READING

MDIA 2005

University of the West Indies / CARIMAC / Winter 2013 - Thur / MDIA 2005 Typography and Layout
Instructor David Soutar / Cell: 876 298 6527 / Email: me@davidsoutar.com
Office Hours Tuesday 1pm - 3pm & Friday 8am – 9am - CARIMAC Annex Office 3, by appt.

An Existential Guide to Type - By Karrie Jacobs

(First published in Metropolis magazine, April 1988.)
(in Texts on Type, Steven Heller and Philip B. Meggs, ed., New York: Allworth Press, 2001, pp.21-32)

The advertisement for Hyundai is set in what looks to be a Garamond — let's call it Garamond Bold Sanforized. And the letters in the headline, "Most cars in our price range have around 50,000 miles on them." are awfully cozy. They are more intimate with one another than decency and the conventions of typesetting allow. Focus for a moment on the word "range" The n with its thick, hard serif is kicking the g in the groin. And the a is a two-timer; on one side it nuzzles the r 's teardrop-shaped finial with its own upper stroke, and on the other side the a plays footsy with an n, hooked lower finial rubbing against ample serif.

The tightness of the set on this ad is obvious — it's right there in black and white — but before Type 1987 I never would have noticed. At Type 1987, a conference held in New York's Grand Hyatt Hotel last October, a geographically diverse mix of typographers, typesetters, typeface designers, art directors, and representatives of typesetting-equipment manufacturers spoke out on every conceivable subject related to the use of mechanically reproduced letterforms.

The fashion for tightness was given particular attention, denounced regularly and with great vigor as an evil, a detriment to the integrity of letterforms, an enemy of legibility (the clarity of the individual letters) and readability (how easily the characters work in concert). Rules were being broken, those that dictate the relationship between the proportions of a given letter and the whiteness around it, an equilibrium between the space within a letter and the space without.

Advertising agencies were to blame, cried distraught type aficionados. When you send copy to your typesetter it comes back too tight because typesetters have been conditioned by the agencies. Tightness of set was denounced in the sort of jeremiads others might reserve for skyscrapers that cast long shadows or incinerators that emit PCBs.

Now I can see the tightness because I know it's there. Everywhere. But I'm not personally incensed. It's just not my cause. I mean, Madison Avenue routinely bowdlerizes all aspects of our culture. There's no reason to expect that the niceties of letterspacing would be exempt. I only bring up the tightness issue because it's a perfect example of a heightened awareness (in this case mine) springing type from its quiet, contextual role.

The great paradox of type is that it is at once omnipresent and diaphanous. Type, camouflaged by the meaning of the words

it forms, is invisible. The text and the type — it's a perceptual conundrum, like the one about the forest and the trees.

I'm not professing indifference to the anatomy of letterforms or the characteristics that distinguish one typeface from another. When I concentrate on examining letters rather than on reading them, I can see the insouciant twist of a Palatino y's descender, the open, hungry maw of a lowercase Souvenir e, and the nicely tapered stems of a Bembo m. But letters, regardless of the grace of their individual forms, are designed, rigorously designed, to work collectively as words, and the abstract shapes of words, unless we are unable to read, are superseded by their definitions. If readers generally don't pick up on the differences between one typeface and another, it's because the face itself is transparent. Only the message is obvious.

Certain things work best when we are unaware of them. For example, it's only in the most extreme and unpleasant circumstances that we must pay heed to the beams that support the floors on which we walk or the mechanics of our city's water-supply system. Letters on the printed page are like that. If the design of a typeface, a text face, demands attention, there's a problem.

Type 1987 was sponsored by the Type Directors Club of New York and starred the world's best known living alphabet makers, including Herman Zapf, designer of Optima, Palatino, and Zapf Book; Adrian Frutiger, designer of Univers, Meridien, and Frutiger; Ed Benguiat, designer of ITC Souvenir, ITC Panache, and ITC Benguiat; and Matthew Carter, designer of Bell Centennial, ITC Galliard, and Bitstream Charter. Type users and fans of every variety participated as panelists, speakers, or simply as members of a very vocal and articulate audience.

In the garish, mirrored, and pseudocrystal-festooned carnival-of-the-nouveau-riche milieu of Donald Trump's Hyatt, a gathering of those obsessed with the subtlest of details was staged. It was a conference about the nuances of line — the thicks and the thins, the angles and the curves, the edges hard and soft, the white areas corralled by ink. Here was a long weekend dedicated to the quantum mechanics of the printed word, the molecular structure of the language, and it had the potential to be as dry a dry night of barhopping in Salt Lake City.

