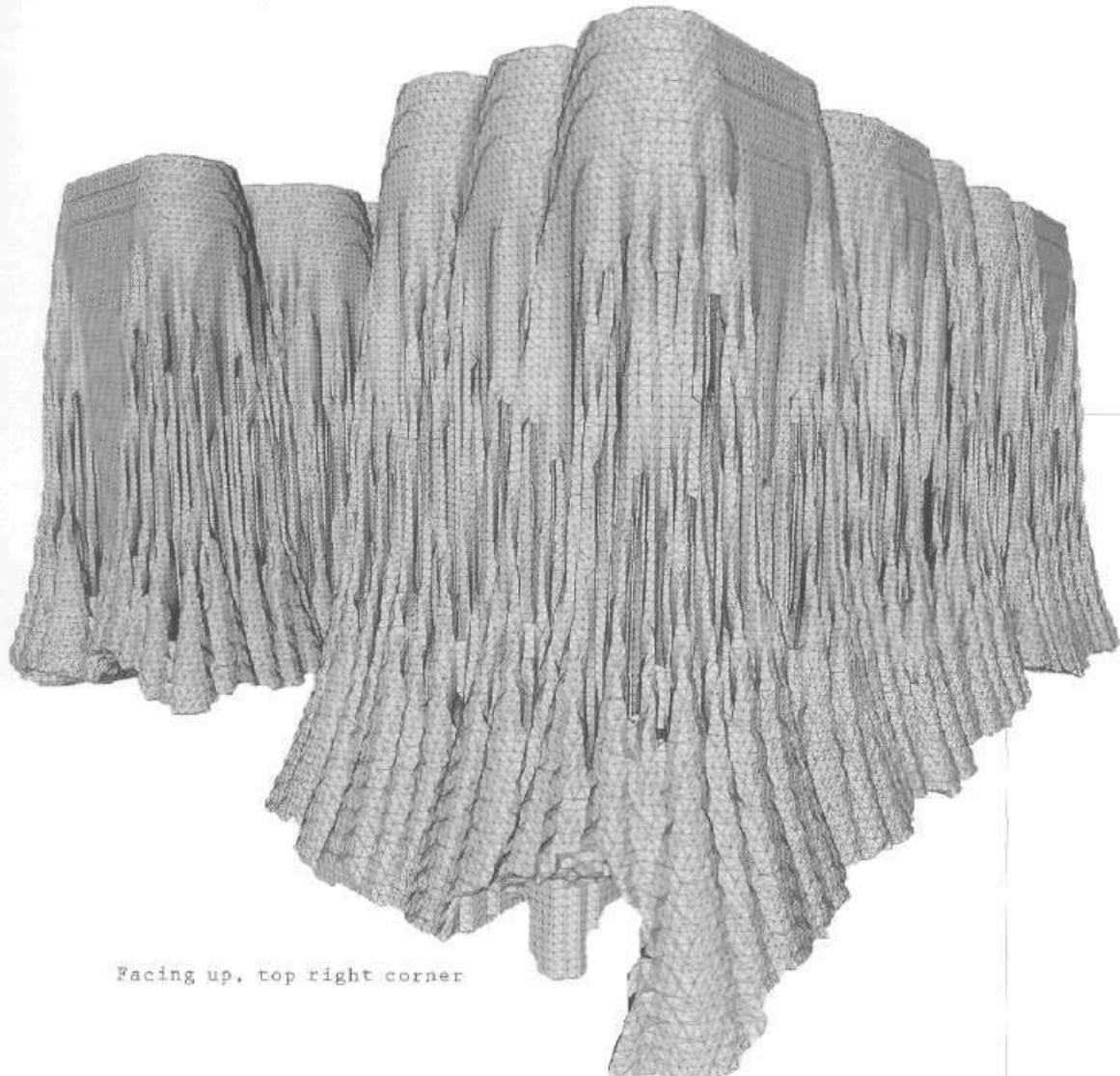


# Different Strokes

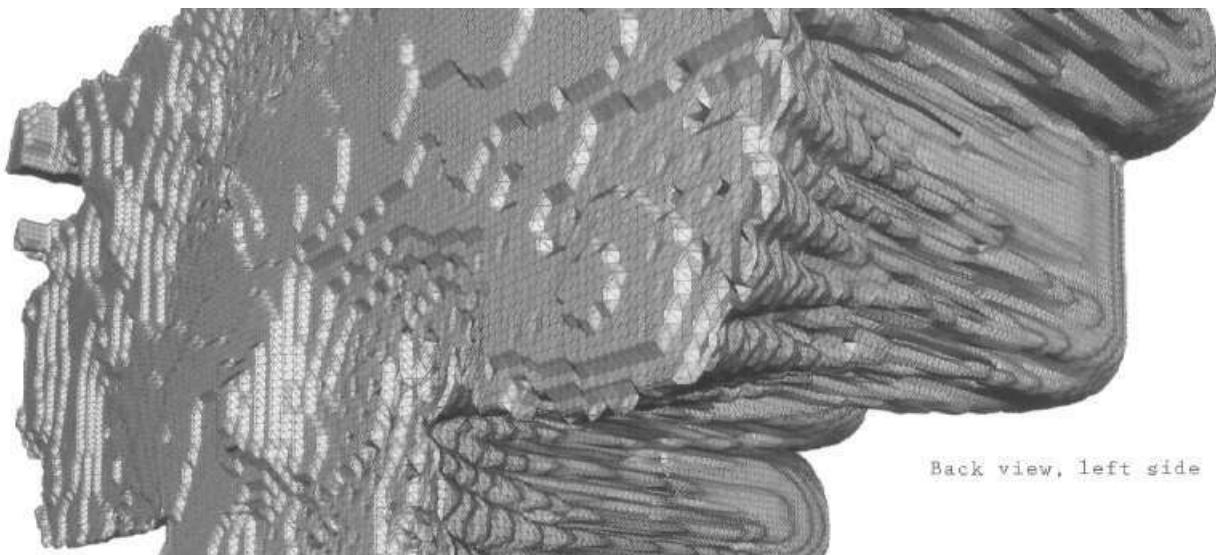
HOW A SMALL BUT GROWING NUMBER OF “CREATIVE PROGRAMMERS” ARE CHANGING THE FACE OF TYPE.

