

# Anthropomorphic Images

## in Rock Art Paintings and Rock Carvings

edited by

Terence Meaden and Herman Bender



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Cover image: Rock in the Pilbara region of Western Australia. The male figure, nearly 2 m long, is surrounded by images of females. Photo by Mike Donaldson.

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## Preface

Anthropomorphic rock-cut images and cave-wall paintings appear widely across the world of rock art from the Upper Palaeolithic through to the Neolithic and Bronze Age—and for some continents this art medium continued into later but still prehistoric times.

Our objectives in organising this session within the auspices of the Conference of the International Federation of Rock Art Organisations (IFRAO) were directed at discussing anthropomorphic rock-images in which the possibility of recovery of the meanings intended by the artists and sculptors may exist. Such prospects could relate to known or inferred legends, myths or folklore. Or they might include matters that recognized the unremitting importance to humankind of the need for successful human, animal and crop fertility.

The conference was held in the spa town of Boario Terme in northern Italy from 29 August to 2 September 2018. This town is at the southern end of Val Camonica which is a valley renowned for its extraordinarily fine range of prehistoric rock art about which hundreds of papers and books have been written.

For this session relevant artwork worldwide, that survived for hundreds or thousands of years, includes cave-wall paintings, engravings or scratchings, and images pecked into rocky surfaces and cliff sides or even on standing stones.

Such art forms may be present either as whole images or sometimes as images *pars pro toto*, in which a part stands for or symbolizes the whole.

Thus rock art images, whether singly or as compositions, may articulate, in ways more or less manifest, scenes of dramatic action as with hunting and dancing, mating and birthing, or ritual and ceremony. Some of these may overtly or latently further express yearnings for the rewards of fruitful fecundity.

This theme attracted 32 papers and their reading and discussion occupied two whole days or 16 hours of conference time. 21 of the papers are reproduced in this volume.

### **Hieros gamos and fertility religions**

Several papers involved in one way or other, through carved or painted images, aspects of beliefs in fertility

religions, including the expression of fertility rites and practices, that were so widely held in prehistory.

*Dr. Stavros D. Kiotsekoglou* in Chapter 2), reporting from ancient Thrace, explained how ideas relating to the *hieros gamos*—the *ἱερός γάμος*—were variously traceable in the Thracian prehistoric landscape that he researched. He reached his positive conclusions in being greatly encouraged about what was already known from significant literary and artistic sources of the later Hellenistic period.

Thracian iconography is based on two fundamental images around which developed the great mythological and epic cycles. The images are the figures of the Great Goddess and the Hero, seated together—the latter, the supreme companion of the Goddess in *paredros* (meaning seated alongside). Their hierogamic relationship is evident in the mural fresco on the dome of Kazanlak's tomb. Other data that inform of this relationship come from literary sources—iconographic and epigraphic works which refer to the Hellenistic and Roman periods. The question is how were these deities represented or symbolized in earlier prehistoric periods? What were the Greek colonies' contributions to the Thracian religion in regards to the images of the deities? The Thracian period being considered is from the preliterate Late Copper Age and Bronze Age to the Early Iron Age of the 6th and 5th centuries BCE.

Many examples are given through images and positioned/shaped stones. Moreover, says the author 'The sacred space and the megalithic places' orientation are always associated with the annual solar cycle. The sun's adoration spread in Thrace during the late Bronze Age (12th century BCE) and continued during the Iron Age (11th to 6th centuries BCE). The sacred places of the Thracians had to be illuminated by the first rays of the sun ...'.

The presence of hierogamy as reflected in the dolmens of Roussa, Kila, Petrotopos (all expressing the feminine principle) 'is functionalized by the eternal light of the Sun (the masculine principle), when the solar ray penetrates in the womb (dolmen) through the hole of the slab, thus the authentic hierogamy.'

As for the throne-like seats of ancient Thrace (like those at Monastiri-lofos) the editors of this volume note that similar megaliths chosen for their seat-like shapes (being suggestive of thrones) exist in Neolithic

and Bronze Age landscapes in the hills east of Avebury (paper under preparation for publication by Terence Meaden) and variously in Loughcrew etc. in Ireland. As for the Thracian Neolithic and the historical period, Dr Kiotsekoglou says that ‘the Goddess of Earth Fertility was depicted with a male partner, where the ritual mating ensured the smooth process of the cycle of vegetation and fertility with the known rituals of the sacred marriage.’ He further concludes that the ‘solar’ ideology of the society of ancient Aegean Thrace is perfectly reflected at sites in Monastiri-lofos, Lyra village, and Kottani village among others.

Certain aspects of the discoveries made by Dr Kiotsekoglou may well apply to Neolithic Britain and Ireland too. Prof. Terence Meaden (Chapter 1) has been working in this field of research since 1996. In what concerns his main paper in the current volume, relevant circumstances known for the stone circles at Drombeg, at Bohonagh, and at Stonehenge are discussed. The paper begins with a new survey and study of well-known Drombeg Stone Circle in County Cork, Ireland, in which the meanings of two powerful rock-art fertility images are unequivocally recognizable.

One image pecked into the top surface of the huge recumbent stone had been known for longer than a century but its meaning and importance were never recognized. Said by some traditional archaeologists to be possibly a poor representation of an axe head, it is in reality a vulva, an image occupying a strong role in any prehistoric fertility religion. The other petroglyph had never before been spotted until September 2016 when, on a tall straight-sided standing portal stone, it was recognized by Mr. Austin Kinsley. This is the ultimate in masculine images that can serve within a culture of deep belief in a fertility religion—because the pecked image is that of an ithyphallus with testicles. The excavator of Drombeg Stone Circle in 1955-1956, Dr Edward Fahy, had wondered whether a certain pair of adjacent standing stones on the circumference, that bore male and female symbolism by their lithic outline, somehow denoted the practice of a fertility religion at this site. He was right, and decades later Terence Meaden demonstrates why.

Again, another discovery that was initiated by the Drombeg research was finding unequivocal proof that an 8-fold basic calendar of annual events was *definitely* in use during the Neolithic and Bronze Age prehistory of the British and Irish islands. Details of the calendar steadily emerged as other stone circles were examined ever more thoroughly to obtain the essential photographic proof needed for the optimum calendar dates. Proof is now solid that the ancient calendar of these first farming peoples was in use throughout the megalithic period of the Neolithic and Bronze Ages.

