

The Old Akzidenz-Grotesk on a New Basis

by Karl Gerstner, Basel

Many people ask: Does Grotesque have a future as a typeface?

Without any doubt, it is being used more and more nowadays. But this phenomenon can be interpreted in two ways.

Some believe: Grotesque has become fashionable (with its boom correspondingly short-lived).

Others say: Grotesque has developed from a display typeface into a text typeface (as much as Fraktur, Mediaeval, and Antiqua have been for decades, or even centuries).

I am one of the others. By this I do not mean that Grotesque—Antiqua is a militant alternative for designers. No, the either/or period of the nineteen-twenties is past. Grotesque—Antiqua today is Antiqua today is no more an article of faith than, say, symmetry—asymmetry.

I am convinced that the development of typefaces is a long-term question of style—and therefore (necessarily) to a limited extent a question of fashion.

Style means: adapting functional forms and forms of representation to the spirit (and hence the taste) of the time. Considered from this angle, the continuous transformation of typeface is an exemplary case, because it takes place a priori within clearly defined limits. The function has been laid down, the alphabet has been invented, and the basic shapes of the letters are immutable. Fraktur and Grotesque are nearer neighbours than the Münster in Ulm and the Thyssenhaus in Düsseldorf. Yet Grotesque has more stylistic features in common with the latter than any other typeface. One piece of evidence for this is to be found accordingly in their shared historical roots: industrial buildings and (the industrial typeface) Grotesque are both products of the early nineteenth century in Great Britain.

Grotesque is undoubtedly not the end-point of the evolution, but rather an intermediate stage in it (like every typeface thus far).

The Roman-Humanist alphabet will undoubtedly bring forth thousands of more variations. But the new typefaces will not be the old ones.

In terms of the periods of the past, I see the situation today as follows: Grotesque not only has a future, it also is the typeface of the future.

When we say Grotesque, we use the term to designate (with a historically indeed ridiculous, but fundamentally not uncongenial name) a specific form of a typeface without serifs. Yet there is no one Grotesque per se, but rather a hundred forms that are again specific; a hundred more or less divergent, more or less idiosyncratic variations of the original.

We first asked ourselves the question: Which of all of the Grotesque typefaces that are favored today do we prefer? And secondly: What are the criteria for typography today and in the future in respect of typeface?

Answer: Although most variations do at best not worsen the typeface, they offer only limited improvements. We prefer the original Grotesque. We take the view that instead of drawing new types, we should (subtly, subtly!) improve the originals (the best, the tried-and-tested). First. And, second, we should develop them harmoniously (meaning coherently), as completely as possible.

This experiment we duly carried out (without being commissioned to do so and without prejudice). For the purpose we used the Grotesque that after all comparisons seemed the most suitable: Akzidenz-Grotesk, by Berthold. (We: employees of the Gerstner, Gredinger und Kutter [GGK] agency, Basel.)

The Seven Grotesque Typefaces Preferred Today.

They can be organized in three groups based on the time when they originated:

1. The ones with their origins in manual work
2. The ones forcibly stylized in the 1920s
3. The visually clarified ones from 1957

The key date is respectively the year when the first typeface was published. I therefore count Mono 215 (although it was first brought onto the market in 1926) among the first group: it was redesigned based on models crafted by hand and does not represent the personal accomplishment of the designer.

Unlike the typefaces of the nineteen-twenties: These are highly individual interventions in typeface development. They both bear the stamp of the people who developed them.

On the one hand, Futura: Renner was interested in burning as many bridges to tradition as possible. He constructed a font based on geometric regularity, from square, triangle, and circle.

On the other hand, Gill: With his Grotesque, Gill was attempting, ideally, to establish a link to tradition. He drew a sans serif typeface, also with the aid of compass and ruler, but based on the visual regularity of a Mediaeval.