By Emily King

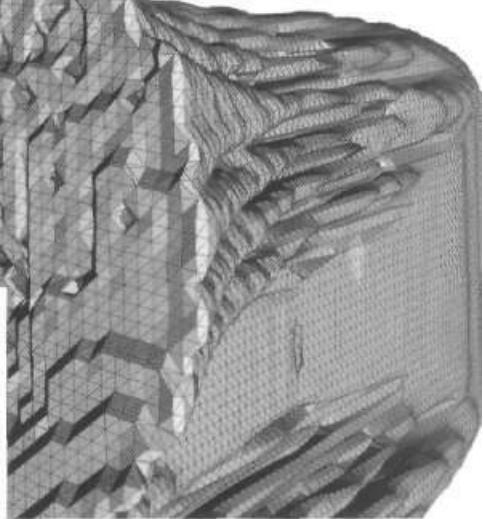
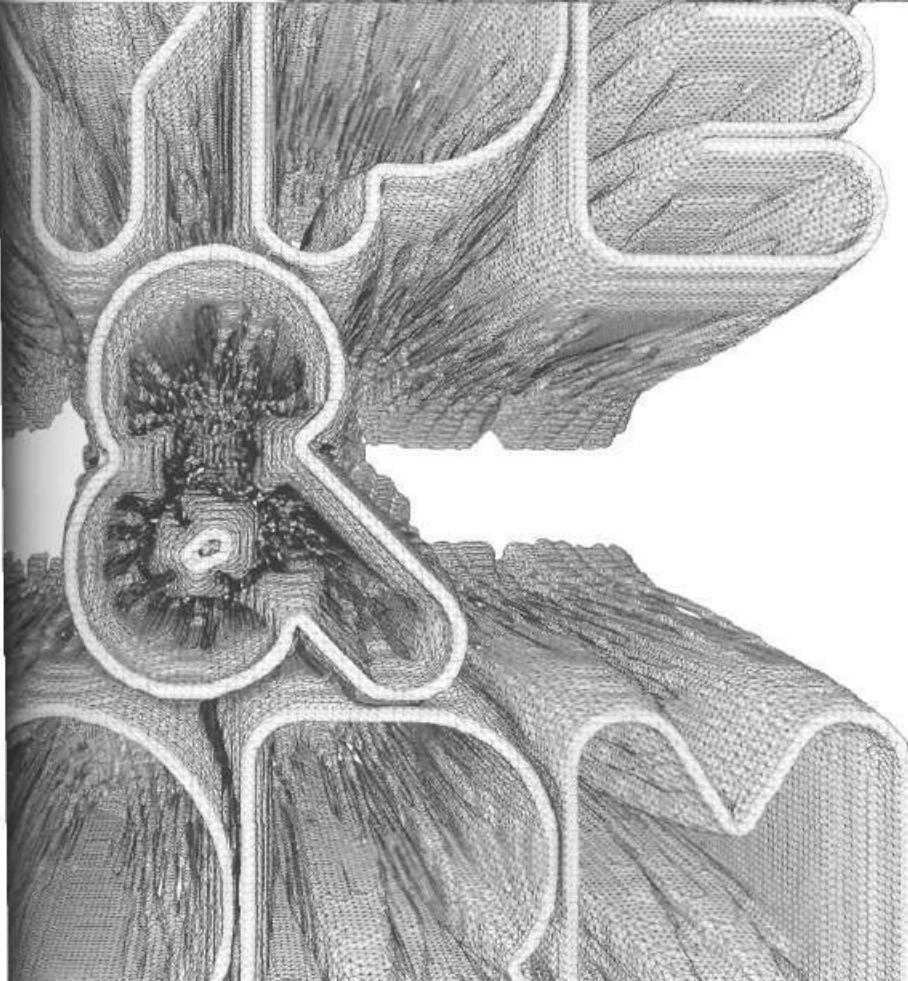
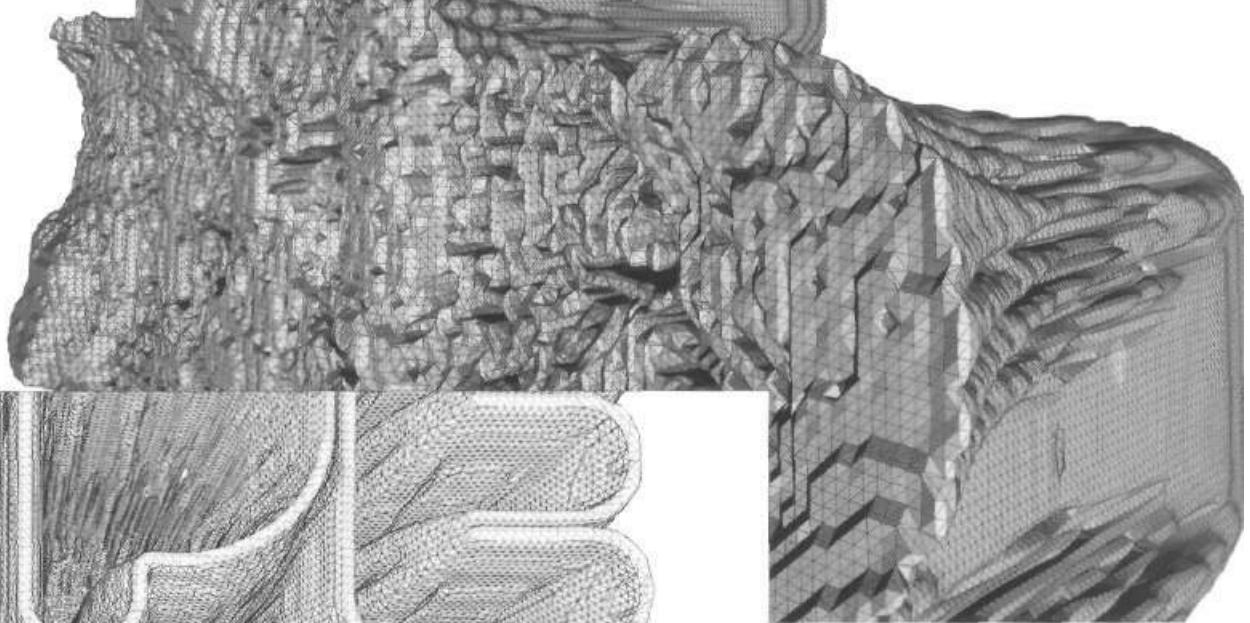


Facing up, top right corner

Front view



Back view, left side



Artwork by  
Karsten Schmidt

Renderings that  
show the three-dimensional  
object photographed on  
*PRINT*'s cover from different  
angles. For this project,  
Schmidt decided to take  
typography out of its tra-  
ditional, "flat" domain,  
creating generative  
patterns that became the  
letterforms.

Every day, Karsten Schmidt's London flat is home to both biological and digital growth. He tends to the marigolds and freesia on the balcony as he waits for tendrils of code to render in software such as Processing and Sunflow—the ultimate 21st-century jungle. Schmidt, a self-described "creative programmer" is a member of the technological cognoscenti who contribute to Processing, an open-source programming language for image-making and animation initiated by MIT Media Lab graduates Ben Fry and Casey Reas.

Just as gardening is a matter of planting and watering, rather than actually crafting flowers and leaves, Schmidt says design should take place at a more profound level than that of layout. He says the design community has allowed available software to define what's possible aesthetically, that "the vast majority of the creative industry is not making its own tools anymore."

