— *Cultural Stereotypes in letter forms and in public space*[1]

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^{De} ***Abstrakt***

Dieser Beitrag beschäftigt sich mit der Frage, wie kulturelle Stereotype in typographischen Buchstabenformen dargestellt werden.

Nach einer Einführung in den Forschungskontext des Forschungsprojekts „Metropolenzeichen – Visuelle Mehrsprachigkeit in der Metropole Ruhr" werden wesentliche theoretische Konzepte vorgestellt. Der Kulturbegriff wird im Hinblick auf seine beiden Dimensionen, seine historische Entwicklung, die Konzeption von Transkulturalismus und die ästhetische Repräsentation von Kulturen diskutiert. Anschließend wird der Begriff des Stereotyps als sozialwissenschaftlicher Begriff, seine Herkunft, Funktionsweise und seine Beziehung zur Typografie untersucht.

Anschließend werden fünf verschiedene Strategien der kulturellen Stereotypisierung in typografischen Buchstabenformen definiert und die Bilder aus der Metropolenzeichen-Datenbank auf diese Strategien hin analysiert. Im Anschluss daran werden folgende Forschungsfragen entwickelt : Funktionieren die mit den beschriebenen Strategien gestalteten Schriften in Bezug auf ihre regionale Verweiskraft ? Entscheiden die Zeichenrezipient*innen dieser Schriften über den ethnischen Bezug durch die Form der Buchstaben oder durch den Wortinhalt der Texte ? Sind ethnisch stereotypische Schriften eine visuelle Abkürzung ? Sind die Zeichenrezipient*innen schneller in der Lage, eine ethnische Referenz zu bestimmen, wenn ethnische stereotype Schriften verwendet werden ? Die angewandte Forschungsmethodik ist ein an die Typografie angepasster Stroop-Test, bei dem die Teilnehmer*innen widersprüchliche und nicht widersprüchliche Informationen erhalten und die Reaktionszeiten gemessen werden. Die zugrundeliegende Annahme ist, dass, wenn Inhalt und Form in der Wahrnehmung der Betrachter*innen widersprüchlich sind, die Reaktionszeiten und Fehlerzahlen steigen, was Aufschluss über die Vorurteile und Befangenheiten der Betrachter*innen gibt. In dem durchgeführten Experiment wurden Teilnehmer*innen gefilmt, die 48 Karten mit regional zugeordneten Restaurantnamen und Gerichten in verschiedenen kulturbezogenen „passenden" und „unpassenden" stereotypen (sowie einer neutralen) Schriftart sortierten.

Die Zeiterfassung zeigte, dass die Teilnehmer*innen signifikant länger brauchten, um Karten mit widersprüchlichen Informationen zu sortieren (3,59 Sek.), bei denen der Wortinhalt nicht zum konnotierten ethnischen Bezug in den Buchstabenformen passte, als sie für die Sortierung kulturell stereotyper, aber konfliktfreier Schriften (2,83 Sek.) und neutraler Schriften (2,75 Sek.) brauchten.

Der typografische Stroop-Test zeigt demnach, dass typografische Formen einen messbaren Unterschied in der Wahrnehmung der Empfänger machen. Die kürzere Reaktionszeit beim Abgleich kulturell stereotyper Schriften im Gegensatz zu konfliktbehafteten Schriften zeigt, dass sie funktionieren und tatsächlich visuelle Abkürzungen sind. Die Beobachtung, dass sechs von zehn Teilnehmern die Karten nach einer passenden stereotypen Schriftart (und nicht nach Wortinhalten, wie vorgegeben) sortiert haben, unterstützt dieses Ergebnis.

Diese messbaren Unterschiede in der Wahrnehmung kulturell stereotyper

Schriften weisen auch auf die Funktion typografischer Mittel als Werkzeug zur sozialen Positionierung hin und machen Buchstabenformen im öffentlichen Raum zu einem wichtigen Akteur in der Konstruktion des Raums.

Die Implikationen dieser „beschränkenden" Repräsentationen verweisen auf die Herausforderung für Grafiker*innen in der heutigen transkulturellen und transnationalen Welt, die sich wiederholende Gleichheit in der Darstellung von Kulturen mit sichtbarer Pluralität zu begegnen. Grafikdesigner haben die Fähigkeit, Dinge – wie kulturelle Ambiguität, Vielfalt, Authentizität und Individualität – sichtbar zu machen.

En   *Abstract*

This paper is concerned with the question of how cultural stereotypes are represented in typographic letter forms.

After introducing the research context of the Signs of the Metropolises research project, essential theoretical conceptions are presented. The term culture is discussed in regard to its two dimensions, its historic development, the conception of trans-culturalism and the aesthetic representation of cultures. Following, the term stereotype as a concept in social sciences, its reason, functioning and its relation to typography are reviewed.

Subsequently five different strategies of cultural stereotype creation in typographic letter shapes are defined and the images from the Signs of the Metropolises data base are analyzed in regard to these strategies. Adjacently the following research questions are developed : Do the fonts designed by the described strategies work in referencing regional affiliation ? Do perceivers of these fonts decide on the ethnic reference through the shapes of the letters or through the word content ? Are they a visual short cut ? Are perceivers faster to determine an ethnic reference if ethnic stereotypical fonts are applied ?

The research methodology applied is a Stroop-test adapted to typography where participants are given conflicting and non-conflicting information and the reaction times are measured. The underlying presumption is that if content and form are conflicting in the viewer's perception, reaction times and error numbers increase, which provides information about the viewers preconceptions and biases. In the conducted experiment participants were filmed, sorting 48 cards with regionally affiliated restaurant names and dishes in different culture-referencing sound and unsound typefaces (as well as one neutral typeface).

The time tracking showed that it took participants significantly longer to sort cards with conflicting information (3.59 sec) where the word content did not fit the connoted ethnic reference in the letter shapes than it took them to sort culturally stereotypical but non-confliction typefaces (2.83 sec) and neutral typefaces (2.75 sec).

The typographic Stroop-test hence shows that typographic forms make a measurable difference in the perception of the recipients. The shorter reaction time in matching culturally stereotypical fonts as opposed to conflicting ones indicates that they do work and are indeed visual short cuts. The observation that six out of ten participants sorted cards according to a matching stereotypical font (and not by word content as instructed) supports this understanding.

These measurable differences in the perception of culturally stereotypical fonts do also indicate the functioning of typographical means as a tool for social positioning and make letter shapes in public space an important stakeholder in the construction of social space.

Introduction

Typographic signs in public space can be regarded as visual acts and expressions of cultural knowledge. The letter forms of written text differ from the verbalized text content and contain independent knowledge resources. The visible information of materialized text – typography – is not only important for the everyday person in order to orientate her- or himself in social situations and to understand communicative interactions, but it also serves as valuable social science data.

The objective of my ongoing doctoral research is to analyze the contribution of multilingual and multi-scriptural typography in public spaces to acts of identity creation, social belonging and social recognition. Lettering in the urban environment (by laypeople and professionals alike) is analyzed as an activity of communicative construction of social realities. The research draws from the academic fields of typography, linguistics and sociology. It is part of an interdisciplinary research project that investigates the visual multilingualism of the Ruhr area, Germany. Visual multilingualism is apparent in all forms of text in public space ranging from traffic signs to commercial displays and graffiti tags.

The particular focus of this paper is on how cultural stereotypes are represented through typography, either by letter forms mimicking writing tools from different script systems or by using scripts that were particularly popular at certain times and places.

The conceptual framework of this paper is, on the one hand, based on the notion of culture as coined by Herder and discussed in relation to approaches by W. Welsch, G. Hauck, W. Whitmann, M. de Montaigne and E. W. Said. On the other hand, stereotype as a sociological term is presented on the basis of work by W. Lippmann, R. Steel, F. W. Dröge, T. Petersen and C. Schwender. Furthermore, the concepts of ethnic typography by P. Shaw and national typography by J. F. Schopp are discussed.

Evaluated empirical data from a corpus of 25.500 photos of vernacular typography from four cities in a tagged geo-referenced database are part of the presented state of the research. The paper presents the results of a typographic Stroop-test on culturally connoted restaurant typography in the Ruhr area (developed on the basis of the original test by J. R. Stroop in 1935).

The paper follows up on the notion of P. Shaw that «ethnic type[s] […] are shortcuts, visual mnemonic devices» (Shaw 2008, p. 109) and poses the questions whether these fonts work in referencing regional affiliation, whether perceivers of these fonts decide on the ethnic reference through the shapes of the letters or through the word content and whether perceivers are faster to determine an ethnic reference if ethnically stereotypical fonts are applied.

Research background – The Signs of the Metropolises Research Project

Theoretical Conceptions: Culture – a Term from Social Sciences

3. I have previously written about the Signs of the Metropolises research project in Wachendorff i.p. and Wachendorff 2016.

4. There has been no restriction with regard to size, materiality or provenance of the discrete text items. They range from an embossment of a 6pt DIN regular on the side of a dustbin to building-high graffiti letters, and from small handwritten notices fixed with scotch tape on a local shop door to high-gloss advertising billboards of well-known international companies.

5. The tagging of the typographical aspects relates to the type styles which are used in Latin and Arabic scripts. The classification of Latin scripts is based on the DIN classification No. 16518 from 1964 (Schauer 1975) and includes the groups serif, sans-serif, slab-serif, scriptural, display/decorative and black letter.

