

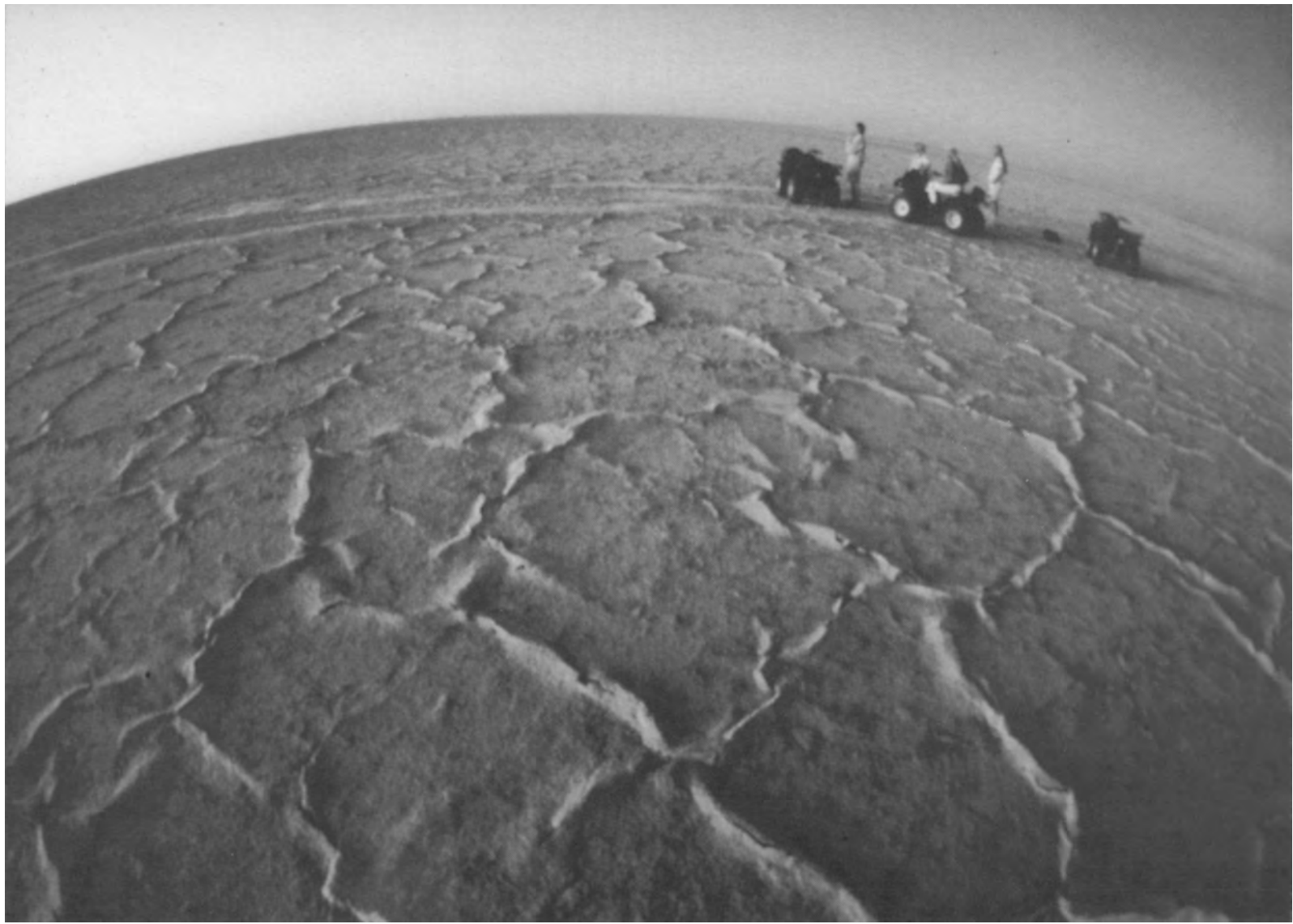
# Sanford Kwinter

## African Genesis (A Presentation)

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Georges Bataille once infamously declared that the sex act “is to time, what the tiger is to space.” The stunning claim sought to serve as a general principle of political economy, but it was rendered all the more remarkable for having formulated the distribution of wealth, and thus the foundation of social organization, in biochemical terms. Sex is but a way of removing energy from a utilitarian protocol of growth, profit, or production; sex is a form of exorbitant, reckless combustion. The tiger, on the other hand, is the image of a prodigal contraction, the enfolding and entrapment of energies once vastly and far more stably distributed across the surface of the earth. In the large, carnivorous, social predator these free-ranging energies are accumulated so densely, and placed under such pressure, that their ultimate effect is *to volatilize* space. It may be demonstrated, with the economist’s or the ecologist’s invertible equations, that concentration/volatilization of space always results in *an animal* (an organism, an event) of one form or another. All the works of nature, and the great ones of architecture — from the age of the cathedrals to that of the revolutionary social condensers — are volatilizations and contractions of this type.

