THE SEVENTEENTH CENTURY PHILOSOPHER and statesman Sir Francis Bacon (1561-1626) was one of the earliest and most forceful iconoclasts to serve modern science. He initiated the campaign to identify and stomp out the causes of “errors, sluggishness, and ignorance,” the “idols” that hold sway over man’s conceptions: Idols of the Tribe, the built-in effects of the human understanding; Idols of the Cave, the biases of each individual, according to their different natures, education, or experience; Idols of the Marketplace, false ideas that come from the imperfections of language; and Idols of the Theater, the “received systems” of established philosophy, which are “but so many stage plays.” Of these he wrote: “your learning is like the banquet of the Chalcidian host. When his guests asked where he had found such a variety of game, he replied, ‘The variety is only in the sauces, the meat is a pig from my own backyard.’”

In his new program of moral and philosophical hygiene, the intellect would be “made clean and pure from all vain fancies.” But while he refused the monotonous, impure, and “swinish” fare of Aristotle and the schools, he was far from leaving philosophy with an empty plate.

Destroying an icon creates a void that needs to be filled. Bacon established a set of methods by which “a true and copious history of nature and the arts [shall be] collected and digested,” based on simple “instances” and “particulars;” these formed the base for a new “statue of philosophy.” To find an overarching symbol, or cosmogram, to house these new facts and the society they would organize, Bacon turned to an old source: Scripture, and in particular, Exodus.

His utopian narrative, New Atlantis, depicts life on the uncharted isle of Bensalem, a society devoted entirely to charity and to knowledge of God’s works. The Fathers of Solomon’s House – a palace/museum/laboratory, whose goal is “the knowledge of Causes and secret motions of things; and the enlarging of the bounds of Human Empire” – are Bensalem’s researchers, moral authorities, and patriarchs. They conduct experiments and display collections, inventions, and discoveries that would put the World Expositions of the nineteenth century to shame.

The rites and symbols of this imaginary order were rooted in Biblical imagery. Here is Bacon’s description of the arrival of the Governor from Solomon’s House: “He was carried in a rich chariot without wheels, litterwise ... richly trapped in blue velvet embroidered ... The chariot was all of cedar, gilt ... and on the top before, a small cherub of gold with wings displayed.”

The procession directly recalls the materials for the Tabernacle, as dictated with great precision by God on Mount Sinai and later built by Moses and the Israelites, in a scene immediately following the destruction of the Golden Calf. This portable temple housed the Ark of the Covenant within curtains woven of “fine twisted linen, and of blue, purple and crimson yarns;” the ark was crowned by cherubim. The whole structure could be taken down, fitted on acacia rods, and, like the governor’s litter, carried through the desert.

Bacon had solid scriptural reasons for identifying the central building of his technocratic utopia with the Tabernacle. The Tabernacle resolves the essential tension running throughout the first two books of the Bible, between accused innovations attempted without Divine sanction, and blessed co-creations legitimized by God. By eating of the Tree of Knowledge, building the Tower of Babel, and worshipping the Golden Calf, humans vaingloriously overstepped their bounds and rivaled God’s knowledge and power; on the other hand, when Adam named the beasts, Noah built the Ark, and Jacob set up a pillar to commemorate his dream of the ladder, humans humbly used their knowledge, skill and labor with the sanction of God.
A final balance between human and divine creation is reached with the Tabernacle. It is the fruit of the Hebrews' higher technologies: "work in gold, silver and bronze, in cutting stones for setting, and in carving wood ... every kind of work done by an artisan or by a designer or by an embroiderer" (Ex. 35:31-35). But unlike the accursed innovations, this is labor ordained by God and conducted, six days out of seven, for God's glory and for the good of God's chosen people. When it is assembled according to God's instructions, God appears among them: "the cloud covered the tent of meeting, and the glory of the Lord filled the Tabernacle" (Ex. 40:34-35).

We can see Bacon as a new Moses. He destroyed the Golden Calf of philosophical illusion and established the plans for a legitimate Tabernacle. Like the Tablets of the Law in the Ark—a classification of places, people, actions, and foods into put and impure—Bacon's first commandment was "to set forth Tables of Discovery ... formulae of a legitimate mode of research ... a visible embodiment of the work to be done." Likewise, he called Solomon's House the "College of the Six Days' Labor." Here, as in the Tabernacle, humans would weave together their "literary experience" to regain the dominion they had lost over the earth before the Fall. Knowledge would be a collective pursuit with external consequences. Bacon brought about a paradigm shift within theology: his natural philosophy is a pious duty, a new, humble form of worship and charity, as he put it, "Nature cannot be conquered but by obeying her." Patient recording of the facts of God's creatures allows for new inventions that will bring a prodigious increase. Thus will the covenant be fulfilled; thus will humanity "be fruitful and multiply." Bacon's visionary blueprint guided the founders of England's Royal Society, the first modern institution for scientific research.

Bacon zealously advocated the direct observation of particulars, yet Scripture remained the highest authority: "Natural philosophy is after the word of God at once the surest medicine against superstition, and the most approved nourishment for faith." Where facts about nature were concerned, possible conflicts between Scripture and science were noted but often smoothed over. Just as his Wisdom of the Ancients decoded the truths veiled by fables, in The Advancement of Learning he suggested that "the ceremonial law of Moses" contains "much sprinkling of philosophy": for example, in Deuteronomy rules about lepers, the persons labeled "unclean" are those at the highest stage of contagion. Like Moses Maimonides, Bacon might have seen a similar philosophical rationale for the Hebrew law's ban on pork: the Bible warns against a real danger—trichinosis, salmonella—for which natural philosophy would later give a more precise explanation.

Yet Bacon frequently warned against the "corruption of philosophy by superstition and an admixture of theology." He urged his initiates to "be sober minded, and give to faith that only which is faith's." Later centuries have found this commandment hard to follow. How can we tell a sacred mystery from a superstition maintained by human laziness and ignorance? Which authority do we believe when geology teaches us that the earth is far older than the Bible says? How do we worship an anthropomorphic creator when our sciences tell us that man was not created all at once in the Divine Image but evolved over time, from apes? If medical science tells us that there is nothing to fear from well-cooked pork, must we continue to obey God's emphatic dietary laws?

To create symbols that unite us in a new common purpose we have to reframe, re-interpret, or remove the symbols that previously served that role. Bacon tore down the idols of medieval philosophy, while planning a new society around a high-tech tabernacle. In his pious craving for purity, he established the project of modern science as an iconoclastic "creative destruction." Such holy fury is difficult to control. Bacon set in motion a process that eventually risked sweeping away God, the idol in whose name it all began.

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Bacon, Great Instauration, in Bacon, op. cit., p. 125. Italics by the author.

Bacon, The Advanced of Learning, in Bacon, op. cit., p. 32.

Benjamin Farrington, Thoughts and Conclusions, in Farrington, op. cit., p. 101.

Farrington, op. cit., p. 93.

The Francis Bacon of the twentieth century, another British iconoclast, holds up two sides of meat, like Moses coming down Mount Sinai with the Tablets of the Law. His new covenant took painting not as a representation or narrative but as an experimental encounter between paint and canvas, flesh and bone. The avant-garde artist shocks by breaking traditional taboos, in this case, persistent codes for killing animals and handling meat.