

Executive Committee

Joana Casteleiro Luís Frias Sara Velez

Organizing Committee

Joana Casteleiro Luís Frias Sara Velez Mércia Pires Daniel Baldaia Geovanna Almeida João Brayo

Consultative Committee

António Silveira Gomes
Aprígio Morgado
Catarina Silva
Daniel Raposo
Elisabete Rolo
Jorge Brandão Pereira
João Lemos
Margarida Azevedo
Miguel Sanches
Pedro Amado
Ricardo Santos
Rúben Dias
Teresa Cabral
Vítor Quelhas

Scientific Committee

Álvaro Sousa / DeCA-UA
Ana do Carmo / ISEC Lisboa
Andreu Balius / Typerepublic
Antero Ferreira / FBA-UP
António Silveira Gomes / ESAD.CR-IPL
Aprígio Morgado / ESAD.CR-IPL
Catarina Silva / ESD-IPCA / ID+
Daniel Raposo / ESART - IPCB
Eduardo Manso / Emtype Foundry
Elisabete Rolo / FA-UL
Emerson Eller / FBA-UL
Fábio Martins / Scannerlicker

Fernando Coelho / Uppercase 2020, Lda.

Frank Grießhammer / Adobe

Gerry Leonidas / U. Reading

Helena Barbosa / DeCA - UA

Joana Casteleiro / LabCOM - UBI

Joana Correia / ESAD

Joana Lessa / Universidade do Algarve

João Bicker / FCT-UC

João Brandao / FA-UL

Joao Lemos / ESAD

João Neves / ESART-IPCB

Jorge Manuel Reis Tavares Duarte / FBA-UL

Jorge Brandão Pereira / ESD-IPCA

José Silva / ESART

Laura Meseguer / Laura Meseguer / Type-Ø-Tones

Leonor Ferrão / FA-ULisboa

Luís Frias / ICNOVA / UBI

Marco Neves / FA-UL

Margarida Azevedo / ESAD

Maria Lonsdale / University of Leeds

Miguel Carvalhais / FBA-UP

Miguel Sanches / IP Tomar

Nuno Coelho / FCT-UC

Olinda Martins / DeCA-UA

Oriol Moriet / U Barcelona

Paulo T. Silva / DELLI (Design Lusófona Lisboa)

Pedro Amado / FBA-UP / i2ADS / ATypl

Pedro Matos / ESTG - IPPortalegre

rearo maios, 2010 irroriaicy

Ricardo Santos / ESAD.CR-IPL

Roberto Gamonal Arroyo / U Complutense Madrid

Rúben R. Dias / ESAD

Rui Costa / DeCA-UA

Rui Mendonca / FBA-UP

Sara Velez / LabCOM - UBI

Sérgio Correia / ESAD

Sérgio Martins / Typesettings

Sumanthri Samarawickrama / University of Moratuwa

Tania Raposo / taniaraposo

Teresa Cabral / FA-UL

Thomas Huot-Marchand / ANRT

Tiago Navarro Marques / UE

Vítor Quelhas / IPP / ID+ / ATypl

Organization

Universidade da Beira Interior - Faculdade de Artes e Letras LabCom - Comunicação e Artes Atipo

Partners & Sponsors

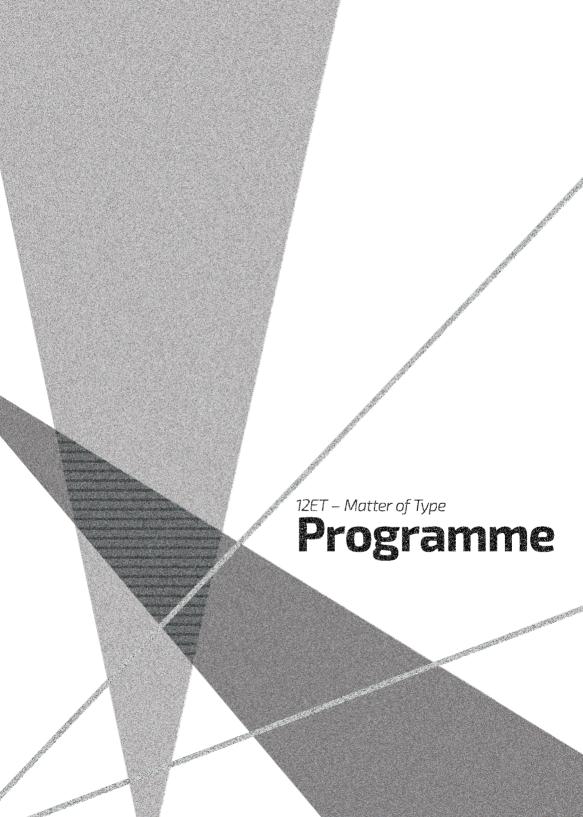
FCT - Fundação para a Ciência e a Tecnologia Atypi FLAD - Fundação Luso-Americana para o Desenvolvimento











