GOING OVER AND UNDERGROUND IN BERLIN
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A BRIEF HISTORY OF BERLIN

1244: Berlin is first mentioned in documents.

Around 1400: Berlin has 8,000 inhabitants.

19th century: The Industrial Revolution transforms Berlin; the city's economy and population expand dramatically, and it becomes the main rail hub and economic center of Germany. Additional suburbs soon develop and increas the population to 800,000.

1871: Berlin becomes capital of the newly founded German Empire.

1914–1918: World War I leads to hunger in Berlin. In the winter of 1916/1917 150,000 people are dependent on food aid. Strikes break out

1919: The political factions of the provisional coalition government meet in the historic city of Weimar. They establish a democratic federal republic for Germany: the Weimar Republic.

1920: "Greater Berlin" (Groß-Berlin) is created by incorporating several neighbouring towns and villages into the city: Berlin’s population doubles overnight from about 2 to nearly 4 million.

The economic situation remains bad, particularly the inflation. At the worst point one dollar is worth about 4.2 trillion marks. From 1924 onwards the situation starts to improve and Berlin becomes the largest industrial city in Europe.

People such as the architect Walter Gropius, physicist Albert Einstein, painter George Grosz and writers Arnold Zweig, Bertolt Brecht and Kurt Tucholsky make Berlin the cultural center of Europe. Night life blooms in 1920s Berlin. But all is not well.

Even before the 1929 crash 450,000 people are unemployed. In the same year Adolf Hitler’s Nazi Party wins its first seats in the city parliament. In July 1932 the republic was nearing breakdown, under attack by extreme forces from the right and the left.


1935: Germany begins to re-arm. Nuremberg Laws deprive German Jews of citizenship.

1936: Berlin Olympics.

9th of November, 1938: Pogrom night saw the orchestrated attacks on Jews and their property as well as synagogues.

1939: German invasion of Poland triggers World War II. Millions of people of all ages, mostly Jews but also large numbers of gypsies, Slavs and other races, the disabled and homosexuals, die in the Holocaust as the Nazis implement an extermination policy in the death camps of eastern Europe.

May 2nd, 1945: Berlin finally capitulates to the Soviet army. The destruction of buildings and infrastructure is nearly total in parts of the inner-city business and residential sectors. The outlying sections suffer relatively little damage. This averages to one fifth of all buildings (50% in the inner city) for overall Berlin.
1945: The German army is defeated. The allies divide Germany into occupation zones.

1949: Germany divided: the US, French and British zones in the west form the Federal Republic of Germany; the Soviet zone in the east forms the communist German Democratic Republic.

1961: Construction of the Berlin Wall.

1968: East German constitution declares unification impossible until the West became socialist.

1989: Mass exodus of East Germans as Soviet bloc countries relax travel restrictions.

9th of November 1989: "Berlin Wall is torn down", which means that East Berliners can finally cross the border. Berliners of both sides dance ecstatically on the Wall.


I'm in the lucky situation to have witnessed the fall of the Berlin Wall in November 1989 and the happiness of the following years. To preserve the impressions and the excitement of this time in this city with its story, I collected a lot of visual material. Between 1991 and 1998, I documented the old shop lettering, that was painted directly onto the façades, in former East Berlin – mostly in Prenzlauer Berg and Mitte. This lettering had not just survived WW II, but also more than 45 years of the post-war period. The reason why these traces from the early twentieth century could survive was the economy of scarcity of the GDR. The whole political system was living on the leftovers of the "glory days". I was fascinated when I got access to these massive resources of the suffering originals. Because the old structures in the east were in a very bad condition, the city started with the widely planned reconstruction of most of the façades as soon as their ownership was found out. The only way not to lose all this beautiful lettering, and the stories behind them, was to record them in photographs and try to find a way of showing them later on in another context. Therefore I took pictures of the whole letterings, "portraits" of individual characters, and even the spaces in between. I call this method: Search, find and rescue.
SEARCH AND FIND

To show how the old shop lettering was disappearing over the last 15 years, (in 2005) I returned to the same places where I’d taken so many photographs. I took new pictures, trying to get to exactly the same position, and keeping the same angle as the first time. This was not easy, partly because so many cars are parked on the streets these days, compared to the relatively car-free days of the GDR.

