

Visualizing the Scale of Anthropogenic Mass

In 2020, the amount of anthropogenic mass exceeded the weight of **all global living biomass**.

... And nearly **half** of that was concrete!

1120 Gt

Global Biomass

The dry weight of all life on Earth is comprised of plants, animals, bacteria, fungi, protists, archaea, and viruses, too.

All humans make up **~0.01%** of global living biomass.

Humans

1154 Gt

Anthropogenic Mass

Here is everything the human population has created since 1900 to 2020.

1 Gigaton, Gt (1 thousand million metric tons)

549 Gt

Concrete

Concrete is the most frequently used building material and the second most used substance in the world, after water.

92 Gt

Bricks

Approximately 1500 billion bricks are produced each year. More than 85% of this annual production comes from Asia.

386 Gt

Aggregates

i.e. clay, sand, gravel

Aggregates are particulate materials used in construction. Some examples include sand, gravel, crushed stone, and slag. Aggregates are the most mined materials in the world.

39 Gt

Metals

Since the Bronze Age, metals have become increasingly prominent in human culture. Iron is the most commonly used metal, found in alloys like steel.

65 Gt

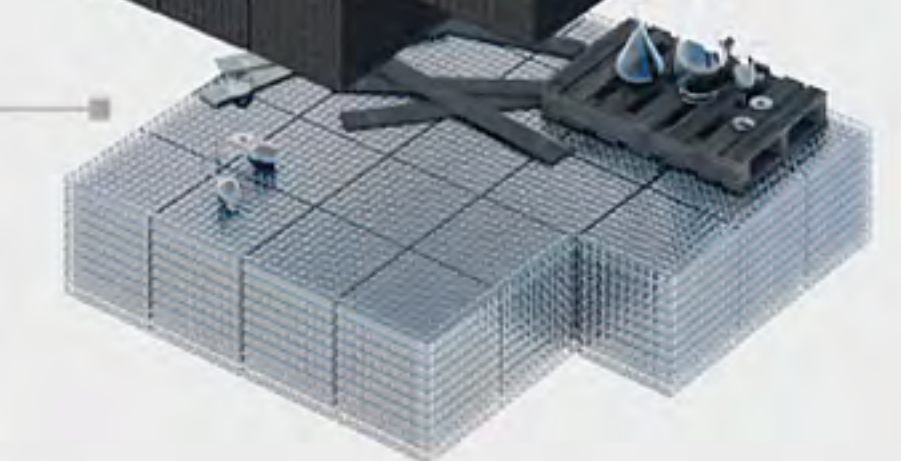
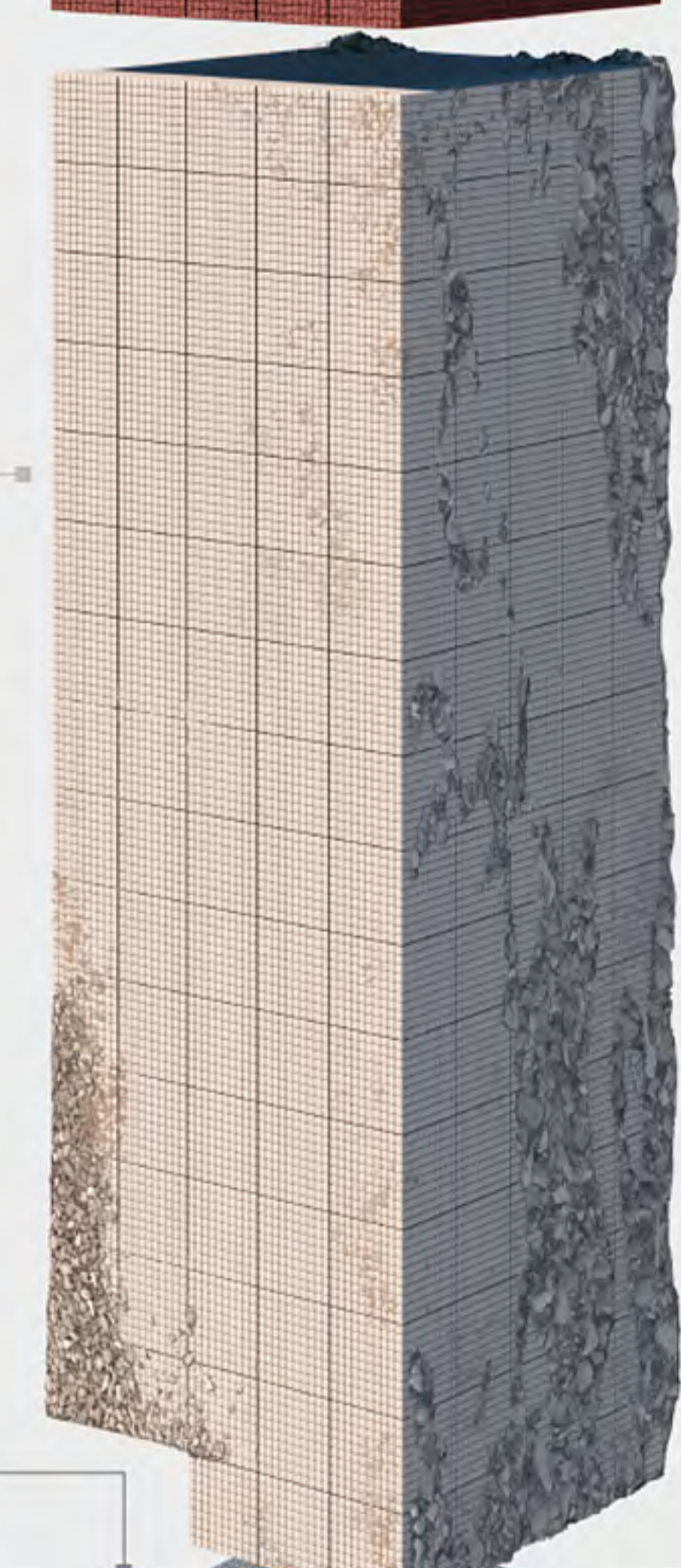
Asphalt

Also known as bitumen, asphalt is a semi-solid form of petroleum commonly mixed with aggregates to form roads.

23 Gt

Other

i.e. wood, glass, plastic
All plastic (~8 Gt) has now more than doubled the total weight of the entire Animal kingdom.



Anthropogenic mass values are taken from E. Elfracton et al., Nature (2020).