Futura 1927	physiognomie
Gill 1927	physiognomie
Univers 1957	physiognomie
Helvetica 1957	physiognomie
Folio 1957	physiognomie
Mono 215 1926	physiognomie
Akzidenz-Grotesk 1898	physiognomie

The typefaces in the third group—Univers, Folio, Helvetica (which all came onto the market in 1957)—differ in originality and quality; they do, however, have more characteristics in common than any other Grotesque group.

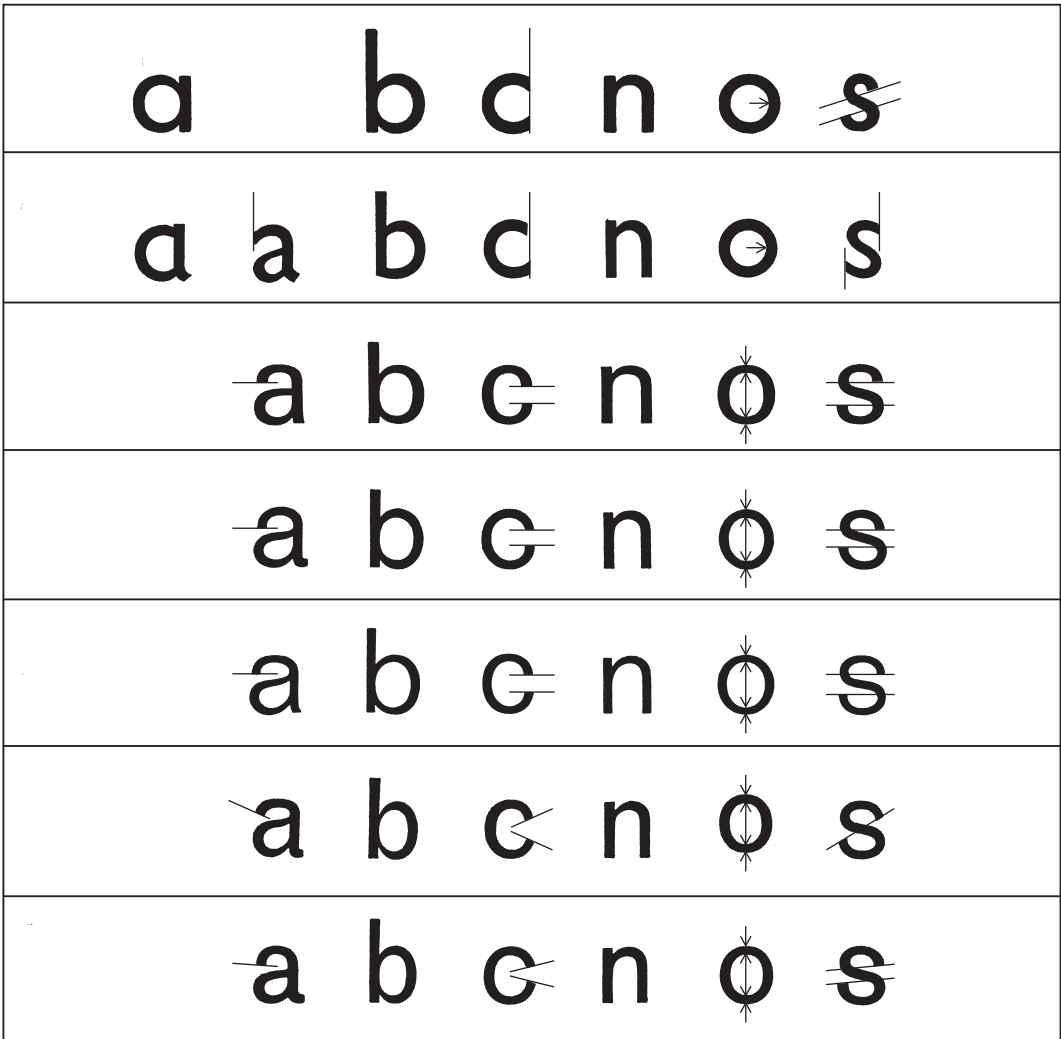
Coincidence?—Zeitgeist! (One can speak of the typical typefaces of the nineteen-fifties.)