The African plains are at once still and stern as well as relentlessly plastic and throbbing with life. The African horizon stretches wider than perhaps anywhere on earth, it loops around you and detaches you from any beyond, replacing infinite (rational, Cartesian) extension with an azimuthal pulse (the first beat is that of the circumferential line and the resulting massive dome it projects overhead), a metered unfolding that generates an infinitely shifting pattern of relations. The horizon gathers and delimits, it is the inscription of a first, or



1. Makgadikgadi azimuth

primary, tension, the first contraction that makes the landscape ripple and turn back into itself, that makes it animal. From the African plains there emerged the first known form of life 3.2 billion years ago (in the eastern Transvaal),<sup>1</sup> as well as the first biped hominids in whose general habit we recognize ourselves. Like that first single-cell bacterium, the human type, too, represents a direct product of the rhythmic, compound contraction of the Pleistocene African plain. George Schaller and Gordon Lowther have conjectured boldly that early man was shaped more deeply by the sit(e)(uational) forces that shaped other non-primate social carnivores such as lion, hyena, and wild dog (through a process known as “convergence”), than by merely phylogenetically related hominid species.<sup>2</sup> In other words, humans evolved and were shaped by *ecological* and communitarian forces as they played themselves out on the plain, and less by inherited tendencies borrowed from cousin or ancestral primate species. We are social animals and our social and nervous apparatuses are products of the plain, its predator-prey relations, its complex territorialities, and its compound interactions. We are, every one of us, animal monads in the Leibnizian sense, we are mirror images of the cats, the hyenids, the canids, and of the plain from which we were all thrown up. The species, that is, differ only in degree, depending on which aspects are most (or least) clearly expressed in and through them. We are all, each in our way, specific contractions or enfoldings of the plain, the result of two million years of coevolution and incorporation. This is most tangibly illustrated in the social and hunting behaviors of the Khoisan and Nama Bushmen (“stone age”



2, 3. Cobra, a San Bushman, enacting an encounter from the previous night between an ostrich and a black mamba. According to Bushman folklore, animals transmit their bodily and behavioral patterns to men, over distance and through time. Bushmen think of these somatic precognitions as “letters” that they receive and that make them move.



5. Okavango Delta. What type of genesis? — slow hydrology . . .

hunter-gatherers) of the Botswana Kalahari and the eastern Namib whose click language communications are acrobatically punctuated by shuffles and jigs meant directly to mimic animal postures and compartments and to reenact the scenarios inscribed in their spoor or tracks. We each exist inside of one another, mostly quiescent yet always resonating. Sociality and savagery have always been inseparable, and this fundamental though mostly hidden relation is nowhere more palpable than across the thornscrub plains of the Kalahari.

The Okavango “Delta Spa” project by Lindy Roy is a study in animal genesis, drawing the rhythms and contractions of the Kalahari itself. The Kalahari is said to represent



4. Khoisan hunter (Bushman) stalking prey



assemblage 36

6. . . . or high-speed geology?

the largest expanse of sand to be found anywhere on earth. Its individual salt pans alone, such as the vast and mysterious Makgadikgadi, span a larger patch of the earth than does Switzerland and, though intensely dynamic, are almost totally devoid of topographical relief. Yet the immense and austere expanses of salt-clay, grassland, dune, and brush that make up the Kalahari were once the site of a huge inland lake and, subsequently, of a network of east-flowing rivers. (These primeval bodies of water have often been considered giant prototypes for the microorganisms that would first appear on earth, after subsequent contractions, only millions of years later.) Today the Kalahari's most dazzling and prominent feature, one that reminds us of its ancient, wetter, Miocene past, is the miraculous inland delta supplied by rainwater shed from the Angolan Highlands to the north. Crocodile country. But also some of the most

7. These centuries-old twin termite mounds in Linyanti, Botswana, are locally known as *Amabedhlana*, Zulu for "women's breasts." One was recently snapped off by an elephant — the other great landscape shaper of the African savanna — trying to scratch itself against it.



prolific and serenely beautiful wetlands on earth. Now the fluidity of this landscape is not limited to winding passages of water, mokoros, hippos, and reeds. The solid portions, or the landforms that punctuate the meandering lagoons, are shaped not by fluvial deposit, as in the classic delta manner, but are rather built up, tectonically assembled in the form of ancient myrmecological empires of which any random glance might frame a dozen of their proud spires. These are the termite colonies whose restless, archaic activity ceaselessly churns, redistributes, and stabilizes the dynamic Okavango environment. The vast emerald Delta, or Kalahari “jewel,” is little more than a sedimentation and federation of termite cities of the past and present. It is out of this world of contracted durations, of compound ecological communities and coordinated process and rhythm, that the “Delta Spa” project unfolds.

