# JEAN-PIERRE HÉBERT: FASCINATIN' ALGORITHM

By Peter Frank

Computer art, like computer music, is at least twice as old as most people suspect. While, in the wake of the personal computer, the genre has exploded over the last quarter century, its origins date back to the postwar years, when creative individuals were first given access to – and trained in the operation of – the massive mainframe structures maintained by IBM, Bell Laboratories, and other benevolent next-industry giants (and governments). The art produced on these cumbersome but magical devices had a distinct quality to it: at its best, it conflated the forms and textures we associate with machines, with nature, and with human design. Jean-Pierre Hébert's work recaptures, deliberately, that quality; the aesthetic of mainframe computer art, after all, was never exhausted, only superseded, and Hébert has revived not only its flavor, but its intellectual drive and depth, by vastly broadening the range of its applicability, and the impact of the results.

Actually, Hébert has not revived the aesthetic of first-generation computer art so much as sustained it. He began his studies in computer engineering in the late 1950s, almost coincident with the first computer art, and from the first, Hébert was taken with the computer's potential for graphic generation, most especially (and logically) graphic production unachievable by any other means. Until the 1980s, he was only intermittently aware of others' attempts to do the same. Rather, his attention was turned to the work of artists who did not employ digital technology, but who proposed a realm of abstract signs and effects, a realm of experience based not on the observation but on the condition of nature. Such artists, as Crisman Cooley has noted, included the most exacting and calculating of geometricists, from Mondrian and Kandinsky to Max Bill and François Morellet, but also the most dramatic of gesturalists, from Jackson Pollock and Franz Kline to Henri Michaux and Wolfgang Otto Ludwig Schulze, a/k/a WOLS.

The factor shared by the work and thought of all these artists might be described as synecdochal complexity, that is, intricate, even seemingly chaotic composition taking place within a context of logical visual coherency derived from the reiteration of similar forms and formal relationships. These artists

"built" their work out of many components, but few fundamental elements; the same vocabulary of shapes found in any one portion of a painting or drawing recurs in any other. What happens in the middle may or may not also happen at the edges, but it happens with the same basic forms. This kind of "all-over" composition led historically to the acompositional neutrality of minimalism (which Hébert also appreciated early on in the work of such artists as Agnes Martin). It also dovetailed perfectly with the value-neutral "playing field" of early digital art, especially as Hébert sought to explore it with the assistance of plotters (and more lately, inkjet printers and video displays), entirely beyond the touch of the human hand.

For all his appreciation of painters such as Kline and WOLS, Hébert has sought to eliminate manual gesture in his work in favor of visual information – with the stress on the word *information*. It's tempting to say "optical effect" here, as Hébert's drawings are eminently capable of engaging the eye in remarkable trompe-l'oeil conjuration, suggesting topographical ripples sometimes as gnarled as crumpled cloth, sometimes as deep as desert canyons seen from the air. But what Hébert wants to excite in our minds is less analogy with naturally occurring phenomena than with the apprehension, part cerebral and part visceral, of mathematical, or at least computational, possibility. He has observed that his artwork is expressible as computer code no less than as drawing: the drawing is the visual end result, the code is the conceptual end result, of the same determinations by the same artist. The beauty Hébert finds in the code is not only conceptual, however; embedded in that code is the extra-visual information with which he has driven his imagery. As Anissa Mack observes, "when Hébert uses code as a drawing tool he is exploring his interest in the interrelatedness of art, science, music, and rationality, by using the creative products of other disciplines to serve his ends." The code, then, could be heard, studied, and/or discussed as much as seen – which means that, at the core of each drawing, however alluring on its own, functions a "score" for potential comprehension and interpretation on a number of levels, and in a number of media.

Note that such comprehension and interpretation would be actual to their own medium, not metaphorical to the drawing's. The drawing ultimately manifests as one way of "reading" – or, if you would, "playing" – the code. The drawings gain an added frisson when regarded as visual "performances"

of given notations. (They also return to their stylistic origin in gestural abstraction, that is, to the overtly performative approach of Pollock and Michaux.) It's almost as if the code were genetic, algorithms comprising its DNA, capable of recapitulating the phylogenies of wildly diverse species. Throughout, however, one never gets the sense that the drawings exist to exemplify some larger concept. Whatever prior value he may place on the generating algorithms and their encoding, Hébert does not consider them any more (or, for that matter, less) significant than their visual outcome. Again, the code to any one work serves as a score (and the algorithms as its units, its "chords"), and the drawings – and prints and video sequences and kinetic objects – serve as "performances" of their particular code-scores. The sound-responsive sculpture Hébert has designed, its shallow boxes of water unexpectedly evincing tremulous grid patterns in response to certain musical passages, seems designed to point our attention in this direction.

Still and all, for all their crucial relationship with the most abstract of notation, Hébert's artworks have been invested quite deliberately with metaphorical power. Our brains cleave to analogical relationships, no more so than in the visual information we take in, and, as noted before, Hébert's works brim with provocative forms. Where we see curled hair and ocean waves and snail shells and misty landscapes, however, Hébert sees metaphysical energies. In his highly cerebral "metagon" series, for instance, Hébert extends Max Bill's concept of an evolved geometry in emphatically pictorial manners – as Bill (who spoke of his art not as abstract but, to the contrary, as "concrete") would have wanted, but in ways that regard the elaborated geometries as icons of a higher logic – a logic that, like the complete $\pi$, is attainable as an idea rather than a concretion – and that, in the tantalizing possibility of its attainability, maintains a mystic power over us.

In what may be his best known work to date, Jean-Pierre Hébert sends a steel ball wandering across the sand-strewn surface of a wooden box, inscribing metagons and other fanciful forms into what has metamorphosed into a miniature Zen garden. The ball's repertoire is what it is, a perhaps limitless unspooling of geometric paths. But the ball could be us, or at least our minds, wandering in what seems aimless fashion but discovering that aimlessness is unavailable to either nature or the human mind.

Randomness, yes; influenced by John Cage, Marcel Duchamp, and other champions of the indeterminate, Hébert builds as much asymmetry and "irrationality" as he can into his code-scores, resulting in myriad delightful poly-algorithms. But there is no mere aimlessness at work here; rather, there is a seeking for the infinite. Hébert's Zen garden becomes our sphere of experience, actual and potential – the universe in so many grains of sand.

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