What they have in common is expressed in the trend as well as in the details.

For example: Although well-known designers created the typefaces in all three cases, the “personal touch” is deliberately withheld. A pronounced individual style is missing.

In contrast to Renner, who wanted to emphasize formal contrasts, here they are balanced out, when possible. The three typefaces contain practically no geometric elements (like Futura, and also Gill). They are conceived based on visual regularity.

In other words: The typefaces from 1957 are connected with the manual origins of the first group. They are variants with subtle differences. They have a large letter appearance; a calm rhythm (see the horizontal serifs) in the appearance of words; in the appearance of sentences, they result in an even gray tone.



Why do we Prefer Akzidenz-Grotesk?

In comparison to the typefaces from 1957, are those with manual origins such as Akzidenz-Grotesk restive, uneven?—This is a question of interpretation.

Is it a criterion that the appearance of sentences be gray; is it even at all a criterion that a typeface be as even as possible? Yes. It is a graphic criterion—but not a functional one. 'Visually calm' can also be interpreted as 'monotonous'.

We regard what is occasionally criticized about Akzidenz Grotesk as "restive" as its greatest

advantage: its liveliness, its (in the literal sense) original freshness.

In reality: Akzidenz-Grotesk has outlasted all fashions for over sixty years. It is a typeface that was not particularly promoted by the propaganda of the company that created it. A Grotesque that has literally prevailed on its own (today more resolutely than ever) in the work of very individual designers around the world.

We admit that our criteria are not conclusive. The choice of typeface is always a matter of discretion. But whatever the criteria are: Akzidenz is an outstanding Grotesque!



Who deserves the laurels? Who designed Akzidenz-Grotesk?

No one knows the names. It is the work of anonymous punch-cutters. Hence craftsmen, hence specialists who, as a result of their profession and experience, were familiar with the subtlest nuances and laws—and not only of Grotesque.

They gave Akzidenz something that can be considered the highest praise for a typeface: a functional and formal matter-of-factness that has outlasted short-lived fashions.

The technical know-how is expressed not

only in the typeface, but also in how it is set. One piece of evidence: Each individual font size was cut individually without the aid of a pantograph or photo-optics. Each is proportional appropriate to its size based on the rule: small font sizes are proportionally wider than the bigger ones.

We examined this based on the manually typeset typefaces available on the market today. We enlarged and/or reduced seven different gradients to a 36-point font height:

6°	efghijklmnop
8°	efghijklmnop
12°	efghijklmnop
16°	efghijklmnop
24°	efghijklmnop
36°	efghijklmnop
48°	efghijklmnop

A Typeface is More Than its Form.

Formal criteria (stylistic characteristics and questions of readability) are indeed important for the look of a typeface. The matter itself is more complex.