13th December

WorkshopsDay

WS1/09:00-13:00 Infected Typography / Marco Heleno

WS 2 / 09:00-13:00 Systemic Type Design / Martin Lorenz Online Session (conference room)

Lunch / 13:00

WS3/14:00-16:00

TIMOS – A modular experience [Part 1] / Ângelo Gonçalves & Vítor Quelhas

WS 4 / 14:00-20:00

Developing formal calligraphy from your everyday handwriting / Paul Antonio

WS 5 / 16:30–20:00

Introduction to Variable Font Design with Fontlab 8 / Fábio Duarte Martins & Pedro Amado

14th December

1st Day Sessions

Vernacular Typography walk in Covilhã / 10:00–13:00 with Joana Casteleiro and Luisa Guerra Beginning > UBI Main Hall – Pole I

Lunch / 13:00

12th Typography Meeting / 14:00 Opening Session

Plenary Session 1 / 14:30

Outras Letras Keynote Speaker / João Bicker

Panel 1 / 15:30

Consistency of uppercase and lower case writing – exploratory study in Portuguese high school students / Ricardo Cruz

Ornar / Ana Leite & Vitor Ouelhas

From immaterial to material culture: exploring Portuguese popular adages through experimental typo/poetry / Mariana Fidalgo & Vitor Quelhas

A reflection on the process of developing a proposal for orthotypographic conventions in the Portuguese language / Jorge Araújo, Pedro Amado, Rúben R. Dias & António Modesto

Coffee Break / 16:45

WS3/17:00-20:00

TIMOS – A modular experience [Part 2] / Ângelo Gonçalves and Vítor Quelhas

 $\mathbf{WS}\,\mathbf{6}\,\mathbf{/}\,17:00\text{--}20:00$ Day One p5.js and Kinetic Typography /

Kiel D. Mutschelknaus

15thDecember

2nd Day Sessions

Plenary Session 2 / 10:00

Systemic Type Design Keynote Speaker / Martin Lorenz Online Session [conference room]

Coffee Break / 11:00

Panel 2 / 11:15

How Visual Variables can influence readability on paper or screen: A Study Case Using Sensors / Ana Teixeira, Maria Fernanda, Maria Fernanda Antunes & Sílvia Maria Espada

Nationalism in Western typography: a case study of Fraktur and Gaelic types / Gilmar Rodrigues

Between the tangible and the digital: the transformation of the Nasta'līq script / Pouua Jahanshahi

Online Session [conference room]

2500 years of the Western Alphabet / Paul Antonio

Lunch / 13:00

Plenary Session 3 / 14:00

Designing Tools, Designing Designs Keynote Speaker / Kiel D. Mutschelknaus

Panel 3 / 15:00

Hot Metal Typesetting with Ludlow Typograph. Hand-set and linecasting with a semi-automatic system (Model M, 1966) / Leonor Secca & Antero Ferreira

Hands—on Type, Learning from letterpress heritage / Rúben Dias & Sofia Meira Designing and producing wooden movable type for letterpress printing: from discarded wood to type height / Geraldo Eanes, Jorge Araújo, António F. Silva & Ricardo Gonçalves

Print Mischief: Development of a generative design album cover for letterpress printing / Ana Antunes, Pedro Amado & Cristina Ferreira

Digitally Analog Typography: hybrid systems in typographic production / Fábio Barata, Jéssica Parente & João Bicker

Coffee Break / 17:00

Type Talks / 17:15

Hands-on Type / Book Presentation with Sofia Meira & Rúben Dias

Hot Metal Typesetting in Portugal with a Ludlow Typograph / with Leonor Secca & Antero Ferreira

Ø.itemzero Studio: Making books, Making Type / with Rúben R. Dias, Ricardo Dantas & Fábio Duarte Martins

Projects Gallery / 18:30 Exhibition Inauguration / with authors

Official Dinner of the 12th Typography Meeting / 20:00

16th December

3rdDaySessions

Panel 4 / 10:00

Annotation protocols. Context and operational concepts of the note paratext in books for extended reading / Ricardo Dantas, Pedro Amado, Rúben Dias & Fábio Martins

Image filter tests in Type Design, Optics: a review / Fábio Martins, Carlos Rosa & Rúben R. Dias

