pastoors/Erlangen, Germany; Tommaso Mattioli and Margarita Díaz-Andreu/Barcelona, Spain, as original contributors. How can we reconstruct the practices and performances that once created those objects that now constitute our archaeological record? In archaeological research, the producers and creators are absent; but they once existed in those empty spaces between images and objects. Objects were imagined, created, and watched. From the evidence from the cave sites in Southwest Germany, at least, we can also infer the presence of music through the presence of several flutes. The role of bodily sensorial experience and perception, the role of voices and sounds, has so far received relatively little systematic attention in the context of the study of Palaeolithic art. However, at the conference, it became clear that there are various ways in which these aspects can be approached, through the reconstruction of soundscapes and contexts of light and darkness, references to ethnographic case studies and the comparative analysis of body techniques that are used by professional actors.

The fifth and last session addressed issues surrounding questions about the role of digital technologies in moving from documentation to analysis and interpretation. The session was titled "From digital documentation to meaningful analysis" and featured Tilman Lenssen-Erz and Oliver Vogels/Cologne, Germany; Christoph Steffens and Markus Steffens/Esslingen, Germany; Ewa Dutkiewicz/Tübingen, Germany; Jo McDonald/Crawley, Australia; Andrew Kandel/Tübingen, Germany and Rimtautas Dapschauskas/Heidelberg, Germany; Richard Buffat/Vallon Pont d'Arc, France as speakers. The recording and storage of artworks in digital form is indispensable today to support the ways researchers and the public engage with artefacts and artistic expressions. Researchers can easily share information and work on art pieces without touching the existing objects when they are able to access the appropriate digital data. In this session, we discussed how digital technologies can assist in the epistemological and methodological challenges of the interpretation of Palaeolithic art. Again, case studies ranged from the detailed recording and presentation of the delicate statuettes from the Swabian Jura to the monumental replication of the famous Grotte Chauvet in Eastern France.

In summary, the conference moved between different scales of analysis and interpretation from microscopic studies of single objects to diachronic developments across whole continents. Generally, it was asserted that art as such is a problematic notion that has a complicated history and cannot be applied cross-culturally without problems. Objects that are usually regarded as 'art' participate in human world-building and in processes of the creation and stabilization of meaning. In this context, it was generally acknowledged that so-called art objects need to be seen in contexts of

dynamic performances of production, use and communication. Art cannot be reduced to material visual culture, but also has acoustic, haptic, and other dynamic aspects. It can be linked to a wide range of performances and social purposes. The latter can include ritual-religious or more general aspects related to social cohesion, self-assurance, teaching and apprenticeship. These insights have demonstrated that 'art' cannot be viewed as a unified phenomenon but rather needs to be understood as a variety of processes that can equally embrace the mundane or extraordinary. Consequently, it remains difficult to pin this phenomenon down and even to assert that it is always connected to symbolic meanings. As was mentioned above, the processes of the creation, communication and stabilization of meaning remain an area of debate and no unequivocal relationship between objects and cultural meanings can be assumed. These considerations clearly demonstrate that the idea of Palaeolithic art has shifted considerably in the last decades. It is no longer connected to an idea of "fine art" that concentrates on objects of elaborate artistic qualities such as paintings and sculptures. The interest has now broadened considerably, and it equally embraces items such as personal ornaments and pigments.

The conference closed on a very positive note and the participants acknowledged the many and diverse insights that had been gained into past practices and contemporary ideas and approaches related to Palaeolithic art. The meeting demonstrated that the most powerful, innovative, and interesting insights into the deep human past can be gained whenever meticulous empirical research is combined with reflective and sophisticated theoretical approaches. In this spirit, we will continue to be able to learn from the images, gestures, voices, and lives, which constitute the many creative expressions we today call Palaeolithic art.

For this volume, we have attempted to preserve the structure of the conference as much as possible, even though it was not possible to include all original contributions. The volume is still divided into five thematic sections that cover the key areas of engagements with European Palaeolithic artistic expressions as addressed at the conference. The first section includes papers that discuss the use of the term 'art' itself. The respective papers provide historical reflections of the term in the context of Palaeolithic visual expressions as well as new approaches within this conceptual space. The second section contains two papers that discuss aspects related to the materiality of Palaeolithic art and how the respective relationships can be understood and conceptualized. In this context, the ontological understanding of materiality itself is challenged and questioned with reference to Indigenous knowledge systems. The third section is concerned with possible ways in which Palaeolithic art can inform about human evolutionary processes. The respective papers demonstrate how so-called artistic expressions can be relevant in understanding aspects of human evolution beyond the nature/culture divide. As material art expressions are always products of bodily engagements, both in production and consumption, the fourth section presents a paper on an experimental study how body language can enhance our understanding of the design of Palaeolithic statuettes. Finally, as all heritage is created in the present, the last section of the volume includes two papers that show how new digital technologies can enhance our understanding of Palaeolithic art and how these expressions from the deep human past can become significant in the present at a local, national, and global level.

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