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## Not Aliens, Just Humans with Modified Crania

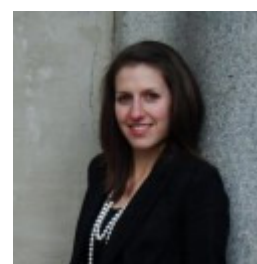
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Cranial deformation has been the cause of much debate and fascination. The unique shape of the skulls from the Nasca even inspired the most recent Indiana Jones adventure. The elongated skulls and flattened foreheads have created speculation of evidence of aliens or satanic practices. Even this past year, the Daily Mail claimed that [skulls found in Peru were potentially those of extraterrestrials](#). According to the article there are three anthropologists that all agree that these are not human. However, we know that this practice is not only easy to accomplish in humans, but also continues in cultures today (even our own). Moving beyond psuedoarchaeology claims, scholars have still been debating the reasons and methods behind the deformation for hundreds of years. The [December 2010 publication](#) from the Journal of Neurosurgery discusses cranial modification from a number of perspectives.



The basic architecture of the human skull is made up of six

### About the Author



Katy is an anthropology PhD student who specializes in mortuary archaeology and bioarchaeology at Michigan State University

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Elite pre-Incan tomb found in Peru, 1,200

bones, the occipital, the frontal, two parietal and two temporal bones. While the skull itself is solid in adulthood, the cranial bones of children are malleable. The reason for this is to allow for growth of the brain and head throughout childhood. However, if pressure is applied in certain areas for a long duration during childhood, the shape of the skull can be changed. The bone will slowly ossify into the shape that it is pressed into, making it a permanent feature. Enchev et al. (2010) even note that there likely wasn't any major neurological damage. Most modified skulls are from adults and old adults, suggesting that it doesn't create permanent damage.



Cranial vault modification can be achieved through a number of means. Enchev et al. (2010) discuss two types of modification: tabular or annular. Tabular, or "flat-head" modification involves compressing the frontal and occipital with fixed, erect boards or pads. This creates a lateral bulging of the head. A variation on this is when vertical boards are placed higher up on the back of the head to produce more upright modification. Annular modification is produced when bands are wrapped

around the forehead and the back of the skull to force the bone to grow upright. Examination of modified crania show that they often vary by individual, attributed to the nature of bone growth and idiosyncratic variation in the application of bands and boards.

Another common term applied to these skulls is cranial deformity, however this term implies that the shape was unwanted or a malformation. Cranial deformities more accurately reflect the change in shape due to the birthing procedure or accidental distortion. One example of this is when infants are strapped to cradle boards, a practice often found in indigenous American populations as a way to protect the neck of the infant during travel.

However, it is unlikely that the changes found in the skulls of Peruvian and Egyptian populations are due to accident. This leads to the question of intent and purpose. In order to understand the reasons for the change, it is important to

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look at the social and political context of the practice, as well as the identity of the individual and their place within society. Ayer et al. (2010) argue that deformation was a sign of political and socioeconomic status. In support of their hypothesis, they examine a selection of modified crania in Peru and Egypt.



The earliest modified skulls in Peru date between 6000 and 7000 BCE, with the majority of remains from this period showing signs of deformation. There is potential evidence between 1350 to 1200 BCE in Egypt. It has only been found there in elite individuals, and doesn't appear to be a widespread practice. Ayer et al. (2010) argue that the modification was a literal symbol of being the head of the state. Romero-Vargas et al. (2010) discussed the role of modification in the Maya. In the classic Mayan period, 250 to 900 CE, cranial modification consisted of creating a more erect frontal bone using compression pads. A 16th century Spanish chronicler, Gonzalo Fernández de Oviedo, asked the Mayan why their heads were a different shape, and the reasons behind the modification. They responded: "This is done because our ancestors were told by the gods that if our heads were thus formed we should appear noble and

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handsome and better able to bear burdens". Romero-Vargas et al. (2010) argue that the practice has religious and sociocultural meaning, and it is an integral part of someone's identity.

While the cranial modification issue from the Journal of Neurosurgery does discuss a number of really interesting topics, they do not explore the issue in any depth. Modifying the cranium is a major undertaking and occurred in a variety of cultures through different forms and methods. However, it continues today in order to create the perfect shapes. See Kristina Killgrove's post on [cranial modification and its modern occurrence](#). It is important to look at the cultural background and compare it against other occurrences. Currently there is only speculation as to the reasons and purposes of the modification.

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Blogging

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PMID: [21121715](#)

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## 6 thoughts on “Not Aliens, Just Humans with Modified Crania”



**retrieverman says:**

December 22, 2011 at 11:07 am

You mean Lloyd Pye is full of it? LOL

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**Neil Bates says:**

December 22, 2011 at 9:42 pm

Does the CM practice cause the brain to grow to fill the increased space? If so, how does that affect mental functioning and brain health? If not, and there's extra fluid etc ... I suppose I could ask the same question.

“Fine minds make fine distinctions.”

[Reply](#)



**Katy Meyers says:**

December 23, 2011 at 10:05 am

From what I read in the Journal of Neurosurgery, the brain doesn't appear to actually change too much. Since the practice isn't really continuing its difficult to determine whether brain function was affected. However, since they grew up to be adults it obviously didn't affect them too much. It's an interesting question! Maybe we can get some input from medical people.

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**Lael Hitz says:**

January 29, 2012 at 12:13 am

What about the skulls that have a much larger cranial capacity than most modern humans? I realize some of these could be hydrocephalic. Can the shaping process stretch the cranium enough to account for this? On a side note, I have seen a man in Peru, where I live part of the time, who has a skull shape similar to some of the ancient ones that are supposed to have been modified. If I get a chance I will ask him about it. He is a school teacher. He does look shockingly like the Paracas skull labeled “Premodern” on this page: [http://www.world-mysteries.com/sar\\_6.htm](http://www.world-mysteries.com/sar_6.htm)

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## About Me and BDL

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### **About Me:**

I am currently a graduate student studying mortuary archaeology at Michigan State University. My academic interests are in mortuary and bioarchaeology, with a specific interest in connecting the physical remains to the mortuary context. Along with this, I am also interested in Digital Humanities, and the integration of technology into academia, as well as public archaeology and outreach.

### **About Bones Don't Lie (BDL):**

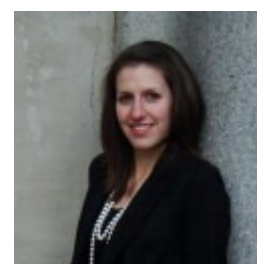
This blog was created to serve as a way for me to keep up to date with current mortuary and bioarchaeology news, as well as a way to work on my own scholarly writing. Since then it has evolved into a way for me to explore a variety of regions, theories, interpretations, perspectives, and methods in the discipline.

I try to give a number of perspectives and never favor one view over another, but sometimes (due to lack of time or knowledge... I mean, c'mon, I'm a grad student) I miss something important. I openly encourage people to contact me with resources and alternative viewpoints. I will gladly write new posts updating old ones. In fact- this is one of the most important parts of blogging. Blogs are a way of opening the dialogue to the greater world. So please, feel free to contact me and I will do my best to make BDL a balanced and informed blog.

### **Contact:**

## About the Author

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