The peoples who planned Drombeg and other recumbent stone circles recognized eight significant dates of the year, each separated by 45 or 46 days from the next. If one calls 21 December Day 1, this is the first quarter day of a four-quarter 365-day year, or it is the first bi-quarter day of an eight-part year.

The new insights arose from analyzing alignment unions between the sun and megaliths of particular shape standing at specific positions, and observing the resulting shadows cast upon a waiting stone, selected long ago, at and during the first minutes after sunrise.

Noting that the primary stones in the east—among them the portal stones—are tall and straight-sided whereas the broad flat-topped recumbent stone—and sometimes a lozenge stone too—were in the west, this intimated a union by shadow as the sun rises in the eastern quarter. In short, the tall narrow straight-sided shadow-casting stones are arguably male-symbolic, while the stones awaiting the arrival of cast shadows are plausibly female-symbolic.

This approach to a fertility religion in which the community can watch, understand and enjoy the mating drama of the *hieros gamos* can explain the intellectual planning of many dozens of Irish recumbent multiple stone circles—besides Stonehenge, Avebury and others too. It must be stressed that the core symbolism of Stonehenge is now wholly explained by a watchable fertility display with reference to the recumbent Altar Stone which is reached during the minutes after sunrise by the shadow of the Heel Stone every year in midsummer week. By 2019, fieldwork research on the Irish stone circles was in its eighth season.

Working independently, Stavros Kiotsekoglou arrived at similar conclusions of a belief in hierogamy for the communities of pre-literate Bronze Age and Iron Age Thrace, much as the present author has done for Neolithic and Bronze Age Britain and Ireland.

Gender relations in various ways manifest, were reported too from widely across the world in other papers of this conference session.

Herman Bender (Chapter 15), researching in North America, reported numerous petroglyphs of vulva form made by the native Indian communities that appear in both natural and enhanced forms in rock art at several sites in association with caves or rock fissures. His homeland of Wisconsin located in the woodlands and plains of the western Great Lakes is where his expertise lies through enterprising discovery and influential meetings with native Indians. The diamond shape—which is a truly female symbolic feature—is commonly found near cave entrances across southern Wisconsin. On more open ground there is a vulva rock at a





Figures 1 and 2. Part of a 2-metre long, vertical vulvar carving—several cm deep at the middle—that centres the façade at West Kennet Long Barrow in Wessex near Avebury.

petroglyph site aligned to the winter solstice sunrise. Elsewhere, another landscape feature of relevance is King Phillips Seat known to be a sacred vulva-rock site for the Wampanoag people of eastern Massachusetts and Rhode Island.

The vulva images are said by *American Indian people* to have a Mother Earth relationship. Several mark what are claimed as entrances to the womb—as also with caves or springs. Others, such as the above-mentioned solstice-aligned vulva rock act in the consummation of the Marriage of Sky with Earth or *hieros gamos* at particular times of the year.

Several of the North American vulva rock sites likely date to the Archaic period (4000 to 1500 BCE) and such images have also been reported widely across the world of the Neolithic and Bronze Ages. Figures 1 and 2 illustrate one of many known for the region of Neolithic Avebury and the Marlborough Downs in Central Southern England (Meaden 1999; Meaden 2016).

Dr Gernot Grube (Chapter 3) discusses similarly for images dating from the Upper Palaeolithic at Chauvet

Cave in France when considering the relationship between anthropomorphic motifs and animal representations. For instance, there are female figures in the women-bison-panel of the Pech-Merle Cave, which Leroi-Gourhan proposed were transformations between the motifs of bison and woman. Again, at the rock pendant in the Salle du Fond of the Chauvet Cave, there is a female abdomen with a bison's head directly above the emphasized vulva. Gernot Grube interprets this as a key ingredient for a principal narrative line in the entire presentation of art at Chauvet that treats and honours the relationship between the sexes. In this way such an approach to image description may help to reconstruct narrative elements incorporated in other Upper Palaeolithic representations.

Anu Nagappa (Chapter 10) introduces the iconography etched on limestone pillars at the pre-Neolithic site of Gobekli Tepe in Anatolia, Turkey. The engravings appear to be fertility-related in suggesting symbolism of the womb of a female divinity such as a Mother Goddess. This conclusion is helped by comparing Gobekli Tepe's imagery with other schematic types known across Europe and the Fertile Crescent

over the long era from the Upper Palaeolithic to the Neolithic. Among the images are anthropomorphic and zoomorphic forms, as well as symbols such as the H-shape and crescent shapes. The result is that Gobekli Tepe appears to be another site with a long-lasting belief in the Mother Goddess which, although not explicitly indicated, appears nonetheless to be subtly signalling this in various ways. This conclusion arises through the triad of her functions of birth, death and regeneration (as paralleled in the cycles of nature) and visibly expressed in lithic iconography much as with the mythologies of later times. Moreover, the presence of other symbols like bucrania, perforated stones, and the metaphorical uteri and vulvas, all bespeak a fertility religion with belief in the Mother Goddess.

Three more papers engage in recognising aspects of a prehistoric credence in matters of fertility/sexuality as interpreted by the nature of the rock art symbolism.

*Guido Palmerini* (Chapter 5) discusses the engravings and paintings in the cavity or crevice that is Anfratto Palmerini on Monte La Queglia in central Italy. Vaginal in shape the cave's opening allows the entry of solar light only at and near the winter solstice. The earliest rock art are red ochre paintings that are often overwritten by filiform engravings. Several represent the human figure and explicit human parts as with handprints and stylised vulvar symbols. Their presence implies a cavity usage of ritual character associated with a sphere of sexuality and regeneration. The semiotic nature of handprints, engravings and symbols is discussed.