The thing I found out is that more than 90% of the old lettering is gone forever. Just a handful of house owners cared about these old traces and conserved the originals on the façades by painting the new colour around them. But there is also faked historic lettering! Some lettering we know to be from ilm productions of the 1980s has been restored. It is doubtful the owners know this secret.

RESCUE

To transfer the characters into a new mission, I examined the distinctive appearances of individual letters and tried to find out about their origins in old type specimen books. Old techniques for printmaking and reproduction and contemporary innovations, together with the everyday life in the early twentieth century are all very well reflected in the shapes of the letters. In the FF Karbid family the results of this research process come together in a new typeface, to be used in a new time and new media. In this way, the old lettering can live again.
**FF KARBID**

The shapes of *FF Karbid Display* stick quite a lot to the found origins, while the *FF Karbid-Text* shows its historical background less obviously. The typeface has been trimmed down to the bare essentials of a text face which makes it eminently readable, especially at small point sizes. Despite this back-to-basics reduction, Karbid-Text is a font that captivates through its sheer liveliness. The sweeps that replace the serifs and link the characters create a flowing movement.

Here are some examples for the proceeding of the *FF Karbid Display*’s design:

"a"

At the turn of the last century it was very popular to design typefaces whose lowercase "a", sits with its full weight on the baseline. This is a kind of quotation from the organic shapes used in art nouveau.

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"g"

When setting a wide variety of texts, a companion type, like Bold, Italic, etc. to complement the text face will often be needed. In 1886, *Ottmar Mergenthaler* invented the first typesetting machine, the *Linotype “Blower”*. This machine was soon commonly used in book and news printing. In contrast to the traditional letterpress, the typesetting process involved typing the letters on the machine to create the matrices which would then be assembled into lines of text.

In order to be able to use text and companion faces together, two sets of matrices were necessary. As there was plenty of room on the long matrix segment a second typeface could be set at the same time. This type of matrix was called "double-type matrix".

Nonetheless, it was difficult to mix different types of fonts, simply because the different proportions of the various typefaces made proper baseline alignment difficult. The introduction of the *German standard baseline specification* in 1905 aimed to rectify this problem by defining a standard for the descender lengths at each size of a font. Of course, that limited freedom in type design. Due to the fact that, at that time, typesetting in Germany still mostly used blackletter faces (especially for scientific publications), words
of non-German origin were set using roman display faces. Because using these two kinds of typeface next to each other required a common baseline and roman faces were less widely used than gothic ones with their shorter descenders, foundries started to truncate the descenders of roman faces. Thus the “natural' baseline of roman faces was eventually lowered.

While it was easy to amputate the descenders of letters like p and q, the g provided a much harder challenge for the type designer to play with its short tail. The strangest shapes suddenly appeared in the "modern" typefaces.

The resulting unique look was perceived to signal modernity. It applied to façade lettering as well, although there was technically no need for this.

A reflection of the speed of modern times in a busy city like Berlin are the "rallye stripes" of A, E, F and M. The shapes of these characters are taken directly from the found lettering.

One very important graphic and type designer of this time was Lucian Bernhard (1883–1972), who created the typefaces Exrafette Bernhard Kursiv and Bernhard Antiqua.

The sweeps of n and m in FF Karbid are taken from Bernhard antiqua, as if it has been enlarged by photocopier. These shapes replace the serifs and link the characters to create a flowing movement.

FF Karbid's terminals and serifs are irregular: as if they fell off, as really happened to the originals when the plaster fell of the old façades as a sign of the economy of scarcity in the East.
INTO THE STREETS

Beside the old shop lettering in East Berlin, the city stroller could find several visual traces more in the streets that speak of Berlin's near past.