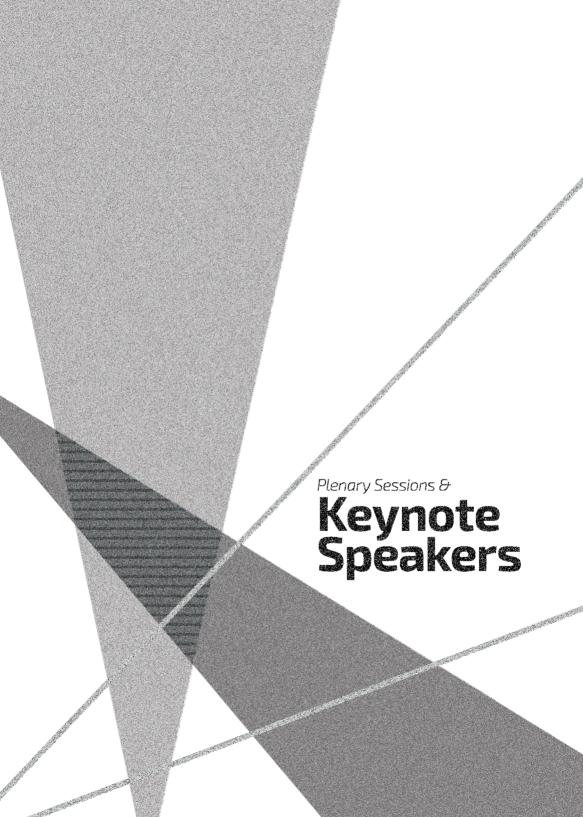
Coffee Break / 11:45

Plenary Session 4 / 12:00 What's the matter with type? Keynote Speaker / Juliane Nöst

Lunch / 13:00

Plenary Session 5 / 14:00
The Interaction Space of
AR/VR Typography
Keynote Speaker / Andrew Johnson
Online Session [conference room]

Live Session / 15:00 Letter-Carving in Stone / Pedro Amado



No meu trabalho tenho procurado sempre que o uso da tipografia se inscreva na construção de uma cultura tipográfica que não dispensa a tradição e o conhecimento da história do design gráfico. O trabalho desenvolvido no Laboratório de Design Computacional e Visualização do Centro de Informática e Sistemas da Universidade de Coimbra, será apresentado como exemplo desse esforço de combinar a criação de novas formas, com o aprofundamento da literacia tipográfica.

Keynote Speaker's Bio

João Bicker is an Assistant Professor at the Department of Computer Engineering at the University of Coimbra and creative director of the cdv.Lab, from the Center for Informatics and Systems of the University of Coimbra (CISUC), João Bicker's area of scientific interest is graphic design. He has published and coordinated since 2000, the edition of several books in the area of typographic studies and in 2015, he published the book "FBA: o design gráfico como prática de clarificação". As founder and creative director of the studio fba.design in Coimbra, he has developed an extensive and diversified work as a designer and art director for several publishers in Portugal, Brazil and England, national museums and multiple companies.

K E E

João Bicker



We live in a (new) golden age of systemic type design. New technologies and easy to use programmes leveled the playfield for emerging designers and gave them the chance to experiment with new ideas. The world of display fonts has witnessed a lot of new impulses in the last years. Type has become more flexible, variable and kinetic as ever, adjusting efficiently and effectively to new communication channels.

Systemic Type Design is more than designing fonts. A type system is an efficient design tool that helps designers to design. If done well, the act of writing is the act of designing without the need to further layout the text.

Keynote Speaker's Bio

Martin Lorenz's work, among many other things, focuses on flexible visual systems in communication design. He teaches at the Bachelor and Masters degree in Graphic Design in Elisava, Barcelona and at the Graphic Design Department of the Royal Academy of Arts (KABK), The Hague, and will be in Covilhã at the 12th Typography Meeting, matterof Type.



This talk will be about how creating my own tools dramatically changed my approach to my typography and client work. I will start by exploring some of my early experiments in generative coding and move into how I have worked with clients to build commercial quality tools. And how tools have affected my editorial and illustration work.

Keynote Speaker's Bio

As a freelance designer, Kiel has worked for clients like Apple, Nike, Adidas, New York Times and many more. He is a Full-Time faculty at the Maryland Institute College of Art Graphic Design Department Baltimore, MD and the author of the "Space Type Generator".



H

Haptic perception—originating from the greek words 'hapto's' (meaning palpable) and 'haptiko's' (meaning suitable for touch)—literally means the ability "to grasp something." Haptic perception is active exploration which relies on the forces experienced with the sense of touch.