In Chapter 7 *Prof. Angelina Magnotta* finds likely anthropomorphic images in High Lunigiana in Italy. Several are similar to Thracian rock images reported by Stavros Kiotsekoglou (cf. Chapter 2, this volume; also, Magnotta (2015: 48, 139-141). The Lunigiana images are of different kinds. Several follow the natural shape of the rock, often curving, in which the carving cuts deeply. Some are fertility images, while some appear facial, perhaps representing a deceased person with an aim of protecting the environment. The time period varies depending on which carving, but they are being dated to the Neolithic and/or Bronze Age. The area's petroglyphs are situated at seven rock-engraving sites of the Mount Orsaro range whose highest peak is Mount Marmagna—the name thought to originate from the Latin *Mater Magna* or Mother Goddess. Figure 6 of this paper is a birthing image. Several sculptures, being male and female genitalia, relate to concepts of fertility. Unusual is Figure 7 of Chapter 7 which suggests or demonstrates intimate genital coupling. The same may apply in Figure 5—named the Life Column, a part of generating nature, 'erect between two chevrons above the base, showing the testicles.' The author wonders

whether 'this could be the strongest possible fertility image ever made.'

### **Expressive anthropomorphic imagery**

*Dr Carol Patterson* (Chapter 14) contributes an engaging semiotic analysis of the artistic imagery of anthropomorphic gestures, body apparel and decoration in three petroglyph panels from Utah, USA—art that spans three millennia. The first panel is dated to circa 1900 BCE. Its interpretable, i.e. hermeneutic, body postures and arm gestures, costumes and headdresses provide kino-graphic information that parallel historic events. Although the anthropomorphs in Panel 2, circa 1100 CE, have no known hermeneutic associations, from this analysis emerge nonetheless self-identity and a defined narrative. The third panel, circa 1000 to 500 BCE, demonstrates the validity of this study in a suggested narrative. Unexpectedly, the author finds explanatory associations with existing ethnographic literature. The system helpfully demonstrates the potential of providing multiple lines of evidence for interpretable associations with anthropomorphic figures in rock art.

### **Rock art combining anthropomorphism with zoomorphism**

The bison artwork with apparent transformations between bison and woman in the Chauvet Cave analysed by Dr Grube was introduced above. Now we find in Chapter 6, *Terence Meaden* reporting the discovery of a unique situation at Avebury in southern England involving a watchable transformation of a human image into an animal and back again depending on one's changing angle of view. This is a master carving in which, with the changing aspect of a single carved surface, transfiguration takes place between (a) a fine human face sculpted in profile and facing the winter solstice sunset, and (b) a hare seen in spring boxing mode when this same rock surface is regarded perpendicularly. The pecked carving is a highly refined, subtle sculpture dating from the Late Neolithic. The head of the hare becomes the eye of the human when viewed edgewise. The hare's back is the left cheek of the human face. The human head is best seen in the morning after about 11 a.m. when the angle of sunlight is optimal. There is absolutely no possibility of accidental pareidolia. The deep carving at the human eye into the hard rock is impressive for the stone-masonry skills. Is this the only known example of such metamorphosis in rock art anywhere in the world?

*Prof. Tomaso Di Fraia* (Chapter 4) introduces the artwork of Grotta Palmieri of Lettopalena (Italy)—a discovery made in 2017. The site is a shallow cavity, located in the province of Chieti on a steep, difficult-to-reach, bank of



the Aventino River. The art comprises anthropomorphic and zoological figures marked in black or red ochre, and includes a probable bird-head anthropomorphic figure that may have a pendant inside the red stain. Comparisons are made with paintings and engravings from other prehistoric sites of the territory.

Mary A. Gorden (Chapter 17) explains some of the multi-layered meanings in the rock art of the Yokuts and Western Mono tribes of central California, USA. Pictographs combining human, bird, and animal traits are common, and reflect characteristics that are important in the tribes' traditional stories. These communities believed the world's present human era followed a prehistoric period during which animals, birds, and other beings created the universe. The creator beings had human and animal attributes in which humans and animals were coequals. This paper examines the clues that identify the anthropomorphic figures, and the role they occupy in the oral tales that may combine the societies' totemic attributes representing a moiety lineage or guardian spirit. Considered too, are artistic similarities and dissimilarities in content and exposition within tribal areas and across dialect borders.

Next, and as indeed widely encountered across much of North America, Herman Bender (Chapter 18) evaluates the long-held thunderbird tradition as expressed in rock art and discusses some of the typical rock art images made of this mythical creature. Importantly he reflects on the physical setting, the various styles and what may have inspired the creative artists of this very ancient and widespread Native American tradition. Thunderbird stories are part of nearly every tribe's mythology. The great bird makes its annual return every year with spring's first thunderstorms. Lightning is said to flash from its eyes and the thunder is likened to the noise of battle between the great bird and giant serpents. Thunderbirds have occurred as a rock art motif for millennia, some of the pecked images dating back at least 7000 years and likely far more. The paper introduces some of the many images of Thunderbirds and associated pictures of insects and birds besides other forms anthropomorphic in appearance in their physical settings and differing styles to find what inspired the artists to create them.

### **Manitou in rock-art imagery in North America**

Manitou is a presumed supernatural and fundamental life force that according to some North American communities pervades the natural world. It is omnipresent and thought to reside in distinctive rocks and boulders. All were an integral part of the cultural landscape and many were linked with the North American prehistoric trail network. Some stones or megaliths were regarded as 'spirit' stones or 'image'

stones. Herman Bender (Chapter 16) considers such image stones for Wisconsin and widely across North America. Many were the subject of legends and myths. 'On the cultural landscape, the stones together with their physical setting were considered sacred.' Several such stones and effigies are known to date back many millennia. At times some were modified and improved or dabbed with paint to suggest a human appearance or profile.

### **Childbirth**

Dr Hassiba Safrioun and Louiza Belkhiri (Chapter 13) from Algeria gave a lecture that attracted unusually lengthy audience attention on childbirth postures as expressed at a rock-art cave site in the central Sahara of Algeria. The study of these rock-art scenes at Tassili n'Ajjer shows how Bovidian women adopted particular postures to facilitate delivery at the time of childbirth. The study of the physiological and gynaecological parameters in the delivery scenes led to detailed information of the different phases of childbirth: contraction, effacement, dilatation and expulsion. Something new and unexpected had been found about this aspect of the lives of Bovidian women of the Sahara.

### **Rock art indicative of death and afterlife expectations**

The rock art presented in this next paper recognised in a novel purposeful fashion the symbolism of death. Terence Meaden (Chapter 8) when surveying big stones on the hills of the Marlborough Downs east of Neolithic Avebury in Southern England reported his discovery of two megaliths upon which are carved images very firmly indicative of death and yet, because orientated to the setting sun at the winter and summer solstices, possibly presenting optimism about the future for souls of the recent dead.

