

Virtebra @ UWF

~ Virtual Bones & Artifacts Lab



3D Printing Homo naledi
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Posted by [mvoas](#) in [Paleoanthropology](#)

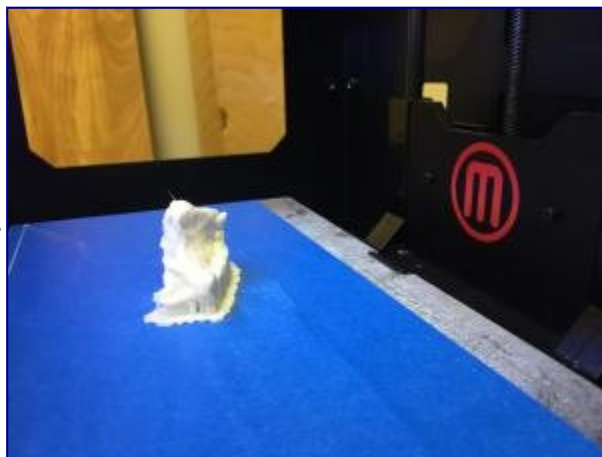
Tags

[homo naledi](#)

Before discussing the 3D printing of *Homo naledi* here at [Virtebra @ UWF](#), I should first introduce myself. My name is [Maddeline Voas](#), and I am a Biological Anthropology graduate research assistant in the Anthropology department here at the University of West Florida. I am responsible for creating and printing 3D models of skeletal materials and artifacts for research and teaching purposes during the 2015-2016 academic year.

*Maxillary fragment of
Homo naledi*

For those of you unfamiliar with the recent discovery of the new South African hominin *Homo naledi*, you can find more information from [here](#) and [here](#). This



exciting news became public early this month and shortly after this announcement, 3D models of this hominin were accessible to the public through [MorphoSource](#). Dr. Killgrove used the Makerbot Replicator 2X to print *Homo naledi*'s [first metacarpal](#), a portion of the [calvarium](#), the [mandible](#), the [right proximal femur](#), and a [maxillary fragment](#).

Shown: painted proximal femur, first metacarpal, and mandible

After 3D printing these models from MorphoSource, they were painted in an effort to appear more realistic. Fortunately, MorphoSource had both color and mesh scans for each element. It was convenient for painting purposes, primarily because I was able to reference the color scans when painting to achieve the most realistic look.



Here at Virtebra, we use Makerbot PLA filament. I find that acrylic works the best when painting 3D prints that used this plastic filament material, and in this case Liquitex basic acrylic paints were used.

The plastic replicas that were printed can be used for teaching purposes, and they have already been shown in a classroom setting here at UWF. Painting these plastic replicas makes them almost appear realistic. I find that the additional step of painting *Homo naledi* elements truly enhanced the overall appearance of the prints.