But it wasn't.

Type 1987 transcended its specialized subject matter because the issues that were raised time and time again, often vehemently, were and are central to every aspect of every kind of design. Technology. The demands of the marketplace. The relentless urge to modernize. The siren song of trendiness. All of these things impact the shape and style of our ABCs as much as they impact architecture or the way we equip our kitchens.

Every stage of a typeface's life cycle was discussed, from the inception, the first inkling a designer has that there is something to be done with the alphabet that hasn't yet been done, to the conversion of a letterer's drawings into a state-of-the-art type font, to the published uses of a face as advertising, signage, or text.

How letterforms are treated between the time they are drawn (with pen and ink or on a computer screen) and the time they appear on the printed page was a subject brought up many times during the conference. Control was the issue. Do type designers have any control over how their output gets used, should they have control, and do they care? Some designers were sanguine, others fatalistic; at least one was, in one instance, nauseated.

During a panel discussion called "My God, What Do They Want?"

about the relationship between type designers and type users, several creators of typefaces expressed resignation. Once the ink is dry on their drawings and the face is marketed, it's as much under their control as a child who has grown up and gone away to college.

"When I finish a face, I forget it," declared Adrian Frutiger. "I only see how good or how bad it gets used."

"Typography is not a police state," reasoned Matthew Carter. "No way can we control it. I'm tickled to see my faces used at all. My bête noir is people who draw curlicues on my script faces."

More troubled by the ways his type (or what passes for his type) gets used, Herman Zapf spoke about encountering a pirated version of his face, Palatino on a brochure for the hotel where the conference was held: "You need no scrambled eggs, no food for the rest of the day," he said. "Your stomach is so upset. It's a poor use of letterforms. Somebody copied my letterforms. If they did a good job it might be OK. The proportions are clumsy, there are additional characters you've never done that don't fit into the concept. This version has nothing to do with my original design."

All of the things that impact the designs of letterforms were debated. Historic faces resurrected and revamped for contemporary usage raised hackles, as did metal types "cleaned up" when digitized for use in computerized typesetting equipment. Adjustments, it seemed, were endemic. . . and controversial.

Early in the conference, at a panel discussion called "A Critical Look at New Typeface Design," Paul Hayden Duensing, the type critic for Fine Print magazine, spoke out against the practice of digitizing historic faces: "Digitizing Janson is like playing Bach on synthesizer," Duensing decreed, referring to the face that was first cut in seventeenth-century Leipzig.

"Bastardizing our heritage," is how Sandra Kirshenbaum, editor of Fine Print and also on the panel, described the process.

And there was a somewhat stagy but by and large earnest debate between conference organizer Roger Black, the former Newsweek art director who is currently designing a travel magazine for the high-concept clothiers Banana Republic, and designer Paula Scher, a New York partner in the firm Koppel and Scher who is well known for her playful use of historic influences and her full-throttle delivery of strong opinions. The subject was the International Typeface Corporation (ITC), a company organized in the early 1970s by design-community pillars like Aaron Burns and Herb Lubalin to license contemporary typefaces, combat piracy; and distribute royalties to those who deserved them. "Resolved: That ITC Is the Best Thing that Ever Happened to Modern Typography" was the point to be argued. Black was pro. Scher was con.

Black, boosterish as a vice-principal or a camp counselor, painted a picture of the late 1960s as a sad time in the world of type: "Foundries were dying. One by one all of the sources of typography for the last century were gone. We found our great old friends were not available to us. What we were getting were copies of old faces forced into new sizes, new raster patterns."

He lauded ITC's type library the almost universal availability of ITC faces, their publication of the quarterly magazine U&LC, and even their interpretations of historic faces: "ITC's Garamond is a peculiarly contemporary Garamond," Black opined. "It's not a bookish Garamond."

As the focus of her end of the debate, Paula Scher, not coincidentally, chose Garamond, a face first cut in the sixteenth-

century Parisian workshop of Claude Garamond but recut and sharpened sixty years after Garamond's death by Jean Jannon. Garamond in its many variations is one of the most used faces today and one of ITC's top three sellers.