The first stone exhibits the head of a dead animal, with gaping toothless mouth, and at its north-western side the carving of a helmeted human head facing sunset at the summer solstice. This recalls a myth, referenced by the social anthropologist and folklorist James Gordon Frazer, in which souls of the dead repose in a convenient rock while awaiting the next solstice sunset when they follow the sun into the paradisiacal land beyond the horizon. Knowing of this, Prof. Meaden predicted that there might exist a similar carved rock facing the direction of the winter solstice sunset. Such a stone was subsequently and momentarily found located nearby, again with the carved head of a dead animal and the head of a noble-looking human. It is suggested that these rock carvings were created in the worldview belief that human souls are sheltered in this manner until the coming of the next solstice when they follow the sun as it departs for the land of paradise in the west.

## Ontology

*Prof. Feng Qu* (Chapter 10) reported on his assessments of rice-crop images engraved on rocks at the Neolithic site of Jiangjunya at the east coast of China which he analyzed using animist ontologies, i.e. the metaphysical study of the nature of being and existence involving relationships in which the partners are not all human. In this original approach, which include comparisons with ethnographic data of the Alaskan Eskimos, he proposes the concept of 'revelatory style art'. He advances that the engravings of the human masks at Jiangjunya disclose a personhood of the rice rather than representing humans or anthropomorphic gods in the way explained by previous Chinese academics. One consequence is an ontological analysis of the Jiangjunya rock art and its economic, social, spiritual, and historical contexts in which prehistoric farmers along China's East Coast perceived rice plants as pertaining to humans. Motifs include iconic images such as anthropomorphic and zoomorphic faces, fish, crops, the sun, stars, and non-iconic forms such as cup marks, concentric circles and other geometric forms. The expectation was a maintenance of interchangeable and interpersonal associations with non-human 'rice beings'.

## General anthropomorphic imagery in aboriginal Australia

*Marisa Giorgi* (Chapter 11) deals with recent work on engraved anthropomorphic image discoveries in south-east Queensland which hitherto had only a couple of significant known sites. Thus, the newly-found engraved anthropomorphic images at a site 20 km from Brisbane are hugely important. Present are at least two different anthropomorphic styles together with images of animals, cup marks, axe-grinding grooves, and numerous emu tracks.

*Mike Donaldson* (Chapter 12) assesses the ubiquity of anthropomorphic rock art images through time and space across all of Australia. The oldest may date from 40,000 years ago and include full-body paintings with fine line details including musculature, weapons, and elaborate personal adornments. Later paintings and petroglyphs are often simpler and larger, and many portray human/spirit entities such as Wanjinias in the Kimberley, Quinkans on Cape York Peninsula, and outline petroglyphs around Sydney. Pecked footprints appear in the early 'Panaramitee tradition' in central Australia, and petroglyphs of stylized 'archaic faces' are found at sites in the central deserts. Fertility needs are indicated in the later art of Arnhem Land with the appearance of paintings depicting vulvas, much as in prehistoric European art. The big variety of anthropomorphic image types is due to the high number of independent tribes, and differing cultural

blocks, languages and social structures. When the Europeans arrived, there were 250 distinct language groups.

## Rock art in South America

In Chapter 19 *Nathalia Nogueira and Daniela Cisneiros* discuss the anthropomorphic cave paintings known for the Sérido region of north-eastern Brazil where such sites are numerous and varied in character. It proved possible to identify symbolic representations among various graphic types related to cultural links between different communities and the possible identification of migratory routes. Account was taken of regional geomorphology, proximity of water sources and locations of burial sites.

Finally, there are two papers by *María Susana Barrau and Daniel Castillo Benítez* (Chapters 20 and 21). In Chapter 20 they present a set of rock art anthropomorphic petroglyphs engraved on boulders from the Alto de la Guitarra archaeological site in the Moche valley, La Libertad Department, Perú. Their variety, concentration and exceptional nature is such that the area is an open-air rock-art sanctuary. The study allowed a chronological and cultural sequence to be developed on the basis of examining engraving techniques and iconographic features, and assessing the spatial distribution of the boulders and associated structures in relation to the mountains when considering the overall archaeological record. Certain aspects of the ethnohistory on mythology and ritual become apparent, as too some knowledge of the social dynamics and symbolic universe predominant in these societies.

In a second paper (*Daniel Castillo Benítez and María Susana Barrau* Chapter 21) the authors examine the splendid painted images at the Monte Calvario site, Poro Poro, Department of Cajamarca, Perú. The painted art is described, and spatial, temporal and cultural parameters defined to provide a firm basis for analysis before considering anthropological and ethnohistorical data. An area of sacred space in which ritual and ceremonial activities related to the cult of mythical ancestors was then defined. Importantly, the identification of seven anthropomorphic figures representing four shamans, four of them as harmonizing couples and the group of big anthropomorphic images, was key to supporting the idea of their role of mediation with deities. The archaeological complex covers some eight square kilometres. It took four seasons of field work to survey and record five architectural units and rock-art expressions, together with a stratigraphic survey at the foot of Panel 6 of Monte Calvario, where most of the representations of art are located.

Terence Meaden and Herman Bender

# **Continental Europe and Britain and Ireland**





# Chapter 1: Fertility Petroglyphs at Drombeg Stone Circle Help Explain Through *Hieros Gamos* the Calendar Planning Principles of Drombeg and Other Recumbent Stone Circles Including Stonehenge

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**Abstract:** Exquisitely pecked on two megaliths at Drombeg Stone Circle in County Cork, Ireland, are images whose symbolic functions likely expressed anthropomorphic gender identity to a comprehending community. One carving—ithyphallic and testicular—is pecked into a megalith that is two metres tall, narrow and straight-sided. This helps confirm long-held deductive reasoning suspected by scholars that standing stones of this shape denote masculinity. At Drombeg this evocative male stone with its rock art casts at sunrise an inferable 'male' shadow upon one of two perimeter stones deemed to bear feminine symbolism. One recipient 'female' stone is lozenge-shaped—which is a traditionally recognized indication of femininity. The second stone with rock art is a very broad, 2.1 m wide, 1.1 m high recumbent megalith upon which is carved a vulva. This firmly suggests that this stone was deemed feminine too. With this understanding it was discovered that the sun rising in the eastern quarter casts shadows from a sequence of male-symbolic stones upon one or other of the two female-type stones at 45-46-day intervals during the course of the farming year, beginning at the winter solstice. The result is a working calendar with eight major dates encoded in the stones, in which union between male-to-female pairs is achieved by the action of planned shadows that the community could watch in an agrarian world favourable to fertility religious ideas such as the *hieros gamos* between deities of Sun and Earth. Over 40 other recumbent stone circles surveyed in County Cork and neighbouring Kerry were found to function similarly at sunrise—as also Stonehenge where on midsummer morning the annual eye-witnessed spectacle is between the rising sun, the Heel Stone and, by virtue of the latter's connecting shadow, the recumbent Altar Stone. This is the pre-eminent feature of the core explanation for the meaning of Stonehenge, as first advanced by publication by this author in 1992, and which has continued to be upheld by all subsequent discoveries on related sunrise research into British and Irish stone circles of recumbent character.