Roy’s project consists of two algorithmic processes linked through a structure of call and response: that of rhythmic distributions, on the one hand, and rhythmic unfoldings, on the other. The first, like the periodic pheromonal wakes laid down by termite swarms,<sup>3</sup> are primarily responsible for forming the site (allocating events), the second for the unfurling of the local “pods.” In the wild, space is organized through tension and relaxation. The hydrology of the Delta site corresponds to the hydrology of “stress” in the animal continuum. Social animals that need to eat other animals (though not only these) often establish what are known as territories and home ranges. The range represents the region in which an animal (or animal collective) might wander with relative impunity, the territory the region that they will actively defend. Animals dominate other animals within their territory, but are dominated outside it. The range margin that extends beyond the territory and surrounds it is



8. Hyenas hectoring a lion at a kill. As more and more hyenas invest the space, tension will build to intolerable levels and the lion will abandon its prey.

9. Migratory zebra, Okavango, Botswana. Movable feast or polymeter as survivalist adaptation?

flexible, indeterminate, and subcritical. The purpose of all demarcated regions, however fluid or provisional they may be, has nothing to do with land or extensity, but everything to do with passages or flows — precisely, the flow of resources. Resources can mean flows of water, flows of kudu and impala (herdfood), or flows of females. Whatever the case, and it has always to do with a combination of these, sociality is established as a management and repeated negotiation of fluctuating tensions and fronts. The harvesting of this perennial and primordial spatial tension is what draws the lines and surfaces in Roy's spa colony.

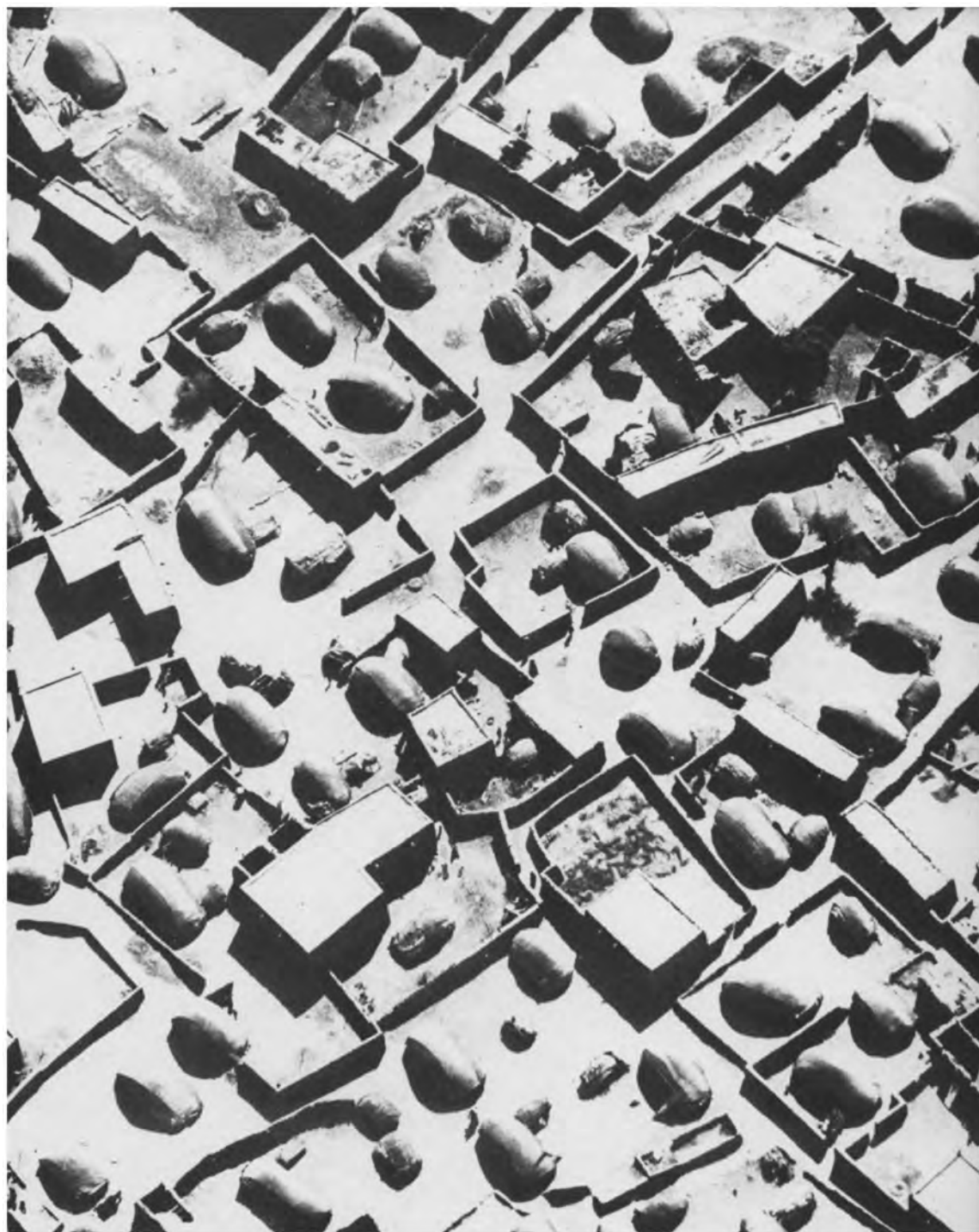
Each pod consists of a constellation of three semidistinct integers that rotate languidly in relation to a single, collective, and gently migrating center of gravity. (The effect here is of a dynamically stable *constellation*, a three-body problem.) The elements pull and push, but also accumulate drag. The billowing of the canopies has the effect of extending the surface forms into time, laying down memory trails and anticipated movements while registering the irregular tensions and relaxations that, during a period of rotation, have been traversed. This is the contraction of memory into matter of which Henri Bergson spoke, and it is the necessary but also sufficient condition for the emergence of an animal organization (instinct and, later, consciousness). It may be pointed out that Roy's forms more resemble those of flowering botanicals, but plants might equally be said to represent rudimentary animals distinguished only by their greater torpor and by their less contracted temporality. The effect, in any case, is that of a *ralenti*, a slowing of flows in order to maximize or amplify infinitesimal ambient tensions. Like the orbital solar collectors that pop through the thatch to osculate the sky, every surface reveals a cycle partially achieved and a sensitive membrane of entrapment of movements, forces, logics, or in a single phrase, a meshwork of *tensions*.