6. First, between 1850 and 1915, due to industrialization, more than 500,000 workers were recruited from Silesia, Masuria, Russia and Austria-Hungary to the Ruhr area to work in the newly founded coal mines and steel works. During the second migration phase after World War II (between 1950 and 1973) about 20 million workers from Italy, Turkey, Portugal, Spain and former Yugoslavia relocated to Germany. The third migration phase continues until today. Due to multiple global incidents (like the collapse of the socialist states, EU expansion, globalization and wars), an average of 400.000 people migrate to Germany every year (Cindark/Ziegler, 2014, p. 1). In 2015, over one million refugees where registered in Germany, the three biggest groups thereof fleeing from countries writing in the Arabic or Persian script. 428.000 fleeing from Syria, 154.000 from Afghanistan and 121.000 from Iraq. Due to the Königsteiner Schlüssel, the biggest percentage (21%) is allotted to NRW (Asylum statistics, December 2015, German Federal Office for Migration and Refugees. Link : http : //www.bamf.de/SharedDocs/Meldungen/D

7. Albanian, Amharic, Arabic, Armenian, Azerbaijanian, Bosnian, Bulgarian, Catalan, Chinese, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hebrew, Hindi, Hungarian, Icelandic, Igbo, Indonesian, Irish, Italian, Japanese, Korean, Kurdish, Latin, Lingala, Malaysian, Nepali, Norwegian, Persian, Polish, Portuguese, Romanian, Russian, Serbian, Shona, Singhalese, Slovakian, Slovenian, Spanish, Swahili, Swedish, Tamil, Thai, Turkish, Ukrainian

2013, p. 4). In each of the districts, every single text item visible along one street has been photographed individually, geo-referenced and tagged in a database.[2]

All 25.500 photos have been tagged by the following categories: location, languages, information management (which part of a multilingual text is translated), text and image combinations, types of discourses (commercial, transgressive, regulatory, infrastructural, commemorative and artistic), type of institution (restaurant, shop, party etc.), size of the sign, material (sticker, plate, signpost, printed, painted, embossed, engraved) and typography (type style).[3]

Location, Languages and Scripts

The Ruhr is a culturally diverse area and part of the federal state of North Rhine-Westphalia. It is the biggest locality of labor migration in Germany, having experienced three major migration phases from 1850 until today.[4] In our data base generated between 2012 und 2013 we found 52 different languages[5] in 13 different script systems[6].

The two Dimensions of Culture

According to the philosopher Wolfgang Welsch the term culture has two dimensions: one applies to its contents and the other to its extensions. In terms of content, culture, as a collective concept, stands for all practices by which people create a life. Culture encompasses everyday routines, competences, forms of social interaction, world views etc. The second, the extensional dimension, describes the geographical (or even national or ethnic) scope of these practices. The extensional dimension delineates the extent to which the content dimensions (practices) are reflected in groups, societies or civilizations (Welsch 2009, p. 39).

Culture as Closed Sphere

The traditional understanding of culture, as it was coined at the end of the 18th century by Johann Gottfried Herder (1774; 1784–91), is above all to be criticized in its extensional regard.[7] Herder defined culture as a monolithic closed sphere: «Every nation has its center of happiness in itself like every sphere its center of gravity»[8] (Herder 1967, p. 44).

Inwardly, the sphere model demands a reductive social homogenization, because culture should mold the life of all people in a way by which all activities and all objects become the unmatched part of this one national culture. Moreover, it is ethnically founded and bound, because every culture should be that of one very specific group of people (Welsch 2005, p. 42). Outwardly, the sphere model dictates absolute demarcation, since, according to Herder's understanding, the culture of a nation gains its specificity mainly by differing clearly from other cultures (Welsch 2009, p. 41). The concept of a culture as a closed sphere is inwardly radically unifying and outwardly separatist and xenophobic. There is no place for diversity in the sphere model.

The Concept of Trans-Culturalism

The sphere model does not fit onto today's cultural landscapes, neither in terms of content nor in terms of its extensions. Cultures permeate each other and become an increasingly hybrid fabric. Cultural determinants transversely go through nations and lead to interweavements and growing commonalities – on a macro

and a micro level. Wolfgang Welsch proposes the concept of trans-culturalism, in which the closed sphere model is replaced by one of an open meshwork (Welsch 2009, p. 42).[9]

On a macro level, today's cultures are characterized by external interconnectedness and internal hybrid characteristics. In global capitalism connections and interrelations

On a macro level, today's cultures are characterized by external interconnectedness and internal hybrid characteristics. In global capitalism connections and interrelations are growing due to accelerating traffic and communication systems.[12] Life forms no longer end at national borders.[13] Transcultural developments can equally be observed at an individual micro level : More and more people have several cultural origins, have cultural patchwork identities and describe themselves as cultural hybrids and transcultural within themselves (Welsch 2009, p. 46).[14]

Culture as an Exclusion Criterion

Edward Said emphasizes : «All cultures are hybrid ; none is pure ; no one is identical with a ‹pure› nation ; none consists of a homogenous tissue» (Said 1996, p. 24). Nonetheless, until today (exactly in the sense of a closed monolithic sphere-like understanding of culture) the term culture is used as an argument for exclusion. «The concept of culture has replaced the concept of race as a central justification argument for discrimination and oppression of all kinds» (Hauck 2006, p. 8). Culture is described as something substantial and unalterable while the opposite is true : culture is not natural, but made by people.

Cultural Aesthetics

Wolfgang Welsch points out how much the «regional-specific» is expressed by «decor, surface and aesthetic staging» and that the «rhetoric of regional cultures is highly simulative and aesthetic» (Welsch 2005, p. 49). In a transcultural world in which there is nothing «foreign» anymore, because everything is accessible and visible, the question is how to set cultural references in competing economic markets.

A series of items can be found in the Signs of the Metropolises data base where extensional and content-related cultural references are set in different ways. A common reference to

a regional affiliation is the placement of national flags, colors or symbols (like a cedar tree for Lebanon), the use of other geographical references such as photographs of locations and the use of ornaments.

Furthermore, there is a range of examples where culture is represented solely in the typographic shapes and letter forms. One way to represent a culture is to refer to a script system, writing style or writing tool that is (or was) prominent in a certain geographical area. Formal script characteristics (usually applied to another script system though different strategies) become stereotypical indicators of an extensional, regional or ethnic affiliation. How these ethnical connotations and stereotypical letter constructions come into existence and operate will be explored in the following section.

8. Abugida, Arabic, Chinese (Han/CJK characters – CJK stands for characters used in Chinese, Japanese and Korean languages) Cyrillic, Devanagari, Greek, Hebrew, Japanese (Kanji und Kana), Korean (Hangul), Latin, Singhalese, Tamil, Thai

9. In regard to content Herder included every form of everyday culture in his concept and did not separate «high culture» and «lower civilization» (Welsch 2009, p. 39).

10. All quotes from non-English sources in this paper translated by Irmi Wachendorff.

11. trans (lat.) : beyond. In the sense of : Trans-culturality goes beyond the former concept of culture. Interestingly enough Welsch does not consider the terms multiculturalism or interculturalism a true renewal of the old concept, since both are still based on the sphere model. Multiculturalism is concerned with the relations of cultures within a society. Nevertheless, the individual cultures remain clearly separated from one another and do not mix. Interculturality is concerned with relations between societies. But here, too, these cultures are still understood as closed systems like disparate islands (Welsch 2009, p. 43).

12. What once was the cultural content of other countries is increasingly becoming an important domestic resource – this goes for populations, goods and information (Welsch 2009, p. 43). The changes take place in many cultural dimensions between everyday cultural practices (like eating Ayurvedic or doing Yoga) and artistic high culture (like movies and music). Important cultural factors (such as the gender debate, an increasing ecological awareness and the fight against climate change) go diagonally through many societies (Welsch 2009, p. 45).

13. Trans-culturalism is nothing completely new for that matter. Historically, it was probably even the rule. Only in certain periods, cultures were depicted as «pure» when it was convenient. Actually, this was rather rare and limited to comparatively short periods of time. Greek culture, for example, can hardly be understood without Egypt, Asia, Babylonia and Phoenicia. About 40% of the Greek words have a Semitic origin. In this sense, the idea of the totally closed cultural sphere is a romantic fiction (Welsch 2009, p. 50).

14. And this idea of inner plurality is not new either. Walt Whitman writes in the mid-nineteenth century, «I am large […] I contain multitudes» (Whitman 1985, p. 84), and Michel de Montaigne declares in the middle of the 16th century, «There is nothing fully correct, unambiguous and sound, that I could say about myself. […] All of us are made up of colorful tatters, which hang so loosely and frail together, that every one of them flutters at any moment as he likes ; so there are just as many differences between us and ourselves as between us and the others» (Montaigne 1998, p. 167).

Theoretical Conceptions :
Stereo/type/s – from letterpress
to public opinion and back

The Term Stereotype in Social Sciences

Walter Lippmann was a journalist and coined the term stereotype for social sciences in his book Public Opinion in 1922.[15] Lippmann, who worked in propaganda during World War I, was concerned with mass media, i.e. how public opinion could be fabricated, how images in people's minds were created and how humans form decisions about things they have mostly no direct experience with (Steel 1997, p. xii). Lippmann refers to the analogy of Plato's cave[16] where the inhabitants forever see the world through a shadow or a reflection only. In this regard, it is understandable how he came to borrow the term stereotype from a fixed image and text reproduction tool in printing and started using it to describe the repetition of fixed ideas and images in people's heads.

Cause and Functioning of Stereotypes

The construction of stereotypes as defined by Lippmann is a process of reduction of the complexity of the world that would otherwise not be manageable for the individual. Stereotypes are «economized attention» (Lippmann 1997, p. 60), «short-cuts» (Lippmann 1997, p. 64) and generalizations, the application of known patterns onto unknown situations or persons. They are «an epistemological-economic defensive device against the necessary expense of a comprehensive self-made detailed experience» (Dröge 1967, p. 134). Stereotyping is a highly effective way of treating phenomena not as individual incidences but classifying them according to known criteria. This classification makes them much easier to deal with, simpler to remember and accelerates decision processes (Petersen & Schwender 2009, p. 10).