"I can't disagree with 90 percent of what Roger says" prefaced Scher. "But redesigning old faces makes them [ITC] open to criticism." She showed two slides, one of ITC Garamond and the other of a Garamond out of a Linotype book. Two of Garamond's hallmarks, the peculiarly high waist of the lowercase e and the dainty loop of the lowercase a, had been normalized a bit, rounded out slightly, by ITC for their Garamond. "The problem with the new form is it's called Garamond and it's not Garamond;" argued Scher.

"We know they know better," she continued. "I'd like them to take it back, admit it, write about it.... ITC Garamond is the most popular face in the U.S. I used to hate it, but I've seen it so much I don't even know if I hate it anymore."

The loop of a small a, the counter of an e. They are tiny things, the smallest of small potatoes. But the whisper of difference between the a of one Garamond and the a of another, the precise angle of a serif, the ligature that allows two f 's to stand next to each other in a word — these tiny factors are what a typeface is about. Minute details give each letter its distinctive form, and the forms of individual letters give a printed page its color, the texture of lights and darks, the pattern of alternating thickness and thinness that varies from typeface to typeface. As nitpicky as Scher may have sounded, she wasn't being a crank. She was getting to the heart of the subject.

So much of the talk at Type 1987 concerned the permutations of letterforms, the bending of letters, the unconventional settings, and the alterations made in traditional typefaces for myriad reasons that I began to question what I believed to be true about type. I started to get ontological. I asked myself, "What exactly is a typeface?"

I know that the name given to a face — Futura, for instance —- is really the family name, and the family encompasses a variety of faces: Futura Light, Futura Light Italic, Futura Medium, Futura Heavy; Futura Extra Black, Futura Heavy Catalogue, Futura Extra Black Condensed — all of these weights and styles are typefaces in the Futura family. But that's not what I mean.

A typeface is distinguished by the tiniest of elements, but if those elements are changed, even a little, for whatever reason — the cleaning of a few crotchets from an old face to make it suitable for reintro- duction as a contemporary face, the easing of certain angles to make a face more sympathetic to the popular 300 dot-per-inch resolution laser printer, the addition of a couple of lines to make a face into a trademark for a particular brand's advertising — is it still the same typeface? Is it still a member of the family? Should it be? Given that all the aforementioned practices are commonplace and the very ele- ments that make a typeface identifiable can be altered, then what exactly is a typeface?

Physically, artistically, practically, are typefaces what they used to be or are they something less concrete? Or have typefaces always been mutable? Is it possible that because typefaces are disseminated more widely now than ever before and because our methods of storing information are much more sophisticated now than ever before, type is actually less in flux today than it was in the days when letters were cast in solid, invincible metal?

A gulf made wide by time and technological momentum, has opened between the day when type was a chunk of metal you

could hold in your hand or toss like a stone and today, when type is as insubstantive as a ghost. Letterforms are ethereal, invisible, a mathematical arrangement of digital bits. Bits. For each letter the computer says yes or no, or more accurately black or white, thousands of times.

And in a way the digitization of type is perfectly logical. After all, what is a letter on the printed page but a binary equation of black and white?

What emerged at Type 1987 was a confrontation between the purists and the technoids: designers, small-press operators, and miscellaneous type fundamentalists insisted that letterforms have degenerated since the extinction of hot type. They argued that the only true typefaces were on sturdy chunks of lead alloy placed squarely, shoulder to shoulder, on a galley, allowing no real flexibility in spacing and offering no opportunity for setters and renegade art directors to go astray. No reshaping or reproportioning the letters. No squeezing, no bending, no overzealous kerning, no fooling around.

The computer enthusiasts, on the other hand, exuded optimism and boasted of a world filled to over- flowing with more and better faces. They conceded that letters may once have been blurred, stretched, and misshapen by flaws in early photolettering and computer typesetting systems (systems that, for example, reduced and enlarged type photographically to a great range of sizes from one or two size of fonts, wreaking havoc with proportion) and that computers allowed typographers a freedom that simply didn't exist in the days of metal type: the freedom to overstep the bounds of taste. They argued that any messes made by slightly sophisticated technology would be mopped up in the future by very sophisticated technology.

So what is type? The question turns out to be more appropriate and the answer less obvious than it would appear.

