

Records of Waiting: Visual Models of (Human and non-Human) Duration

Wherever anything lives, there is, open somewhere, a register in which time is being inscribed. Henri Bergson (2002/1907, p.220)

The dividing line between a doodle and an information graphic is less clear than it might at first seem. In his storied analysis of the pockmarked patterns on the Palaeolithic Abri Blanchard bone fragment (dated 12,000–20,000 BCE), the journalist-turned-archaeologist Alexander Marshack argued that the patterns previously thought to be doodles actually represented the lunar cycle. The serpentine figure of 69 marks, containing some 24 changes of point or stroke, was made to track a two-month period of passing lunar phases. “Obviously the pattern was not random,” wrote Marshack.

It had been made on purpose. It had been made sequentially. Even now, after clarification, I knew it could not be ornament or decoration, for any man making an ornamental composition 1 ¾ inches in size would not have used 24 changes of point and stroke to make 69 close marks...It must, therefore, be notational. (Marshack 1972, p. 48)

In his efforts to make a case for Palaeolithic information graphics, however, Marshack took the binary road and disparaged doodling. Marshack's obsessive case to find meaning in marks in old bones required insisting that their scientific (notational) function meant that they could not possibly be artistic (decorative). But, as the historian Daniel Rosenberg argues, Marshack

neither demonstrated the bones' confinement within the realm of reason nor their exclusion from the realms of doodling or of art. To the contrary, in his study of the Palaeolithic world, [Marshack] went a long way toward showing how mixed-up these categories need to be (Rosenberg 2007).

The possibility that doodling is a form of *working out a problem*, albeit sometimes intuitively, lies also beneath the surface of the history of scientific discovery. Physicists from Henri Poincaré to Herman Minkowski used sketching, diagramming and "provisional pictures" to work out problems; Poincaré insisted on intuition to "bridge the abyss which separates symbol from reality" (1889, in Galison 2002, p.1) and Minkowski sketched diagrams to visualise the theory of relativity, in which two observers assign the same event to different points in time. Minkowski flew in the face of contemporaries who felt that visualisations were intuitive and therefore inferior to rigorous, non-intuitive, abstract logic. He showed that Einstein's relativity theory could be better understood in geometric-pictorial terms (Galison 2002, p.5).

By extension, the dividing line between doodling and modelling can also be blurred, at least

in cases where the doodles are part of a process of testing a thesis by bringing an idea into form. Celebrity architects have effectively enshrined the loose sketch for a building as a form of artistic genius, as Frank Gehry's sketches and Zaha Hadid's freehand diagrams attest, and in speculative form, the doodle-sketch-diagram is capable of rendering the impossible visible, as evidenced in the "strange loops" of the Dutch artist M.C. Escher and his engagement with mathematical objects, in mesmerising compositions which in turn informed mathematical research (Hofstadter 2007).

To consider the woodcarving notations of Polish shepherds as examples of *working out a problem* is a generative starting point for considering the enigmatic art form of *snycerstwo*. The marks are, in this light, models of time passing that both embody time in the time taken to carve them, and, arguably, can be organised as measured time in a visual system of notation. As we shall see, it is important to disconnect this model of measured time from clock time, or the "time-discipline" introduced with the early stages of industrial capitalism (Thompson 1967) which became *de facto* currency in late stage capitalism. The time being modelled in shepherd's carvings is not fungible in the sense that the ornate marks might be used to denote exact counts of minutes and seconds, but experiential, in that they connote periods of loose time spent working with a chisel on a piece of wood, given as gifts. The graphic forms are modelling a version of lived experiences of time.

Johanna Drucker has introduced to graphic visual discourse the term "nonrepresentational" to describe graphics made as a "primary act of knowledge production" rather than those that

visualise or illustrate something in the world.

Derived from geographer Nigel Thrift's concept of experiential models of space creation, (which, unlike a map that purports to represent a place or region, emphasises the constructed character of knowledge), nonrepresentational images can test a thesis or create new knowledge by modelling it in visual form. Drucker characterises the graphical features of a nonrepresentational model as expressing fundamental principles of interpretation:

uncertainty, parallax, contradiction, partial knowledge, and so on. For instance, instead of a timeline that represents events as points, a temporal model is constituted by relations of before and after, simultaneity, duration, slow and fast time spans, and variable models of historical chronology or other conceptual elements (Drucker 2020, p.9).

Taken as temporal models, the ornaments carved by shepherds into wood introduce a *situational* counterpoint to the graphic marks on a clock, a calendar or a timeline—a more universalist system that notoriously fails to account for the specificities of how people and things experience time. Situational waiting is a term introduced by the anthropologist Peter D Dwyer to account for how waiting can be an experience “fully embedded in time” (Dwyer 2009, p.21). Drawing from philosopher Lars Svendsen's distinction between situational and existential boredom, Dwyer contrasts the experience of a rock climber holding on to a belay rope awaiting her companion to complete a segment of a climb—an instance of situational waiting—with the existential waiting of a fishing boat

captain whose livelihood and sense of purpose has been undercut by events beyond his control. Dwyer defines existential waiting as

seemingly removed from time, or, rather, from the meanings—linear and repetitive, yet endlessly consuming, consumed and irreversible—accorded to time in conventional Western settings (2009, p.21).

