

I saw *Sulis*

A new interpretation of the 'Gorgon's Head' of *Aquae Sulis*

I stood by the Great Roman Bath at Bath (see Figure 1) watching the sunlight on rippling water and steam. And I saw the Goddess. Briefly, in the steam, her face appeared: a fiery disc, haloed with coloured flames and thin shafts of rainbow-coloured light; her eyes large and dark in her contorted face. She was too bright to look upon. Startled, I moved and she was gone. What had I seen?

James W. Dodson I felt I knew, for nearby in the Museum is an image similar to that I had seen: the emblem of the Healing Spirit of this place, the unique sculpture known as 'The Gorgon's Head'. This, too, is a disc-like face, haloed by flames, with great staring eyes. Wings above the ears indicate its spirit nature and what appear to be snakes writhe above the head and below the chin (see Figure 2).

Scholars from Lysons onwards have seen this head as a symbol of Minerva, goddess of wisdom and of healing (*Minerva Medica*) because the snaky-haired Gorgon Medusa was slain by Perseus with Athene's (Minerva's) help, and the Head of the Gorgon was often portrayed on Minerva's aegis. Roman inscriptions from *Aquae Sulis* attest that here in Bath the genius loci was called both Minerva and '*Sulis*', assumed to be the Romanised form of the local Celtic name *Sul*.

But the 'Gorgon's Head' is not that of a woman, Medusa: it is clearly a moustachioed male. It has sun-like and non-Roman aspects. Suggestions have included a male Gorgon or a water god. Museum visitors seeing this head for the first time often comment that it is similar to the Green Man (the leafy face sometimes found carved in churches). Young children often say "It's the Sun". The flat face and lack of three dimensional rounding differentiate it from typical Roman carving. Similarities to La Tène masks have prompted the suggestion that the sculptor was Celtic; a Gaul, perhaps even the Chartreuse *lapidarius* Priscus whose inscription was found here in 1880s. The similarity of the words *Sul* (or *Sulis*) and Sol suggests the possibility of a Celtic sun god. The meaning of the symbolism is not clear.

How does my experience help? When I first saw the image that my brain interpreted as the face of the Goddess, it was momentary, but I have since repeated the observation and have shown the image to others. The phenomenon is real, but rare (see Figure 3).



Figure 1
The Great Bath of the Roman Baths at Bath (*Aquae Sulis*), now open to the sky. Note the steam from the warm water (~39°C).



Figure 2
The glowering face of the
'Gorgon's Head' from the
pediment of the temple of
Sulis Minerva, Roman Baths,
Bath. Note the flat, disc-like
face with halo of flames.

As a scientist, my hypothesis is that the image I saw was of the sun, reflected and refracted by the water droplets of the steam. For it to be seen, conditions must be exactly right. There must be little wind, the temperature low enough for there to be a lot of steam, and the angle of the Sun and the height and position of the observer must be just 'so'. If these conditions are met the light from the Sun can be reflected from the water's surface and be scattered from the steam droplets so that it enters the observer's eye. The observer's brain may then interpret the disc-like image seen in the moving steam as a face, the moving spectral colours in the wispy steam as flames and the straight rays of reflected and refracted light as rainbow darts. In the misty mountains of northern Britain, a related phenomenon is known as the Brochan (or Brocken) Spectre.

My original interpretation arose because brains recognise patterns and compare new ones with memories of shapes previously seen, then assess their significance to the observer. When the information is not sufficient for the shape to be matched to previous memory, the brain makes hypotheses, guesses, as to which interpretation is most likely. The brain interprets the poorly-seen new unknown shape as a shape that it has seen before and whose significance is known. For humans, as social animals, the face is particularly important. For example we can recognise a face we know from among hundreds of others. So in the instance described here, my brain interpreted the disc-like image as a face.

My 20th/21st Century mind, conditioned by its education and adapted to urban living, is likely to put meanings to sensory stimuli that are different from those of Ancient Romans or Iron Age or Bronze Age people. All neurones function similarly, however, and there are probably features of interpretation that are common to the brains of all *Homo sapiens sapiens*.

Because the phenomenon I experienced was real (though rare) and is repeatable, and because the image that I saw and interpreted as the face of *Sulis* was similar to the Gorgon's Head, and because my brain mechanisms are likely to be similar to those of all human brains, I suggest that the phenomenon will have been experienced before. The description, however, given by people who came to the warm springs two to three millennia ago, would not be in terms like reflection and refraction and pattern recognition, but in words known to them: face; flames; colours; bright. They also might interpret the disc-like image as a face and so perhaps as the Healing Spirit of the place, *Sul*. I suggest that such lore would be known to the Celtic sculptor and was incorporated into his representation.

Thus, my observation is that very occasionally, if conditions are just right, a bright, rainbow-flashing disc can be seen that my brain interpreted as the face of The Goddess. My interpretation as a scientist is that this was an image of the sun, reflected and refracted in the steam. My hypothesis is that this phenomenon has been seen occasionally over thousands of years and reported as the face of the Healing Spirit *Sul*, and that such stories were utilised by the sculptor of 'The Gorgon's Head'.

So this unique sculpture is not just a symbolic representation, but is based in part on a real natural phenomenon peculiar to the hot springs of Bath.

Bibliography

Barry Cunliffe's books (1969 & 1984) are useful to start reading about the archaeology and for an entrée into the literature. The premise that the brain erects hypotheses was advanced by Richard Gregory (e.g. 1997). 'The Gorgon's Head' has been interpreted by, *inter alia*, Collingwood (e.g. 1937), Henig (e.g.1995), Hind (1996), Stewart (1980) and Toynbee (e.g.1962).

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Acknowledgements

I thank all those who have contributed to discussions, particularly Michael and Elaine Appleby, Stephen Bird, Stephen Clews, Jonathan Marron and Valerie Wolfkamp.

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Figure 3

Glimpse of Goddess' face in the steam of the Great Bath. The central round less-distinct image is the closest that the camera gets to what my brain saw. Her lancing beams of rainbow light are not captured.