But how can Type be haptic, palpable, or touchable? How can Type transition from liquid to solid, from abstract to informative? And how do these properties behave differently in different media like print, the digital world or virtual/augmented reality? Could we go even further and ask: how does type sound or smell?

This talk will explore an experimental approach on typography, shedding light onto possibilities of provoking, touching, forming, breaking, using, and teasing type.

Keynote Speaker's Bio

Juliane Nöst is currently working as a graphic designer, project manager, and editor at the internationally active publishing and media house @ Slanted Publishers.

She studied Communication Design and graduated with a Bachelor's degree in 2017. After working for a design agency for some time, she studied Editorial Design and graduated with a Master's degree in 2021.

During her Master studies she created the book "Teasing Typography—A visual study about the behavior of typography, using grids to push type to its limits, therefore provoking graphic phenomenons, patterns, and structures with the package leaflet of a painkiller as a dummy-text." which was published by Slanted Publishers and for which she received the 'TDC Tokyo Certificate of Typographic Excellence'.



Juliane Nöst



As our mediums extend from static surfaces to sensors, the space Typography exists in fundamentally becomes one of interaction.

This talk aims to demystify the medium (matter) of AR/VR and shares approaches to think about the problems and opportunities in its space.

Keynote Speaker's Bio

Designer of AR/VR Prototypes at Meta where he focuses on Input Exploration, Andrew is fascinated by ecology, design and typography and seeks to know how the interfaces we use can adapt to our environment. He had clients like MIT Media Lab, eBay, LEGO, The Verge, among many others, and make experiments with responsive typography adapted to the surrounding space.





The Infected Typography workshop aims to provide its participants with introductory knowledge on the application and manipulation of data, from photographic captures, into tupographic forms. through a computational process of transcoding and for aesthetic exploration.

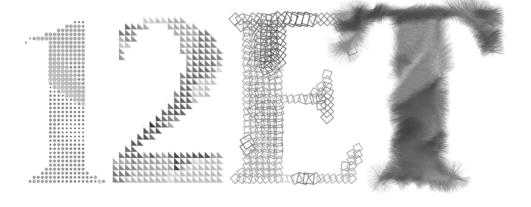
Photographic images can be a rich source of data and transcoding can be used to interpret this data with a different perspective than the initially anticipated. With this process, we shift from looking at a photograph as a final composite — a captured instance that frames a spatial interval, to a rich chromatic capture of the same spatial interval -amatrix of numerical values (RGB quantities), which can be explored for other interpretations.

These RGB quantities serve as a starting point for an aesthetic and computational exploration that will, through a transcoding process limited to a typographic form, result in another final composition. A composition that certainly breaks with any aesthetic relationship that identifies with the initial photograph, but which will never cease to have a close connection with it, as they share the same data source. In this way, but not limited only to transcoding, algorithmic processes allow not only to work with large amounts of data, but also to stimulate new ways of looking at, approaching, thinking and manipulating the various digital formats at our disposal.

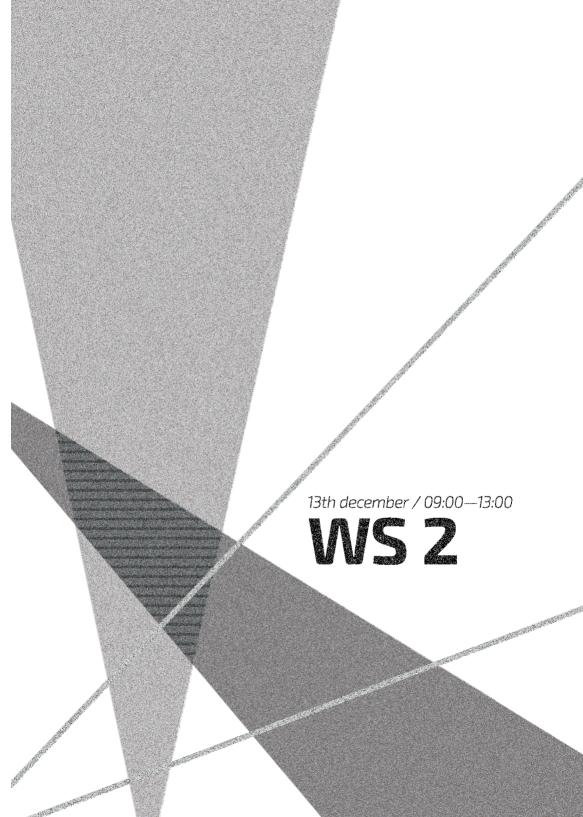
In this workshop, we will use p5*js together with a set of custom built libraries and on-site taken photographs to develop high resolution printed posters that contain Infected Typography explorations.