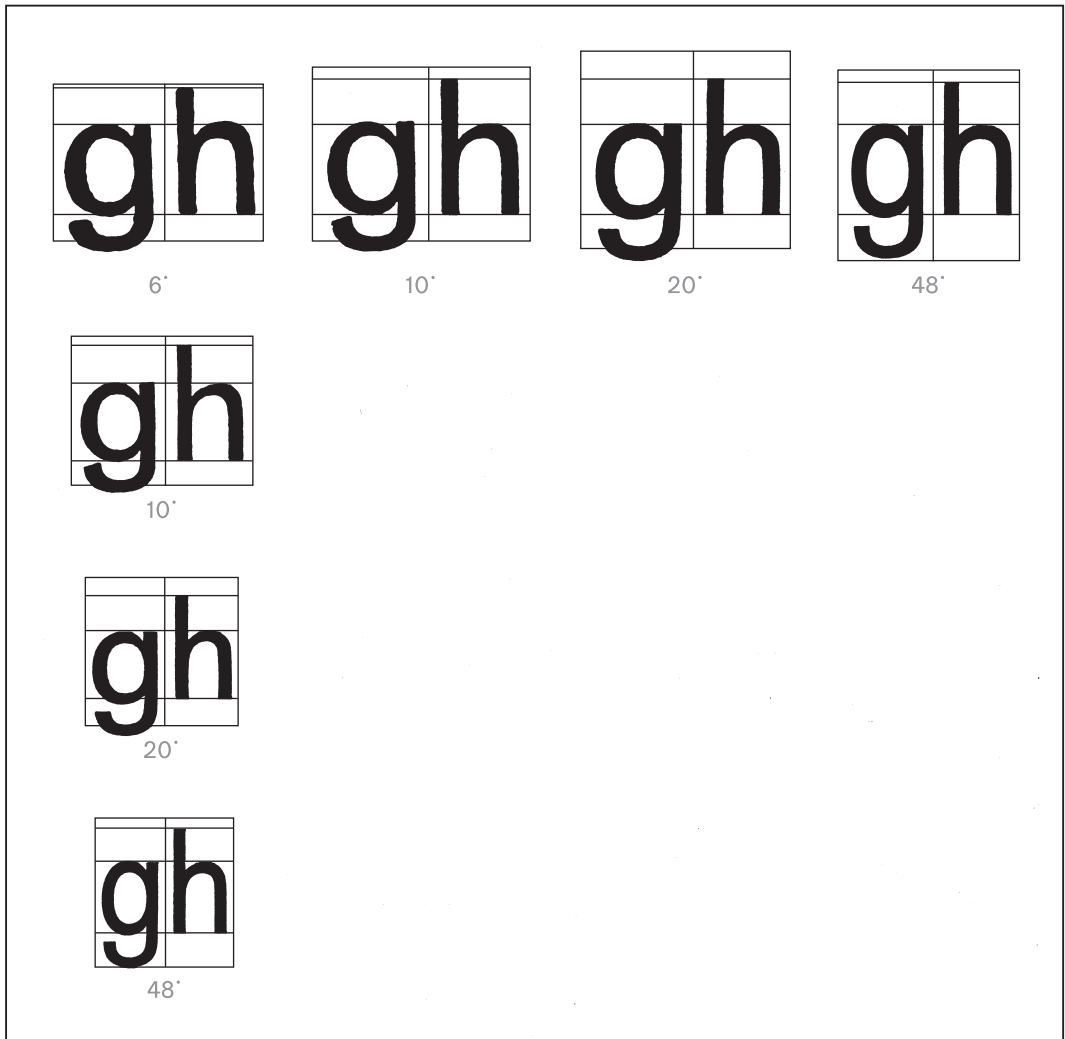
Technical questions stand in the background. In which method(s) is a typeface available? Are the typefaces in manual-, machine-, and phototypesetting identical?

Here I can only come to different assessments of the various Grottesque typefaces (I gladly admit my unstinting appreciation for how Frutiger solved the problem in Univers).

Corresponding to the manual origins of Akzidenz, its strengths lie in lead typesetting (and its future in phototypesetting). In support of this, another example from our examination.

There are moreover the well-tolerated nuances (for instance, deviations in shape, as here in the case of the g) of variable font size (the proportionally varying widths). Manual irregularities such as the positioning of the body occur without any identifiable reason.

From top to bottom are four different font sizes with the same depth of the body; from left to right, the same font size with the same letter height:







Further criteria for the assessment: How developed is a typeface? How many font styles are there, and to what extent are these styles coordinated with one other?

Such questions are important for designers. Today more than ever (and tomorrow more than today). The development of Grotesque typefaces distinctly shows a trend toward further development.

How does this look in the case of Akzidenz? It is designed in sixteen styles. Some of them (medium) have become world-renowned, while others have justly, and others (light, light condensed) unjustly, almost been forgotten.