By the mid 1990s the city authorities had torn down almost all the Wall, despite it being one of Berlin's most important sights. In major parts of the city the only reference to it is a strip of cobblestones that follows the old line of the Wall. This is of course hardly enough for tourists to understand the full insanity of the Cold War and its absurd effects on the appearance of the divided city.

One visible difference of the two parts you can find by night. In the West the pale white light from the old gas lamps illuminates the streets, while in the East the orange electric light is still in use.

And there are also still the old street signs that recall Berlin's past.

To preserve the memory of the city's two street sign systems, Ole Schäfer and I started the FFCityStreetTypes project.

In 2000 we began documenting the street signs on both sides of the former Wall. Instead of researching the technical drawings that might be hidden in some city archive, we preferred to refer to the signs themselves – to use the actual lettering rather than some engineer's ideal vision of it.

BEFORE 1910

Until 1905, there was no system at all for the design or adjustment of street signs. Even the writing of the street names was not standardized and lots of complaints about this situation appeared in the newspapers. (Still, Berlin is one city that has no clear system for the numbering of houses. It drives visitors crazy!)

Most of the historic street signs were just painted metal plates with white letters on blue background, fixed directly on the corner houses. This location was not very visible for drivers from the streets. Between 1905 and 1908 the decision was made to adapt new street signs in a better position on candelabras or streetlamps right at the edges of the pavement, close to the streets.

Together with this innovation, a new design with black letters on white background was established. A very narrow monolinear typeface, the Schmale Egyptienne, was used for the lettering.

FF CITYSTREETTYPES

BERLIN WEST

The history of the Berlin West street sign typeface actually starts in the 1930s, as it was used for the whole city, the former "Greater Berlin".

In the 1920s sans serif typefaces became more and more round and provided a big advance in legibility over the narrow slab serif designs. The new shapes had obvious differences between round and straight
forms, like the old Antiquas, but with a modern look. From the 1930s on, new street signs, made of weather-resistant enamel, were produced to replace the old ones and give the gloomy city a contemporary appearance. For the typeface, a variation of Erbar Grotesk (Jakob Erbar, 1926) was used.

The most distinctive and concise letter in this typeface is the “ß”, that has its origin clearly in the ligature of the two different “s”, taken from the old blackletter shapes. This typeface also provides a “ß” ligature. The “y” is another special. It looks like a capital taken as lowercase. As it is not meant to be used for texts, it works fine as used for display.

**BERLIN EAST**

From 1949 until the early 1950s the Soviet zone still produced enamel signs to replace temporary signs. A huge number of new signs was also needed for renaming streets, when the GDR started to indulge in a strong kind of hero worship.

For example: In 1950 Danziger Straße was renamed Dimitroffstraße (after the reunification, the street was renamed Danziger Straße again).

But shortly after WWII the GDR ran out of resources. In the economy of scarcity, a new way for the production of streetsigns had to be found.

Probably around 1950, new signs with a more industrial look were invented. The sign itself was made of plastic: a sandwich with a white shell and a black core. The letters were drilled in by a mill cutter. This is the reason for its technical design: a typical engineer’s constructed alphabet along the lines of DIN Engschrift.

There are two versions of the original typeface: In one, only one head for the mill-cut was used, the other one was done with two heads beside each other. The result are two kind of ends to the letters. One round, the other straight.

The fact that it is so much narrower than the Western face may have to do with the street names themselves: celebrating Communist heroes, with first and surnames plus the appendix “Straße” or “Platz”, they made very long street names.

While the newest street signs are more or less standardized, the original signs showed an almost infinite number of variants of both alphabets – marked differences in both letter-spacing and character width.

From many variants, we distilled the three typefaces which we labelled as “original”: Berlin East Original, Berlin East Rounded and Berlin West Original. Many glyphs were newly designed by us.
In order to make *City Street Type* (CST) into more than a novelty font, we designed a series of smoother, reader-friendly variants of both alphabets, creating two balanced sub-families of three weights – *Regular*, *Medium* and *Bold*.