As if proving his point, Schmidt has been writing his own code to build letterforms that can, among other things, sprout leaves just like his houseplants. Last year, he designed a title sequence for "New Shoots," a series of films shot by disabled directors for the U.K.-based Channel 4. In a matter of seconds, a topiary version of the title grows into a thick hedge, like a Chia Pet on growth hormones. The process involves millions of particles attaching themselves to the outline of the Channel 4 house font, each controlled by a combination of factors described by programmers in terms such as stickiness, snap distance, density, chance of attachment, and alignment strength. Schmidt, who also goes by the name Toxi, argues that the design product isn't what's seen onscreen, but rather the unseen lines of code that determine the eventual output, a program that could be applied to any other line-based shape. "Design is the output of the design machine," he declares.

As dynamic typography becomes a part of everyday commercial design, creative programmers such as Schmidt are pushing the limits of new technology while ensuring their work has a solid *raison d'être*. Not only can their type design occupy two and three dimensions—it can take time into account as well, morphing, evolving, or growing to the point where movement itself is part of the design. But does movement enhance communication? Need every sentence spin? Dancing type may have a firm place in the imagination, but its place in the real world remains less certain. "Just because you can," warns Schmidt, "doesn't mean you should."

The field of kinetic type is not, nor has it ever been, solely digital. Writing a word with a handheld light source and capturing it on film—or creating letters in the sky with the vapor trail of a plane—are methods that have been around for decades. More recently, the digital and non-digital realms have come together in the form of Josh Nimoy's Robotic Typography (2004), a letter-making machine that responds to keyboard commands; last year, Peter Bilak introduced DanceWriter, a program that allows users to type a phrase and see it performed onscreen by a member of the Nederlands Dans Theater.

It was the introduction of PostScript,

however, in the mid-'80s, that changed the design field. It forced type designers to realize that they were not working with fixed outlines of letterforms, but rather with the code that defines them. This understanding remains the locus of experimental practice.

Earlier this year, Erik Spiekermann, the founder of the type purveyor FontShop and an early advocate of the potential of PostScript's capabilities, collaborated on a typeface with Erik van Blokland, one half of the Dutch design and programming duo LettError. In combination with another program called RoundingUFO, a specific corner-rounding application created by Belgian designer and programmer Frederik Berlaen, they produced a rounded version of Spiekermann's Unit typeface using Superpolator, a tool that generates forms for animation or print. Berlaen's code generated different rounded versions of Unit, which were then fed into Superpolator in order to make proofs and animations that Spiekermann used to easily determine the right curvatures.

Just what type designers *should* do with these new technological possibilities is still being worked out. The wide range of ambitions and interests that drives kinetic type—programming, type design, rendering, and animation—can appear contradictory. For example, some designers, such as Processing's Fry and Reas, are fascinated with generative processes, in which they create code, feed in data, and stand back to see what emerges. Fry, in particular, is known for visualizing unwieldy masses of biological information in a way that could only be enabled by digital technology. "I think the real reason we're seeing so much generative work is because the computational medium makes it possible to think this way," he says.

shc

new  
shot

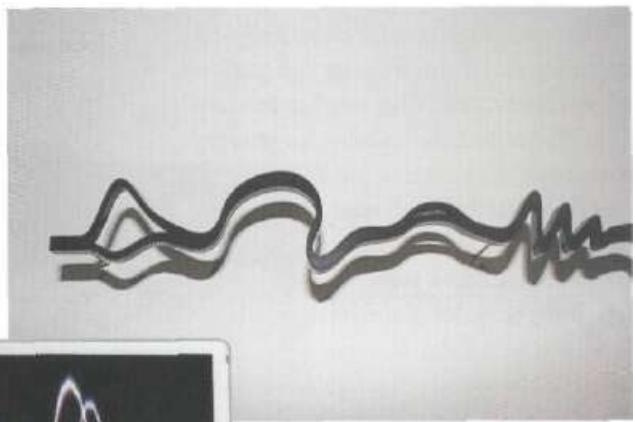
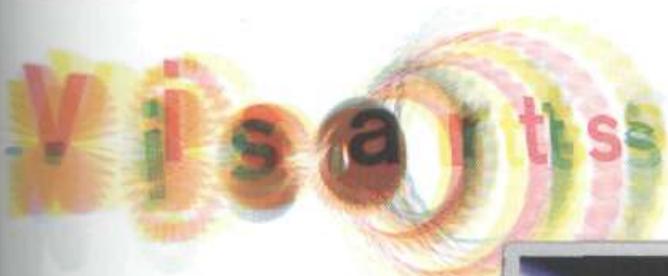
new  
shoots

Stills from "New Shoots" (2007), a 12-part series of documentary films by disabled directors. CREATIVE DIRECTION: This is Real Art; CLIENT: Maverick TV/Channel 4.

