IN AND AROUND ZERO FIGURES

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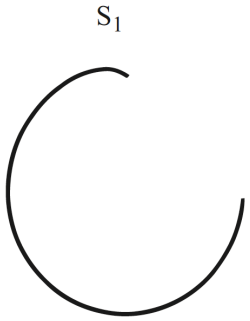
Interior Eight
Circuit Logic
Thing Among Things
Primitives

The works discussed here are part of *Zero Figures*, an exhibition at Bodenrader, Chicago, November 6-December 19, 2026.

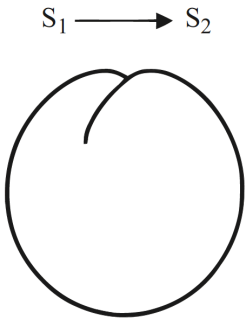
1. Interior eight



For psychoanalyst Jacques Lacan, desire is always already caught up in signification. There is no preexisting desire that the subject communicates to an other. Rather, desire becomes what it is through the mediation of signs —not just words, but all kinds of grunts, cries, suppressions, marks and gestures.

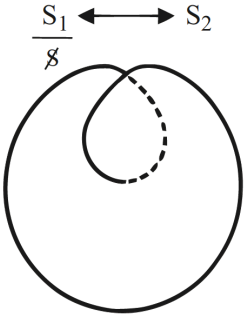
Lacan's interior eight diagram tells us about the structure of language.[1]

The signifier S_1 loops down and around, toward itself.



But it misses, tightening its curl, slipping past the point where it began, spiraling inward, to encounter the signifier S_2.

Completing the circuit of this inner aporia, the signifier follows an upward momentum back to where it began. S_1 is mediated, by S_2. Their encounter creates an interior gap and a reciprocally determining relation between S_1 and S_2. This entire movement is the interior eight.



Here, language is not a point-by-point doubling of the elements of reality. Instead, signification is fundamentally a matter of the relation between signs. The internal system of differences —situating one word in relation to another, one sound in relation to another —is what allows language to be strung together syntactically into expression. The S_1 -----> S_2 drama rehearsed in the interior eight emphasizes the way in which one signifier depends for its meaning on the signifier that follows (and vice versa).

Groucho Marx knew all about it:

> "I've had a perfectly wonderful evening, but this wasn't it."

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1 Lacan's earliest reference to the interior eight figure comes in Seminar IV, 10/4/57. It can also be found in the English translation of Seminar XI, p. 156.

"Marriage is a wonderful institution —but who wants to live in an institution."

Meaning does not takes place in linear time, but involves a kind of twisting back operation. Language is a structure of internal differences, frictions, similarities, and near misses —a circuit of attractions and repulsions through which signs give each other meaning, and, secondarily, make contact with what is not language. The interior eight helps to conceptualize this synchrony embedded in the diachronic unfolding of language. But it is not just telling us about language, it is telling us about structure as such —the circuit of relations that stitches various parts into a whole, demarcating the boundary between inside and outside. The movement of the interior eight indicates the activation of bonds that produce a provisional unity: the unity of a phrase, of a self, a body, a scene, a group.

If the interior eight is extruded into a surface, it becomes a möbius strip. Lacan mobilized the möbius strip to model the entanglement of inside and outside, foregrounding the psychic situation of extimacy, meaning the Other is "something strange to me, although it is at the heart of me."[2] The möbius strip is a loop twisted around an empty center. At any single point the surfaces corresponding to inside and outside remain distinct, however, when the whole strip is traversed, the two sides are experienced as continuous with one another. There is no leap necessary to move from interior to exterior, only a persistent tracing in time that leads from one to the other, and back again. As a topological figure, the möbius strip holds in suspension inside and outside; the two do not become indistinct, dissolving into one another, but nor do they stabilize into cleanly separate zones.