The pods are organized at once into *families* (each incorporating a termite mound with ventilation tower) as well as into infrastructural subaquatic grid modules.<sup>4</sup> The families and the modules, though superposed, do not, however, coincide. Rather, they comprise the distinct periodic pattern units of a "weave." In Western musical parlance, we would say that they are shifted in phase. But this tells us nothing of the deeper dimension of the scheme and its connection to African space-time. A critical central feature of African music (of African technics and space-time) is that of synco-



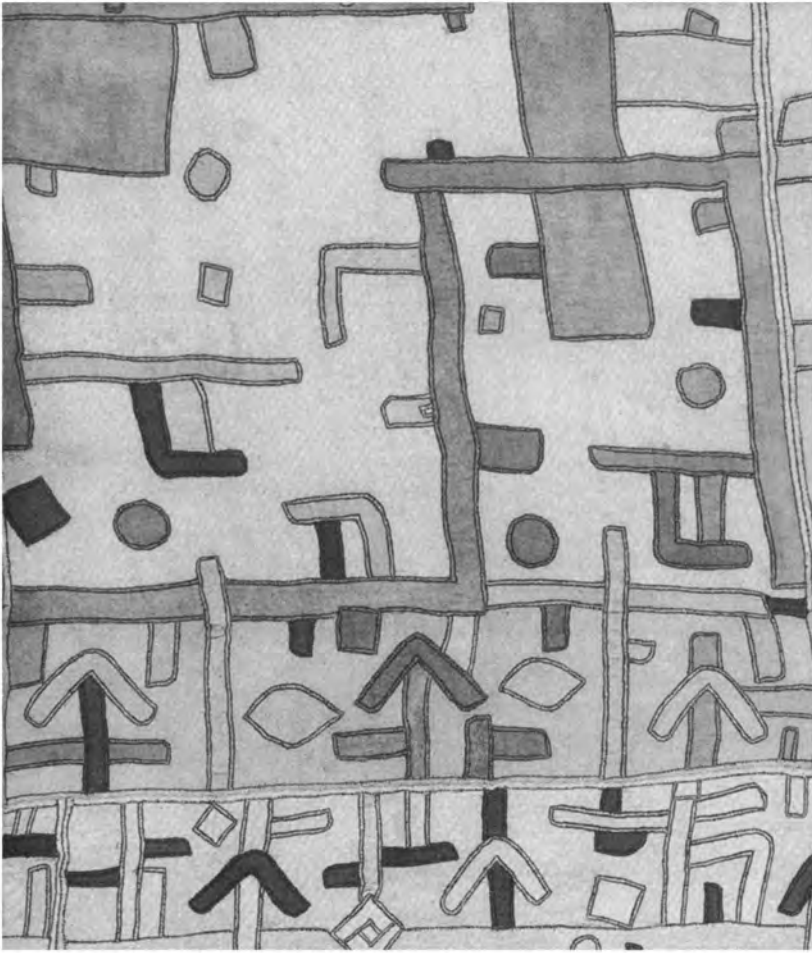


10. Songhai village, near Timbuktu, Mali, showing free, yet constrained distribution of elements to form a solid-fluid lattice. Note the distribution of byways and the absence of channeled thoroughfares.