Karsten Schmidt

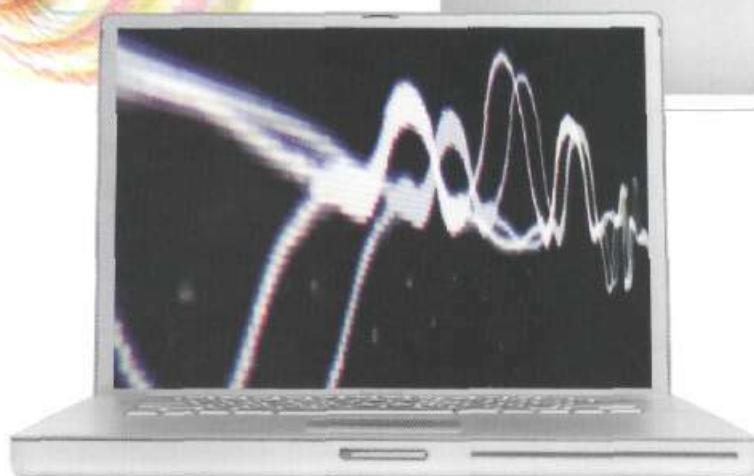


Peter Cho



Left: Identity for the UCSD Department of Visual Arts (VisArts) website. CLIENT: Jordan Crandall, UCSD VisArts.

Right: Stills from Takeluma (2005), an invented writing system in which letterforms explore the way speech sounds can give rise to a variety of visual responses.



## Erik Spiekermann

Whereas Fry and Reas use code to generate unpredictable forms, others, such as Jürg Lehni, prefer to craft digital tools to better achieve predetermined ends. After building the interactive type specimens Lego Font Creator and Rubik Maker for Lineto.com, Lehni created Scriptographer, a plug-in for Adobe Illustrator that, though not strictly a typographic tool, allows users to extend Illustrator's functionality through a simple scripting language. Lehni describes this as opening the "black box" of proprietary software, helping designers take control of their materials.

This tool manipulation ethos may seem to be in opposition to the generative programming approach, but the small and highly self-selective Scriptographer users still enjoy accidental outcomes and unpredicted events. Chance drips and malfunctions are integral to the performance of Hektor, Lehni's celebrated Scriptographer-powered, computer-driven, "spray-paint output device." Likewise, the Dutch "process designer" Jonathan Puckey shies away from the idea of "rigid form." Puckey, who has created various Scriptographer-derived lettering tools, puts typographic manipulation into the hands of designers, yet believes that "the final product should be elastic."

The overriding issue for most designers exploring this realm is clarity and quality of expression. Peter Cho, another product of MIT's Media Lab, describes his guiding concern as "how motion can affect the message in unexpected ways, making it more complex or even counteracting it." In 2005, he took the notion of kinetic type into the realm of abstraction with the invention of Takeluma, a writing system based on the sound of speech. Although not readable in any conventional sense, this

Left: Screenshot from Respons'veType.com, 2007.  
Right: 2005 exhibition poster Soso gallery. SapDoro, Japan



Hglno UnitRounded  
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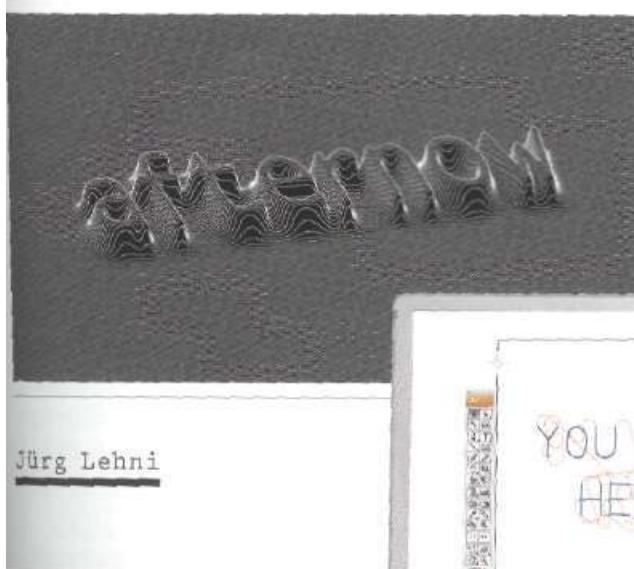
Above, left: Logo for Gravis, Germany's leading Apple dealer, designed by Susanna Dulkinis based on Erik Spiekermann's Unit and a bitmap font called Twelvetwo.