For instance, what exactly is it that the International Typeface Corporation supplies to its customers? Well, they give permission to companies that manufacture typesetting equipment - Linotype, Compugraphic, Berthold, etc. — to offer ITC typefaces like ITC Bookman, ITC Avant Garde Gothic, or ITC Galliard to their customers, the type shops, for use on their machines. Type shops purchase the font for a given face and pay the typesetting-machine company the asking price plus a $30 royalty, which goes to ITC. (On photocomposition machines the font was a filmstrip with all the letters, numbers, and symbols for a given size of typeface on it, and now for digital machines, the font is in the form of a floppy disk encoded with the numerical information needed to produce letterforms.) What do those equipment manufacturers actually, physically receive from ITC when they license a face? Sometimes absolutely nothing.

ITC buys original typefaces from designers or commissions adaptations of historical faces. They have a review committee chaired by ITC's executive vice-president, Allan Haley Other members of the review board include one of ITC's founders, Aaron Burns; Colin Brignal, the type director for ITC's parent corporation, Esselte Letraset, in London; Cynthia Hollandsworth, who heads a design studio that develops typefaces; and Erik Spiekermann, a German type and graphic designer known for, among other things, writing Rhyme & Reason: A Typographical Novel.

The board evaluates unsolicited submissions and discusses what sorts of typefaces ITC should commission. "A large degree of our faces in the past were sort of like choosing strawberries. We get them

in and we say, that's a good one, that's a bad one, that's a good one;" notes Haley in an interview at ITC's New York headquarters.

The board has begun to take what Haley describes as a "more pro-active" role, discussing what sorts of typefaces would fill needs in the marketplace or in ITC's library Haley offers an example: "With all of these things, with laser printers and such, so many people are now sending letters that are set in type. You get a letter that's in Palatino or you get a letter that's in Souvenir. At first we thought that was kind of neat. After looking at it you realize there are some good places for laser printers, but to put type in letters maybe isn't the best thing to do. They tend to look like brochures or catalogs rather than letters. So we're talking with a number of designers to create a typeface that is something better than a typewriter face and yet doesn't look like a flail typographic face." ITC, like other developers of typefaces, is trying to capture the new market, the desktop publishing market, the business people for whom buying a typeface for their office equipment is a new concept. Haley sees this better-than-type- writer face as part of an educational process, an initiation into type. "It"s sort of a step for someone up to using full typography."

Another face the ITC board might commission is a sans serif that doesn't "lack humanity" They're talking about getting a designer to overhaul Edward Johnston's London Underground type or Eric Gill's Gill Sans, two singular and quite famous faces dating from 1916 and 1928 respectively.

When evaluating a design the board first reacts to a face's beauty Then comes a debate about tricky distinctions: Their goal is to find a typeface that is "sufficiently different from other typefaces that an unsophisticated user would readily distinguish it from other designs. Yet, another requirement is that the design not be so unique that its usability is impaired. There's a fine line between unique and over-powering, a line to be approached but not crossed."

Once the board has decided that the face in question is beautiful and different enough to be told apart from existing faces but not dramatically so, they analyze a face's value as a text face — the way the letters sit together on the page, its readability and legibility. A designer must submit the word "hamburgerfonts" in capital and lowercase letters in four weights of roman and italic letters. After a successful "hamburger-fonts" test, the designer is paid to draw a complete alphabet of roman and of italic letters, numerals, punctuation marks, and accents, which ITC uses to create text samples.

If a face survives the successive levels of scrutiny, it may become one of the four type families that ITC releases each year. The face's designer then draws the two most extreme weights in both roman and italic, the lightest and the boldest. ITC sends those weights off to URW the German maker and operator of type-digitizing equipment. URW creates from the weights provided as many intermediary weights as are desired. The computer interpolates, thickening the letters' strokes and adjusting the proportions as the typeface family grows. Between the designer's "Light" and "Heavy" the computer draws a Book weight, a Medium, a Demi, perhaps an Extra-Bold. Hundreds of characters now exist that the type designer didn't draw.

The interpolation of type weights seems like a miracle to some type designers and a scam to others. Ed Benguiat is a prolific New York designer whose lines have a peculiarly idiosyncratic way of swelling and bending, whose looped letters are often unusually voluptuous. He is appalled by the idea of drawing on a computer ("because a

computer doesn't have a heart") but is warming ever so slightly to the idea of having a high-powered electronic draftsman in Germany draw his medium and demi-bold weights. "I don't like it, but they do it.... And I watch them."

Benguiat notes, "I used to spend a year drawing a typeface. Now — with URW doing it, I can spend six months and they can draw the ones in between."

So what does ITC supply to those typesetting-equipment firms that license their typefaces? "What they used to get was black stuff on white paper," answers Haley "Prints that allowed the Linotypes of the world to make a font."