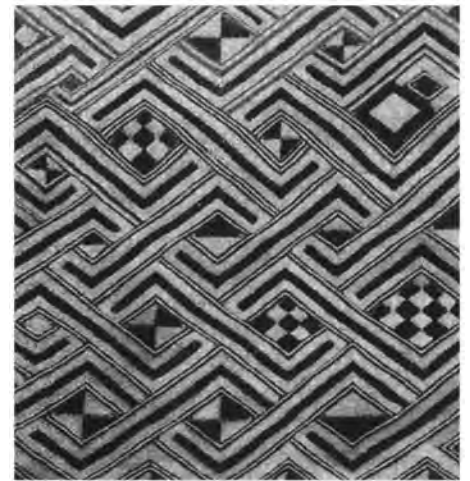


pated meter: in every composition there are always *at least two rhythms* going on at the same time. The effect of specifically African (Ewe, Dagomba), polymetric syncopation is that no *single* beat emerges to the fore, no unifying rhythm overtakes or imposes its organization on the others.<sup>5</sup> Musicians find their entrance into a song not by counting from a main beat, but from local entrances provided by one or another individual instrument. The coherence of African composition (be it basketry, textiles, music, or dance) is derived from conflicting and deliberately irreducible rhythmic patterns known as cross-rhythms (leaving aside the most critical feature of all, impro-

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11. Kuba appliqué, Congo, nineteenth to twentieth century, showing free-form syncopation and dilation



12. Kuba textile, Congo

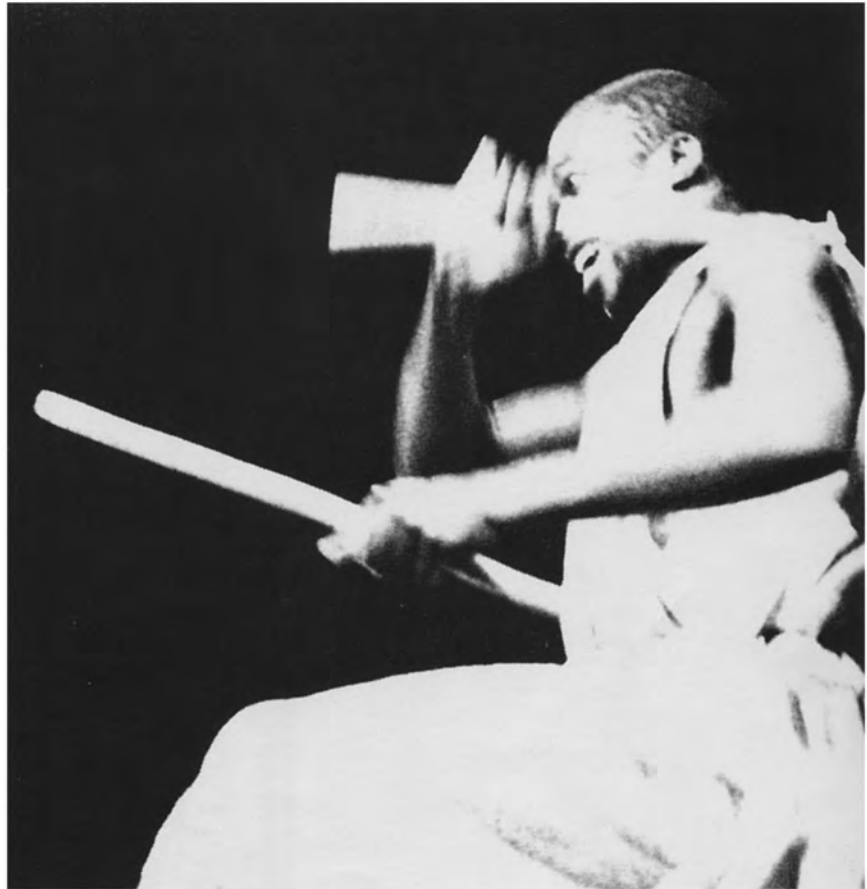
visitation and variation). How this happens in music is as follows: each player (with the exception of the master drummer) plays his own rhythm, which he successfully maintains only by blocking out of his mind those of all other players *except for one*. Preserving a clean distinction and separation between competing percussive rhythms is critical in order to flesh out and to maintain the stability of the entire fabric. One rhythm always determines how we hear or apprehend another (they do not stand alone). Almost any two rhythms can work together, yet it is immensely difficult to listen to more than two at once, at least for those who are playing. For the same reason, it is particularly difficult for many Western listeners to hear a piece of African music in its entirety. Yet a certain reality cannot be denied: the music, after all, is produced and, despite its complexity, maintains a lexical and syntactical structure so