**Keywords:** Drombeg, fertility, hieros gamos, ithyphallus, Knowth, pars-pro-toto imagery, rock art, shadow casting, Stonehenge, vulva imagery.

## Introduction

It is announced and explained how two newly studied petroglyphs of prehistoric date discovered at Drombeg Stone Circle in County Cork, Ireland, are highly significant for reasons of their evidently intended, far-reaching symbolism.

One image is an ithyphallic carving that is 200 mm long, pecked on a tall narrow straight-sided megalith at the portal entrance. The other image is a vulva 280 mm long by 160 mm wide pecked on the flat vulva-shaped upper surface of the broad recumbent stone. It is deduced that these deliberate gender attributes emphasize the sexual symbolism planned for the shaped megaliths upon which the artwork is carved.

Furthermore, several other standing stones of the Drombeg Circle have outlines that aptly express either

the male or the female principle (Meaden 2014). Thus it was found that all surviving megaliths on the eastern perimeter were intelligently positioned such that the light of *the sun rising* in the east casts male-symbolic shadows that make union with one or other of two waiting stones identifiable as female, and that this happens on any of eight prime dates of the agricultural year. These dates are 45–46 days apart starting with the winter solstice which is nominated as Day 1 on what amounts to being a Neolithic 365-day calendar. Reasons are considered in the discussion and the concluding sections of this paper about what this core activity of male-female union likely symbolizes.

## The new survey of Drombeg Stone Circle

Drombeg is the finest of the numerous axial recumbent stone circles in the counties of Cork and Kerry in southern Ireland (Figure 1). This prehistoric monument



Figure 1. Drombeg Stone Circle in which the recumbent Stone 9 is flanked by tall neighbours Stones 8 and 10. At the other side of the circle are the portal stones, numbers 17 and 1

is between 3500 and 4500 years old, yet is little damaged. The perimeter of the 9-metre diameter circle comprises 17 megaliths—one recumbent stone and 16 standing stones of which 14 of the originals survive. Two stones display rock art, viz. carvings with a strong fertility character. Additionally, several megaliths have outline shapes that suggest either the male or female principle when considered on the basis of shape symbolism typical of Late Neolithic and Bronze Age megaliths.

An excavation of Drombeg Stone Circle was undertaken by Edward Fahy in 1957 and 1958 (published 1959). The stone numbering is his.

As the present research investigation progressed it was found necessary to undertake a new survey of the stones (Figure 2).

It was Boyle Somerville (1909) who spotted that the axis of the circle was aligned in the direction of midwinter sunset. Because of a hill nearby, the actual time of sunset into a V-notch of the hill is premature when considered relative to a level sea horizon. The sunset direction is 226.5 degrees of north compared with a sea-horizon figure of 231.5 degrees for this latitude. A major planning consequence of this directed axis is that the great recumbent Stone 9 was positioned in the south-west of the Drombeg circle, whereas a position due west was chosen at other stone circles nearby. Thus at the stone circles of Bohonagh, Ballyvackey, Maulatanvally and Reanascreena the principal axis was directed east-west, and the pertinent horizons in the east are devoid of significant hills.



Figure 3. The carved phallus on the tall straight-sided Portal Stone 17 at Drombeg.



Figure 2. Plan of the 17 stones at Drombeg as surveyed by the author in December 2012. Shaded are male and female symbolic stones that either cast or receive meaningful shadows at sunrise on particular dates of the year. Stones 1 and 17 are 2-metre high portal stones. Stone 17 bears the ithyphallic petroglyph, and number 9 the vulva carving. Stone 14 is lozenge-shaped, and Stone 15 is the adjacent pillar stone. Regarding the missing original Stones 7 and 13, the excavator (Fahy 1959) set token replacements in their stone holes.

### The artwork at Drombeg Stone Circle

The male symbolic carving is 200 mm long (Figure 3) on the northern side of the tall straight-sided Stone 17 (cf. the plan in Figure 2). It was noticed by Austin Kinsley on 22 September 2016, and was the first carved rock-art phallus discovered for Neolithic and Bronze Age Ireland.

The open vulva is pecked into the horizontal flat surface of the great recumbent stone number 9, itself two metres long (Figures 4 and 5). The image was first recognized as such by the author in June 2012 (cf. Meaden 2014: 103).

Elizabeth Shee Twohig (1981: 123) and Edward Fahy (1959: 15), in the spirit of their times, reported that the carving had 'an axe-like outline'.

Both petroglyphs date from the age of use of the stone circle.

In terms of constructive analysis and discussion it is important to note that each carving was made on a megalith that itself has an outline characteristic of the appropriate gender.

### Male and female gender symbolism as lithic outlines

The reasoning initiated by Keiller and Piggott (1936: 420) when discussing the nature of the shapes of standing stones at Avebury in England is summarized by Isobel Smith (1965: 197, 251, and Plate 35) and further developed by other archaeologists including the present author (Meaden 1991, 1999, 2016 and 2017).





Figure 4. The vulva petroglyph on the recumbent stone, its top surface also vulva shaped.



Figure 5. Pen-and-ink tracing of the artwork on the recumbent stone.

Regarding Avebury, Isobel Smith (1965: 197) expressed a measured view of the outline shapes at Avebury with these words: ‘There are Type A stones which are much taller than they are wide, with sides more or less parallel and vertical, which are possibly male; whereas Type B stones are much wider, sometimes broader than their height and are possibly female. The latter are squarish,

rhomboidal, or trapezium-like, while the best have the shape of a lozenge or diamond balanced on a point.’