On the upside stereotypes are highly efficient for human perception, on the downside they are not very accurate. «Our stereotyped world is not necessarily the world we should like it to be. It is simply the kind of world we expect it to be» (Lippmann 1997, p. 69). The reductive effect of stereotypes also creates blind spots : «For these blind spots keep away distracting images, which with their attendant emotions, might cause hesitation and infirmity of purpose. Consequently, the stereotype not only saves time in a busy life and is a defense of our position in so-

ciety, but tends to preserve us from all the bewildering effects of trying to see the world steadily and see it whole» (Lippmann 1997, p. 75).

Stereotypes are designed to allow humans to deal with high quantities of information, because every stereotype comes with a bulk of unexpressed messages. «A few words must often stand for a whole succession of acts, thoughts, feelings and consequences» (Lippmann 1997, p. 42). In the same way, every visual stereotype brings with it a plethora of connotations.

The stereotype in itself is not a judgement and can be positive, neutral or negative. In prejudice, it usually manifests itself in a negative. The problem with a stereotype is that it «censors out much that needs to be taken into account» (Lippmann 1997, p. 74). «Real space, real time, real numbers, real connections, real weights are lost. The perspective and the background and the dimensions of action are clipped and frozen in the stereotype» (Lippmann 1997, p. 100).

Petersen & Schwender allude to the spontaneous and prompt working of images as compared to the slower text perception and point towards the necessity to analyze the role images play in creating stereotypes (Petersen & Schwender 2009, p. 10). In this context, the shapes and forms of letters can be seen as the image part of letters as opposed to their text part (that creates the word content by combining the letters).

The question is : Are cultural stereotypes as well as «ethnic» or culturally stereotypical fonts problematic ? Lippmann states : «A great deal of confusion arises when people decline to classify themselves as we have classified them» (Lippmann 1997, p. 97). The outcry and street protest that followed an Abercrombie & Fitch release of T-shirts in 2002 (fig. 1), where typefaces played a significant role in referencing Asian culture, shows that it is not only confusion that arises but also pain, anger, public opposition and personal offence.[17]

Observable Strategies to form Cultural Stereotypes in Letter Shapes in the Ruhr Area

Cultural stereotypes in letter shapes are present in the public space of the Ruhr area on transgressive stickers, movie and festival posters, sports club, restaurant and shop signs.[18]

Paul Shaw defines cultural stereotypes in letter shapes as «‹ethnic› type, lettering or type that suggests the culture of a specific ethnic or religious group» (Shaw 2008, p. 109). The design community widely agrees on the fact that these shapes are culturally, ethnically and racially insensitive and inappropriate (Helfand 2007) and come with «deficient aesthetics» and «derogatory qualities» (Shaw 2008, p. 109).

It seems relevant to have a closer look at the different ways in which type is created to function as code and representation for an entire (imagined) 4[19]. Shaw points towards different approaches for the construction of «visual short hand[s]» (Shaw 2008, p. 109) through ethnic lettering that shall be developed into five different strategies observable in the Signs of the Metropolises corpus.

Strategy a) Letter Substitution between Scripts

One way to make a reference to another region or ethnicity is to substitute familiar characters from a foreign alphabet into the Roman alphabet (Shaw 2008, p. 109). This is observable in the Ruhr area in Greek restaurant lettering, where the Greek letter sigma (Σ) stands substitute for the capital Latin letter «E» (fig. 2).

In the Ruhr area, we find further examples of applying the principle of substituting letters from one writing system for letters in another. In the following example (fig. 3), Arabic individual letters like the ظ (Zā) stand in for a Latin lowercase «b», the final l (Alif) for the Latin uppercase «L», the Arabic ق (Qāf) for a Latin «g», something that resembles somewhat the Arabic letter م (Mīm) to a Latin letter «a». The further applied Latin letters «i» and «h» look scriptural, but do not have an Arabic shape equivalent. They only «look like» Arabic script, which is strategy b).

Strategy b) Letter Shape Resemblance between Scripts

In the shown example of the Greek restaurant (fig. 2) one also finds the second way of creating a reference by mimicking individual characters from non-Latin writing systems and apply principles in shapes and forms to parts of Roman letters (Shaw, 2008, p. 109). In the Greek restaurant sign (fig. 2) the usually round curves in the letters (C, G, R, S) are also shaped in a 45-degree angle that resembles the middle part of the sigma (Σ).

A further example that shows letters with features that derive from another script system is the Wafa Or where the initial capital Latin letter «W», as well as the lowercase letters «e» and «n», with pointy line ends resemble letters and letter combinations from an Arabic script.

Strategy c) Transfer of a Particular Writing Style

An additional way of creating a resemblance to another culture is to mimic a different writing style. This is realized by applying a certain aesthetic property (which is usually achieved with a specific writing tool like a brush) from one writing system and transferring it to the overall construction of letters of the other script system. This approach is very common for scripts that reference «Asianness» through applying «curved and pointed wedge strokes» (Shaw 2008, p. 110) that superficially resemble Chinese calligraphy.

One might think there are only a few of these fonts – since they all look somewhat alike – but there are actually quite a lot of them[20] We find ten variations of it in the Signs of the Metropolises corpus (fig. 5–10). Two of the ten have a looser, more scriptural stroke (fig. 10).

It is particularly noteworthy that this way of proceeding is not exclusive to an application to Roman letters, as we find a version of applying the «Asian» curved and pointed wedge-shaped strokes to the Arabic script system in our data (fig. 11).

All these fonts go under the nick name of Chop Suey fonts, which Shaw declares to be quite appropriate since the dish Chop Suey is equally an American invention and «neither the food nor the fonts bear any real relation to true Chinese cuisine or calligraphy» (Shaw 2008, p. 110).[21] It might have been a famous and widely distributed poster, A Trip to Chinatown designed by William Nicholson and James Pryde in 1899 (fig. 12), that helped the Mandarin and

18. They are also visible in public space on coffee cups, food packaging, book covers and T-shirts but those movable items are not part of our tagged and georeferenced Signs of the Metropolises data base.
19. Benedict Anderson coined the term «imagined communities» for nations since an inhabitant of a nation simply cannot meet all other members of that community in person, hence he/she has to imagine them. This is part of how the understanding of a nation is constructed (Anderson 2006, p. 201).
20. Dafont.com has 160 fonts listed under "Chinese, Japanese" of which 40–50% are constructed in the discussed manner. http://www.dafont.com/de/theme.php?cat=201 (retrieved 04.09.17)
21. According to Shaw the first appearance of one of these type styles was a font first named Chinese created and distributed by the Cleveland Type Foundry in 1883. In the 1950s the font was renamed to Mandarin.

22. It might also have been the bur-
ning down and bodacious rebuil-
ding of San Francisco's China Town
in 1906 where a lot of these fonts
where applied (Shaw 2008, p. 110).

23. For this reason, they are to be
called «learned connotations»
here. Although of course, the
three previous groups as well as all
connotations of «scriptural disposi-
tives» (Wehde 2000, p. 119) are in-
deed learned connotations through
repetitive occurrences of typical
fonts in certain usage contexts.

24. The resulting shapes were possibly
interpreted as having a certain
woodcut aesthetic resembling Afri-
can woodcut sculpture and were
thus applied in these contexts by
graphic designers.

25. http ://m.font.downloadatoz.com/
id/font,113208,arabia/ (retrieved
04.09.17)

26. The forbidding of black letter hap-
pened due to power politics since
greater problems of legibility and
reading efficiency were recognized
inside and outside of Germany. An-
tiqua fonts under the designation
Normalschrift became regular for
printing (Koop 2008).

27. Further usages of black letter
referencing German culture and
tradition are signage of a German
history association, a carnival flag,
bakery advertising, a traditional
letter box, a Bavarian Lebkuchen
heart etc.

other so-called Chop Suey fonts to their fame (Shaw 2008, p. 110).[22]

Strategy d) Aesthetic Association and Learned Connotation through Use

In the three previous strategies type designs were intended to have an ethnic connotation. This is not the case in this group. The following two scripts were not designed with the aim of referencing a specific ethnicity or region, but their forms gave way to certain region specific aesthetic associations and through repeated use throughout decades on widely spread items, such as book covers (fig. 13-15) or movie posters (fig. 16 and 17), viewers learned these connections and that is how the stereotypical cultural references were created.[23]

The example here is the typeface Neuland by Rudolf Koch from 1923 that throughout time became associated with Africa, and African-Americans (Giampietro 2004) (or possibly even the unknown «native & wild» as the use on the movie poster Jurassic Park (fig. 17) may want to suggest).

Neuland's particular shapes are reported to stem from Koch's decision to cut the letters directly into the metal without doing any preliminary sketches (Shaw 2008, p. 109).[24] Even in the Ruhr area the typeface *Neuland* is present referencing African culture as can be seen here in the flyer of the restaurant Cape Town (fig. 18) in Düsseldorf.

Another example of learned connotation visible in the Ruhr area are shops and restaurants that use the font Arnold Böcklin in the context of «Oriental» or Indian restaurants (fig. 19 and 20).

The decorative art nouveau floral shapes of the typeface do not resemble any Arabic or Indian script. Yet the swirly ornamental shapes might have triggered a certain «oriental» aesthetic association. Another reason for this cultural reference may be that a rip-off version of the original Arnold Böcklin font under the name Arabia was included in the CorelDRAW Graphics Suite software.[25]

Strategy e) Historic and/or Local Reference

One further way of referencing a culture, that is apparent in the Signs of the Metropolises corpus, is to use a writing or printing style that was particularly famous in a certain time and place. One example for that would be the use

of black letter in Germany. According to Jürgen F. Schopp, the «national» associations that a script can provoke either rely on the fact that a whole group of fonts stands stereotypically for a nation as a language and cultural community or that a nation often uses a script as a sign of a «national identity» (Schopp 2011, p. 76).