It is the disconnect or slippage between a situational, lived experience of waiting and the linear and repetitive measured time of the clock which opens up gaps for imagining and imaging new temporal models. In times of crisis, such as the widely-noted disruption of time during the pandemic lockdowns, this discrepancy between experienced and measured time is itself cause for existential angst. Situational and existential waiting may not be so far apart.

Much work has been undertaken in psychology and neuroscience to examine how people perceive clock time differently depending on their age, mood, body temperature and cultural background. Claudia Hammond (2013) narrates accounts of experiments in which neuroscientists launched people off a rooftop (strapped into a harness) to analyse their individual experiences of time slowing down in free fall, and psychologists who put their study participants through experiences of (manufactured) social rejection to investigate the correlation between a negative mood and the perceived slowing down of time. But there is relatively little research into how alternative experiences of time are visualised and modelled. The image of the clock

face, calendar and timeline dominate our mental models. Could doodling, and carving patterns in wood present a valuable digression in the epistemology of visual temporal models?

A sceptical reader may throw up their hands at this point. Doodling as working out problems? Ornamental crafts as temporal models of situational waiting? The high priests of Modernism would agree. A longstanding antipathy toward ornamentation was made famous by the Modernist architect Adolf Loos in his essay *Ornament and Crime* (1910), which dismissed ornament as “a waste of labour and material” practiced by degenerates and backward-looking societies. But the resurgence of ornament and its appreciation in the late 20th Century and early 21st Century was supported by a discourse arguing that the unadorned, clean lines and crisp forms of Modernist architecture and design were in fact a continuation of ornament, a shift in which architectural ornamentation was not expelled but absorbed, and repressed. The structural-looking but entirely cosmetic I-beams in Mies van der Rohe’s buildings were symptomatic of the Modernist repression of ornament. The architectural typologies of “duck and decorated shed” furthered in Venturi et al’s (1972) *Learning from Las Vegas* distinguished buildings that were expressive in form and volume (ducks) from those that were adorned with sign and imagery (decorated sheds). By the early 21st Century, a generation of architects had publicly embraced ornament by integrating it with a building’s structural design, advocating a healthy relationship between ornament, structure and space. As the Swiss architect Jacques Herzog argued,

When ornament and structure become a single thing, strangely enough the result is a new feeling of freedom (Herzog and Chevrier 2006).

Piggybacking on the spirit of ornament’s revival as a structural conveyor of cultural meaning, the argument being ventured here is that the function of ornament can be both expressive and exploratory, and when applied to the function of modelling time, graphic forms can open up new visual models for different ontologies, or ways of being in the world. The marks on the Abri Blanchard bone fragment, for example, situated the person holding the bone in a new temporal scheme, enabling her to adapt her kin’s future behaviour around the available lunar light forecast in the visual model. Similarly, marks of time spent in situational waiting present new ways of understanding how we might occupy or enact time in future situations.

To advance the idea that doodling might be modelling time differently, the not inconsiderable challenge is to confront the dominant visual forms of a hegemonic temporal scheme, the aforementioned clock face, calendar and the linear timeline. Daniel Rosenberg and Anthony Grafton, in their book *Cartographies of Time* (2010) trace a visible allegiance between Christian, rationalist views of time and linear representations. They focus on works by Joseph Priestley, cited as an 18th century innovator of the linear timeline, who himself suggested that the timeline was a fantasised visual referent for an object without material substance. It appears to guarantee a directionality to past and future history. In contrast, Rosenberg and Grafton cite subsequent efforts to challenge 19th Century models of time as a

line progressing in regular intervals from past (left) to future (right) such as the sketches from Laurence Sterne's (1817) novel *The Life and Opinions of Tristram Shandy, Gentleman* indicating the non-linear path of a well-told story, the digressions appearing as deviations from the straight line. Another Rosenberg and Grafton example, a diagram from Charles Renouvier's *Uchronia* (1876) is an account of the development of European civilisation "as it could have been," depicting the theoretical relationship between the course of history and possible alternate paths. As such, the diagram effectively critiques the teleological model of history-writing, and the inevitability encoded in the linear timeline.