KEYWORDS

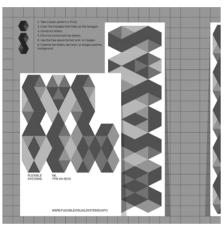
Computational Design; Transcoding; Raster images: Tupographu





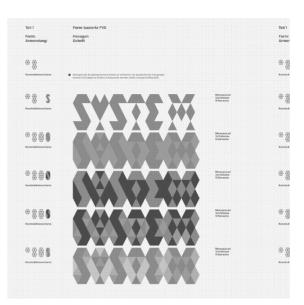


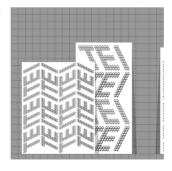
Systemic Type Design is more than designing fonts. A type system is an efficient design tool that helps designers to design. If done well, the act of writing is the act of designing without the need to further layout the text. In this workshop we will develop an experimental type system that almost automatically generates fantastic design applications.



Part 1	Form-based FVS	
Form: Application:	Hexagon Letters	
0090A	â♥°	
2333 3 3332 3		6
<u>%</u>	**	9
		9
	f #Mmammam### ##	4
9000		9

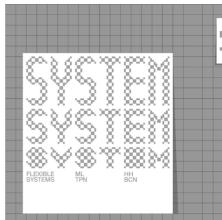


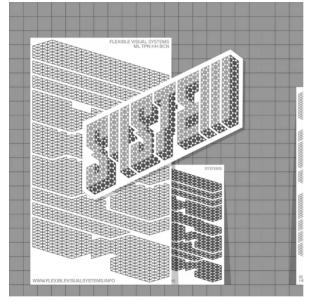






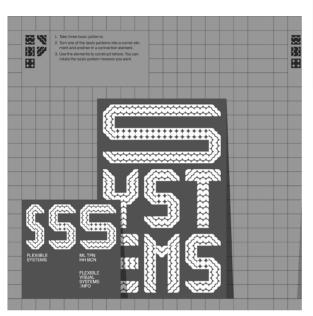






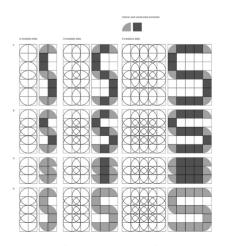




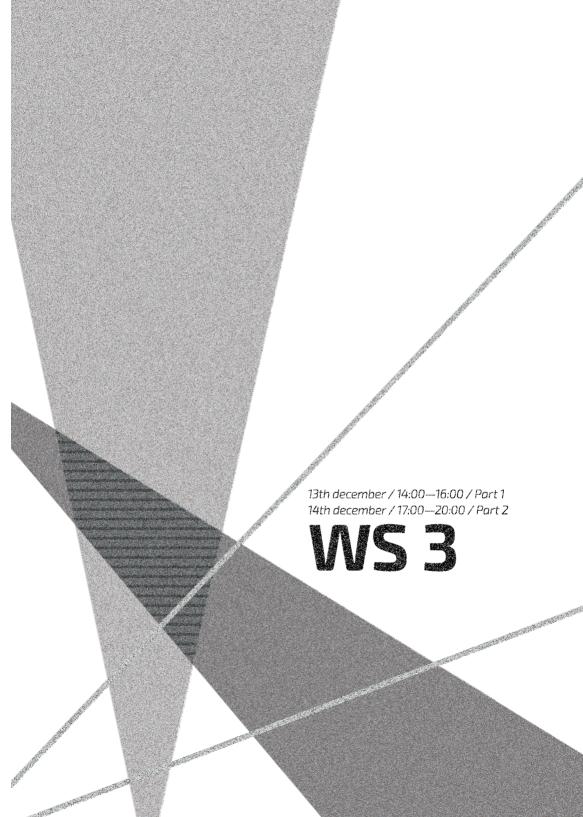












Ângelo Gonçalves & Vítor Quelhas

Through the master's project "The potential of letterpress for Design — development of a modular set of movable type" developed by ngelo Gonçalves and supervised by Vítor Quelhas within the scope of the master's in design at the School of Media Arts and Design, Porto Polytechnic Institute, the Timos modular set was born. This set seeks to enhance traditional typography for Design through modularity. Thus, it is divided into two tools: a template and a set of movable type.