Right: Unit Rounded, with sketch, designed using Enk van Blokland's application Superpolator. Frederik Berlaen developed the round corner algorithm for Bezier curves.

Hudson-Powell



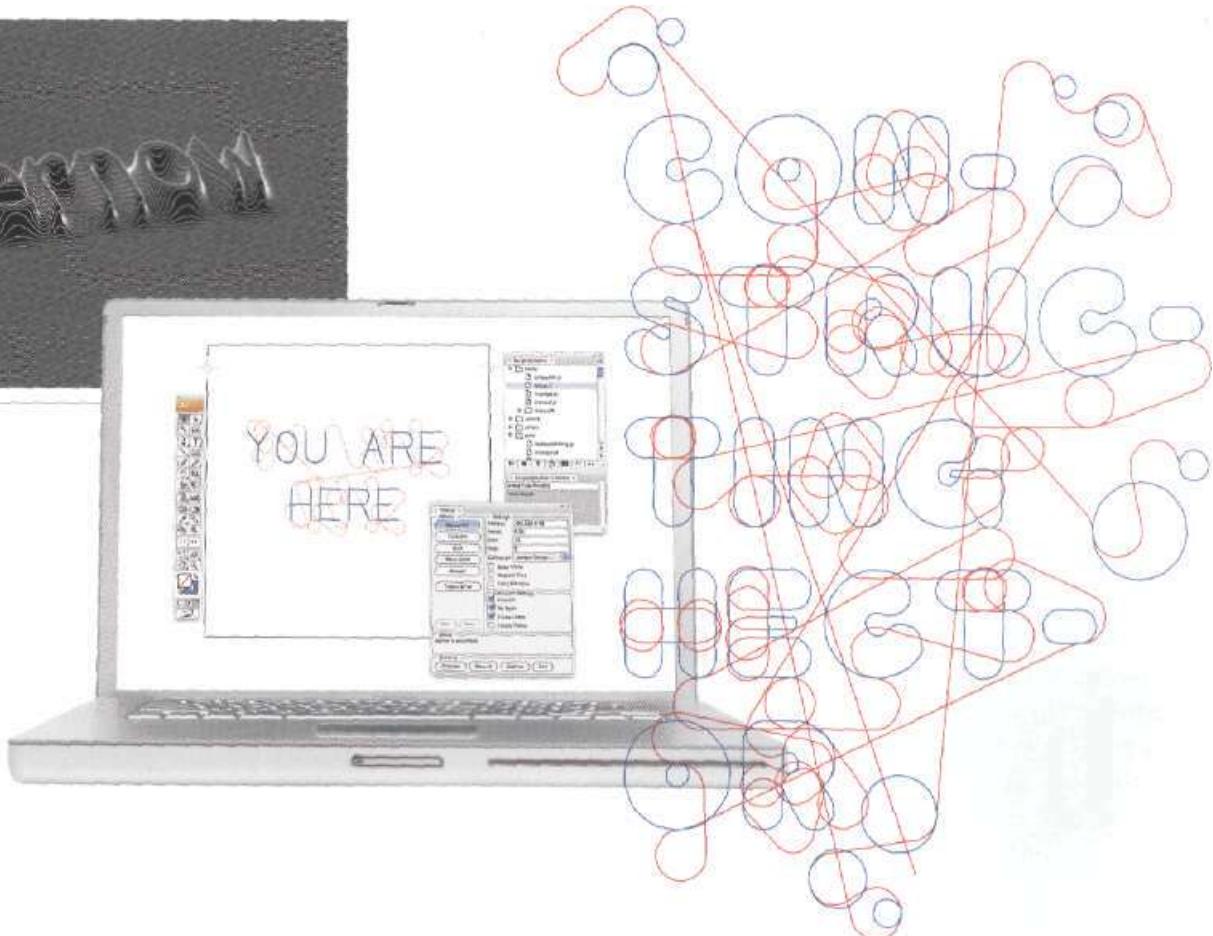
**'I think the real reason we're seeing so much generative work is because the computational medium makes it possible to think this way'**



Above, left: Limited edition prints for Swiss artist Philippe Decrauzat inspired by the 3D type, "Faust's 1973 album The Faust Tapes