That's clear-cut and easy to picture. ITC gives its licensees big black-and-white glossies of all the char- acters. Except that's not necessarily what they do anymore. "So what they buy is a trade name," Haley adds. "A trademark name and a proven brand-name product is really what they're buying."

But the product. What then is the product? Does it have a corporeal form or is it just a nonsubstantive something that gets passed from ITC to "the Linotypes of the world" to the multitudes of type shops to the consumers of type? Is type a virus, spreading far and wide without a medium, without weight?

Well, yes, in a way it is.

Says Haley, "Physically they get nothing that they can put their hands on. If they do their own digitizing we can supply them with analog artwork, prints of the letters. Companies like Xerox, IBM to some degree, do their own digitizing, so we would supply them with the product they need to create a font.

"With Adobe, which makes the fonts for the Apple Laser Writer, there is no physical thing which passes between us and Adobe. They license faces from us. They have a contractual agreement with us. They say, we want to put ITC Souvenir on this printer, what is the royalty? We negotiate the royalty and that's all. They buy digital data from Bitstream or Linotype or URW."

Then it is like a virus? "With new designs it almost is;" admits Haley.

The historical continuum of type from raised letters on metal blocks to the winking of a microchip is embodied by the Cambridge, Massachusetts, headquarters of Bitstream, a company that is described by its principals as a digital-typefoundry.

Bitstream's location seems to be a consciously symbolic choice. Yes, it's in the part of Cambridge adjacent to the Massachusetts Institute of Technology one of many high-technology firms nourished by the proximity of so much scientific brilliance. But it's housed in a corner of an old brick building that once was the home of the Athenaeum House printers, and a statue of Athena, patinated and wise, stands on the roof surveying the Charles River. Matthew Carter, whose own career as a type designer spans the transitional period from the wane of metal through photocomposition and into digital, and who is the son of a type historian Harry Carter, was one of the company's founders and is its vice-president of design. He designs his own faces and oversees all the work that has to do with the typefaces themselves. And Carter, perhaps more than anyone else, seems to straddle the two sensibilities present in the type trade; he is a type buff who has also made a point of appreciating and understanding the metamorphoses. In the lobby of the Athenaeum House, in what is now an arcade of sorts, Carter points out where the inky printing

presses once labored, where the doors once opened to allow the delivery of hunking rolls of paper.

At Bitstream you don't see much paper or ink. And the type they design is geared toward the compact printers of desktop systems rather than the big presses of traditional publishing.

I imagine that real typefoundries — the places where punch-cutters hewed letters from steel, where matrices were formed from copper, where type itself was made of lead were loud, hot, smelly, noisy places. Bitstream, the digital foundry; is characterized by a palpable hush, a steady white noise, and quiet lighting. The main work area is a large, high-ceilinged room full of men and women working intently in the glow of oversize terminals typical of Computer Aided Design (CAD) systems. It feels as if the electronic impulses used to code alphabets were also in the air, enriching and charging the atmosphere like domesticated lightning.

What they actually do at Bitstream is connect-the-dots. These new-age type designers spend their time producing legible forms by inputting key points of each letter's exterior and letting the computer pro- gram they work with fill in the interior. They digitize.

Bitstream was founded in 1981 to make type for the growing field of electronic word-processing systems, systems that both upgraded the kind of type used in office situations and provided an alternative to hiring a typesetter when something fancier than IBM Selectric type was needed.

"The reason we started the company is that companies coming into this business, laserprinter manu- facturers or personal computer manufacturers or whatever, need type," explains Carter. "And for competitive reasons that aren't hard to imagine, the older established typesetter manufacturers were very reluctant to license type to what they saw as competitors."

Bitstream was uniquely positioned as the only major manufacturer of type that wasn't in the business of manufacturing typesetting equipment. Bitstream makes typesetting software but not hardware. They create bitmaps.

A bitmap is a structured collection of dots, a guide to exactly where each dot goes when a printer prints a letter. Each letter has its own bitmap. Each letter in each point size has its own bitmap because larger characters require more dots than smaller characters. This is a lot of information for a computer's memory to store. What Bitstream has done recently is issue a product called Fontware, which allows someone with a desktop publishing or word-processing system to specify a type family (any family within Bitstream's library), a point size, a weight, and a style (roman or italic), and further to specify what kind of screen or printer will be displaying or spitting out the type. Fontware then supplies a correctly proportioned outline for that face and point size and formulates the necessary bitmaps. All of this information is stored on a floppy disk, which can be thought of as a font. (In the days of metal type, the word font was used to describe a collection of all the letters, symbols, and figures that would be needed for a specific typesetting job. Now it simply refers to a typeface in a given point size contained in some way: on a filmstrip, on a disk, in a computer system's memory as a file.)