The discussion about black letter in Germany standing for Nazi-Germany, the Third Reich and neo-Nazis is a broad one (see e.g. Bollwage 2010 ; Koop 2012). The recurring reference on the part of type historians and linguists to the fact that the Nazi authorities forbade the use of black letter in 1941[26] does not lead to the fact that the associative force between black letter and Nazi Germany decreases in the slightest. This again proves that a learned connotation can go a long way and has a functioning of its own.

Overall, we find 412 black letter fonts in our corpus of 25.500 items – 354 of them are in German, 85 in English, two in Italian, one in Latin and one in Dutch. Ten of the signs are infrastructural, like the signs of a Luther perish and an education certificate (fig. 21 and 22), two are commemorative signs, for example referencing the construction of a building (fig. 23), 305 are commercial and 106 transgressive signs ; however, there are no black letter fonts used in regulatory and artistic signs.

In the 305 commercial signs, black letter is mostly apparent in the German pharmacy logo (fig. 24) with 171 items and German beer brands (fig. 25) apparent on all sorts of restaurant signage with 81 items.

Another big group using black letter fonts are German restaurants (fig. 26) with 15 items.[27] But there are also ten items using black letter fonts that reference other nations (or are used without a reference to Germany per se), like an English Fashion brand, Italian restaurant lettering, an Austrian traditional costume store, a Lebanese fashion store and American Tobacco packaging. This means black letter is mostly, but not solely applied to reference «Germanness» in our data.

In the 106 transgressive signs found in public space using black letter most of them (38 items) are stickers supporting local soccer teams (fig. 27). Interestingly, eight of them ex-

plicitly use the script (black letter) to signify political opposition (to right wing nationalism). This happens with different strategies. The St. Pauli soccer team sticker (fig. 28) shows the words «GEGEN RECHTS» (against right) in the bottom line. The word RECHTS (right) being set in black letter. Word content (right) and letter forms (black letter) in this case become a cumulated synonym for fascism.

The «Love Football Hate Germany» sticker (fig. 29) shows another example of black letter being used in relation to Nazi ideology by the so called Rijkaard Jugend, an amateur soccer team from the Pfalz region.[28] In this case the black letter font and the word content do not become synonyms, but the letter shapes still clearly reference Nazi-ideology without having to make the point any clearer in writing. The typographic forms alone are capable of making this connection.

Writing tool references

Interestingly enough, most of these strategies rely on referencing historic or region-specific writing tools. We find the imitation of an Asian calligraphic brush strokes (fig. 5–9). On the Greek restaurants (fig. 2), we see shapes that have (through their diagonal angles) more resemblance to early Greek lapidary letters than a Greek alphabet of today. In the Latin letter shapes that are supposed to have an Arabic or «Oriental» connotation, there is either an Arabic calligraphic reference with pointy stroke ends and curved lines (fig. 4) and/or the letters show a shift of the line width from the traditional Latin emphasis on the vertical line to the traditional Arabic emphasis on the horizontal line (fig. 3). Which again has to do with a writing tool and in this case with the angle the pen is cut in.[29] Lastly, the broad nip pen is very visible in the varying black letter typefaces (fig. 24–29).

Paul Shaw notes that «Ethnic type […] survives for the simple reason that stereotypes, though crude, serve a commercial purpose. They are shortcuts, visual mnemonic devices» (Shaw 2008, p. 109). I would like to challenge that and pose the following questions : Do these fonts actually work in referencing regional affiliation ? Do perceivers of these fonts decide on the ethnic reference through the shapes of the letters or through the word content ? Are they really a visual short cut : Are perceivers faster to determine an ethnic reference if ethnically stereotypical fonts are applied ?

28. The name of the team as well as the picture refers to the moment of the Soccer World Cup 1990 when the Dutch player Frank Rijkaard spat at the German player Rudi Völler. The interesting contradiction is the fact that the anti-fascist hobby kickers put the name of the spitting «Rijkaard» in a black letter font (in this case Cloister Black) but not the name of the German national soccer hero Völler. What they might want to express here is that neither Rijkaard or Völler nor themselves as a soccer team follow the Nazi ideology but that they rather spit on it the way Rijkaard's spit flies not only in the direction of the back of Völlers head, but also in the direction of «Germanness» or the neo-Nazis (in regional soccer clubs). Checking the Rijkaard Jugend website confirms that they clearly identify themselves as «anti-fascist soccer team» (http : //rijkaardjugend. blogsport.de/aber-uns/ (retrieved 15.09.17)) (see Wachendorff i.p.).

29. The connection of the letters in Arabic leads to an emphasis on the horizontal lines. In the Latin writing system, the vertical lines are emphasized. This originates historically from cutting the calligraphic writing tools at a different angle. In the first Arabic Koranic manuscripts, an angle of the pen of almost 45° (to the left) is observable, resulting in the horizontal lines being thicker than the vertical lines. This has profoundly influenced the formal appearance of Arabic writing and the rhythm of the text on a page because the kashidas (connecting lines) and ligatures create a horizontal emphasis. In the Latin calligraphy, it is exactly the opposite : The nibs were usually cut to the right (with an angle varying depending on the writing style), which means the vertical lines are the thicker ones, creating a rather vertical rhythm (Rjeily 2011, p. 62).

Typographic Stroop-Test – an Experiment on Urban Restaurant Lettering

The posed research questions were tackled with the invention of a typographic Stroop-test. Hypothetically designed typographic artifacts where the content (restaurant names Shanghai Bar, Bayern Stube etc.) and the formal typographic form (various regional/national/ethnical connoted fonts) are mixed up were used to determine whether recipients would capture the set references on national or cultural affiliation on the basis of the scriptural form or the text content.

For this first test, the focus was set on the biggest group of ethnic stereotypical lettering that can be found in our data base : restaurant signage. Among the 89 German restaurants in our database, ten (11%) use black letter typefaces. Among the 13 Asian restaurants (Chinese, Japanese and Mongolian) five (38%) use Chop Suey typefaces. Of the four Greek restaurants two (50%) use typefaces that have sigmas (Σ) substituting the Latin letter «E» as well as the discussed script resemblance with angular letters as discussed in strategy b). And of the ten «Oriental» Restaurants four (40%) use ornamented typefaces with protruding and floral swooshes.[30]

Stroop-Test as Research Methodology for Typography

The Stroop-test is an experimental method of cognitive psychology and was invented by John Ridley Stroop in 1935 (Bäumler 1985). It is a method for measuring the so called individual interference tendency. In the course of the test, participants are given visually simple and conflicting information, in order to subsequently measure response times. In the classical experiment, the participants are to name the colors of displayed words. The results show that whenever these words reference colors which do not correspond to their display color, reaction times and error numbers increase. This demonstrates the dominance of automated processes. The reaction times do slow down as test persons encounter discrepancies in given information ; e.g., if the word «red» is written in the color blue, or possibly if the name of the restaurant Shanghai Bar was set in the black letter font Fette Fraktur which is more often found in lettering of traditional German pubs.

The Stroop-test could therefore serve to show that typographic forms make a measurable difference in the perception of the recipients. And in case there was a significant difference in the perception of various national, cultural stereotypical fonts, this would also indicate the functioning of typographical means as a tool for social positioning.[31]

The Experiment Setup

The concept of the Stroop-test was applied to four of the stereotypical restaurant typefaces found in the Signs of the Metropolises corpus – each representing on regional cuisine (fig. 30). The task for the participants was to sort the cards according to word content.

A set of 48 cards was designed. Eight cards were neutral showing the restaurant's name and an associated regional dish (fig. 31 and 32).[32] Eight cards were showing the same word content (restaurant names and dish)[33] in stereotypical but non-conflicting fonts. The word content would fit the traditionally connoted ethnic stereotypical letter shapes (fig. 33 and 34).

Eight cards were showing a neutral word content Speisekarte (Eng. : menu) in a variety of eight stereotypical fonts (two for each region). And since the word content was not region specific, this information was also non-conflicting (fig. 35).

The second half of the 48 cards showed conflicting information – the word content would not fit the letter shapes. The restaurants' names and dishes were each printed in non-suiting ethnic fonts like Shanghai Bar in black letter and the German dish Brezel in the so-called Shanghai font, for example (fig. 36).

The hypothesis was that if the reaction time with conflicting information would rise, this would then mean that the font form effectively plays a serious part in referencing ethnicity.

Experiment Participants and Procedure

Ten participants were invited for this study. Five were men, five women in the age range 22 to 50. Six of them were students or university graduates and four were non-academics. Six had German as their first language, four were fluent in German as their second language (with first languages in Polish, Chinese and twice Tur-

kish). None of the participants were part of the research team or graphic design students.[34]

First, the participants were asked to fill out a questionnaire that verified that all participants were familiar with the word content – such as restaurant and dish names – that would be in the card stack presented to them later on. They also agreed on their hands being filmed and voices being recorded.

Secondly, they were verbally given the following operating instructions : «We want to invite you to play a card sorting game. You see laying out in front of you four cards that name a restaurant type : Egyptian, Chinese, Greek and German. In the covered stack of cards before you, you find restaurant names, dish names and one neutral word. Please turn around one card at a time, read the word and sort the card according to the word content. While doing that please feel free to verbalize your thoughts. There is no ‹I do not know how to sort this card›-stack. All cards must be allocated to one of the restaurants. Please take your time.»

Thirdly, the participants sorted the cards (fig. 37). Their hands and the card stacks were filmed, which allows a precise time tracking from picking up a card (from the upside-down stack) to laying down a card (underneath one of the four regional restaurant types at choice). The film registered the allocation of cards and it gave access to the audio of the thoughts verbalized by the participants.