The four different weights are each among the outstanding fonts. Each one is designed with craft's know-how, according to its requirements.

At the same time, inevitably, the distinctly independent existence of weights also has a disadvantage: They can only be combined with each other (in degrees of distinction) to a limited extent. The letters do not consistently hold the line; upper and lower lengths vary. (Whereby it is a mistake to believe that fulfilling this one condition already means harmonizing styles with each other.) The four weights of the 20-point font size enlarged:

<p style="text-align: center;">Hamburgefons</p> <p style="text-align: left; font-size: small;">20° light</p>	<p style="text-align: center;">Hamburgefons</p> <p style="text-align: left; font-size: small;">20° regular</p>	<p style="text-align: center;">Hamburgefons</p> <p style="text-align: left; font-size: small;">20° medium</p>	<p style="text-align: center;">Hamburgefons</p> <p style="text-align: left; font-size: small;">20° bold</p>
			

For our project of expanding the old Akzidenz-Grotesk to create a new harmonious family we required a basis. We had to define one font as the basic type from which the different variants would be derived. For this, we selected the usual one in the Diatype version supervised by Günter Gerhard Lange. Furthermore, we also carefully altered a few uppercase letters (BDEFG KPR) (see page 4). On a technical level, we based all our considerations on phototypesetting.

It is fundamentally possible to develop the basic type in four directions:

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1. big—small

 2. narrow—wide

 3. lightface—boldface

 4. roman—italic

The first three parameters consist of ranges that are theoretically infinite, but limited in practice. It is not possible for a font to be either arbitrarily large or arbitrarily small, either arbitrarily lightface or boldface. Within the ranges there are reasonable limits: extremes determined by technical and functional experience.

Between these extremes, however, an arbitrary number of degrees are possible. After the first decision (what are the extremes?), it is necessary to make the second:

how many different sizes,
how many different widths, and
how many different boldfaces between the extremes?

The first question of size answers itself. It is left up to the discretion of the user; it is important in designing with the font, but not in the design of the font itself.

The question of boldface and width is different. How many degrees are reasonable? Namely: A number that is reasonably small (so that continuity is not lost) and reasonably large (so that it is possible to easily differentiate the individual degrees). We decided on four of each.

Then comes the third decision: What laws do we take as our basis?

- a) what principle, and
- b) what factor?

These questions are central. Answering them is crucial to fulfilling our program: Every style has to combine harmoniously with every other style. Harmoniously means here: Exact inner conformity of the variants based on regularity—and not outer similarity derived from conventions.

One more word on the fourth parameter: roman—italic.

Every well-developed font has an italic type along with the roman. This is (to the best of my belief, the first time in the case of Caslon) the very oldest form of font variants. Until today, people have always seen roman—italic in alternation, as a pair. If one regards this parameter somewhat differently, under the general aspect of slant, it assumes another weight. Since, the roman—90° to the horizontal—is no more than an outstanding case of slant. I will come back to this on page 13.

1. Big—Small

Principle: The letter radius is variable in size, based on a conceived center. This means: Height, width, and boldness decrease, and/or increase. The letter becomes proportionally smaller or larger.

This principle comes into effect in real terms in phototypesetting. The letters are projected. What by all means applies here is that every size has its own visual prerequisites. What the punch-cutter corrected in the shape beforehand (see page 5), the Diatype apparatus regulates automatically in the impression. This means: It is not the letters that are widened toward the bottom; it is instead the spacing that is enlarged.

About the illustration: 48-point: First line in phototypesetting, second line in manual typesetting; 6-point: First line 48-point phototypesetting reduced in size as is, second line corrected in impression, third line manual typesetting. Corresponding to 12- and 24-point.

The sizes in manual and machine typesetting are given by the font size. In phototypesetting (not in every method, but in any case with the Diatype apparatus) the choice of sizes is infinitely variable. Here the designer can specify the factor. This means: When various sizes are used for the same printed matter, the exact size relationships can be chosen at the designer's discretion.