On the one hand, this workshop seeks to be a pedagogical experience that articulates the interpretation of graphic design with the process of traditional typography. On the other hand, it will contribute to the knowledge and skills relevant to the process of personal development. Thus, the following objectives were established:

- Convey knowledge of traditional typography;
- → Develop reasoning and stimulation through the presented modular set;
 - ⇒ Explore the visual grammar of the developed set;
- Discover through practice the limitations and potential of traditional typography and the modular set presented.

First part

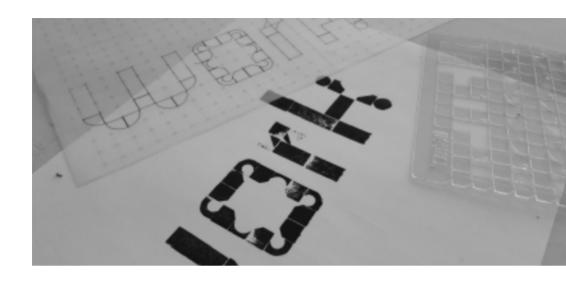
This session will open with a contextualization of the problem. Subsequently, it is intended that participants group themselves into working groups in which the main objective will be the visual exploration of the grammar of the TIMOS modular set through the ruler and the auxiliary sheet.

Second part

In this session, it is intended that the groups previously formed create compositions with the TIMOS modular set from the sketches drawn in the previous phase.

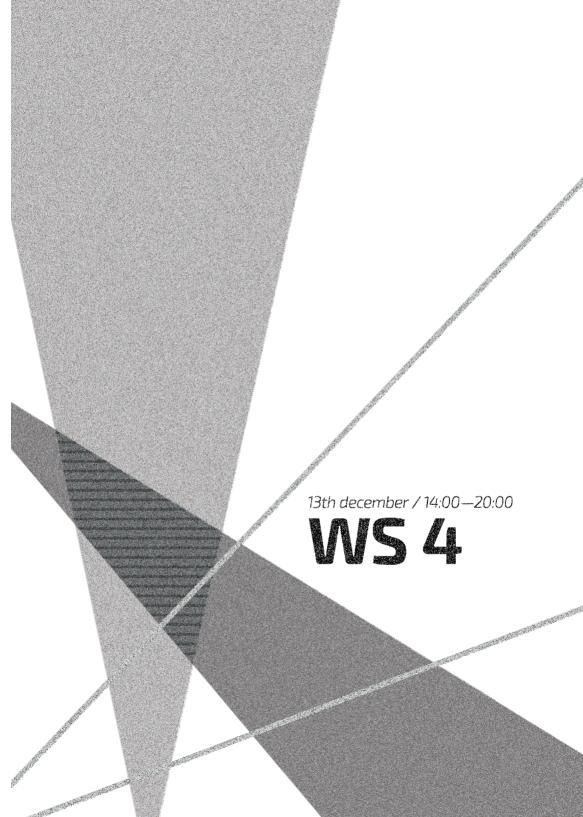
KEYWORDS

Computational Design; Transcoding; Raster images; Tupography









This class will look at how to take your everyday handwriting, deconstruct it into your letter groups based on appearance, stroke number and order, and then apply a formal calligraphic tool following the conventions of your tool of choice.