After the test, the participants were interviewed on how they have decided to sort the conflicting cards and their overall experience. Finally, they filled out a questionnaire on their social data (age, education/profession, language proficiency, travel habits/ how often per year they travel abroad and which of the countries in question they had visited).

Results

The time tracking showed that it took the participants an average of 2.75 seconds to allocate the eight cards showing the regional dishes and restaurant names in the «neutral» typeface Helvetica (fig. 38, row 2).

The following group of eight cards showing the same word content in stereotypical but non-conflicting typefaces (fig. 38, row 3) took the participants an average of 2.83 seconds to allocate, that is slightly (0.08 seconds) longer.

The third group of 24 cards showing conflicting information where the word content does not fit the connoted ethnic reference in the letter shapes (fig. 38, rows 4–6) took the ten participants an average of 3.59 seconds to allocate, that is 0.84 seconds longer than the neutral information and 0.76 seconds longer than the cards where content and ethnic font combination were matching.

All participants were instructed to read the text content and assign the cards to a restaurant according to the word content. Despite this very clear instruction, six out of ten participants sorted an average of five cards according to a matching stereotypical font – they, for example, put the German dish Brezel to the Chinese restaurant when it was set in the Shanghai font.

Throughout the test ten participants laid down 40 cards with restaurant and dish names each, which leads to a total of 400 decisions made about allocating a card. In total 43 cards were misplaced : four of the neutral cards set in Helvetica, four with non-conflicting information and 35 showing conflicting information. The 35 «mistakes» (in allocating the word content correctly) were made, because participants allocated the cards according to the regional references the shapes of the letters were implying, and not according to the word content. This indicates that the participants have been distracted and seduced by the letter shapes, which shows that these letter shapes are indeed an effective force in guiding recipients' attention towards an associated cultural and regional reference.

A similar effect could be observed with the eight cards that had the neutral word content Speisekarte (Eng. : menu) set in eight different stereotypical fonts. Five out of ten participants have matched 35 of 40 cards «correctly» by the regional connotation of the letter shapes to the matching restaurant nationality. They put Speisekarte (Eng. : menu), set in the black letter typeface Wilhelm Klingspor Gotis, on the stack of the German restaurant, whereas they placed the same word set in the typeface Diogenes in the stack of the Greek restaurant.[35] This shows how a regional affiliation was recognized correctly in 87.5% of the cases solely on the basis of the shapes of the letters.[36]

Conclusion

This paper discussed how culture and cultural stereotypes are represented in typographic letter forms. Culture was defined as a term with two dimensions : content and everyday practices on the one hand and a geographical extension on the other. The historic concept of culture as a closed, monolithic, homogenized sphere was criticized and the concept of trans-culturalism by Welsch, an idea of an open transnational meshwork that allows hybrids between cultures (on a macro level) and within individuals (on a micro level), was presented. It was discussed in which way cultures are represented in the Signs of the Metropolises data base, and a focus was set on the big number of typefaces apparent that mimic other script systems (and, through this, cultures).

In the following, the term stereotype as coined by Lippmann was defined as a process of reducing the complexity of the world, a generalization and categorization that is highly efficient but not very accurate. Looking at the public protest provoked by a series of Abercrombie & Fitch T-shirts that used Chop Suey typefaces in 2002 to reference Asian culture, the question was raised whether «ethnic fonts» are offensive.

The first central research questions on how these fonts work in referencing regional affiliation was answered by the definition of five strategies as well as the observation that four of these strategies have the referencing of historic or region-specific writing tools in common. The five different strategies of creating cultural stereotypes in typographic letter shapes were defined and exemplarily analyzed on the basis of the Signs of the Metropolises data base. The applied strategies include letter substitution between scripts in Greek and Arabic restaurants, letter shape resemblance between scripts in Oriental restaurants, the transfer of a particular writing style in Asian restaurants, sports clubs and tea packaging ; moreover, aesthetic association and learned connotation through use was discussed with the example of Koch's Neuland typeface referencing African culture, and historic and local references were debated on the example of black letter fonts in use in the Ruhr area referencing German tradition in public lettering or in anti-neo-Nazis transgressive stickers.

The second central research question whether perceivers are faster to determine an ethnic reference if ethnic stereotypical fonts are applied was answered by conducting a typographic Stroop-test. Ethnic stereotypical fonts were read almost equally fast as neutral fonts (+0.08 sec), which is an impressive result since they are formally much more complex and less common, whereas conflicting information given (font and word content not matching) slowed down the recognition process drastically (+0.8 sec). This allows to conclude that the answer is yes, participants are fast to determine an ethnic reference and are confused and slowed down if the perceived ethnic stereotypical fonts do not match the culture referenced in the word content. The confusion was measurable in the time assessment but also through the observation that (although participants were instructed to assign the cards according to the word content) six out of ten participants sorted almost all cards according to a formally matching stereotypical font.

A further observation were six individual instances where participants first sorted a card by letter shapes, secondly realized the word content, verbalized they had made a mistake and then corrected themselves. This shows how the visual form on such short words is perceived before the word content and how the participants have been seduced by the cultural connotations in the letter shapes. This answers the third research question, whether perceivers of culturally stereotypical fonts decide on the ethnic reference through the shapes of the letters or through the word content in order to attribute them. It also indicates that these letter shapes are indeed an effective force in guiding recipients' attention towards an associated ethnic or regional reference.

One conclusion is that the typographic Stroop-test showed that typographic forms cause an empirically measurable difference in the perception of culture for the recipients. The shorter reaction time in culturally stereotypical fonts that matched the word content indicates that they do work and are indeed visual short cuts. This outcome may not be terribly unexpected, but it does turn a tiny piece of the vast implicit knowledge of the graphic design trade

into empirically proven explicit knowledge. More importantly these observations and results in the perception of culturally stereotypical fonts do indicate the functioning of typographical means as a tool for social positioning and this makes letter shapes in public space an important stakeholder in the construction of social space.

Another conclusion is that some of the stereotypical typographic shapes (like the ever-same Chop Suey or Greek restaurant fonts) looked at in this paper are like a formal equivalent of the repetitive sameness of the closed homogenized sphere Herder used as a metaphor to describe a nation in the 18th century. A possible formal plurality of scriptural shapes is cut down to a narrow repetition of the same shape variations (like a least common denominator in the tiny gravity center of a cultural sphere). Accordingly, the diversity of the forms of cultures is repelled in the same way the culturally closed sphere of the 18th century repelled everything foreign.

It is a graphic designers and typographers task in today's trans-cultural and trans-national world to break this repetitive sameness in the representation of cultures with visible plurality. Graphic designers have the power to make things – such as cultural variation, diversity, authenticity and individuality – visible.

In my ongoing PhD research, the next step on a qualitative level is to conduct interviews with the sign producers (restaurant owners, sign makers) as well as sign perceivers on the streets (passers-by, customers) to learn more about their motives and perceptions ; moreover, how they feel about their cultural representation, and whether they see type that sets cultural affiliations as a «short cut» to successful business.

Figure 1 – *Public protest organized by China-town Community Development Center and the Stanford Asian American Student Association outside Abercrombie & Fitchstore at Fifth and Market in San Frazcisco, 2020[1]*
Figure 2 – *Greek Restaurant, SMC[2] image 17754*
Figure 3 – *Habibi Grill, Gelsenkirchen, July 2017*
Figure 4 – *Oriental restaurant, SMC image 26602*

1. The case of the «racist T-shirts» was discussed widely in the media (see http://news.bbc.co.uk/2/hi/asia-pacific/1938914.stm, https://www.dailyemerald.com/2002/04/24/abercrombie-shirts-spark-controversy-protests/) and Abercrombie & Fitch withdrew the T-shirts and apologized publicly (http://www.sfgate.com/news/article/ABERCROMBIE-GLITCH-Asian-Americans-rip-2850702.php#photo-2227087). (Links retrieved: 17.09.17).
2. SMC (Signs of the Metropolises Corpus) stands for all images coming from the Signs of the Metropolises research project data base.