13. Botswana basket with three superposed patterns



14. Ghanaian trance dancers



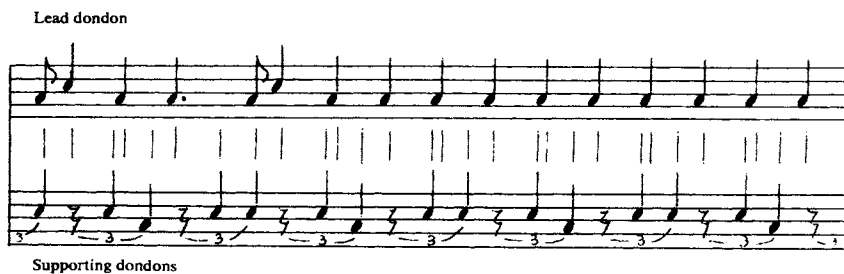
15. Burundian drummer

rigorous that it is possible to form sentences and recount stories entirely with beats on tunable drums. Now this reality, this coherence, is in fact the product of an “absent,” unsounded beat. African music, like African genesis in general, is inseparable from the specific, in this case, social conditions in which it is enacted or produced. It is pure “haecceity” in the sense that this term was given in medieval Western philosophy, the specific “thisness” of a thing that distinguishes it from every other. African music is fully an act, indissociable from the specific event of its playing. It is (with few exceptions) music for dance, although dance may not always mean motor behavior, but may also mean internal rhythmic patterning.<sup>6</sup> In complex, syncopated, polymetric, cross-rhythmic music, it is the dancer (or listener) who supplies the beat. The drum ensemble is, in effect, “everything but” the beat, and so it is no mystery that even African drummers must themselves move or dance to keep the beat; they do so so that their drumming can remain off-beat with precision. African music (like the African plain) is about the organization of rhythms and cross-rhythmic tensions and their periodic contraction and composition into coherent, dynamically stable ensembles. You take your place up within the block of rhythms, *you find your time* in it — the animal-event is a performance, it is the dance of genesis, of life.

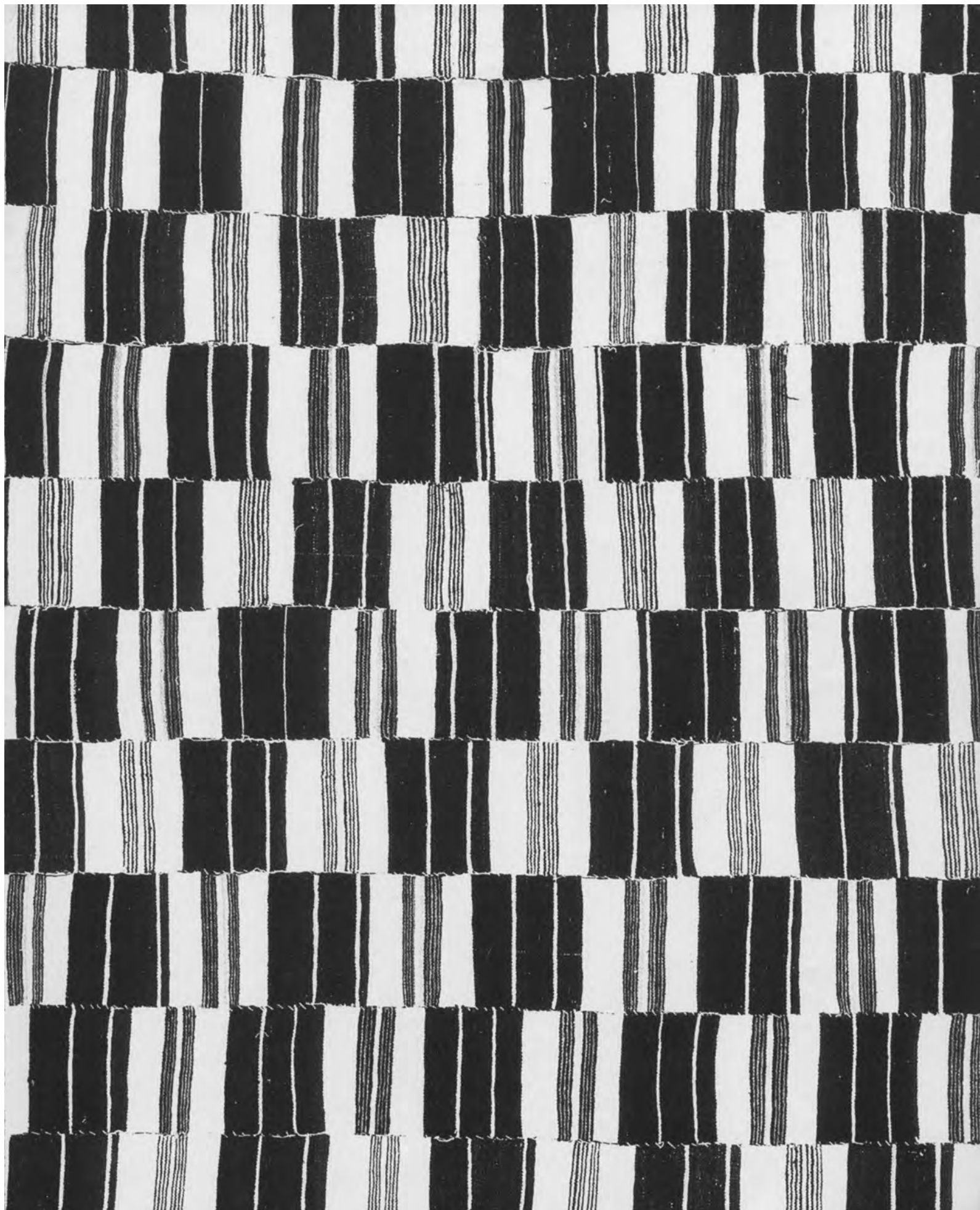
Rhythms, as we noted, do not stand alone; they pick one another out, cut across one another, focus one another, and make one another be “heard.” Rhythms are responsive and reciprocal. It is a new type of composition in architecture or in design in general, *when a rhythm may be relaxed or subdued in order that it may be heard all the better*. This is precisely what happens in African polymetric composition, and it is also the case in Roy’s Delta Spa project. The responsive quality of cross-rhythmic cutting is predicated on the flexibility and fluidity of all components of an interconnected social-ecological system. What makes a rhythm “interesting” in African music is its potential to be affected by other rhythms. Roy’s interest in the rhythmical basis of morphogenesis (that is, nervous systems) and in biological stability reflects a fundamentally open approach to form, one that incorporates and focuses movements in an environment, one that undergoes transformation and admits influence by maintaining webs of modifiable and often of exquisitely subtle tension, one that accepts, and in accepting, gives. The work presented in the following pages is undeniably modest, yet the reservoir from which it draws is as immense as life itself. The customary effects of composition from the QWERTY keyboard are here noticeably absent. This is by no means a morph aesthetic, however much advocates of the latter may want to appo-