48'	efghijklmnop efghijklmnop
6'	efghijklmnop efghijklmnop efghijklmnop
12'	efghijklmnop efghijklmnop efghijklmnop
24'	efghijklmnop efghijklmnop efghijklmnop

2. Narrow—Wide

Principle: The horizontal axis of the letter is variable in size.

This means: All dimensions become wider proportionally in the direction of this axis; the measurements in the vertical remain as is. The letter becomes narrower or wider.


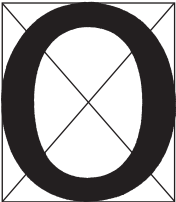
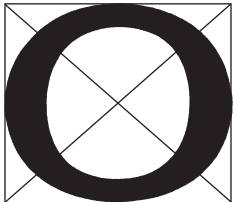
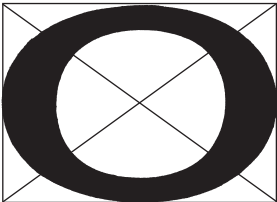
The basic type bb is narrowed one time to the one side (ba), and widened two times toward the other (bc, bd).

It is therefore now important that one factor that establishes these different degrees by means of rules be introduced. This widening factor is a constant 1.25. This means: ba is to bb as 1 is to 1.25.

Moreover: bb is to ba as bc is to bb, and so forth.

The letter is thus automatically widened as a whole: the relationship of diagonal to counter remains constant in all widths. The shape remains unchanged.

In other words: Not only the width is subject to modification, but also the boldness. I will come back to the significance of this point on page 12.

<p>ba</p> <p style="text-align: center;">Hamburgefons</p>	<p>ba</p> 
<p>bb</p> <p style="text-align: center;">Hamburgefons</p>	<p>bb</p> 
<p>bc</p> <p style="text-align: center;">Hamburgefons</p>	<p>bc</p> 
<p>bd</p> <p style="text-align: center;">Hamburgefons</p>	<p>bd</p> 

3. Light—Bold

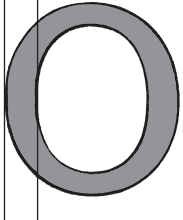
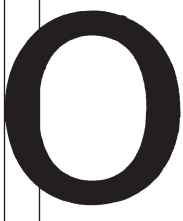

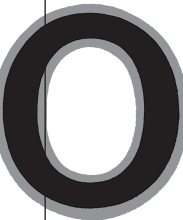
Principle: The line thickness of the letter is variable in size. This means: The letter becomes proportionally (with reference to its thinnest and thickest points) lighter and/or bolder.

The basic type bb is narrowed one time toward the one side (ab), widened two times toward the other side (cb, db).

The factor for this is the same as for the widening factor. Namely 1.25. This means: ab is to bb as 1 is to 1.25. bb is to ab as cb is to bb, and so forth.

The letter therefore becomes not only bolder and/or lighter, but also wider and/or taller. This

difference in height can be corrected at will in the Diatype apparatus as a result of the infinitely variable size adjustment.

ba Hamburgefons	ba 
bb Hamburgefons	bb 
bc Hamburgefons	bc 
bd Hamburgefons	bd 

The System

Degrees of boldness and width can be coordinated harmoniously thanks to the shared factor. As a result, it is possible to put them together and add to them in a kind of coordinate grid.

This means: The four degrees of width ba — bb — bc — bd are grouped horizontally and the four degrees of boldness ab — bb — cb — db are grouped vertically around the basic type bb as crossing point.

The rest of the fields are added starting from this crossing point: the missing styles result automatically.

The system is complex and makes the following new interrelationship clear: although all the styles on the same diagonal have a different width, they have the same line thickness. Not only the horizontal and vertical rows have a constant reference, but also the diagonals ba — ab , ca — bb — ac , da — cb — bc — ad , db — cc — bd , dc — cd .