Topology was developed to solve mathematical problems that depend on the way an object is put together —its structure, rather than its measurable contours and dimension. As such, topology addresses the properties of an object that persist despite continuous deformation. Two figures are considered topologically equivalent if one can be transformed into the other through stretching, twisting, crumpling, or bending, but without closing holes or opening new ones, without tearing, gluing, or passing the figure through itself. Lacan was interested in how topology could be used to think in precise ways about the relationship between forces and schema —like inside and outside, like part and whole, without falling into the presumption that one is passive and the other active, that one is primary and the other secondary. For Lacan, topology became a way to describe the structure of psychic life. He conceptualized the unity of the subject as an effect of forces cutting across one another; the self as something generated by frictions, rather than a preexisting unity. The subject is called into being by a relation with the Other, with an outside, from which it cannot be finally, entirely, separated. The best one can do is trace the encounter, follow the twisted path according to which inside and outside construct their provisional boundary.

2. Circuit Logic

Mary Helena Clark's found footage film, *Engram Set*, is named for a theory of memory proposing the "engram" as the neural substrate for storing and recalling memories. Richard Semon, who coined the term engram in 1904, theorized that experiences leave lasting traces in the brain. As the theory evolved, the engram came to be understood as a matter of connectivity between neurons throughout the brain, pathways corresponding to a memory that could be reactivated. Bundles of sensory, emotional, or conceptual associations are understood to help reinforce a memory trace. More vivid associations make a memory more easily subject to recall, as does repetition. For example, early engram studies often relied

2 Jacques Lacan, *The Seminar of Jacques Lacan, Book VII: The Ethics of Psychoanalysis*, ed. Jacques-Alain Miller, trans. Dennis Porter (W.W Norton & Company, 1997), p. 71.

on a fear conditioning protocol that might go something like this: a mouse is subject to an electrical shock at a particular spot within a larger enclosed environment that had previously been without threat. The mouse comes to associate the pain of the shock with the particular spot.[3] By labeling the activated neurons with fluorescent molecules, scientists are able to discern that the same neurons light up when the mouse re-encounters the booby-trapped spot and is again shocked (no doubt forced or coaxed into this ill advised repetition). After enough repetition, even when the shock is withheld, the familiar location is enough to provoke a fear response in the mouse, reactivating the engram and lighting up those same fluorescent-tagged neurons.

Clark's film questions the relation between the physiological body and subjective experiences like memory, language, pleasure and pain. How do these experiences accumulate in the body? How do we hold on to them, and how do they hold on to us? Neurological accounts emphasize a circuit like model of the biology of subjective experience. The physical representation of experience is a neural pathway that may be lit up, forging connections between the multiple brain regions firing simultaneously, or may go dark in the wake of disease, or lack of experience. The subject is continually formed and reformed by these evolving neural pathways. Along with early-aughts footage of coin minting, a talking African Gray parrot named Einstein, and an esophageal coin removal, Clark's film features scenes from a Brainy Baby® educational video. These kinds of videos claim to accelerate a baby's cognitive development, instilling the ABCs along with primary shapes and colors. Following the engram protocol, sound and image are used to embed each key concept in a richly differentiated, sensorially activated network of associations, reinforcing the memory trace. This kind of knowledge training has an aspirational class element, proposing to jump start the baby brain's internalization of the building blocks of social being — shape and color, but most importantly language. Markers of cognitive development are indexed to future earnings, professional success and social adaptation. There is also a phobic element at work here, an idea that video can perfectly, seamlessly, accelerate the baby's developmental process, while minimizing the psychic mess of family, with its dramas of love and lack, giving and taking (the bread and butter of psychoanalysis).

The stunning thing about film, and this film especially, is the way every cut is also a joint, hinging the work together. The basic unit of *Engram Set* is the cut. In roughly one minute cycles the different sources of footage —coin minting, Brainy Baby®, Einstein the African Gray Parrot, esophageal coin removal — are cut together, along with occasional flashes of a spectral reflection in a CRT monitor screen, identical to the one on which the video is played. Clark uses all the tricks at her disposal (camera movement, rhythmic editing, sound cues, mise-en-scène, to name a few), to maximize the friction and fusion at work in each cut. Her way of binding these different streams of footage together recalls famed film director and film theorist Sergei Eisenstein's formulation of montage as conflict:

> Conflict within the shot is potential montage, in the development of its intensity shattering the quadrilateral cage of the shot and exploding its conflict into montage impulses between the two montage pieces. As, in a zigzag of mimicry, the mise-en-scène splashes out into a spatial zigzag with the same shattering.[4]

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3 "Engram mechanisms of memory linking and identity," Ali Choucry, Masanori Nomoto and Kaoru Inokuchi, *Nature Reviews Neuroscience*, volume 25 (2024), p. 375–392.