**AFTER 1991**

Shortly after the reunification 1991, the government started to rename all the streets that had names of socialist heroes. The first street was the *Berliner Allee*. For the new signs, plastic plates with an *Erbar* like typeface were used. Now, in 2006, there is no system at all left. The civil engineering offices of each Berlin district seem to decide the design of the street signs seperately. It seems to have become the same situation as in 1905.

**HAUS DES LEHRERS**

The *Haus des Lehrers* (Hdl; “House of the Teacher”), one of Berlin’s first high-rise structures, is a 56m high tower block with an unmistakable mosaic frieze wrapped around it. This frieze, named the belly bandage by Berliners, depicts “the socialist life” and was designed by German Democratic Republic artist Walter Womaka.

The building’s twelve-storey-high façade stands at one end of the Alexanderplatz facing the city centre, and provides its inhabitants with a great view across the area with its well-known television tower. Built between 1961 and 1964 as a public project, the Hdl was designed by the architect *Hermann Henselmann* as a venue where socialist teachers could be educated and trained. It is linked to the Congress Hall, a low dome of a building that looks on inside and out like a set from a 1960s sci-fi TV series.

After standing vacant for over a year, in August 1999 the district authority decided to allow its temporary use by private individuals and started to rent out on the base of limited leases. Happily, the landlord preferred young creative tenants, a policy which made an exciting mixture for everybody there.

In 1999 I visited the Hdl for the first time and immediately decided to stay. The whole building was in quite a bad condition and there was still this awful smell of the GDR disinfectant in all of the rooms. So why did I want to move in and run a studio in such a place?

The main reasons of course were the amazing view and the location in the heart of Berlin. The
cheap rent and overstated room decor made the decision easy. In fact, the first tenants used the eighth floor as a squash court and the seventh floor was the “living room” by day and the party and concert floor at night.

After only a few months, the Hdl community had grown to 32 tenants, which made a total of 80 people. The inner circle, the so-called “studio community” counted about 40 members. It was a group of architects, film-makers, designers, photographers, musicians – and some people who nobody really knew what they were doing. The whole place began to be an important part of the Berlin subculture.

The people helped each other out with equipment, expertise and ideas, sorted out computer problems, borrowed books, provided jobs among each other and built up friendships. It was the perfect place for all kinds of synergetic effects, even political ones.

On Friday 13 October 2000, the community arranged an open day. It went on for 24 hours and was a huge success for the group. From then on, the community labelled itself as “Hdl-network”. Therefore they needed a corporate image. Because the community was very much defined by the Haus, the first idea was to find a “Haus typeface” (corporate font). I designed the Hdl typeface Tephe, which everybody could use for communal activities.

**TEPHE**

In the foyer, attached to the wall beside the doorman’s office, was a huge board displaying the list of tenants. These boards are called “mute porters”. Later, after the first reconstruction of the Hdl in the seventies, the metal board was replaced by a new one made of wood. Movable white plastic letters were fixed to the board. These letters were great to play around with and make anagrams as soon as the doorman turned his back.

These letters, with their slightly random shapes, caused by a not very precise mill-cut, became the template for the community’s font. The thick line on the bottom of each letter keeps them fixed behind a thin wooden bar on the board. It’s an important part of the font’s appearance. But there is also a variant without
the line, which is how the letters appear when fixed on the board. I also added missing characters and diacritics.

In 2006, the Hochschule der Künste Bern (HKB) asked me to design the missing lowercase letters, to be used for the signage system of their building. Therefore, the letters were cut into metal and the line was not to keep them fixed behind a wooden bar anymore, but to keep the letters connected in one line. Also, the Tephe HKB now provides diacritics with the accents attached directly to the glyphs. While my studio was located in this famous building, I also designed several other typefaces.

**TRAFO (ELECTRIC TRANSFORMER)**

Down in the basement of the Congress Hall, I found the basis for the small font family Trafo: the handwritten signage of the supply units of the Hdl and the congress hall. Instead of designing completely new shapes out of the unique characteristics of found letters as I normally do, my idea was to adapt single letters to look good in text. So I created the typeface without making too many changes to the original.