Figure 1

Figure 2

Figure 3

Figure 4
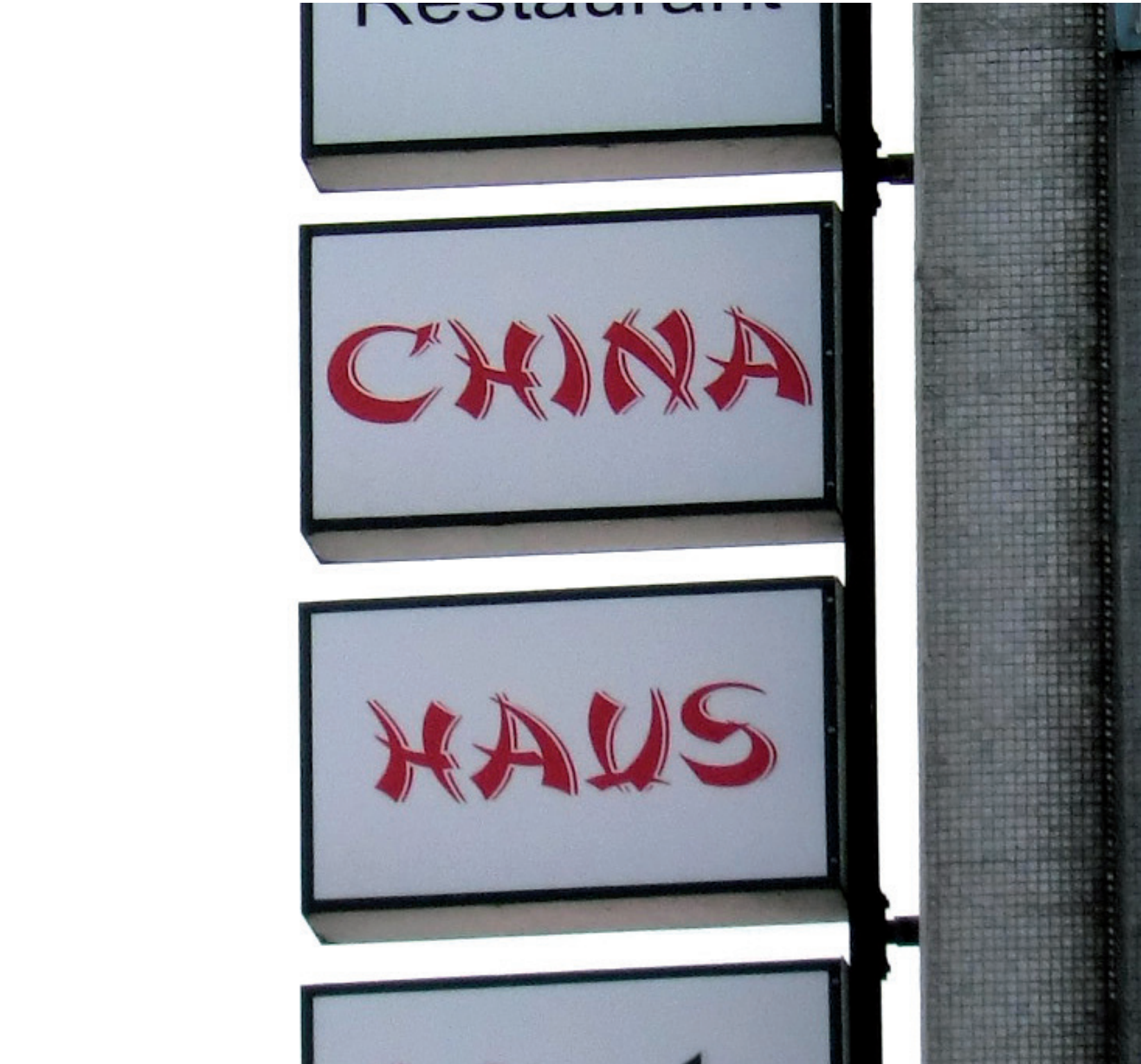
Figure 5

Figure 6

Figure 7

Figure 8

Figure 9

Figure 10

Figure 11
Figure 12

Figure 5-10 – *Chop Suey typefaces in the Signs of the Metropolises corpus (top left to bottom right: SMC images 120, 14314, 18226, 24501, 26866, 26314)*
Figure 11 – *Latin and Arabic Chop Suey typefaces (SMC image 4091)*
Figure 12 – *A Trip to China Town, William Nicholson and James Rryde, poster design, 1899*
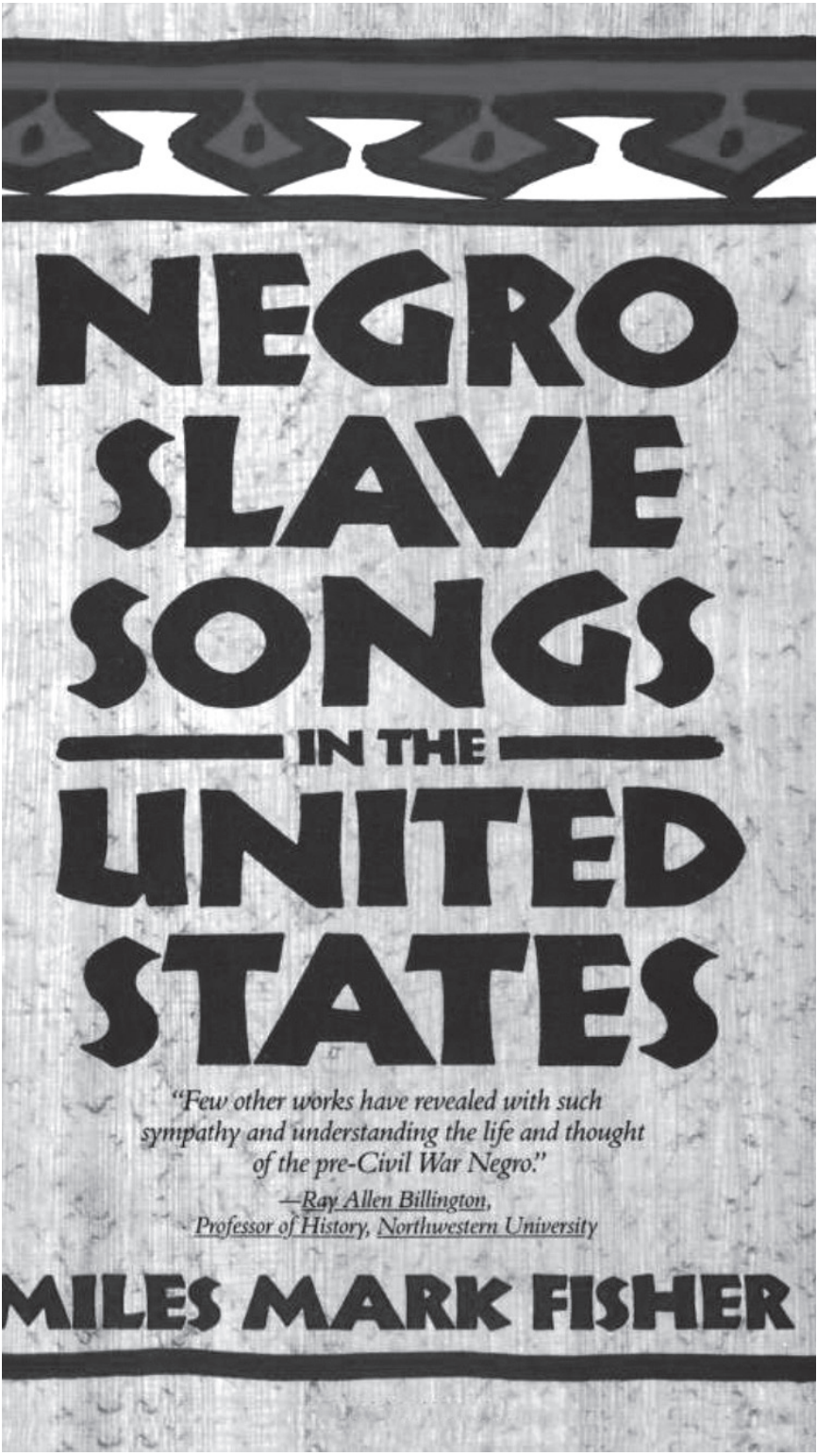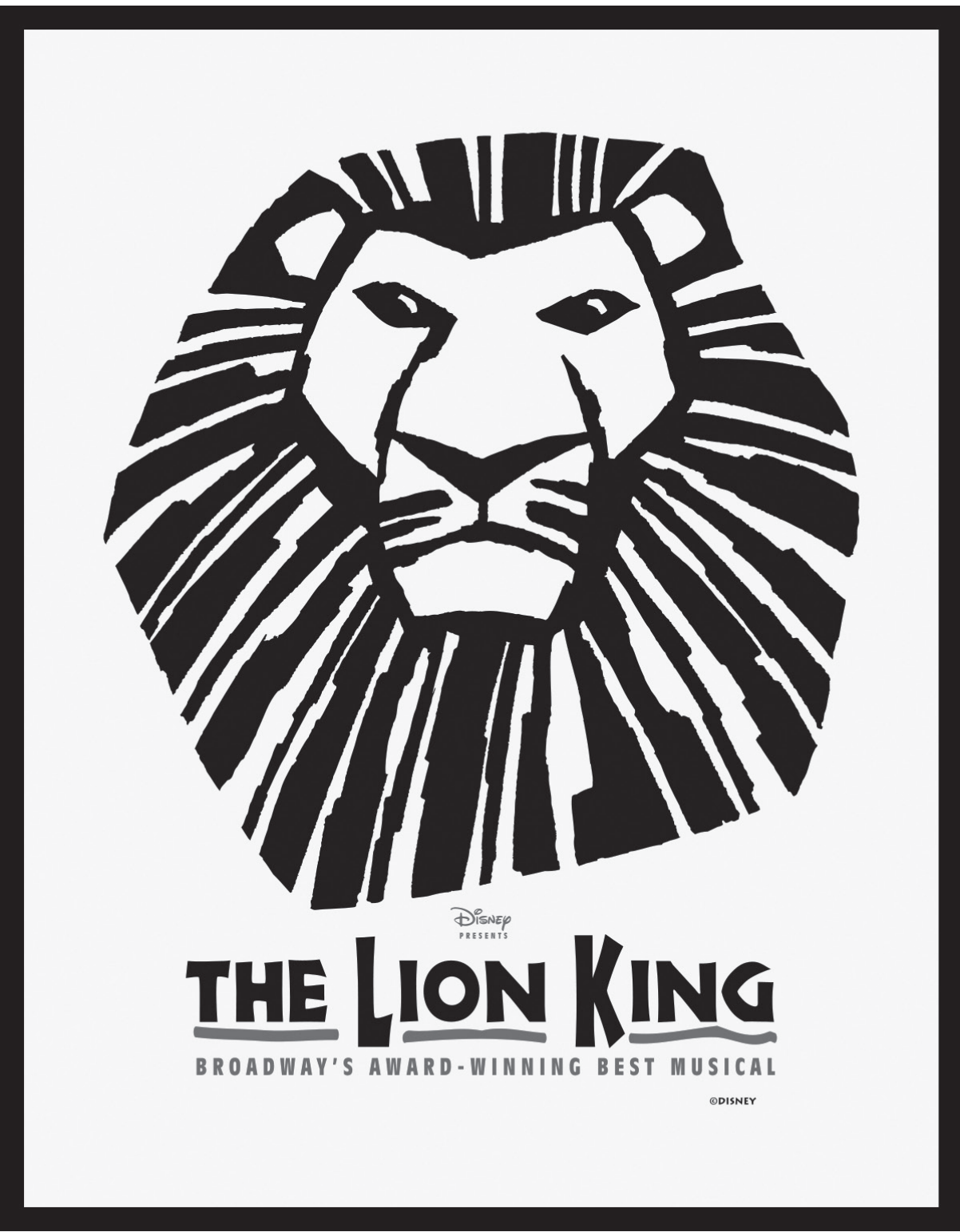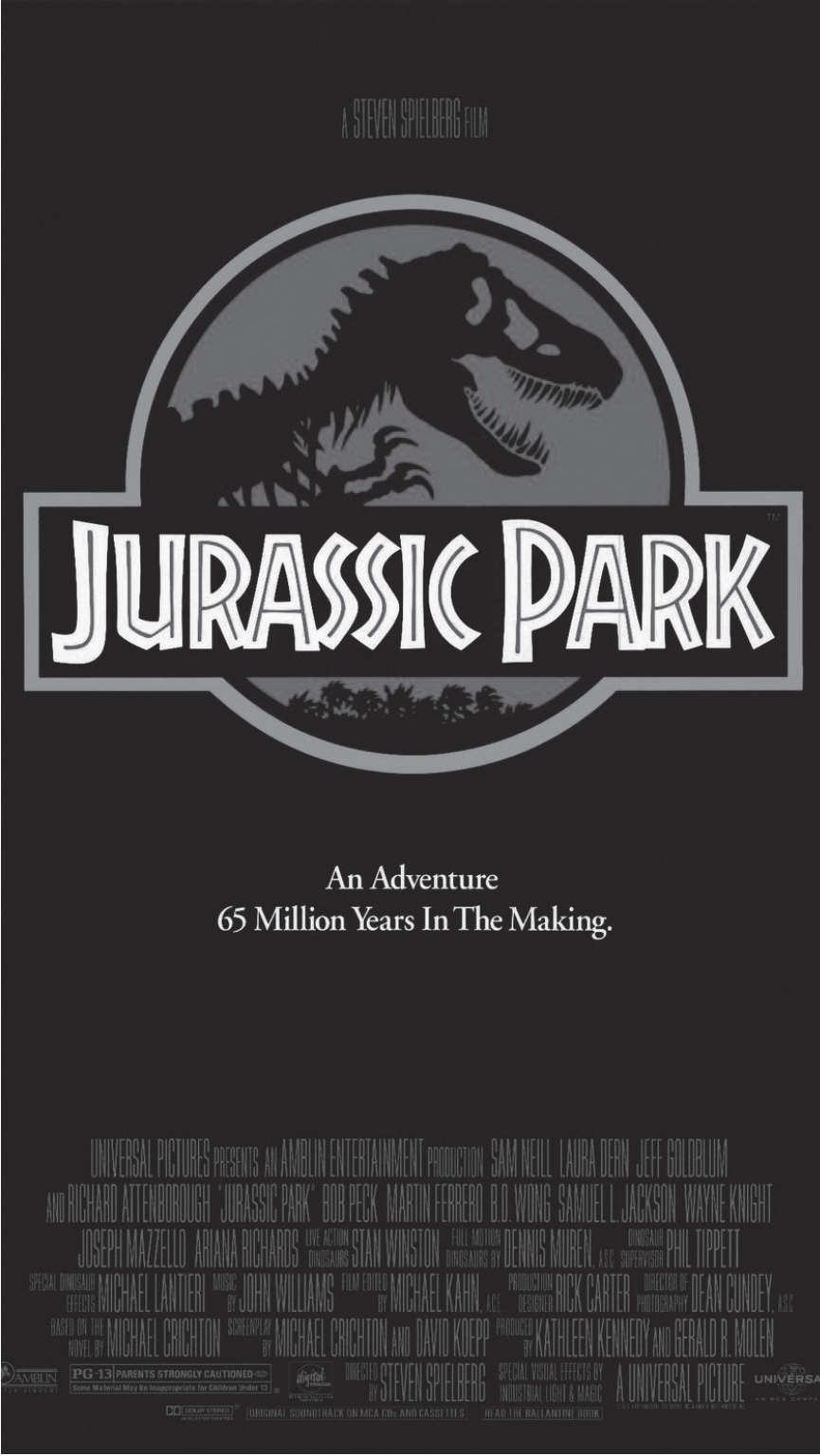
Figure 13