4 Sergei Eisenstein, "The Cinematographic Principle and the Ideogram," Film Form, trans. Jay Leyda (Meridian, 1959), p. 38

Eisenstein emphasizes the reciprocity between friction and fusion in the cut. Like the mutual determination of S_1 and S_2 in the interior eight, here, the apparently linear time of the unfolding of a filmic sequence is actually structured through anticipation and retroaction, fundamentally a matter of mutually determining relations of difference. Eisenstein goes on to compare montage to the combustion engine that drives a train forward.

Each of Clark's roughly one minute cycles intensifies the sense of entanglement, coalescing into an impression of EinsteinParrot-BrainyBaby®-CoinMint-EsophagealCoinRemoval as one creature, ingesting and excreting. The coin minting footage presents a pneumatic erotics of pummeling, jiggling, tapping and shaping. Coins pour forth like vomit, or piss, like Zeus descending on Danaë in a shower of gold. The minting factory appears as a curious kind of body, and coins as it's mysterious fluvial waste product. Clark builds an association between the freshly minted coins and the educational toys groped by Brainy Baby®. The glitter of the coins merges with the clear, unhurried feminine voice pronouncing, as if in a trance: "SQUARE"..."TRIANGLE"..."STAR." The body of the baby is presented as radically open to the varied stimuli of its heavily choreographed environment, where sound, object, the space itself, want to impress upon its brain some new lesson. Through Clark's charged cuts, the baby's form begins to merge with the minting machinery, just as the coin registers as the carrier of some glittering knowledge. In one memorable sequence the horizontal movement of a coin conveyor belt at the minting factory cuts to a pan across the reclined body of a baby, pausing on its gently kicking feet, clad in cartoon bear slippers, staring back as if to pose the question: "Which end is up?" In a similar spirit, the Puss Moth Caterpillar has a false head attached to its rear end to fool predators, the externally presented image of the body masking its structure. Einstein the talking parrot, with a charming lilt in his voice and an ironic intelligence, appears as a corollary for the goggle eyed baby, and a perfect figure for suggestion there is something human-like in the animal, just as there is something animal-like in the human. The apparent simplicity of the film's structure, playing out in these one minute cycles, belies its density, the network of relations, attenuations, similarities and differences it proposes between human-animal-machine, between currency-knowledge-image.

The esophageal coin removal footage functions as a kind of internal threshold, threatening to stop the flow through this composite filmic body. The esophagus contracts and stretches around the coin uncomfortably lodged in its aperture, unable to fully accommodate, excrete or digest the foreign body. Here is a stoppage, a moment of impasse. The CRT monitor reflection footage functions as another kind of threshold, showing us a shadowy impression of the room. These grayed out, smeared views push the viewer to the surface of the image, to the threshold between the video and the space in which the monitor sits. We feel for a moment that all of reality could fall into the chop and change of Clark's video montage, forming one omnivorous circuit.

This circuit logic is distilled in the single photograph presented by Clark, showing the insides of a Honeywell thermostat, more or less at life size. Peering into the mechanism, we see the switch's sealed glass envelope with a shimmering glob of mercury settled in its downward tilted tip. This is the inert, rest position of the tilt switch, gravity pulling the mercury down and away from the electrical contacts breaching the opposite end of its glass envelope. When the angle of the tilt is reversed, the mercury slides toward the contacts, completing an electrical circuit and activating the thermostat. It is an image of potentiality and of suspension. The thermostat can serve as a stand in, or model, for the body —the chemical and mechanical coming together, but the it also serves a very basic creaturely, mammalian, need for warmth, for temperature regulation. The thermostat both proposes itself as a kind of body, and as a mediator between the body and external conditions.