If Bitstream is issuing a design, historic or contemporary, that was first drawn or printed on paper, they take the analog version, the familiar black on white, and mark strategic points on the letter, then scan the drawing with an electronic "puck." The letterform, as it appears on the screen, is then corrected by manipulating those points. At a Bitstream work station you might find a resident type

designer transfixed by a mosaic of electronic tiles that closely resembles the letter g. Slowly, judiciously, the designer turns one tile on and another oft; trying to correctly imply the smooth curves of the letter's ideal form. The object of this game is to approximate the letter in such a way that a computer-linked printer will respond by assembling a tight raster (the parallel scanning lines put out by a laser printer) configuration that, to the naked eye, looks like a solid blackletter rather than a jagged arrangement of dots.

Here we have come back around to the issue of technology's impact on the integrity of type. How well does a bitmap impersonate a letter? The answer varies depending on the resolution of the printer and, more than that, on whom you ask. At Type 1987 there were people who would look at a Q or B generated by a laser printer and see the Odessa Steps. They complained of angular jots where angular jots shouldn't be. Others claimed that the ultimate result of typefaces, particularly the classic ones, being digitized was an unfortunate breed of perfection. Little quirks and peccadilloes of early faces were being cleaned up in the same way that historic buildings are cleaned up by renovation. Something is gained and something is lost.

On the other hand, Bitstream may actually be incorporating typographic quirkiness on their design agenda. A Bitstream brochure claims, "Existing typefaces that have been distorted over the years to fit out-of- date typesetting technologies have been reexamined and restored to their true form."

Carter's career began in the 1950s when he served an unofficial apprenticeship at a typefoundry in Holland, and his early experiences with metal type gave him a broad perspective on the issue of tech- nology and type. "The reason I'm glad at the end of a day that I spent that year working in the tradi- tional techniques is that it demystified them for me," says Carter.

Carter denies that metal type had an "indefinable quality" that subsequent type technologies lack. "I don't feel that everything ground to a halt at the end of metal type," Carter remarks. "I think that there is no real truth to materials."

Does a type designer attuned to the current technology (whatever the current technology happens to be) let his knowledge of that technology's limitations and attributes play a role in design? For Carter the answer is yes. And the answer is also no.

"Consider the difficulty of designing a typeface: Let's rate it ten on a scale (of one to ten). By difficulty I mean the things that are always difficult about a type design or always important about a type design — making all the letters look as though they're the same size, spacing them right, getting the rhythm of it, the weight, and all those things. I would say that the technical consideration, whether you're doing this for digital techniques or cutting it in steel or engraving it in stone, rates about two or three on the same scale."

Carter is well aware of the eccentricities of the laser printer, the fickleness of the raster: "That coarse resolution of the vertical-horizontal axis of the raster means that there are 29 some faces that it doesn't really do very well," he admits.

Typefaces, according to Carter, that are not quite perpendicular to the horizontal scanning of the raster, those that list to one side or the other by several degrees, are liable to be marred by the laser printer. "That's hell," Carter explains, "because you get very coarse steps up the letters where it crosses from one raster line to the next.

"Similarly, there are typefaces that have very slow curves, very flat

curves. There again, because of the coarseness of the raster, it's hard to reproduce them well."

Carter has designed faces that are beautiful (Snell Roundhand, a cursive, but not a florid one); exactingly practical (Bell Centennial, the telephone-book face); and faces that are both aesthetically motivated and apt. Charter, for instance, is specifically designed to perform well at 300 dots per inch, the resolution of a common laser printer.

Carter explicates: "It's a rather simple letterform. It's uncluttered, uncomplicated. It's a serif type, so it already has a degree of complication. It's simple partly for the reason that various kinds of curves don't lend themselves to laser-printer resolutions. If you could avoid them it's probably no bad thing to do that. Also it's rather economical in digital data to store. That's not always a very important point, but sometimes there are constraints on computer memory when it comes to storing fonts. And because of certain simplicities in the way Charter is drawn, it minimizes the amount of digital data that is actually needed to represent that typeface.