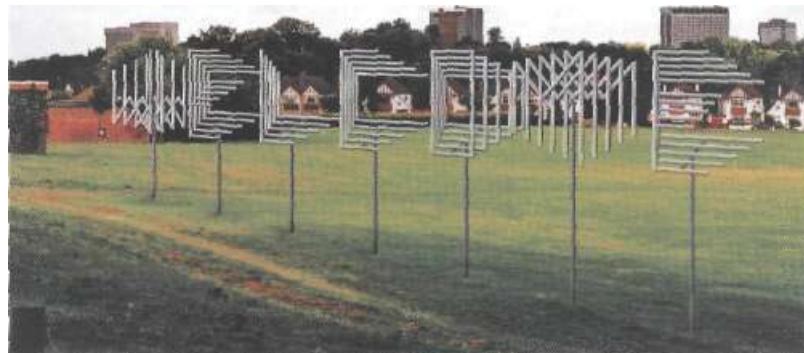
Center: Hektor's motion paths as calculated by the controlling software

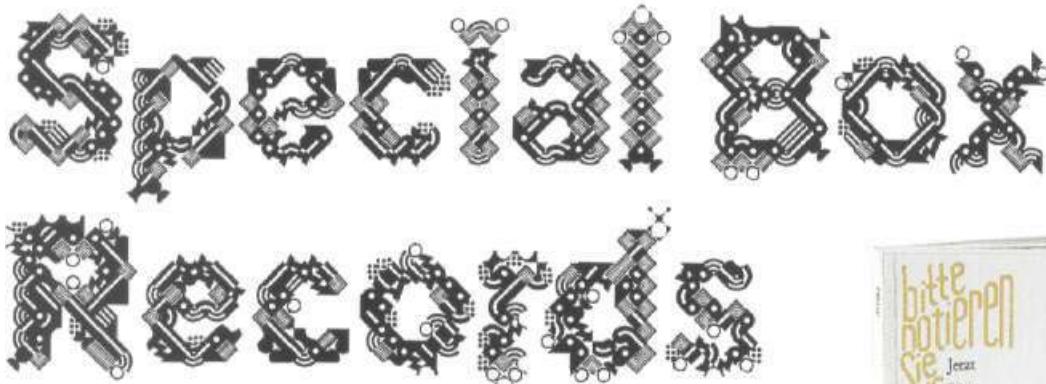
Right: Illustration from a book about Hektor that Lehni made for his diploma project, in which the motion diagrams were used as a graphic effect for the titles of each chapter.



Matthias Hillner

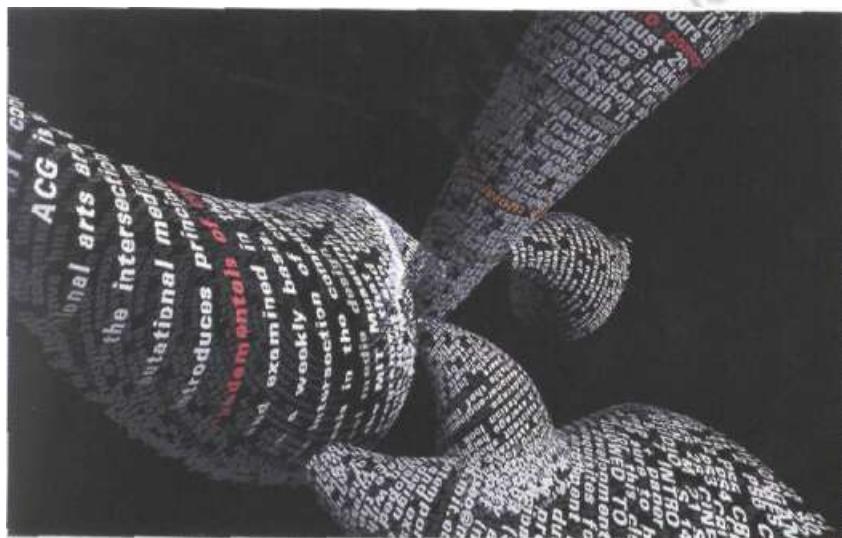
Still and typographic sculpture using Wireframe, a house-style font that was proposed as a visual identity for the London borough of Croydon.  
ART DIRECTOR/DESIGNER: Matthias Hillner. Studio for Virtue Typography





Typography for the Amsterdam-based record label Spec.al Box, created using Tile Too', a Scriotographer tool that automates constructed tile based design processes.

Ben Fry



Above, left; Bettering for Jetzt Now's 2006 catalog for the 5th International Art Festival, Magdeburg, Germany, using Lettering Tool DESIGNED: Luna Maurer; PJRUSHEV Vai

Right: Stills that show the process of using Lettering Tool, a combination of typeface and tool. Letters can be placed and modified by clicking and dragging on their different parts

Left: Still from Tendril (2000), a web browser that constructs typographic sculptures from the text content of web pages.