Recreation, a wall-like structure built by Clark from styrofoam boxes, also suggests protection from outside forces. Porcelain sockets, equipped with low watt LED bulbs, are installed inside each box and daisy chained together, such that they draw on a single power source for their varied illumination. The stacked containers form a networked partition, establishing a variable boundary. Many of the styrofoam containers were delivered to the artists home, keeping cool two injector pens filled with an immunosuppressive drug, taken as part of the course of treatment for an auto-immune condition. Additional boxes were sourced through a medical subreddit devoted to those navigating the same condition. Like the Honeywell thermostat, these boxes are temperature regulators, keeping the medication they hold stable, just as the medication itself stabilizes the health of the patient. Immunosuppressive treatment aims to reconfigure the body's sense of what is foreign to it, correcting the immune system's misrecognition of healthy parts of the body as foreign organisms. Immunosuppressive medication intervenes in the regulation of the threshold between inside and outside. Clark's styrofoam structure also suggests a protective, life sustaining function, proposing to reinforce the boundedness of the body. This glowing enclosure, porous with light, provides an additional layer of insulation, a second skin muffling the sensory gaps that let the outside in. The improvised, light weight structure recalls an ante chamber, a child's fort, a store room, a temporary shelter, a barracks, a burrow —in short, some place to keep warm and hold tight.

Clark's works circuitously stage the problem of inside and outside: can the inside be expanded to include the outside? Where is the threshold between the two? How do I place myself in a space? How does what is outside make itself at home in me? What in my body is divided against itself?

3. Thing Among Things

Nina Könnemann's *Video is a Box* opens with a shot taken from the perspective of a cell phone, carefully propped up in a locked box charging station at a mall. The phone —its view partially obstructed by a yellow post-it, peers out of its small window, faithfully recording the visible sliver of shops across the way. A hand lifts the post-it, a man eyes the phone suspiciously and makes a call. The hand replaces the post-it, rubbing it rhythmically back into place. The view through the window wobbles and the video cuts to another man, face mere inches from the camera, he asks: "Who are you filming?"

In *Video is a Box*, Könnemann cuts together scenes from the interior of the lock box phone charging station with a catalog of confrontations with strangers —mostly men, captured over the course of Könnemann's fifteen years as a filmmaker. Könnemann's absence in the cellphone scenario is the exception, with most encounters filmed by her on a camcorder or DSLR, often outside, often at night. As we move through a variety of public places and encounters, the edit keeps returning us to the cellphone lock box. The camera phone's view is modest, framed by a small oblong window in one scenario, by two metal slits in another, meaning we mostly see the box to which the phone is confined, rather than the scene outside. Könnemann's initial idea was to use the charging box to play with the scenario of a remote camera. She wanted to distance herself from the viewfinder, and, in a sense, see what the camera would record on its own. The recording camera provokes; passersby are draws to it, like moths to a flame, even as they generally feel aggrieved and threatened by its presence. One woman speculates —The phone is filming so that there is a record if someone tries to steal it. Her companion shoots down this theory —The thief would simply erase the video. Mall security says —He (meaning the phone operator) must be trying to steal customer information. When Könnemann arrives to pick up her phone, she is told that she must wait for the immanent arrival of the police. The camera, because it is filming, must have an angle, an agenda; it wants something.

When Könnemann is behind the camera we see how those caught in her viewfinder guess at her motives: their eyes flit between her face and the lens; they fight, or flirt, or both; they experiment with their presence in front of the camera; they strive for the upper hand. Some encounters are with corporate authority, like the police (who shine a bright light directly into the camera and announce that everyone must leave the park), but most have a personal, idiosyncratic quality. The most memorable scenes attenuate uncomfortably between hostility and curiosity. A shirtless young man, wavering with drink, or something stronger, tells Könnemann he needs to keep a low profile, the implication being that she shouldn't be filming him. But his blurred stare is magnetized by the camera. He hesitates more than once before finally walking away. His aggression is unmistakable, but so is his sense of exposure, of being pinned down by the camera's gaze and boxed in by its frame. As I watch, I think he is wondering what sense the camera will make of him, wanting somehow to see himself from the place it sees him. He is afraid of loosing control in the process of being filmed, and his push back at Könnemann is highly gendered: he draws on his macho powers to shut her down. But he is also curious, driven to prolong the encounter, wanting to know how the camera is situating him in space, as a thing among things.

