

*Natura Artifex* or Nature the Artisan was an image used in Medieval times to convey Nature's role in a three tiered system of creation. This included the works of God, Nature, and human beings. She was portrayed as a finely dressed woman wielding iron and hammer over anvil, forging her creations, the trade of the blacksmith. In this hierarchy she was situated between God and man, a bridge between sacred ideal forms and matter. This was an emblem of a new philosophy, symbolizing man's ability to improve upon the materials of nature. Matter, ennobled by the art, through the imitation of the Great Creator.

Math was considered divine truth. A discipline whose foundational principals never changed; a triangle always has three sides. To the Greeks, to study math was to study the highest art form, as it brought one closer to God(s). To them even the fundamental building blocks of our universe consisted of perfect geometric forms, the five Platonic solids. This belief in a geometric, systemic universe was born in house of Greek philosopher Plato, and was a foundation stone for leading scientists, sovereigns, and societies well into the 17th century.

Our perception of God was born from this idea, but as our understanding of the Universe shifted, so would God. From divine truth untouchable by man with God as the Geometer, came nature as the machine, perfect and predictable and so God became a mechanic. If man were to study the quadrivium he would be closer to God. A scholar of the quadrivium was a scholar of the divine: arithmetic, geometry, music, and astronomy. If God the Geometer created the world according to harmonic and mathematical principals, searching out these foundational truths was a quest for God.

Craft became an integral part of this quest, as the image of Nature as Artisan emerged, man was compelled to improve oneself through the imitation of both God and Nature. Sovereigns would learn to turn on an ornamental lathe as part of their education and courts would employ a turner whose sole job was to make beautiful things, the Coburg ivories exemplary illustrations of such. Princes devoted countless hours to the creation of objects spun from fine white bone into gossamer forms that could be used as tools to understand the nature of the world. Here in these towering spires of ivory was God as the Geometer and God as the Turner. To the Medieval Prince, whose job was to be a perfect ruler, God had turned the world, a perfect sphere on a lathe.

What followed was man's quest to imitate God the mechanic at the highest level. We created mechanical artificial life to entertain us and test the limits of our cognitive capacities. These beings were created with a hammer and anvil, fire and metal. They were crafted from earthly materials and made to imitate our natural world. It was the craftsman that had the skill of nature, the ability to shape raw materials into miracles.

With ingenuity and design came reflection on our place in the universe, the tilt of the earth's axis, precision and predictability, and the limits of our cognitive capacities. We engineered mechanisms to animate the dead, control the masses, play music, calculate longitude, defy gravity, map the movements of celestial bodies, and destroy living organisms by the millions.

To be seen as a finely skilled artisan was a prized title. A masterpiece referred to that, which an apprentice would make to earn their title of Master. This applied not just to the painter, but also to

the watchmaker, the clockmaker, the sculptor, the turner. Today craft is a general term, its meaning diluted and value unknown. A true craftsman has devoted their life to the perfection of skill in their practice. There are few left who can impart the skills and principles of their tradition to those committed to learning.

As an antiquarian horologist and turner, I am aware of just how much of the information behind the creation of these objects is now lost. It takes skilled hands and a certain temperament to do this work, and to do it well is the result of thousands of hours of bench practice, study, extreme focus, and complete dedication. There are few left who really understand the work, the craft, and the subtle details. I have been privileged to share a bench with some of them. Others I have met only in objects, their hands leaving behind traces a trained eye might recognize.

These objects were born from our desire to know the sublime, that true feeling of greatness, whether moral, physical, spiritual, aesthetic, artistic, or intellectual. Something beyond imitation, calculation, and measurement. An experience that takes us beyond ourselves of both pleasure and terror. Our limited human capacities continue momentum in that direction. Our machines have evolved from clockwork simulations of life to artificial minds at the margins of an intelligence unlike anything we have ever known. We are on the verge building the last machine we will ever have to make.

Yet, something so necessary almost seems to have vanished. The craft and the story of our shared journey feels absent in the modern age. We seem unconcerned with these precious artifacts of the past that serve as critical mirrors. These objects made to reveal the passing of time, our clockwork simulations of natural and ethereal worlds, our devices for detonating the first manifestation of manmade existential risk.

I turn these ideas over in my mind countless times - the layers of hardship and dreams of our ancestors who gave everything to such pursuits. Our future as a species is on the brink of absolute security or extinction and these machines we have chased for centuries are finally finding awareness. From God as the Geometer, creator of divine truth (math), comes our modern pursuit of a new "God", an artificial intelligence who will solve all of our future problems, climate change, hunger, our dying sun, who will be born of that same knowledge.

My practice is a reminder of our roots in craft, a return to divine knowledge and *Natura Artifex*. Craft is a rebellion against the fast and quick work of rapid prototyping and design. In my field I work with machines that are hundreds of years old, both in the making of new objects, and the in the preservation of old ones. I have been given a torch that I must carry and pass to future generations. If I do not wish to be the last of my kind, I must ensure that I safeguard and validate my field in the modern day. Each pass of my file, mark of my graver, and blow of my hammer must pay homage to those that came before. I must carry the knowledge and understanding of the objects my predecessors left behind to know how to make something good enough to stand beside them in the future. To put it simply, the worth of each object I make must outweigh the value of the raw materials that comprise it. My hands must shape those materials into something more precious than the sum of its parts.