

The *Cretaceous* is a geologic period and system from 145 ± 4 to 66 million years (Ma) ago. In the geologic timescale, the Cretaceous follows the Jurassic Period and is followed by the Paleogene Period of the Cenozoic Era. It is the last period of the Mesozoic Era, and, spanning 79 million years, the longest period of the Phanerozoic Eon.

In Generative Design we can compare the production of forms through CAD to this creative period of generation in the geological and Palaeontological history of the earth. Forms of life adapted to data provided by the environment which altered their structure depending on which survival mechanisms were the most effective. Like wise we try to generate designs which are most suitable and effective for our environments.



Cretaceous Forms



Continental formations in the Cretaceous Period.



Ocean specimen inbedded in rock.



Fossilised Organism.

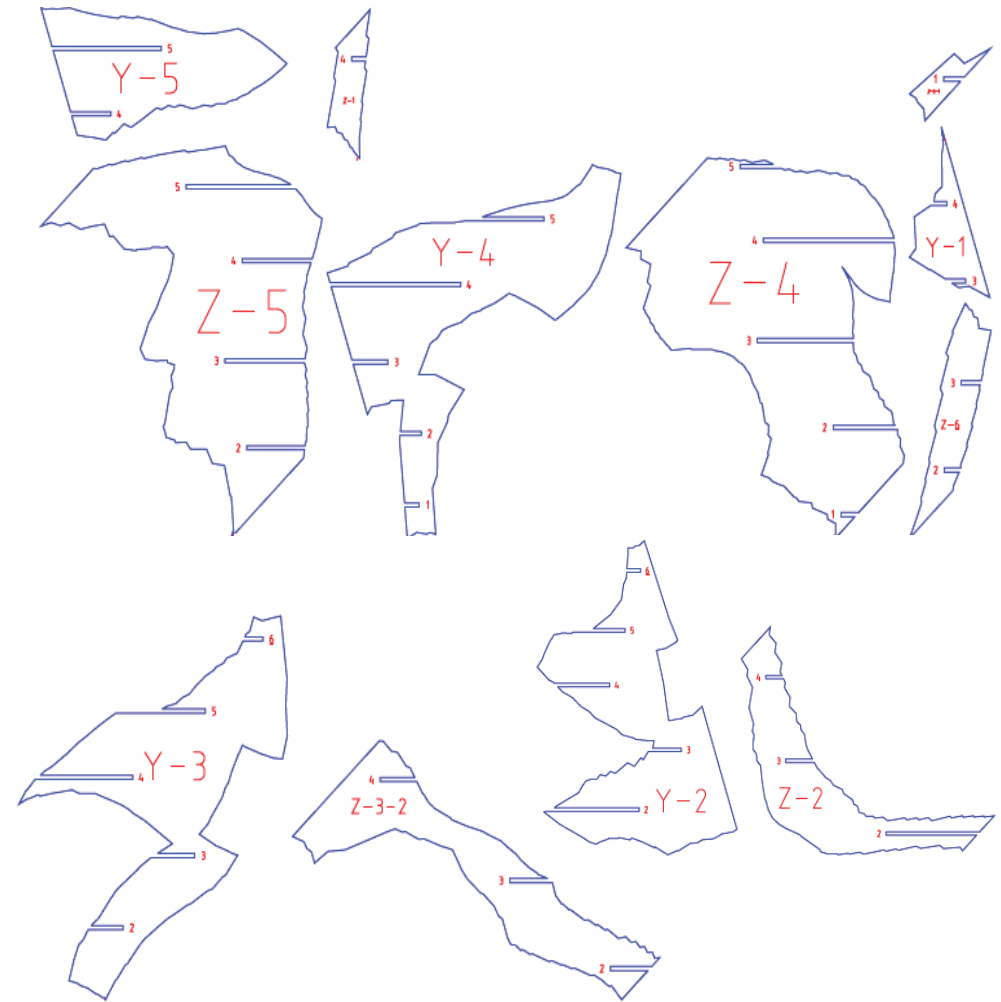
Cretaceous Shelf

While Producing the Shelf with CAD there were certain unknown variables.

1. The Rhinoceros file is baked in Grasshopper then exported to 123DMAKE. The mesh structure is transformed in a 3D FORM WITH SURFACE A APPLICATION.
2. In 123DMAKE after setting the materials and size, the construction method is selected. In the case of this Shelf interlock has been used.
3. From here Keeping the original form is difficult because it depends on the number of Z and Y AXIS pieces that the program can manage to calculate and accurate and working construction.

I noticed that the form that each piece took began to resemble continental land formations on the earth's surface. overall the structure also resembled geological rock formations, like layers of sediment which occasionally are set in interlocking grid formations. These natural grid formations were also created through enormous forces of shifting earth. With in these sediments we also find the origin of species fossilized in the ancient layers of formations.

Using the observation I have named this shelf,
THE CRETACEOUS SHELF - resembling this historic era of generative nature.



Cretaceous Shelf



Laying on natural Geometric axis.



Standing on measured Geometric axis.

Ideally The Cretaceous Shelf would function as a display unit for Geological specimans, Globes and other artifacts associated with the earths ecology and natural history.



Functioning as a Standing Shelf.

*Jesse Hogan
1215331*