The last confrontation featured in the video is the most heightened. The camera shakes, peering over the handle bars of a stationary bike to frame a man in dirty white work pants, work boots and a tank top. He is nodding out, slumping, and then suddenly shakes himself awake. His zippered fly gapes open. We are in a leafy green park in bright daylight. The film cuts to Könnemann setting the pin number for a phone charging locker. We cut back to the park. The man is now straddling the bike, though we aren't sure how he got it underneath him. From behind the camera, Könnemann says:

> "This is my bike."
>
> He looks down, as if confirming that a bike is there.
>
> She says: "Don't take off with it." A little laugh of absurdity, creeping into the end of her words.
>
> He looks down at the bike, looks up, puts his hands in his pockets and says: "You can walk."
>
> "What?"
>
> "You can walk." He gives a small smile of satisfaction, as if impressed with himself. He has come up with an answer, solved their mutual problem.
>
> "I don't want to walk."
>
> "But it's healthy." A quick response this time. There is something bewildering about his air of confidence. He thinks he can convince her.
>
> "What?"
>
> "It is healthy."

He sticks out his lower lip, furrows his brow and nods his head, as if trying to persuade a child. He looks away from the camera, looks down, uses his feet to fiddle with the bike peddles, notices his unzipped fly

and struggles with it —all, apparently, without self-consciousness, though he keeps his gaze averted from the camera. He fidgets with something in his pocket. You can see the outline of his fingers through the light colored fabric. He stares straight ahead, in profile now, and the film concludes with a cut to black.

What kind of social space does the camera produce? Or, what in the social relation does it bring to the surface? In this catalog of encounters the camera is a sort of catalyst, provoking an interaction between strangers, one behind the camera, and the other in front of it. Könnemann looks through the viewfinder, and the subject stares back; or gives her the curiously English two fingered fuck you; or blocks the camera with their hand; or threatens to steal her bike; or otherwise tries to assert control over the situation. During Könnemann's confrontation with mall security, we hear a woman complain: "You filmed me while I was working." The camera seems to have an intrinsic power, to register as in control of the situation, pulling the strings. Nonetheless, in the catalog of incidents collected together here, Könnemann does not seem particularly in control. It's as though she is tugging at the video frame from behind the camera, and the subject, caught in the frame, is tugging at it from the other side. What we see on screen feels alternately like a battle, a negotiation, a dance. As Könnemann and her subject try to situate themselves in relation to one another via the spatial coordinates offered by the camera, we see a fragment of spontaneous social theater flash up, and with it appear the aggressions and the impasses that mark our social order. The sites of conflict are familiar: labor, sexual difference, private property, inebriation.

Könnemann's video inevitably brings to mind those other cameras that survey and document public life: the increasingly ubiquitous cameras, stationary and portable, wired directly to the state and its forces. Those cameras leave little room for negotiation, they are simply one way pointers for authority. The contests of power captured by Könnemann are unnerving, but there is an edge of hopefulness in the fact that there is a contest at all.

In Könnemann's sculptural work, *Lithic Reductions*, the noise of everyday life —it's compromises and confrontations, fades away. Könnemann presents an appealing arranged of oddments, leftovers from another world. We see porcelain fragments, coated in a variety of lustrous glazes —browns, pinks and whites, giving way to crispy chiseled edges of rough clay. The arrangement feels attentive, orderly, but intuitive rather than scientific; more like someone admiring their collection of found treasures than cataloging scientific specimens. These fragments are presented on an invitingly low table, with its own slick gray coating. Lithic reduction is a process for fashioning stones tools, thought to date back to the Stone Age. Normally, a "lithic core" (sometimes called an "objective piece") is selected (usually a stone that has been detached through natural geological processes), and a hammer percussor is used to detach flakes from it. These flakes may in turn be further refined to arrive at the desired shape. The process is called lithic reduction because, as flakes are detached from the core, its mass is reduced.