Figure 14

Figure 15

Figure 16

Figure 17

Figure 18

Figure 19

Figure 19

Figure 13 – *Black Anger by Wulf Sachs, book cover design, 1937*
Figure 14 – *Negro Slave Songs in the United States by Miles Mark Fisher, book cover design, 1953*
Figure 15 – *July's people by Nadine Gordimer, book cover design, 1981*
Figure 16 – *The Lion King, musical poster, Broadway NY, 1997*
Figure 17 – *Jurassic Park, movie poster, 1992*
Figure 18 – *Restaurant flyer, Cape Town, Düsseldorf, 2013*
Figure 19-20 – *Indian Restaurant and Turkish Restaurant in the Ruhr area, SMC images 18156 and 16997*
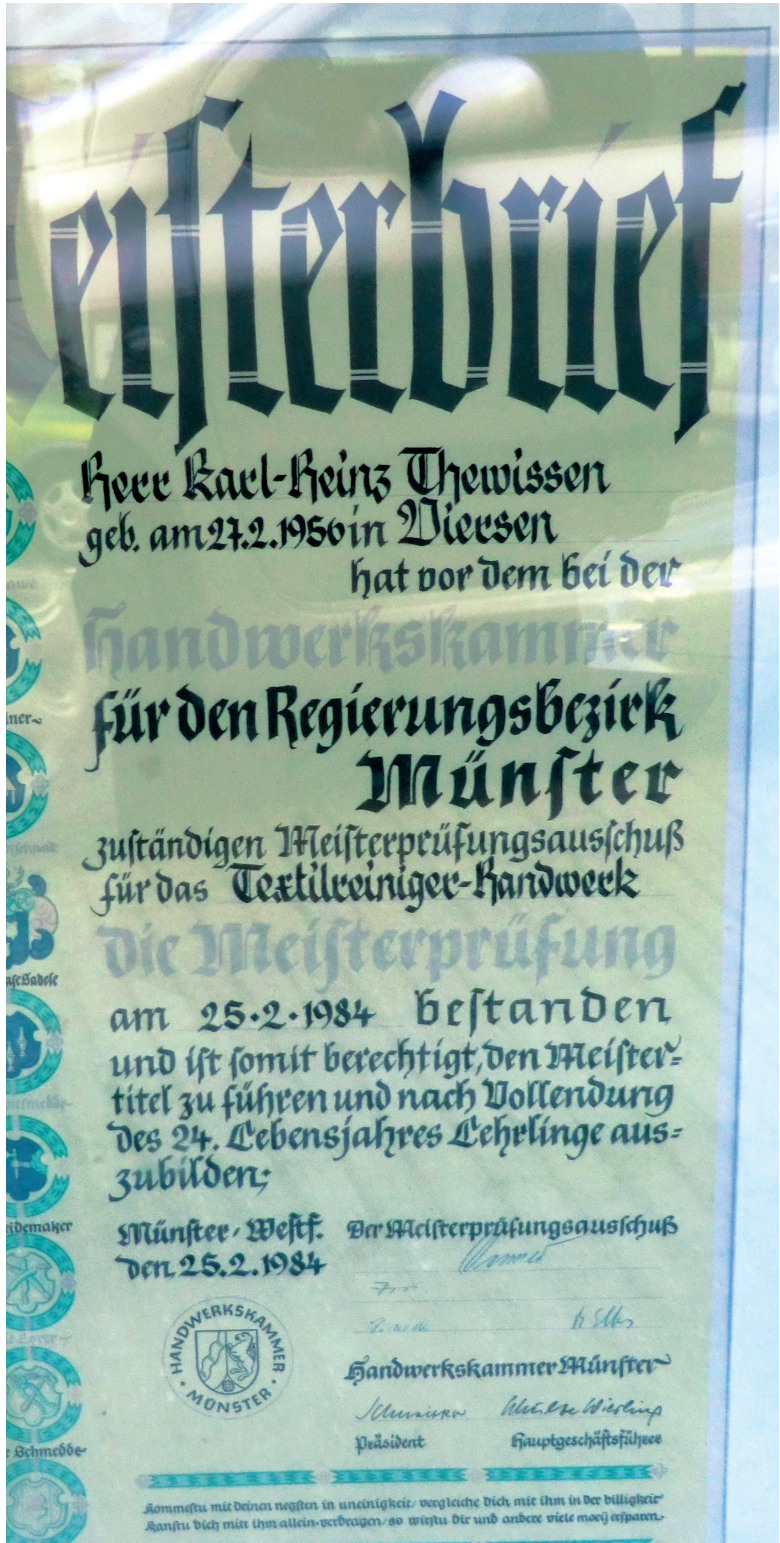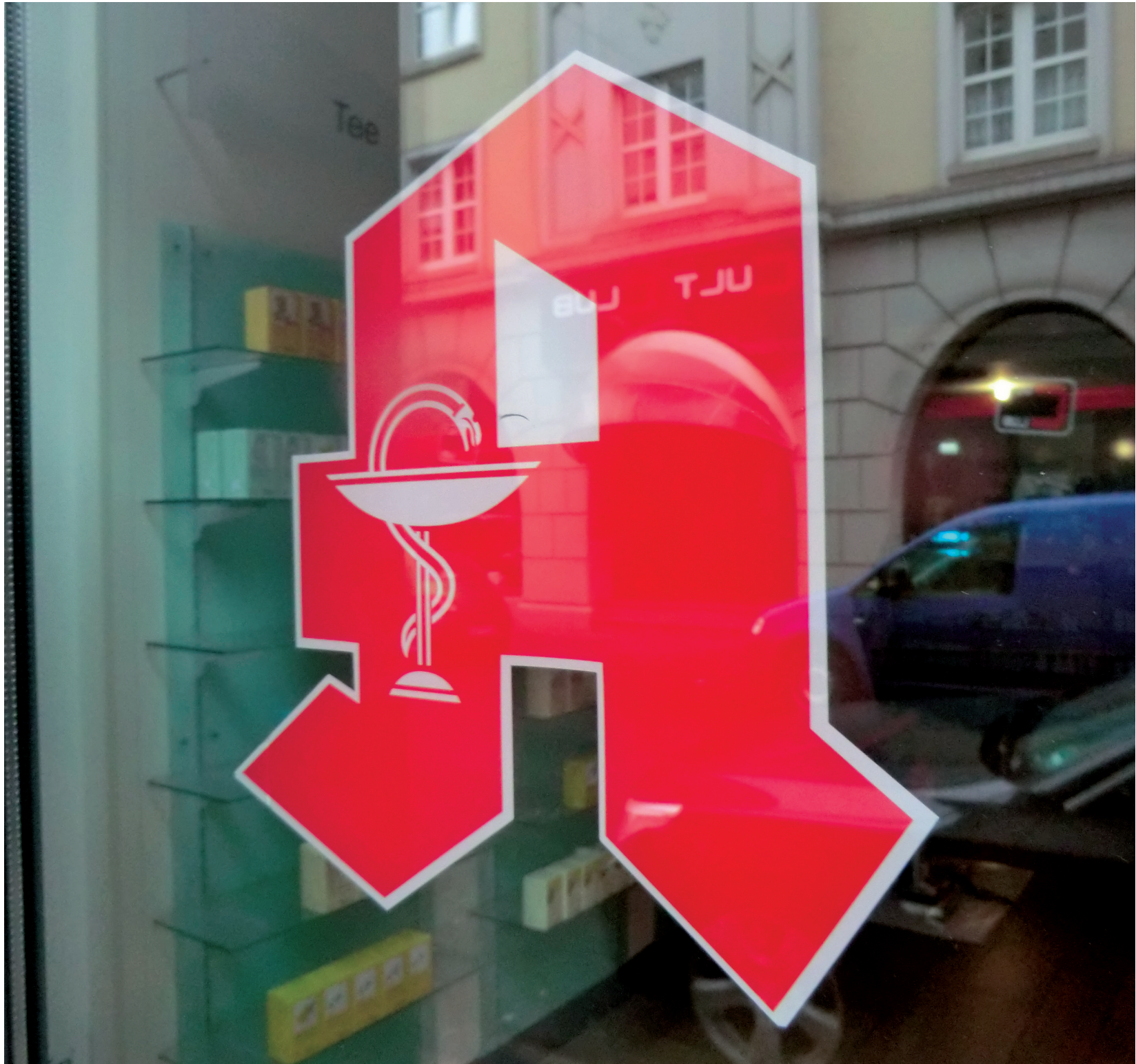**Figure 21 –** *Infrastructural sign, Luther peri*