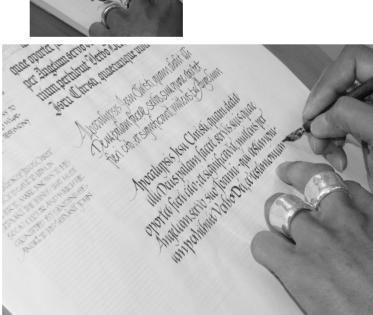
Paul Antonio

KEYWORDSHandwriting; Calligraphy;
Generating a font

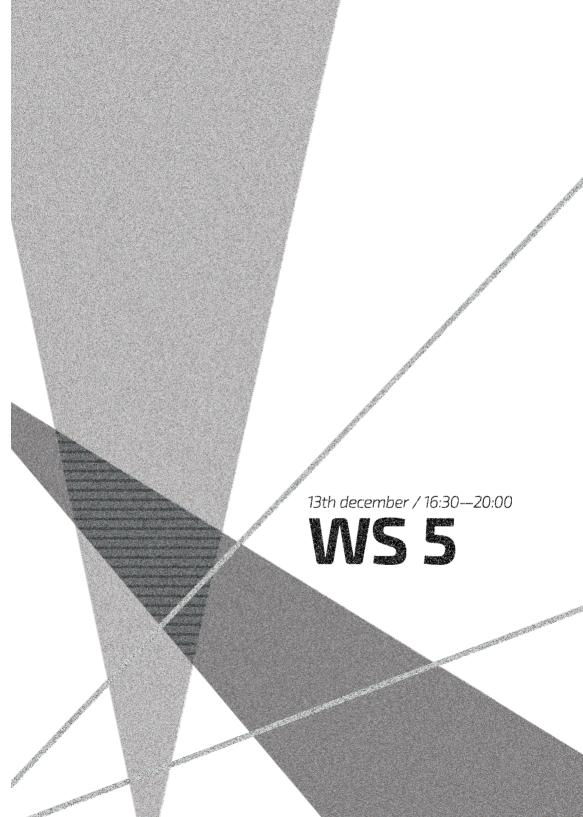












Dedro Amado & Fábio Duarte Martins

This workshop will introduce participants to the design and development of digital Variable Fonts. The workshop is structured in three parts: a first quick presentation; a technical type design induction; and the development of a working variable font.

First, we'll present a sample of bespoke case studies to understand the origin, context, and main advantages of using Variable Fonts in either print or digital interactive projects. Then, we'll introduce the Fontlab 8 IDE drawing tools and operations. We'll address the main (design) windows, panels, menus, and workspaces first by opening existing fonts and then by creating a custom new font.

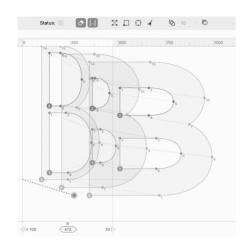
We'll address introductory type design concepts as well as the technical aspects of vector drawing using Fontlab's unique drawing features (e.g., node placement, alignment, nudging, curve tension, tunnilines, loop smart and servant nodes, power guides, and Font Audit). During this stage, participants will design a few control characters on which they will base the design of their font. At the end of the first part of the workshop, we will address the necessary Font Info panel (e.g., Naming, Dimensions, Zones), saving, exporting, and testing working fonts in common DTP applications.

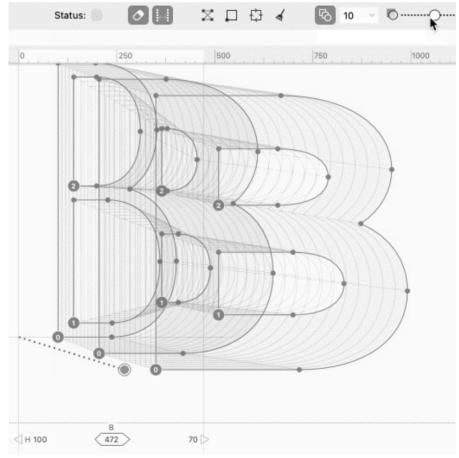
Finally, we will proceed to develop the control characters' design into a Variable Font by implementing Variation Axes, Font Masters, and Instances. We'll design a context-aware variable test keyword or expression (e.g., "Matter of Type"). We'll dive into advanced features such as Conditional Glyph Substitutions, Components, and Composite Glyphs that we will develop and test in a responsive webpage designed to harness and promote the power of the variable fonts.

By attending this workshop, participants will be autonomous to continue research, design, and develop complete Variable Fonts with Fontlab.