To make her *Lithic Reductions*, Könnemann smashed discarded sinks and toilets, sometimes with a sledge hammer, sometimes dashing the bathroom furnishings against asphalt (I understand this is called projectile percussion). From the debris, Könnemann selected fragments to serve as lithic cores which were then further worked using a variety of knapping techniques. Although Könnemann's *Lithic Reductions* do recall Stone Age artifacts, their more immediate point of reference is the devoted community of flint knapping hobbyists, dedicated to recreating such artifacts. In fact, Könnemann turned to bathroom porcelain on the advice of such hobbyists who counseled that, for a beginner, it was a decent approximation of more authentic materials such as flint or obsidian. Whether in Kubrick's *Space Odyssey* or an anthropology textbook, the emergence of tools is often positioned as a civilizationally decisive moment, an inauguration of the human, requiring a particular kind of causal thinking, coordination of the

body and domination of nature. The allure of prehistory is the promise that it can tell us humans about our origins, and therefor about our true nature. If we know what is natural to the human being we can answer all kinds of questions: How should we eat? Structure our families? Make collective decisions? Share (or not) our wealth? The speculation on and recreation of paleolithic practices and lifestyle is supposed to function as a kind of stabilizer, a ground zero for construction our individual and collective human lives.

There is a swirl of language that surrounds this search for Stone Age authenticity:

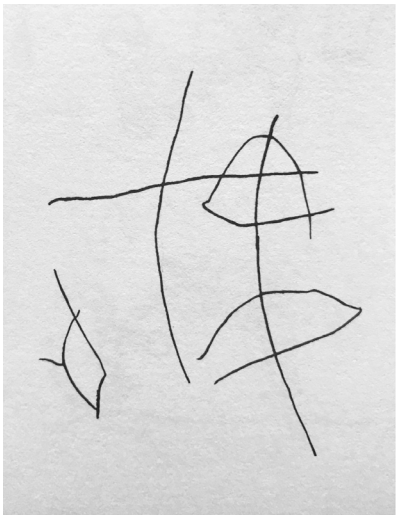
debitage	bulbs of force
bifacial,	hertzian cone
unifacial	eraillures
projectile points	blanks
hammerstone	preforms
planes of separation,	reduction index
conchoidal fractures	bending fracture

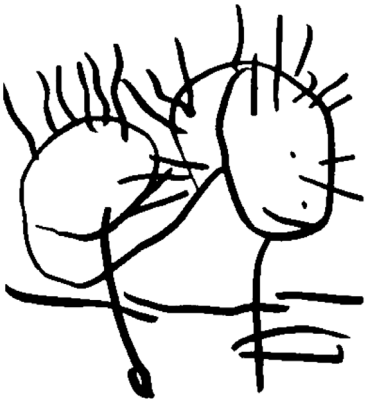
Könnemann deftly sidesteps all of this grandiosity. There is something sly in the way she sidles up to such a mythically overladen, painstakingly reconstructed, technique. As if to say: "Why not? I'll try my hand at it." She does not seem overly concerned with authenticity, or obsessed with putting herself in the body-mind of a neolithic craftsman. She does seem interested in the feedback between tool, hand and material, sensitively inhabiting the rhythm of a technique with highly variable results. At its origins, in the 15th century, the term "knap" was onomatopoeic, the "k" fully pronounced to evoke the sound generate by a sharp strike. By the 19th century, the sense of the word had shifted from the sound to the act —particularly used to describe the process of shaping stone tools via flint knapping. In Könnemann's *Lithic Reductions*, the percussive striking sound is felt in the roughly scalloped edges of the porcelain fragments, marking the beats of the knapping process. These fragments are not over worked. They have a form finding element, a feeling of a shape emerging, but only partially. There is a pleasure in happenstance; in the chipped edge of brown glazing going luminously green; in the way the chip marks can resemble teeth marks, or traces left by waves on a shoreline; in the lightly comic interruption of a manufacturer's imprint by a sharp edge of raw porcelain; in the flickering resemblances of fragments that are also stubbornly themselves, which is to say a stubborn kind of nothing. In fact, Könnemann's *Lithic Reductions* bring to mind one of the terms from the list above: blanks.