"I had in mind the kind of printing that gets done within businesses, even this one. We've got it on all the laser printers here. So it's sort of readable and unfancy and straightforward."

While technical concerns may be low on Carter's scale of design difficulty; they are a consideration. At the same time he warns against tailoring typefaces to whatever equipment is in vogue: "If you aim a typeface at a particular technology; you're really designing a self-obsoleting typeface.

"When I first got involved in photocomposition in the early 1960s, at that stage of the technology it was very common to use as an image source a spinning disk, a negative disk which was rotated within the machine. The way you captured characters was to expose them photographically with a very fast flash of light. But in those days the flash lamps weren't really fast enough to freeze the letter. So you'd have sort of a trailing edge, a smudge, on the letters as they appeared on photographic paper, and this tended to clog up letters, like cap W's or M's, which had oblique lines meeting at rather acute angles. So we used to try and avoid that by opening these angles up and doing various tricks in drawing the letters to hide the effects of this sort of halation.

"The next thing that happened was some bright engineer speeded up the flash time or put a filter in the optical part and corrected it. Suddenly all these letters, which did indeed go partway toward compensating for the imperfect technology; looked very strange when perfectly reproduced. So there you are. You've obliged the engineers by trying to solve a problem, but the engineers are smarter than you in the end and they fix it themselves and that's happened to me so many times....

When Paula Scher stands at the Podium and accuses ITC of undermining type's heritage, she's not simply quarreling with the fact that they've redesigned traditional faces. The larger problem is that ITC faces have a way of muscling out the faces from which they were adapted. ITC faces are widely and intensively distributed to the manufacturers of every brand of type-setting equipment. In the largest of cities, a designer has a great many type suppliers to choose from. If she doesn't want an ITC Garamond, she can get a Berthold or a Linotype version. But in a one-typesetter town, the odds are that the local type shop will offer mainly ITC faces. The distinctions between Garamonds then become moot. ITC Garamond is Garamond.

Distribution is one issue; taste is another. Historicists like Scher are acutely sensitive to classic typefaces being remodeled by contemporary design clichés, whether of the simple-is-good ethic or the decorative style associated with the "New York School" designers like Lubalin, Benguiat, or Glaser. Today's clichés are omnipresent and infuriating, but the clichés of the past are either endearing or invisible to a con- temporary critic.

It's not nostalgia exactly that colors our vision of past design but an absence of critical context. What has survived from the past — whether it's a type design, an advertising poster, or a piece of industrial design — exists in a vacuum. It has been jettisoned from its cultural context. A typeface from a hundred years ago is a time traveler, so we don't always question its credentials, we don't ask whether it's the best of its day. We like it because it's here. And we don't want the survivors of the past to be corrupted by the present.

Actually, Allan Haley alluded to this problem: "We get accused of having a look, an ITC look. When we first created typefaces there were a group of designers that worked for us or with us that came out of the New York advertising, lettering school. They had a look. We came out with typefaces that had a feel to them, a look to them that was successful." ITC became a magnet for a certain sensibility, success feeding on success. Says Haley, "It kept repeating on itself."

Nonetheless, Haley insists that ITC is conscientious about conserving the history of type and argues that the adaptations ITC markets are consistent with that history: "Type design," Haley contends, "is a history of adapting. Garamond adopted his designs from Manutius, and Plantin adapted his designs from Garamond, and Times Roman is based on Plantin. It's all there. It's been traditional with the industry Helvetica is based on Akzidenz. Grotesk is based on...."

Several years ago ITC hired type designer Tony Stan to redraw Goudy's University of California Oldstyle, a typeface Frederic Goudy created in the late 1 930s for that university's press. The differences between the original and revised roman faces is slight — there is something about the quality of the line — but certain italic letters - U, Q, Z - are clear departures in Stan's family, which was dubbed Berkeley Oldstyle.

"University of California Oldstyle was done in metal type and several years later Monotype brought it out only in metal;" says Haley "We always liked that design — that was some of Goudy's better work — but it was a very small family and you really couldn't use it and couldn't get to it, so we went to Tony Stan and asked him if he could create a face with the feeling of that face. If you had Berkeley Oldstyle on one side of the room and University of California on the other and you couldn't look at them at the same time, you might say, 'Well, they're pretty much the same face'; but if you put them side by side they're very different."