For Drombeg this would imply that the portal stones with their masculine-type characteristics are Type A (cf. the standing stones of Figure 1). By the same reasoning the pillar-shaped Stone 15 is male and the adjacent lozenge-shaped Stone 14 is female (Figures 6, 7, and 8).

The excavator of Drombeg in 1957 and 1958, Edward Fahy (1959: 5), wrote that the shapes of the pillar and lozenge stones ‘are taken to represent or to be symbolical of the male and female sexes and to be connected with a fertility cult. There can be no doubt that the inclusion of the lozenge-shaped boulder, with its roughly bulbous outer face, in the Drombeg circle, while plentiful supplies of pillar stones were freely available about the site, was a well considered act by the builders.’

The huge recumbent Stone 9 is diametrically opposite Stone 1. It bears feminine qualities through the depiction of pecked images and the nature of its smoothed, broad, flat-topped, horizontal form (Figures 1, 4 and 5). Boyle Somerville (1909: 108) was the first to emphasize, ‘the top of the recumbent stone appears to have been trimmed to a flat surface’. It was into this smoothed surface—itsself the outline shape of a vulva (Figure 4)—that the vulva carving and two cupmarks were pecked (Figures 4 and 5).

Isobel Smith (1965: 251) further wrote as regards Avebury: ‘if the A and B stones in the Circles and Avenue do indeed represent male and female symbols, the implication must be that the monuments were dedicated to a fertility cult.’

#### Stone-to-stone coupling by shadow

Understanding why selected standing stones at Drombeg, two of them engraved with fertility symbols, were paired in this manner is fundamental to the present enquiry, and shows how helpful rock art can be to twenty-first century CE scholarship.

Stone 14 is a fine lozenge-shaped stone weighing 3–4 tonnes (Figures 2, 6, 7, 8). Stone 15 is a short, narrow, straight-sided pillar whose weight is about 500 kg. When the sun rises in the east at an azimuth of 88–91 degrees east of north, which it does at the quarter days in March and September near and at the equinoxes, the shadow of the pillar Stone 15 is cast upon the middle of the lozenge Stone 14 (Figures 7 and 8). This planned spectacle was deliberately timed to be calendrical with respect to the second and fourth quarter dates (which approximate to the equinoxes).





Figure 6. Lozenge and pillar stones at Drombeg, stone numbers 14 and 15.



Figure 7. At sunrise 21 September 2012 the shadow of the male-like Stone 15 unites medially with the female lozenge Stone 14 (photograph by the author).

A few minutes later the shadow of the tall straight-sided portal Stone 17 with its carved phallic image takes its turn to unite with the lozenge Stone 14 and empower the fertility message for the watching community.

Besides these near-equinoctial occasions, union by other stones with the lozenge Stone 14 takes place on and close to predetermined calendar dates early in

February, early in November and at the winter solstice (Meaden 2016; 2017a, 2017b, 2017c)

Likewise, in the week of midsummer sunrise, portal Stone 1 is united by shadow with the vulva petroglyph on the recumbent Stone 9. The union of other stones of the eastern perimeter with the carved vulva on the recumbent stone occurs at and soon after sunrise





Figure 8. Photograph by John Davies, 19 March 2016.

for dates in early May, early August and at the March and September quarter days (i.e. quasi-equinoxes). These unions, as effected by shadows, have all been photographed. For illustration one example from among many is provided in Figure 10 for the sunrises at or close to 6 May and 6 August.

### Conclusions about meaning and purpose

Two megaliths of the 17-stone circle at Drombeg present fertility symbolism in the form of rock-cut carvings. One is an ithyphallus with testicles carved upon a tall narrow straight-sided portal stone (Stone 17). The other is a vulva carved on a flat-topped recumbent megalith (Stone 9) which is much wider than it is high.

At sunrise *on the day of the summer solstice* the shadow of the other straight-sided portal stone (Stone 1) is cast upon the vulva that is pecked into the recumbent stone. The union between Sun and this earthfast stone of female character has been witnessed and photographed by the author and colleagues several times. It amounts to a union of the sexes, articulated through watchable symbolic action by moving shadow. Hence it could intimate the fertility concept of Sacred Marriage between lithic representatives of male and female



Figure 9. Later in the sequence after sunrise the shadow of the phallic Stone 17 appropriately reinforces the union, seeing that Portal Stone 17 bears the carved image of a phallus. Author's photograph, 2017.

deities that can be appreciated by a comprehending audience.

At the pseudo-equinoxes of March and September (namely, the second and fourth quarter days) the sunrise shadow of a different male-symbolic stone (pillar Stone 15) falls in the middle of the adjacent lozenge-shaped Stone 14 (Figures 7 and 8). A few minutes later the shadow of Stone 17 with its engraved phallus couples with this same female lozenge stone.

For watching believers such stone-to-stone union by shadow manifests the act of coition—as if, for example, it was dramatizing an actual Marriage of the Gods. Such a consummation, similar to that of wedlock between male and female, suggests that the much-loved ancient worldview known in early historical times as the Sacred Marriage or *hieros gamos* was one of the major beliefs in prehistory of these farming communities. It is edifying that such a finding, arguably encoded in the stones as demonstrated here, can be deduced about an aspect of the otherwise unrecorded cultural heritage of this and other communities. Although it was a pre-literate age in Ireland, the people made good use of symbols and images. As a consequence, they left something of the knowledge of their culture, their beliefs and their religion that we recognize as explicable rock art.

### Conclusions about calendar and festival dates

It was through inspection and physical survey that the author made these discoveries following which he was



Figure 10. The shadow of the male-principle Stone 2 unites with the female carving on the right half of the recumbent stone. Author's photograph soon after sunrise on 3 August 2013.

able to make stone-to-stone shadow-casting predictions for this and other sites as regards the eight notable sunrise dates that recur annually (Meaden 2016). Such predictions were extensively tested at Drombeg and other sites in Ireland, Scotland and England from 2012 to 2018. Under conditions of clear-sky sunrises on or close to the relevant dates, these dynamic stage-sets—so carefully devised in antiquity—continue to be witnessed and verified by knowing visitors today.

