

3. OOD



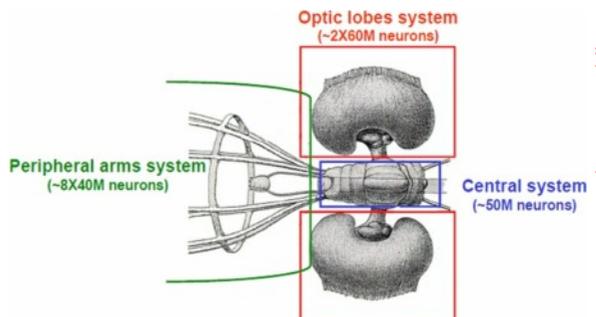
Ood at the Doctor Who Experience, Cardiff. 11 July 2008. Image: Paul Hudson, <https://flic.kr/p/53XZbg> (CC BY 2.0)

First seen in *The Impossible Planet* in 2006, the Ood are a race of telepathic beings, who are enslaved across the galaxy. In 2008's *Planet of the Ood*, we learned that slave trading firm Ood Operations control them in part by confining the large, separate Ood brain that telepathically links the Ood. Ood Operations 'process' the Ood by removing their hind brains, which are responsible for memory and emotion. Are multiple brains possible? In a sense, yes.

It's a shared mind, connecting all the Ood in song. – *Planet of the Ood*

Perhaps the only animal with a comparable attribute is the octopus. In addition to its main brain, it has highly developed neurons in each of its arms, which allow each arm to act independently, acting like smaller brains. During movement, for example, the central brain tells the arms where to point and how far to stretch. The combination of muscles that are used and how the arm bends is organised by the neurons in the arm itself, in the arrangement of the peripheral neurons and the ganglia in the arms. The arms create their own bends to act as joints by the contraction of muscles. Octopuses have hydrostatic skeletons composed of fluid and muscles. As fluid can't be compressed, it provides rigidity.

There are around 320 million neurons in the arms' nervous system, while the brain contains only 50 million neurons of around 500 million neurons total in the whole body. This shows that the arms must have some degree of intelligence, and can act autonomously. Indeed, the arm suckers secrete chemicals that prevent the arms from grasping each other, because they act separately and don't have a somatotopic area of the central nervous system. This area of the brain informs it where its constituent body parts are, and so without one, its arms may grab each other when instructed to reach for objects. The arms can





Ood, minus globe and hindbrain, at the Doctor Who Experience, Cardiff, March 2016. Image: Georgia Harper and used with permission.

still move even when amputated, and make complex movements, showing that the arms have a large role in co-ordinating their own movement. However, all these movements exhibited by the octopus's arm ganglia are equivalent to areas of the main brain, such as the motor cortex, in other organisms such as humans.

There's a low level telepathic field connecting them. Not that that does them much good.

– *The Impossible Planet*

Overall, this makes the use of multiple brains in **Doctor Who** quite realistic, as the main brain of the Ood was where thought occurred, and delegated emotion and memory control to the hindbrain. The principle of a main, central brain being separated into smaller brains, or groups of neurons, with different functions is perfectly possible and, as has been discussed, occurs in the animal kingdom. However, a telepathic, separate brain that is linked to all Ood is so far a fantasy. Unlike the Ponds in *Pond Life*, we are unlikely to enjoy our own private housekeeping Ood anytime soon. But now this article's song is ending, and the universe shall sing it to its sleep...

Ood for thought

Tom Marshall



THE OOD NUMBER AMONG THE GREATEST CREATIONS OF **Doctor Who's** 2005 relaunch. They represent the new series' most coherent engagement with the idea first established in *The Sensorites* (1964): that those who seem monstrous can be kindly and gentle, and are probably more afraid of the Doctor and other humanoids (and by extension us viewers) than we are of them. They stand for one of the most triumphant, punch-the-air moments in the show's entire history, when they stage their own revolution against the evil corporation which enslaves them without the Doctor's help. The Doctor and Donna are allies and bystanders in *Planet of the Ood* (2008), which would have unfolded almost identically without them. They are an emblem of one of the greatest instances of the show criticising itself — notably how it failed to properly address, investigate or characterise the Ood in their debut appearance — and then doing something about it. And lastly, of course, they're a fabulous design: icky enough to make us feel deeply uncomfortable about realizing we're judging them because we find them ugly. They've been patchily used since 2008, slotting into the 'Magical Negro' trope, though 2011's *The Doctor's Wife* does at least voice my own position: 'Love an Ood!'

Image: detail of Ood by Danie Ware, Flickr. (CC BY-NC 2.0)