The transformation of University of California Oldstyle to Berkeley Oldstyle can be read as a case of ITC playing fast and loose with type's heritage, but ITC didn't invent this strategy For instance, the Times of London back in 1930 instructed Stanley Morison, typographical adviser to the Monotype Corporation and the Cambridge University Press, to draw a modernized version of the typeface Plantin, one with sharper serifs. Morison did this and spawned Times Roman.

ITC adapts a face rather than replicates it for the same reason the Times of London remade Plantin — to make a face of their own. With ITC, though, it goes deeper. The company was founded by

contem- porary type designers to supply fashionable new faces to a voracious advertising industry and, more- over, to guarantee income from their own designs. If ITC reproduced an unadulterated version of a venerable face, a face in the public domain, how could they call such a face an ITC face? How could they demand a royalty for it? They couldn't. So ITC, if they are to issue anything but brand-new original faces, are bound to recast whatever they touch.

Still, if adaptation is unquestionably part of the history of type design, why all the fuss? Perhaps it has some- thing to do with the rate of change. The newest technologies speed up the process of drawing typefaces. An alphabet can be originated or reconfigured at a CAD station at twenty minutes per character. Maybe even faster. Alphabets used to take years to draw (and still do for most designers), and drawing was the snappy part back when type had to be cut into steel punches and molds had to be made before type could be cast. Adaptations happened but they took years to execute. There were natural, physical, chronological limits to change. Adaptations can take place in a matter of weeks now Hell, they can happen overnight. Computers exist to allow manipulation of data. Now that type is nothing but data, numbers for the crunching, it can be a chameleon, remade for every situation. Digital faces can come from nowhere, and spread like the flu. Put a typeface on software for Apple, for IBM, for their respective clones, and it can reach saturation in no time.

So what is a typeface? Under laws in this country and in much of the world, a typeface isn't protected by copyrights; only the name of the typeface can be registered. Because Linotype has kept the name Helvetica on a short leash, one finds this most ubiquitous of typefaces listed as Helios or Triumvarite in the Compugraphic type book or Swiss in Bitstream's roster. It is confusing: the pedigree of the faces themselves, the question of origin, of ownership, the varying names. And then, the advertising agencies. Theoretically the way to get a new typeface to catch on is to get it used in a major advertising campaign. Once a typeface has debuted in one high-profile ad, it's safe for all the other agencies to pick up on it. But major advertisers aren't content to have a signature typeface. They have to alter that face to make it truly their own. "Some of them just thumbprint stuff;" says Haley, meaning they lop off a serif or stretch a descender. Others distort a face. Apple uses a condensed ITC Garamond, but they tamper with it electronically so that it looks like nobody else's ITC Garamond.

So what is a typeface? The question gets harder to answer the more you know.

Maybe Ed Benguiat provides the best answer in his metaphoric way He's explaining why typefaces designed on computers aren't, to his way of thinking, really typefaces, saying that computer design often involves recy- cling and repeating letter strokes: "On a computer, when you have an I, an H, that stroke, you say, 'OK, we'll use that stroke here, we'll use it there. We'll use it all over.'" Benguiat, who was a jazz drummer before he started drawing the alphabet, talks as though the two disciplines were one. And perhaps they are. "It's just like a bing-bing-bing-bing...," he says, hitting the table with a steady monotonous beat. "You know, rhythm is type. This isn't rhythm. That's nothing more than a tap. The minute you have this — " he adds a second beat with his other hand, "then you're cooking. The idea is that type has a feeling, and if it doesn't have that feeling it just goes.... "And here Benguiat makes a noise that defies accurate transliteration. "If it doesn't have that feeling it just goes blaaaaahhh."

A typeface, then, is rhythm. The beat of the written language, the stride of letters marching across a page.

Matthew Carter defines type in another way, a way I particularly like because it assumes an alliance between the creator of letterforms and the writer of words. It is always heartening to a writer when someone involved in typography remembers that there is a relationship between form and content: “There are very few things you can say to distinguish type from other kinds of industrial design;” Carter remarks. “One of them is that we design letterforms, obviously. That’s what we draw but the real product is words. We don’t know how those letterforms are going to be combined linguistically. And essentially we have to make them so they can be combined randomly in any combination. It’s when the thing gets into words, gets printed, that’s the proof of it. That’s when it’s doing its job. So there’s a funny sort of remove. You’re designing something but you have no control over how it’s actually used. We are really word designers, but we can’t be.”

— An Existential Guide to Type —