Assigning the date of the winter solstice as Day 1 (21 December), the other quarter dates are Day 92 (22 March), Day 183 (21 June) and Day 274 (20 September). The eve of the winter solstice is Day 365 (20 December).

The cross-quarter dates fall between these quarter dates. They are Day 47 (5 February, ancient Imbolc), Day 137 (6 May, ancient Beltane), Day 229 (6 August, ancient Lammas) and Day 320 (5 November, ancient Samhain). All eight dates are recognizable in historical times as festival dates for farming communities nationwide across Britain and Ireland. Drombeg is a specially planned site where it further appears that 16 dates of the year, separated by 22-23 days, can be read back from the drama of the shadow-casting stones at sunrise.

### Conclusions regarding other sites in Cork and Scotland

Testing has been achieved at over 40 of the 60 recumbent stone circle sites in the counties of Cork and Kerry (Ireland) and 10 in Aberdeenshire (Scotland). Survey and research continue.

In West Cork, besides Drombeg, important similar sites (now called Type 2) include Currabeaha, Templebryan and Maughanaclea, while the east-west axial-diameter type of recumbent stone circles (Type 1) include Bohonagh, Ballyvackey, Carrigagulla, Derreenataggart, Maulatanvally and Reanascreena. In County Kerry Type 1 sites include Kenmare and Shroneberrane, while Drombohilly and Gurteen typify Type 2.

Figure 11 illustrates the planning devised at Bronze Age Bohonagh in West Cork as typical of calendrical intentions when based upon east-west axial symmetry for which a single receptive stone (the recumbent stone) serves for all seasons.

Additionally, in South-West Cork another rock carving of material consequence was found in 2018. On a 3-metre long straight-sided megalith at Glantane East in County Cork there is another Bronze Age carving of male genitals (Figure 12).

In England the sites of best interest are Stonehenge (see penultimate section below) and Avebury (Meaden 1999; Meaden 2016: 114-138, and Meaden 2017: 39-66).

In north-east Scotland stone-to-stone union by shadow at and/or after sunrise has been confirmed for several significant dates at the well-known monuments of Loanhead of Daviot and Easter Aquhorthies. These Neolithic sites are near Inverurie in Aberdeenshire.

As a prime example from Scotland the effect of sunrise and shadows at the Neolithic recumbent stone circle



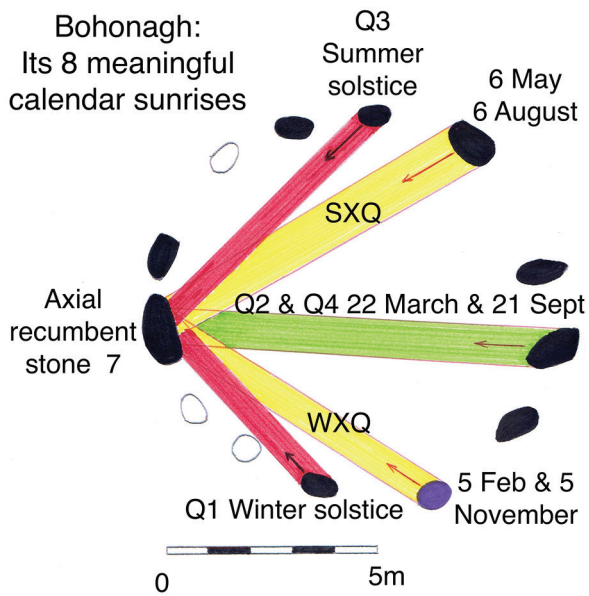


Figure 11. Author’s survey of Bohonagh Stone Circle, 2017. When the recumbent stone of this Type 1 stone circle is in the west (as here), it serves as the target at sunrise for shadow-casting at all the seasonal festival dates. By contrast, Drombeg (Type 2) needs two target female stones. This is because the recumbent stone in the south-west (Figure 2) serves only for the summer half of the year, so a second stone is needed for the winter half-year.

Easter Aquhorthies, near Inverurie, is demonstrated in Figure 13 for one of the 8 festival occasions of the annual round. This was taken at 0425 GMT (0525 BST) on 5 May 2018. Soon after sunrise the male-symbolic shadow of tall narrow Stone 7 completely unites with its neighbour, the female lozenge-shaped Stone 6. Observe the grand similarity of this photograph with those of Figures 6, 7 and 8 taken at Drombeg in south-west Ireland.

Support is ever advancing that the planning of many stone circles in Ireland and Scotland is calendrical and creatively linked to the drama of the rising sun via the concept of Sacred Marriage, while below it is explained for Knowth and Stonehenge too.

**Further support from sunrise analysis at Knowth, County Meath, at the second and fourth quarter calendar dates**

The great mound at Knowth, in County Meath, Ireland, is edged with richly carved kerbstones. The monument, raised in the fourth millennium BC, was conscientiously excavated during 40 years of the 20th century by teams led by Professor George Eogan of University College Dublin.

At the eastern side of the great mound is a gallery aligned roughly east-west. It is fronted at the perimeter by a kerbstone with carved vertical lines in the middle. A metre beyond the kerbstone a narrow straight-sided stone stands vertically. The author predicted that



Figure 12. At the left a phallic carving at Glantane Stone Circle, Ireland. Author’s photograph November 2018.





Figure 13. Unification by shadow of the neighbouring male and female stones (the narrow tall and the broad lozenge types) at Easter Aquhorthies in Scotland after sunrise at 04.25 GMT on 5 May 2018. Compare with Figures 6, 7, 8 at Drombeg. Photograph by Peter Cork.

alignments were such that at the second and fourth quarter calendar dates (the approximate equinoxes) the light of the rising sun would cast a shadow of the phallic stone upon the middle of the waiting recumbent stone.

To test the proposition, Professor John Atkins obtained for the author permission through the ministrations of the Office of Public Works of Ireland—encouraged by Professor George Eogan—to visit Knowth and Newgrange at sunrise in the week of September 2017 as the target date of 21 September approached. Figures 14 and 15 summarize the successful results obtained on the morning of clear sunrise on 18 September.

Thus, was devised the plan at fourth-millennium Late Neolithic Knowth several hundred years before third-millennium Drombeg—and at many other sites including third-millennium Stonehenge which is discussed next.