Figure 20

Figure 21

Figure 22

Figure 23

Figure 24

Figure 25

Figure 26

Figure 27

Figure 21 –*Infrastructural sign, Luther perish, Bochum, SMC 330*
Figure 22 – *Infrastructural sign, Education Certificate, Bochum, SMC 4551*
Figure 23 – *Commemorative sign, Dortmund, SMC 1676*
Figure 16 – *The Lion King, musical poster, Broadway NY, 1997*
Figure 24 – *German Pharmacy Logo, SMC 10953*
Figure 25 – *Regional German Beer Brand, SMC 267*
Figure 26 – *Traditional German Restaurant, SMC 2784*
Figure 27 – *Sticker supporting a local soccer teams in the Signs of the Metropolises corpus (SMC images 21359)*
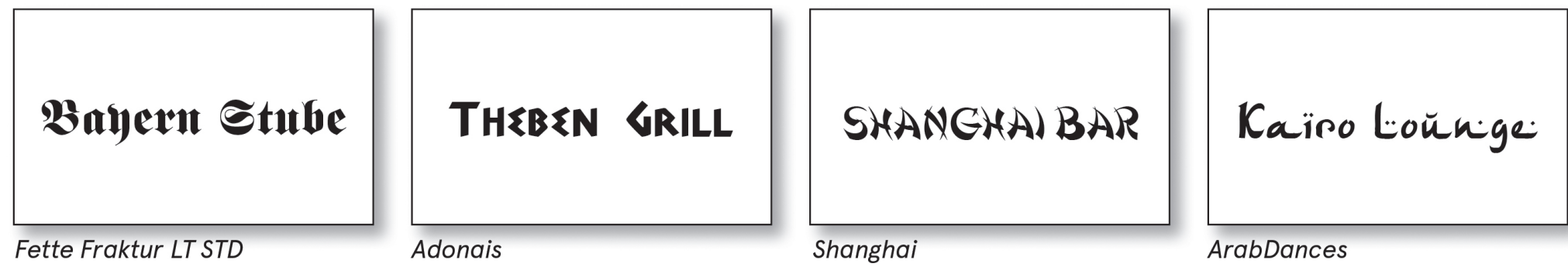**Figure 28** – *Anti-Fascist Soccer Team Sticker, SMC 5830-*

Figure 28

Bayern Stube · Theben Grill · Shanghai Bar · Kairo Lounge
Fette Fraktur LT STD · Adonais · Shanghai · ArabDances

Figure 30

Bayern Stube · Theben Grill · Shanghai Bar · Kairo Lounge

Figure 31

Brezel · Gyros · Dim Sum · Kebab

Figure 32

Bayern Stube · Theben Grill · Shanghai Bar · Kairo Lounge

Figure 33

Brezel · Gyros · Dim Sum · Kebab

Figure 34

Speisekarte ·Speisekarte ·Speisekarte ·Speisekarte
Duc De Berry LT Std · Diogenes · Moyko · AlfredDrake

Speisekarte ·Speisekarte ·Speisekarte ·Speisekarte
Wilhelm Klingspor Gotis · Norse · Eastern Brush · Ceria Lebaran

Figure 35

Figure 36

Figure 37

Figure 30 – *Stroop-test card design, res-taurant name cards, shape and content non-conflicting, regional connoted typefaces (left to right: Fette Fraktur LT STD, Adonais, Shanghai, ArabDances)*
Figure 31 – *Stroop-test card design, res-taurant name cards, shape and content non-conflicting, neutral typefaces*
Figure 32 – *Stroop-test card design, dish name cards, shape and content non-conflic-ting, neutral typefaces*
Figure 33 – *Stroop-test card design, res-taurant name cards, shape and content non-conflicting, regional connoted typefaces*
Figure 34 – *Stroop-test card design, dish name cards, shape and content non-conflic-ting, regional connoted typefaces*
Figure 35 – *Stroop-test card design, neu-tral word cards «Speisekarte» (Eng.: menu), shape and content non-conflicting, regional connoted typefaces*
Figure 36 – *Stroop-test card design, 24 cards with restaurant names and dishes, shape and content conflicting, regional connoted type-faces*
Figure 37 – *The Experiment Setup of the Typo-graphic Stroop-Test, University Campus Essen*
Figure 38 – *Stroop-test results overview for all 48 cards*

Type of Restaurant	Deutsches Restaurant	Griechisches Restaurant	Chinesisches Restaurant	Ägyptisches Restaurant	1
Food/Restaurant Name Neutral Typeface Ø 2.75 sec	Brezel	Gyros	Shanghai Bar	Kairo Lounge	2
Food/Restaurant Name Stereotypical (non-conflicting) Typeface Ø 2.83 sec	Brezel	Gyros	Shanghai Bar	Kairo Lounge	3
Food/Restaurant Name (conflicting) Typeface Ø 3.59 sec	Brezel	Gyros	Shanghai Bar	Kairo Lounge	4
	Brezel	Gyros	Shanghai Bar	Kairo Lounge	5
	Brezel	Gyros	Shanghai Bar	Kairo Lounge	6

Figure 38

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Image sources :

Figure 1 : http : //www.sfgate.com/news/article/Abercrombie-recalls-T-shirts-many-found-offensive-2849480.php, http : //news.bbc.co.uk/2/hi/asia-pacific/1938914.stm (retrieved 17.09.17)

Figure 2, 4–11, 19–29 : Images from the Signs of the Metropolises research project data base, University of Duisburg-Essen

Figure 3 : I thank my friend Dr. Ulrike Pospiech for taking this photo and sending it to me.

Figure 12 : http : //luc.devroye.org/fonts-53473.html (retrieved 04.09.17)

Figure 13/14/15 : https : //www.linedandunlined.com/archive/new-black-face (retrieved 04.09.17)

Figure 16 : https : //en.wikipedia.org/wiki/The_Lion_King_(musical) (retrieved 02.03.18)

Figure 17 : https : //www.jurassicworlduniverse.com/jurassic-park/images/posters/ (retrieved 02.03.18)

Figure 18 : https : //www.yelp.de/biz_photos/capetown-düsseldorf-3 ? select=qCILsRaHsmtaK_arv6bWyA (retrieved 04.09.17)

Figure 30–36, 38 : Stroop-Test card design, Irmi Wachendorff

Figure 37 : Screenshot of the experiment setup, Irmi Wachendorff