Aligned with the linear timeline is the convention of dividing the day into equal-sized hours, minutes and seconds and then broadcasting this across societal groups. The practice of broadcasting measured time from church clocks and public clock towers took hold in England from the late 14th Century onwards, and is framed as a form of "time-discipline" by historian E.P. Thompson. Compared to the pre-industrial practice of measuring time according to familiar tasks—before clocks were widespread, work was completed when the cows were milked or the rice was cooked—time-discipline introduced the practice of compensating workers according to a more abstract, and fungible, system of measurement. By the time Newton's clockwork universe had taken hold in 17th Century England and the factory clock was whistling for workers to commence or end their work in the 18th Century, time was re-conceived as something that could be owned. Whereas task-orientation depended on a shared understanding of what needed to be done, and was therefore more

humanly relatable than timed labour. Time-discipline introduced the idea of time as something that could be wasted:

Time is now currency: it is not passed but spent (Thompson 1967, p.61).

Philosopher Henri Bergson referred to "imaginary homogeneous time" as a deceiving "idol" and advocated the concept of "durée" (literally, "duration") to describe the process of change in opposition to the dominance of measured (clock) time (Rosenberg and Grafton 2010, p.23). Revived by Gilles Deleuze in the 1960s, Bergsonism included a mathematical account of durée as a "continuous multiplicity" to be distinguished from a "discrete multiplicity" that contains the principle of its own metrical division. Durée, according to Deleuze, was

not simply the indivisible, nor was it the nonmeasurable. Rather it was that which divided only by changing in kind, that which was susceptible to measurement only by varying its metrical principle at each stage of the division (Deleuze 1991 p.40).

In other words, imaginary homogenous time can be countered with a multiplicity of kinds of time, for example, the geological time of a tectonic plate, the time encoded in tree rings and the spacetime that is slowed by gravitational fields.

Recent scholarship on Bergson is helpful in substantiating the project of reimagining models of time as an urgent project in our current ecological predicament. Adam Lovasz (Hermitix, 2021) counters the

popular idea of Bergson as a phenomenologist, that his concept of *durée* simply referred to subjective, experienced time. While this is one form of Bergson's concept of *durée*, Lovasz identifies three more: physiological *durée* ("the time of my body, which is not the same as my psychological time"), *elan vital*, (which translates as "life force" and describes the impetus for reproduction, growth and decay) and the time of matter (which is "close to instantaneous"). A helpful mental model of *durée* is provided by Jenny Odell (2023), who pictures a lava flow across flat ground, where the leading edge is visibly alive and dynamic but its path cannot meaningfully be divided into moments to determine its course. Bergson's conception of time was drawn from evolution, and is described by Odell as one of "interpenetrating and overlapping successions, stages and intensities" (2023, p.121).

The dominant model of time as abstract and measurable is glaringly anthropocentric: Bergson argued that our predisposition to think of time in spatial terms comes from our experience of manipulating physical matter: we want to see time as something we can divide, organise and move around. Imagining that we have a similar agency in our experiences of time separates us from it, much as we have separated human life from "nature". Odell looks to geological and indigenous conceptions of time for less abstract, linear and schematic models, such as the Australian Kulin concept of seven seasons, each of different length according to the appearance of specific fruits, animals and climatic conditions such as fire and flooding (approximately every 28 years) (Odell p.129).

In the media arts, Bergson's concept *durée* resurfaces as a theme in immersive forms where time is a dimension that is modelled and re-modelled as part of the artist's palette. In their 2017 installation *Pull*, media artists Michelle Barker and Anna Munster recreate the underwater experience of a large wave forming and breaking above the surface of the ocean. The artists used a seamless filmic slow-motion loop and 3D animation of GPS data which sought to evoke an overlay of geological time on the looping moment in human-felt time. In an essay on their approach to work, Barker and Munster (2022) problematise the ways in which movement is captured in data by sampling discrete information from a continuous activity. They describe Bergson's *durée* as a "qualitative multiplicity" (p.17) that cannot be expressed as sequential motion but is part of felt experience.

A final example of visual forms of opening up temporal multiplicities is the digital film work of the artist Daniel Crooks, which sample movement from a moving camera to envisage a kind of stretchy time. Crooks's (2010) film of an old man practising Tai Chi in a public park in Shanghai, *Static No12 (Seek Stillness in Movement)* stretches the movements of the man in slow motion across a wide format screen so that they evoke a diagrammatic account of a body experiencing movement in time, as Crooks puts it "opening up this temporal chasm".

It seems appropriate, on reflection, that the pastoral image of a shepherd carving marks into wood provides a "temporal chasm" for remodelling industrial time—not in the anthropocentric, Romantic sense, but in a deep ecological sense. In deep ecology, self realisation and bio-centric equality are prioritised (Dryzek 2005). The phrase "temporal

chasm” hints at the creative possibilities inherent in the slippage between kinds of time, as measured, as experienced, as embodied, as life force, and as understood in matter.

What we might learn from Bergson, and theoretical physics, pre-industrial histories, indigenous ontologies and Polish woodcarvings, is that being and time are inseparable. Moments are not discrete but overlap in a continuum, and that time is, in fact visible. It is being inscribed, as Bergson put it, wherever there is life. And by life, he meant anything that moves, including lava or a growing tree. When we reposition doodling as inscribing by all moving things, its possibilities open up a vast field of invention.

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