**Conclusions regarding the summer solstice at Stonehenge**

The two most important stones at Stonehenge are those that directly take part in the proposed fertility drama as demonstrated for Drombeg, Bohonagh, Knowth and other sites. They are the core functional stones, crucial for the planning. One is the Altar Stone at Stonehenge which was laid flat on the principal axis a little south-west of the exact centre at a point we call the focus.

The other major stone is not inside the monument. It is the Heel Stone that stands alone far from the stone circles (Figure 16). The functions of both stones are similar to those explained for Drombeg where a major



Figure 14. Knowth, eastern entrance stones. The shadow of the phallic stone at sunrise, 18 September 2017, is cast upon the middle of the waiting recumbent stone. The sunrise time was 06.17 UT or GMT, which is 07.17 summer clock time. Author's photograph.

straight-sided standing stone bears a carved phallus, while the recumbent stone bears a carved vulva.

Hence at Stonehenge the Heel Stone exhibits the male principle while the waiting recumbent stone signifies the female principle.

It is further significant that, as seen from the centre of Stonehenge when the observer is seated on the ground in front of the Altar Stone, the Heel Stone projects



Figure 15. The sun rising at Knowth (Ireland) through a gap in the trees. 18 September 2017. Author's photograph.



Figure 17. From the centre of Stonehenge, viewed from low down, this shows how the Heel Stone projects above the horizon. Author's photograph.

above the horizon (Figures 17 and 18). This allows the rising sun to cast a shadow of the Heel Stone into the middle of the monument in midsummer week because that is the only time when the solstice alignment comes right. 4500 years ago, the sun rose in line with the middle of the closest part of the long, straight, ditch-and-bank avenue. Today the sun rises a little more towards the south but that in no way impairs the great

drama which continues to take effect every summer. The author has observed the shadow of the external stone penetrating the monument several times since 1986, and photographed it (examples in Meaden 1992; Meaden 1997).

Coition of the two stones by the functioning male shadow takes place at sunrise in midsummer week



Figure 16. The Heel Stone (at left) stands alone 80 metres from the centre of Stonehenge whose outer stone circle is only 15 metres in radius. Why is the purposeful Heel Stone so far distant? Author's photograph.





Figure 18. This reconstruction (as used to be seen from the centre of Stonehenge) indicates how 4500 years ago the sun rose on the Stonehenge axis before being eclipsed behind the Heel Stone whose shadow then entered the monument. Author's photograph.

centered on Day 183, viz. 21 June—as illustrated by the photograph in Figure 19.

The oil painting of Figure 20 illustrates the resulting play of shadows at the focal centre where the shadow of the Heel Stone unites with the earthfast recumbent Altar Stone. At many dozens of sites elsewhere in Britain and Ireland the shadow-casting from pillar

stone to recumbent stone takes place in much the same way as expressed in the Stonehenge oil-painting. This elegantly explains the meaning of Stonehenge as a monument skilfully planned to be witnessed by the living in the context of a fertility religion. By contrast, Parker-Pearson (2012: 314-340) gives no explanation for the purpose of the Heel Stone and the Altar Stone, and claims that the 'nature and purpose' of 'Stonehenge was a place for the dead' (Parker-Pearson 2012: 314, 340, 343). One of the declared aims of his Stonehenge project was to learn 'just when and how Stonehenge had been used as a burial ground for the dead' (Parker-Pearson (2012: 50). He says how for a long time in the early years the site was a burial plot (using Aubrey Holes, after serving first to hold bluestones)—but this misses the core point, for much the same could be said of churches and cathedrals if they were alternatively beheld as planned only for the dead. Moreover, the Heel Stone is likely to have been designed into the initial scheme, circa 3000 BCE, because excavator Pitts (2008) explains that a 5-m long pit immediately north-west of the standing 35-tonne Heel Stone is likely to be the original hollow in which the stone naturally lay until moved to its current position. If so, then in the epoch when the first bluestones arrived, another was selected to serve as an early focus, much as the micaceous Altar Stone did later.

*The Irish Rock Art:* It is reassuring that these newly-reported and meaningful design reconstructions for Bohonagh, Knowth, Stonehenge, and many surviving recumbent stone circles examined in Ireland and Scotland on mornings of clear sunrise are so well grounded and supported by the discovery and analysis in the years 2012 to 2018 of the unquestionable fertility rock-art images now recognized for Drombeg Stone Circle. Moreover, the universal worldview of



Figure 19. Photograph taken by the author on 19 June 1986 showing the entry of the phallic shadow of the Heel Stone, thus fulfilling the Sacred Marriage or hieros gamos.



Figure 20. Stonehenge, painting of the interior showing the Altar Stone lying flat.

the Sacred Marriage—the *hieros gamos*—may explain the dramatic spectacle of moving shadow that is so beautifully manifest in the minutes after sunrise on pre-determined occasions of the year.

Fieldwork and analytical research continue on up to 60 of the axial recumbent stone circles known for Cork and Kerry. Explanations for all the surviving circles is well under way with the finding of an ever-lengthening series of proven facts and consequent ever-strengthening support for the inbuilt sunrise calendar.

### Conclusions regarding sites in ancient Thrace

Another paper in the present volume concerning ‘Anthropomorphic Images in Rock Art’ is by Dr Stavros Kiotsekoglou (2020) who considers the *hieros gamos* as known for Thrace in early times. This author finds, ‘In both the Neolithic and the historical period, the Goddess of Earth Fertility was depicted with a male partner, where the ritual mating ensured the smooth process of the cycle of vegetation and fertility with the known rituals of the sacred marriage.’

He continues, ‘The sacred space and the megalithic places’ orientation are always associated with the annual solar cycle. The sun’s adoration spread in Thrace during the late Bronze Age (12th century BC) and continued during the Iron Age (11th to 6th centuries BC). The sacred places of the Thracians had to be illuminated by the first rays of the sun ... The hierogamy presence

reflected in the dolmens of Roussa, Kila, Petrotopos (the feminine principle) is functionalized by the eternal light of the Sun when the solar ray penetrates in the womb (dolmen) through the hole of the slab, thus the authentic hierogamy.’

Thus, working independently in his Mediterranean country, Stavros Kiotsekoglou arrived at similar conclusions regarding a belief in hierogamy for pre-literate Bronze Age and Iron Age Thrace, much as the present author has done for the pre-literate Neolithic and Bronze Age peoples of Britain and Ireland.

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