pritate its ethos; indeed, nothing could be further from it. This approach has little to do with the bridges and splines that flexibly span the chasm between two arbitrary spatial forms, even less with deformations or molestations of Platonic solids. Rather, it is concerned with the coordination and resonance of distinct metric cascades — the engendering of *vortical* constellations in a free, yet directed musical continuum. Just as every acoustic pitch is comprised of periodic oscillations that, when slowed, become discernible as rhythmic pattern, rhythm may be seen to supply the genetic and microscopic foundation of all form in the universe. Dilation and *ralenti* move us toward the physical, the logical, and the perceptible (and thus the apprehensible), while contraction moves us toward the higher, more intensive forms of computation (“sensitive matter” in Diderot’s formulation) — toward the invisibilities, the fevers,

16. Partial drum score for “Takai” (Dagomba dance beat), showing rhythmic cross-cutting of lead dondon by second dondon (gongon parts here omitted). Vertical lines show the two rhythms combined into a single block. The irregular rhythm of second dondon can be seen to exert a deliberate pressure on temporal flow, pulling certain notes together and others apart. This “pressure” is an often-noted feature of African music, producing the effect of elastic or roving time signatures and the constant “expansion and contraction” of time that Western rubato techniques, with their fixed references, never achieve. African musicians are known to play with reference to rhythms entirely different to the ones they actually beat. Implied and unsounded beats belong to a rhythmic scaffold or organizing diagram that is embedded, but not scored.



17. Rhythimized strip cloth textile, Mali or Nigeria, early twentieth century. Horizontal strips are separately woven on African narrow-band loom. This “weft-faced” or horizontally banded weave is carefully cut, rotated, aligned, and sewn together with others to produce the delicate polymetric vertical patterns such as the zigzags and fusion of descending rhythms that “sound” percussively on top of the horizontal ones. None of these phase shifts, or “frequency modulations,” even those within the weave (such as within the dark blocks), are treated as random. Note that while certain adjoining elements are staggered others remain aligned at different distances. Narrow-strip composition in West Africa dates back to as early as the ninth century.



and the mysteries of matter and autonomous life. Design, like music, must carry us in both directions at once.

It is possible that life needs feminine forces, not only to come into being, but also to continue along its way. Nietzsche argued that forces could affect only other forces and never their fixed products directly. To compose is to select, to target and to modify only what already and by nature moves: composing forces, not composed things. This is the domain of what Roy calls coordination, that of rhythms whose primary purpose is to speak to, and in speaking to redistribute, one another. It is the domain of conversations in perpetual metamorphosis, it is the Open, and perhaps the feminine substrate of all morphogenesis. It is possible to ask, Can design also be purely compositional, that is, receptive, selective, combinatoric, hydraulic, and lodged within nothing else but a deep intuition of pattern? In the classical Chinese tradition, the concept of configuration or disposition is inseparable from that of natural propensity or potential.



18. Ekoi female headpiece, Nigeria

Such a view is possible only because physical law is conceived within a theory of nature conceived as perpetual change. Change drives every moment and physical arrangement to pass out of phase with itself, to become something different, to disaggregate and to become momentarily free to enter into new alliances. Raw information always seeks the feminine combinatoric, the *khre-hodos* (the directed route, or “chreod”) or the Will to Power (feminine principle) whose sole purpose is to guide preexisting forces and connect them to what it is in their power to do. Rarely, even in today’s cybernetics-obsessed world, does the former (raw information) find the latter (the combinatoric). Epigenesis, which here in Roy’s methodology is transformed into a kind of comprehensive *Umwelt* theory, is extended to become an ecology of passages (dilated or contracted) and a syntactical coordination of discrete event-lines into constellations of harmonic resonance. Coherence, or solidity, in a polymetric continuum is not easily achieved, but when it is, it never appears as anything other than natural. This is because nature itself always appears to us in blocks, as smooth vortexes broken off from the fibrous tangle of uncombined unfoldings, from the apparently random residue that, by definition, does not emerge into perception. Yet how to tap into or call up the vast reservoir of potential that lies in the cacophonous substrate? Through a different design methodology: the emission of a form of song that draws other embedded lines and phrases into relief, or alternatively, by the subduing of one line to make another, or a pair of others, more clearly heard.