According to archaeologists, sometimes lithic reductions were left unfinished, left as roughed out "blanks" or "preforms," ripe for later refinement into a projectile point, axe head, knife, or other tool —as needed. Könnemann too seems to stop short of giving her fragments a definite shape, their form and function held in suspension, allowed to float. If Stone Age flint knapping can be understood as civilizing a bit of nature, making a stone into a tool and thereby drawing it into the human world of technology, Könnemann is perhaps doing the opposite: subtracting the civilizational layer from her porcelain fragments. After all, Könnemann's starting point is discarded bathroom furnishings, originally intended to aid in the discarding of human waste. Könnemann's "lithic cores," her "objective pieces," are raw materials already embedded within history, the products of elaborate civilizational and technical processes. The Stone Age time of the flint napping technique cuts across the cast off relics of modern plumbing, setting history adrift in an indeterminate present; a present whose true coordinates are, as of yet, unknown.

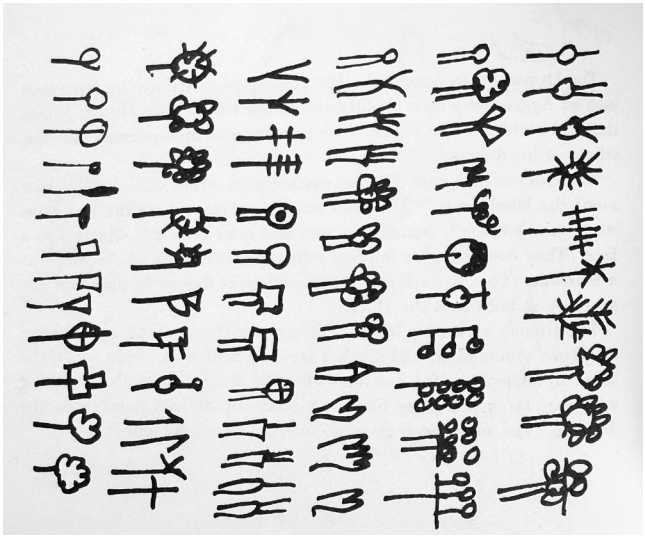
4. Primitives

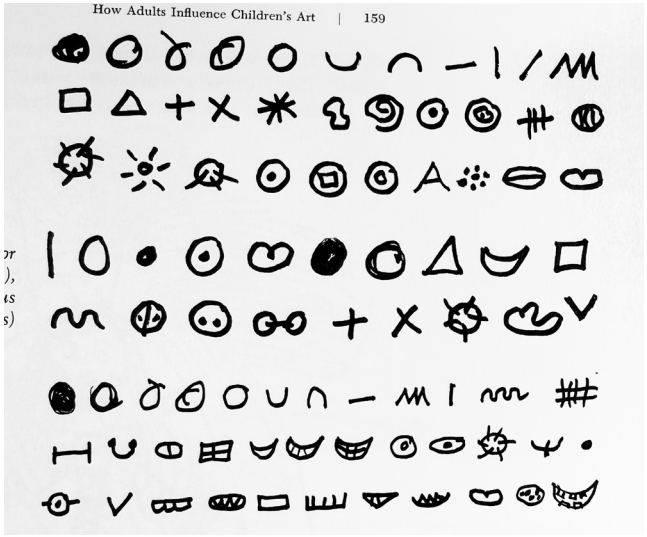
My own series, *Primitives*, is also concerned with notions of origin, both in terms of the neurological ur-structure that supports familiar visual experience, and the drawings of children —exemplars of the kinds of marks and forms human beings make as they are starting out in the world. In her book *Analyzing Children's Art,* Rhonda Kellog uses her vast archive of children's art to trace the psychic and artistic development of children from infancy to eight years of age, schematizing the forms that appear in their drawings. The developmental sweep of the book suggests that children are assembling and refining a picture of their own bodies through the loose, shifting assemblages of circles and arcs, hooks and lines that make up their earliest drawings. The child-artist seems to choreograph the boundedness of their body through drawing, constructing a provisional figure-ground relationship —a version of a body not yet definitively separated out from its envelope of space.