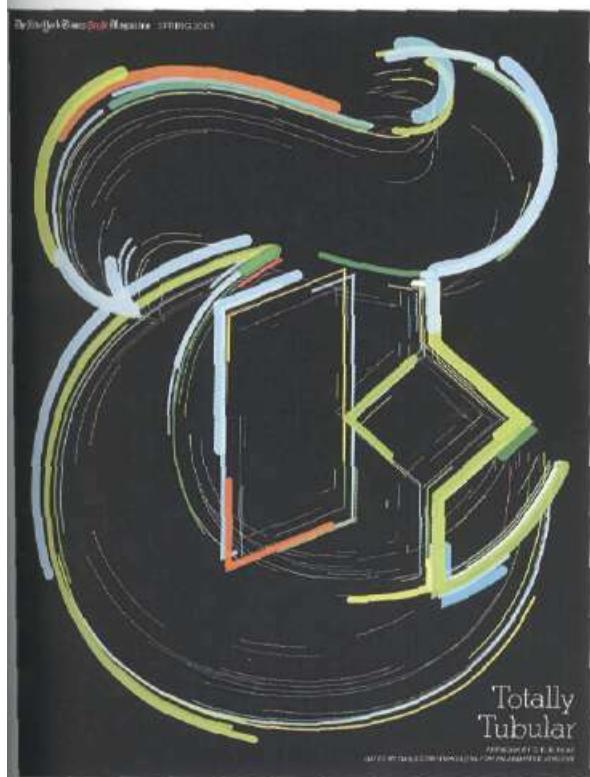
Below: Illustration for Seeo (2007), in which sequences of human DNA are aligned with other mammals.



scheme raises the possibility that kineticism might convey meaning independent of fixed form, reopening an investigation into the long-held ideal of a universal language. "It reinvents type," says Reas, Cho's former classmate. At the very least, the animated movement suggests the explosiveness and ephemeral nature of speech.

Cho's investigations have trickled down into mainstream commercial design. A 2005 TV ad for the Audi A6, by French film company Plcix, shows a car exploding into multiple abstract forms, which then flow through an empty cityscape, pausing to spell the company slogan "Vorsprung Durch Technik" (Advancement Through Technology). Made for an international market, the smooth dynamism of the phrase's execution is even more eloquent than a literal translation.

Casey Reas



Still of kinetic generative type for the March 16, 2008, issue of *T, The New York Times Style Magazine*. DESIGNER: Casey Reas; CREATIVE DIRECTOR/ART DIRECTOR: Janet Froelich

Working along similar lines, Matthias Hillner has been exploring the transition between abstraction and legibility in space and time. He believes that much of the commercial work in this field, such as title sequences and "brand stings"—forms built in Flash that swoosh across the screen before coalescing into a logo—betray the medium's promise. "Too often it's a gimmick," he complains. "They don't challenge the viewer or explore the potential." In 2004, Hillner proposed a fragmented signage system using his Wireframe typeface for the outer-London borough of Croydon. He abandoned that scheme because it would be "inappropriate

to add visual stimulants to an environment which in itself appears overly dense." Yet he still believes virtual typography has a role to play in busy, unpredictable environments.

Although print and screen remain separate fields, the need for typefaces that move seamlessly between the two media is growing. The London-based firm Hudson-Powell is working on an ambitious, would-be standard software that would create dynamic screen-based type. "We want to make a typeface that works as well spinning on a digital billboard as it does in a printed brochure," says Luke Powell. During the past three years, the studio has been collaborating with the Processing community on Responsive Type, a set of Futura-based letterforms. Eventually, the group hopes to have an open-source program that can work with more complex typographic configurations.

Meanwhile, Schmidt is working on a program that will create covers for a new series of books being launched this summer by the publisher Faber and Faber. Although each cover is technically the same, no two are alike. The design is merely a set of instructions. The process is similar to Hella Jongerius's B-set, porcelain plates baked in a kiln that is too hot in traditional terms, turning each into an irregular individual.

Ironically, perhaps the biggest problem facing the field of kinetic typography is a tendency to repeat the experiments of the past. Sequences made in sophisticated software programs often look suspiciously like vamped-up versions of 50s film titles; forays into responsive type often replicate, in seeming ignorance, the experiments—Tobias Frere-Jones's self-destructing Reactor font, or Paul Elliman's photo-booth-based Alphabet—of the early digital days.

But what creators of kinetic typography want most is more time. Perhaps, before this work can become a more meaningful part of the graphic vocabulary, the most pressing need is for clients who will allow these creative programmers the chance to sort out the difference between what can, and what should, be done.