These five diagonal rows conclude on the one side with the thin-lightface extreme aa , and on the other with the wide-boldface extreme. The system is also complete. It is not possible to draw the type even more extremely to the two sides without abandoning the basic shape and basic principle of proportional modification. This, in turn, makes the system illusory.

aa	n	ab	n	ac	n	ad	n	
ba	n	bb	n	bc	n	bd	n	
ca	n	cb	n	cc	n	cd	n	
da	n	db	n	dc	n	dd	n	

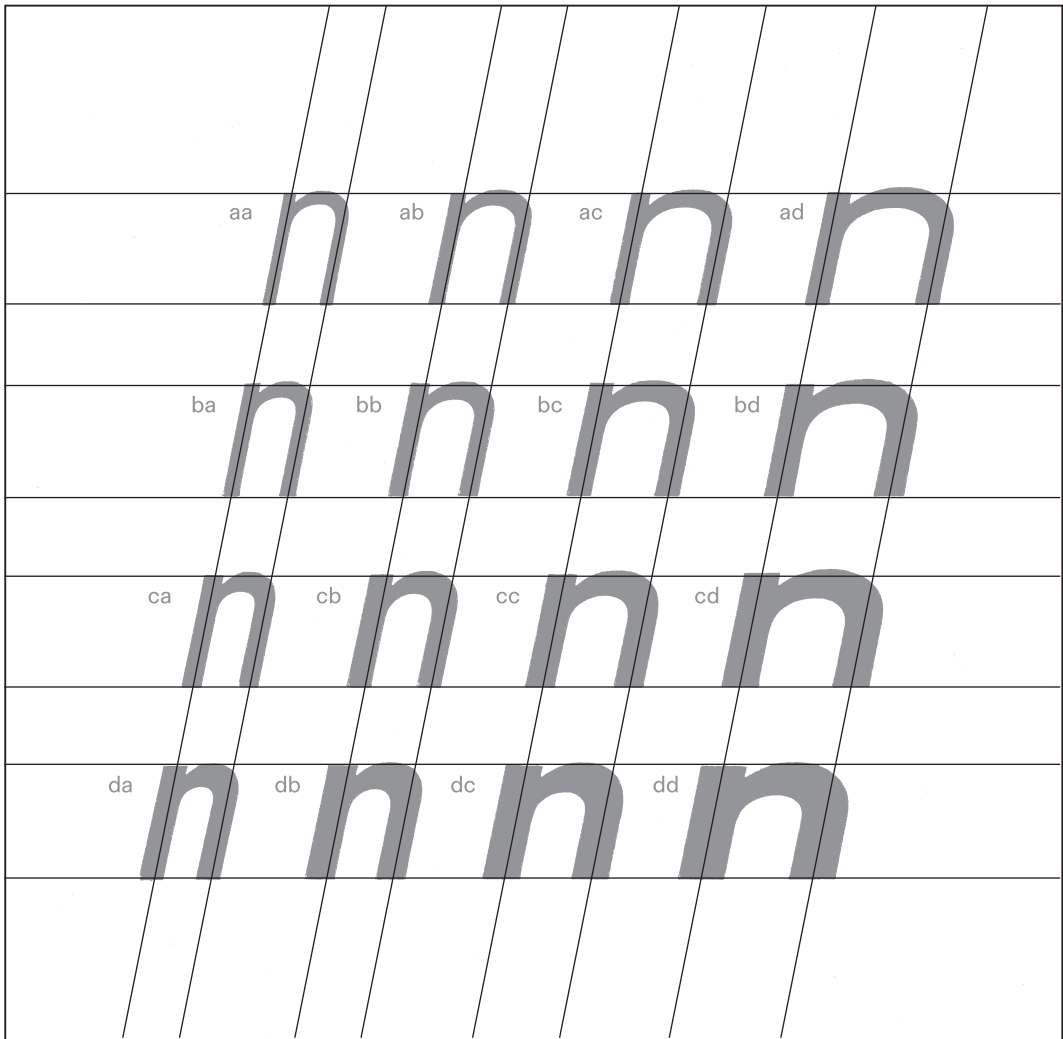
4. Roman—Italic

Principle: The angle between vertical and horizontal letter axes is variable in size. This means: Width, height, and boldness remain constant. The letter slants more or less backwards or forwards.

