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David Maisel's Geometric Geographies

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Geomorphology—the study of landforms and the processes that shape them—is among the few branches of geology that did not have to rewrite its foundational principles after the plate-tectonics revolution of the nineteen-sixties. Since the previous century, geologists had understood that rivers carve V-shaped valleys and glaciers gouge out U-shaped ones. They had recognized that blocky mesas and conical monadnocks are subtractive features, remnants of resistant rock left after aeons of sculpting by agents of erosion. Indeed, the logic of geomorphology has proved robust enough that today it is applied to other worlds. Images of Mars's crescent dunes, for instance, reveal information about its winds, and its tree-like drainage systems chronicle a time when the planet, now arid and silent, had frequent rains and babbling brooks.

David Maisel's aerial photographs of Toledo, Spain, and the surrounding La Mancha region, some of which will be on view at Haines Gallery, in San Francisco, through March 12th, can make

Earth's surface look more alien than terrestrial. Parts of the area that Maisel focussed on are underlain by light-colored alkaline rocks, which formed through the evaporation of an ancient body of water. The silvery soil of plowed fields almost shimmers, like a ghostly memory of that long-vanished sea.

The images also reflect the geomorphic tension between nature and culture. Nature's shapes are evolutionary, stochastic, curvaceous, involuted. Humans, though, cannot resist imposing their Euclidean ideals. In Maisel's work, the irregular outlines of olive orchards contrast with the fearful orthogonality of their internal grids, each tree identifiable by row and column, like an entry in a giant spreadsheet. Agricultural fields follow the meandering contours of the land, but there is human purpose in the boustrophedonic turns of the furrows—left to right, right to left. Maisel's photographs of old Toledo are similar hybrids of the curvilinear and the Cartesian, with modern construction forever constrained by the idiosyncrasies of seventh-century footpaths and market roads. The subdevelopment of Vicálvaro, which was abandoned in mid-construction after the economic crisis of 2008, suggests the ashen remains of a devastated civilization, but it is nothing more than embossing on a blank sheet of paper, with no trace of real natural or human history.

Classical geometry—Greek for "earth measure"—is not very earthly. We love the serene, eternal, incorruptible form of the circle, and the illusion of mastery that being able to reckon with it mathematically gives us, but the shape itself is rare in the natural world. The only geologic features that consistently approximate perfect circles are meteorite-impact craters, formed in moments of violence and destruction. Given enough time, nature prefers other, quieter motifs. Consider the dendritic geometry of a river system. Each tributary stream is fed by creeks, which are fed, in turn, by rivulets of progressively smaller size. Try to determine the system's total length and a paradox emerges: the closer you look, and the smaller your measuring stick gets, the longer the river becomes. Each level in the hierarchy encloses a smaller but equally complex microcosm. No single scale is more important than any other. Such unruly geometries, which are known as fractals, are obvious and ubiquitous in nature—in weather patterns, mountain ranges, ecosystems—yet the mathematics to describe them wasn't formulated until the late twentieth century.

Architects and urban planners are, on the whole, still acolytes of Euclid. It is rare that a human system develops into a fractal; most become top-heavy, with a few outsize elements dominating form and function. But look closely at Maisel's images of Vicálvaro and you can see nature reasserting itself, the wind and rain forming notches and rills around the edges of the simple rectangular blocks.

Ref: http://www.newyorker.com/tech/elements/david-maisels-geometric-geographies