

“Biojewelry”: Grow Your Own Bone Wedding Rings

Several years ago, Tobie Kerridge and Nikki Stott, design researchers at the Royal College of Art, and Ian Thompson, a bioengineer at King’s College London, teamed up to create wedding bands from bone cells extracted from five volunteer couples.



According to a [BBC News article](#), “The scientists extracted the participants’ wisdom teeth to get at a sliver of bone that attaches them to the jawbone.” After extracting the bone cells for culture, “These are fed with nutrients and grown on a ‘scaffold’ material called bioglass, a special bioactive ceramic which mimics the structure of bone material.” It was a “long and fragile” process, but basically took place in the following steps:

The process

- 1. Extract bone chips from jaw. Rinse.*
- 2. Place bone cells in ring-shaped bioactive ceramic scaffold.*
- 3. Feed liquid nutrients and culture in a temperature-controlled bioreactor for six weeks.*
- 4. After coral-like bone forms fully around scaffold, pare down to final ring shape and insert silver liner (for engraving).*

Harriet Harriss, one of the participants, says: “I love the idea that it’s precious only to us because it is, literally, us. It’s almost worthless to anyone else. To take something that is from myself and make it into something precious is a lovely thing and means quite a lot to me.”

Of course, there is more potential for this project than just offbeat wedding rings made from the beloved’s own bone cells. It could eventually be used to grow bone

replacements for implantation, so that the bone required to, say, repair a damaged jaw, wouldn't have to be harvested from a piece of a rib, or elsewhere in the body. "Dr. Thompson says he thinks it will be used in clinical practice, but not in his lifetime."

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