We can then also ask ourselves here: How many degrees of slant are reasonable? We could, for instance, take over the four variants that we used for the changes in width and boldness for the slant. If we place the roman type in the position of the basic type bb, we would arrive on the left side at a left-italic of 80 degrees, and on the right side at two italics of once again 80 and/or 71.1 degrees to the horizontal.

These are premature considerations. They will become a reality one day, but today neither the technical prerequisites for this are fulfilled, nor the typographic criteria.

We therefore limited ourselves to producing the sixteen styles in a proportional italic of 78 degrees to the horizontal. This means: We transferred the shape unaltered to a parallelogram with a basic angle of 78 degrees.



Hamburgefons	Hamburgefons	Hamburgefons	Hamburgefons
Hamburgefons	Hamburgefons	Hamburgefons	Hamburgefons
Hamburgefons	Hamburgefons	Hamburgefons	Hamburgefons
Hamburgefons	Hamburgefons	Hamburgefons	Hamburgefons

<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>
<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>
<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	Hamburgefons
<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	<i>Hamburgefons</i>	Hamburgefons

Conclusion

In the course of our work, we were occasionally asked whether we had not proceeded too schematically.

I think that there is a misunderstanding here in the formulation of the question. We were looking for a paradigm, that much is true. But by paradigm we do not mean the stubborn implementation of a decision once made, but rather optimal coherence; both for the individual type and for the entire family. And from this point of view, we cannot be schematic enough.

Our approach was quite conventional. We gradually proceeded from analysis to synthesis. From the analysis of the existing typeface material, we learned what we do not want. We arrived at the synthesis by way of a hundred individual experiments. Step-by-step, we measured our abstract ideas, the principles that we had devised, against the resulting concrete appearance of the typeface. In principle, we now know what we want. But we also know that much still remains to be done on the details. I will once again reiterate our precept: Rather than drawing new typefaces, to improve the best (if possible) and to develop them as thoroughly as possible, and as coherently (or if one would prefer: as schematically) as possible.

Why is the criterion of coherence so important to us? Because unlimited harmonious compatibility is so important to us. But isn't the typographer free to combine whatever he likes? No, he is only free to combine the material that is available. That, in our opinion is too little.

I would like to make a personal comment on this: The future will, in advertising definitely, in journalism probably, in literature possibly, bring a more intimate connection between text and typography, between content and form. With increasing production of printed matter, copywriters and typographers have to find ways to make written material easier to read. Text is the medium of communication; typography is

the packaging. The text has to be readable, but the typography has to encourage people to read. This task is of great importance. The typographer can accomplish it in many ways. But, in terms of material, this calls for a wider variety. In our view: A great variety with a strict constant. This is the new basis that we wanted to give to the old Akzidenz-Grotesk.

In our agency, we ourselves are first and foremost typographers, not "type artists". We never wanted to design a new typeface. And, besides, it was also not initially our ambition to undertake this work, the upshot of which I am here presenting to experts for the first time. We took pleasure in doing so because, as a result of our engagement with the material, our own perspective, not only on type, but also on a future typography has become broader and deeper.

We began our efforts almost three years ago. I gladly admit that once our work produced the first results, we made contact with the Berthold type foundry. Our findings were met with sympathy and interest, both from the side of the management as well as the art department. Berthold gave our work a real basis with the promise to publish this new creation in phototypesetting on the Diatype system.

The complete results published here have been submitted for registration to the Swiss Federal Institute of Intellectual Property in Berne.