**THE END**

The tenancy agreements were limited from the very start. The final deadline for moving out was 30 June 2001. While the Hdl network became legendary, most of the members still meet up to share intelligence about Berlin’s subculture and inspire one another. Or they still work together.

But some activities in the building went on…

**BLINKENLIGHTS**

Celebrating its 20th anniversary (November 2001), Germany’s CCC (Chaos Computer Club) made a unique gift to all its members and friends: from September 2001 to February 2002, the hackers turned the entire façade of the Hdl into the world’s biggest computer screen.

The upper eight floors of the building were transformed into a huge display by arranging 144 lamps behind the front windows. Each lamp was connected to the power source via a relay. If the relay switched on, the window pane was illuminated. A computer controlled all the lamps to produce a monochrome matrix of 8 by 8 gigantic pixels. The installation ran for 23 weeks and five days in total – day and night.

*Blinkenlights* was planned and built in only four weeks from the first idea to the display of the first movie.

Three computers shared the job of controlling the system. To create and play their own animations, *Blinken*—
lights fans all over the world could download a special tool called Blinkenpaint. This easy to use animation application enabled them to create their own short films to be shown in Alexanderplatz.

Because Blinkenpaint was based on Adobe Director, it provided several handy features for animation. The movie was saved to disc as a Blinkenlights Movie – the file format that the computers in the Hdl needed to play it on the façade. Once saved, the user just had to send his movie to the Chaos Control Center via the internet.

Here, all cables from the lamps came together in a huge thread. Five kilometres of cable was laid out in the building. And of course the hackers were very proud of this quite unconventional display technique.

PONG

An even more interactive part of Blinkenlights was the arcade classic Pong. The players could stand on the Alexanderplatz, watching the Hdl, and call the system with their mobile phones. The building stopped displaying its current program and switched over to the Pong playground: two paddles and a ball. You could play with a friend or against the computer, using the keys of the mobile phone as cursors.

LOVE LETTERS

A special romantic service was the idea of showing love letters on the façade. First, the movie with the message was created with Blinkenpaint and sent via e-mail to the Chaos Control Center. Then the sender was given an access code, which he had to use when calling the system by mobile phone, ideally when stood on Alexanderplatz near the building. The movie would start immediately, and the loved one would be impressed.

THE VERY END

On February 23 2002 the party was over. The organisers didn’t just shut down the computers. During the great farewell party, Tim Pritlove, the mastermind behind the event, cut through the Blinkenlights cables with a circular saw.

(http://blinkenlights.de)

THE BLINKENLIGHTS FONT

But what remains from this great event? Just the pictures, films and the animated movies?

One little souvenir from it is the Blinkenlights font. It was designed by me in collaboration with Tim Pritlove and represents the digital incarnation of nearly 24 weeks of fun and amazement.

The work on this font was completely different to the conventional design of a typeface. First, the font was designed by everybody except the type designer. I redrew the
individual letters of the love letter movies to form a complete Adobe standard character set in Blinkenpaint. Than I saved every single frame (character) of the movie named with the correct Unicode value, to keep the glyphs in the correct position. Later, genius Tim took the movie scripts and converted them – via an Illustrator template representing the matrix formed by the Hdl’s façade – into a True Type font. I just had to open this file in Fontographer, adjust the em-square and sidebearings, add some kerning and generate a Postscript font. Then it was ready to be given back as shareware to all the designers of the Blinkenlights animations.

(https://www.primetype.com/free_fonts.php?PHPSESSID=015c554bf6c5702153f1e9545d4c7644)

**NO WAR**

In 2003, after parts of the Hdl community had moved their studios into the former headquarters of the GDR’s daily newspaper “Neues Deutschland” (New Germany), two members of the group (Oliver Krieger and myself) used their knowledge of illuminated façades to create a light installation against the war in Iraq. This project was entirely on a no-budget basis, and everybody in the building was happy to help out by providing access to their light switches.

(http://www.fraugerlach.de/nowar.html)