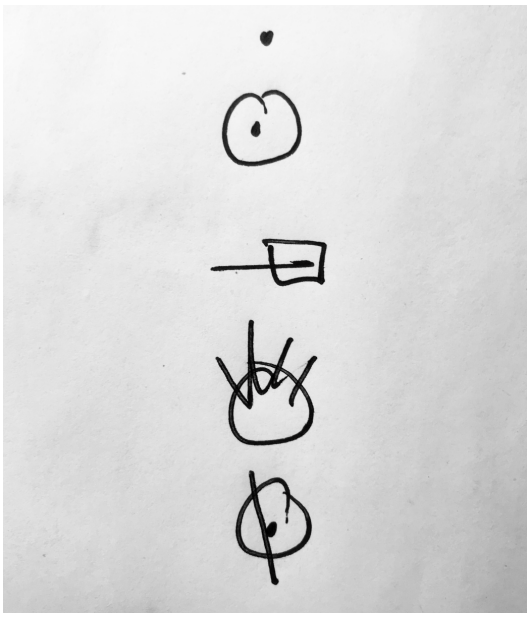


Kellog's book features schematizing tables, used to catalog different sorts of what she calls, "gestalts." The table on the left shows gestalts used by children four to eight years old, representing hands and feet. The table on the right presents the gestalts used for eyes, nose and mouth in children from four to seven years old:





These tables emphasize the minimal—sometimes nonexistent, variations in the forms used by children to represent different parts of the body. Here is my attempt to distill a graphic language for eye-mouth-hand-breast:



The form finding aspect of children's drawing, where an accumulation of arcs, lines, circles, and the like begins to separate itself out from the ground as a unified figure, finds an echo in the schematization of space that supports machine vision. The separation of figure from ground is one of the fundamental problems for computer vision systems, tasked with distinguishing a given object from its environment, and categorizing it correctly. These systems are trained on collections of images, the larger the better, corresponding to a particular object or event. They catalog the basic forms and patterns—sometimes called visual primitives, such as edges, dots, ellipses, gradients and lines of various orientations, that reoccur in an image set, identifying these with the phenomena in question. Characteristic arrangements of visual primitives becomes the basis for probabilistic object recognition.

This technique for engineering machine vision has its roots in a model of human vision, which in turn draws on the study of the visual systems of animals. In 1959, Torsten Wiesel and David Hubel conducted a pivotal study concerning information processing in the visual system of cats. A microelectrode was inserted into the primary visual cortex of an anesthetized cat in order to track neuron activity. The cat was then exposed to projected patterns of light and dark on a screen. A correlation emerged between the firing of specific neurons and the specific angle of inclination of a projected line. Hubel and Wiesel termed these neurons "simple cells." Neurons which responded to lines at a particular angle moving in a particular direction were termed "complex cells." Initially intended as a step toward understanding the neurological underpinnings of human visual experience, Wiesel and Hubel's experiment provided a framework for advancing machine vision. Their key discovery was the way these visual primitives serve as building blocks for the perception of more complex visual information. In a sense, what computer vision systems are programmed to do is reverse engineer this animal neurophysiology of vision: they start with a complex visual representation, break it down into visual primitives, and then determine a likely correspondence between the particular arrangement of primitives and a particular phenomena. This labeling process can be utterly inconsequential—the resulting identification stored in a data bank somewhere and forgotten; or it can be used to monitor and discipline the behavior of workers; or egg on

consumption through aggressive targeted marketing; or it might be the first step in an utterly devastating chain of state sponsored actions (bombing, arrest, deportation, and so on).

The source of this ever expanding flow of information is the so-called visual primitive —its capacity to represent the abstract grammar of our faces, gestures, actions. Rendered abstract, they, and we, are all the more subject to manipulation and control. In my work I have taken up the language of visual primitives, not to merge with or emulate how the machine sees, but to keep turning over the question of perceptual reciprocity between the human, the animal and the machine, to keep the door open for a different account of the senses; and for a different mobilization.

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