The so-called feminine forms, here as elsewhere, follow directly from the feminine weave of temporalities, from the *transactional* emphasis and from the receptive, directive, and tensive understanding of morphogenesis. They follow from the unneurotic acceptance of insoluble mystery, the mystery of control systems among others: for where is the locus or cause of coordination phenomena, of dynamic coherence, of form? The answer is that it is simply the proper of life *to live*, to pursue to the end of its capacities what it is that it can do. A critical, overlooked law of complexity is that only the simplest solutions to a given scenario will be selected. Life absorbs, or incorporates, all relevant tension or influence, every wave, disturbance, and transactional structure (lion/hyena, ratel/indicator bird, wildebeest/lightning, brachiating hominid/retreating rainforest, biped hominid/arid savanna, termite/pheromone gradients) and selects the most efficient solution that allows it to proceed to the next scenario. In nature, design is the composition of tension into circuits stable enough to





process a more or less wide range of input and variation. Nothing is ever arrested. And form is never more than an illusion. No one who ever took nature as an image for the design of form ever got it right. Nature represents a certain way that events are produced, a certain rhythm of emission, of contraction and dilation; it is a design *engine* responsible less for the matter it organizes than for the organizational forces it deploys. Today we can almost envision a new type of design that proceeds in its first stages by deletion: where the main principle is the clearing away of the willful and hubristic obstructions, the viscosities, the residues, and the confusions that historically have been placed in the way of design action by the formalisms of tradition and simple prejudice. The forces of morphogenesis might then play themselves out in free engagement with the feminine combinatoric, with nature's polyrhythmic block of plural unfoldings. Should this system of design ever come to be, it might well resemble the alternating rhythms and efflorescences of Roy's African Delta Spa.

19. Hearth, Baoulé, Côte d'Ivoire. Unlike most ritual and technical objects, these hearths are generally modeled by women. This object is further unusual in that Baoulé people consider it "beautiful" in an aesthetic sense, independent of animistic properties or of any attribution of efficacy (power to affect). The knobs support pots, while the harborlike slots receive the ends of burning logs.

## Notes

1. The world's oldest fossil.
2. George B. Schaller and Gordon R. Lowther, "The Relevance of Carnivore Behavior to the Study of Early Hominids," *Southwestern Journal of Anthropology* 25, no. 4 (1969): 307–41. This immensely radical idea has been developed by other biologists as well. See also Hans Kruuk, *The Spotted Hyena: A Study of Predation and Social Behavior* (Chicago: University of Chicago Press, 1972), and Nobelist Nico Tinbergen's foreword to the same book; S. L. Washburn and V. Avis, "Evolution of Human Behavior," in *Behavior and Evolution*, ed. Anne Roe and George Gaylord Simpson (New Haven: Yale University Press, 1958), as well as George B. Schaller's classic, *The Serengeti Lion: A Study of Predator-Prey Relations* (Chicago: University of Chicago Press, 1972).
3. See pp. 56–57 of "Coordination: African Delta Spa," in this issue of *Assemblage*.
4. See *ibid.*, 54–55.
5. Roy herself has discussed the phenomenon of simultaneous chewing and speaking — two distinct, highly complex reflex chains of the larynx, tongue, jaws, and lips that, though superposed, remain at once metrically apart (cross-rhythmic) yet seamlessly coordinated. Lindy Roy, "Nikolai Bernstein's Technics of Action," lecture, Kennon Symposium, Rice University, March 1997.
6. See Lindy Roy, "Geometry as a Nervous System," ANY 17, *Forget Fuller?* (1997), esp. on Central Pattern Generators (CPGs).

## Figure Credits

- 1, 7. Lindy Roy.
- 2, 3. Sanford Kwinter.
- 4–6, 9. Frans Lanting.
8. Derrick and Beverly Joubert.
10. Colin Duly, *The Houses of Mankind* (London: Thames and Hudson, 1979).
- 11, 17. *African Art* (Richmond: Virginia Museum of Fine Arts, 1994). Photograph by Katherine Wetzel.
12. Annemarie Seiler-Baldinger, *Textiles: A Classification of Techniques* (Washington, D.C.: Smithsonian Institution Press, 1994).
13. Botswana Chamber of Commerce.
14. Nyanyo Addo: *He's in Trance Now*, WeltWunder Records, 1996.
15. *Les Tambourinaires du Burundi*, Womad Productions, Real World Records, 1992. Photograph by Rob Scott.
16. John Miller Chernoff, *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms* (Chicago: University of Chicago Press, 1979).
18. Royal Ontario Museum, Toronto.
19. Susan M. Vogel, *Baule: African Art, Western Eyes*, (New Haven: Yale University Press, 1997).