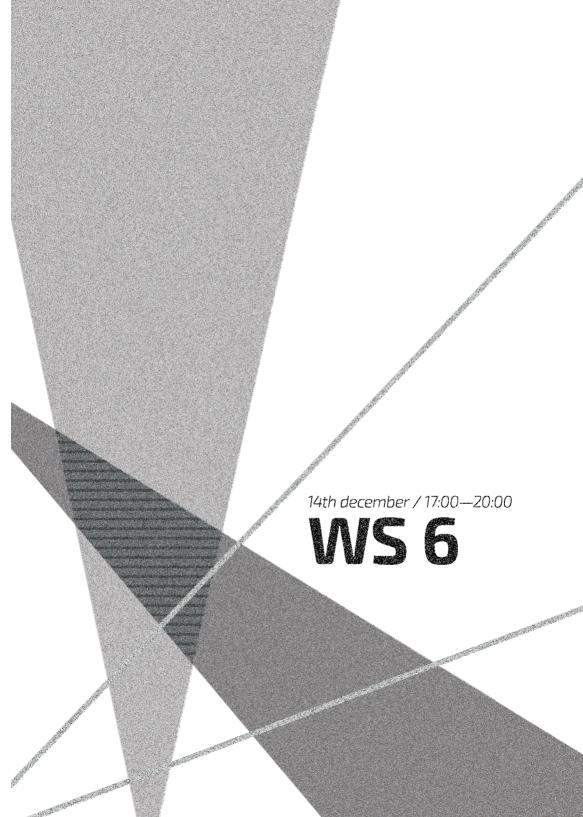
KEYWORDS

Type Design, Font Design, Font Production, Variable Fonts, Fontlab, Workshop





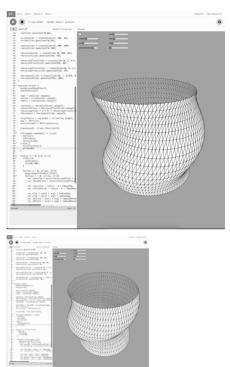


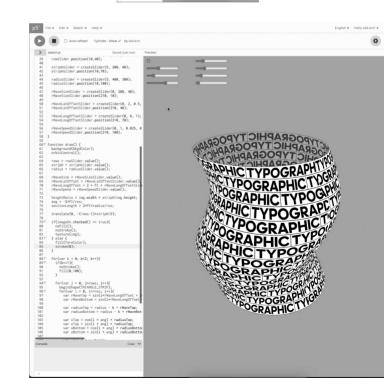


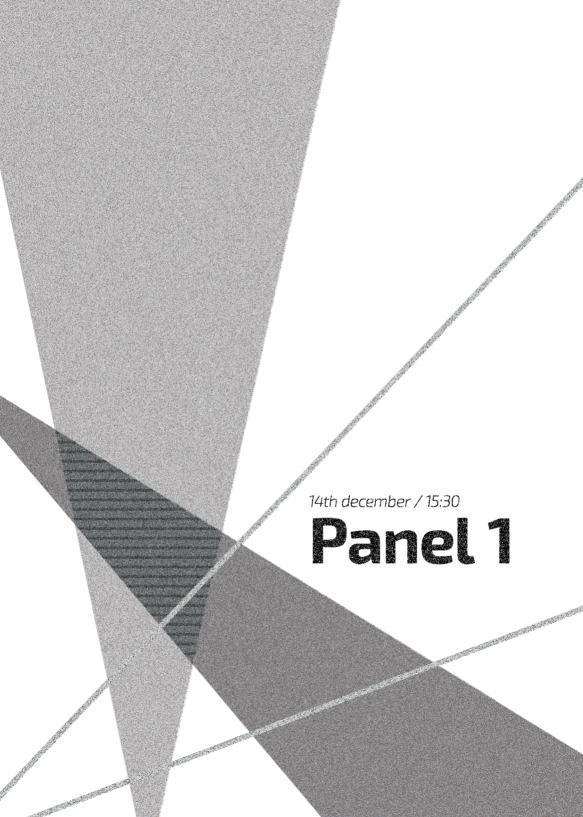
Kiel D. Mutschelknaus

Starting with some basic p5.js will allow the participants to make some simple moving pieces. After that will move onto interactive components where the user can interact and manipulate the moving graphics. Then we will introduce typography to the system to see how it evolves into a kinetic type experiment. Previous experience with p5.js will not be required but it would be helpful!









The first symbols carved in stone date from 10 000 years ago (Gelb, 1952). Nowadays, digital devices are increasingly replacing cursive or manuscript handwriting in school environments, as the so-called digital transition is taking place in the Portuguese school system (cf. Plano de Ação para a Transição Digital – Resolução do Conselho de Ministros n.º 30/2020). National exams are expected to be assessed in a Computer Based Assessment (CBA) environment in 2025 (IAVE – Instituto de Avaliação Educativa, n.d.). Although this dematerialization of external evaluation instruments provides many advantages, it is also a challenging shift, considering the impact on learning skills and processes, specifically in writing skills, especially in foreign language and literature exams.

Cursive writing is being replaced by keyboard writing through the assistance of digital devices (Longcamp et al., 2006). However, studies indicate that cursive writing is more beneficial to the learning process rather than computer note-taking (Longcamp et al., 2005). Besides, handwriting improves letter recognition (Longcamp et al., 2005, 2008), not only in paper writing but also in digital pen usage (Ose Askvik et al., 2020). This means that if young students learn how to write using a keyboard before learning handwriting, they perception of written language may change (Longcamp et al., 2008). Furthermore, there are motor-perceptual links that contribute to the perception of alphabetic characters. The inability of writing letters may be associated with reading deficits that result from a difficulty in visually identifying letters. (Anderson et al., 1990), meaning that there is a strong link between writing movements and letter memorization (Longcamp et al., 2005).

Empirical observation of students' writings suggests a trend to and irregular or even regular shift between typewriting and cursive font types, specifically by the present of capital typewritten letters such as [F], [R] or [V] inside cursive written words. Although this may be attributed to dysgraphic handwriting, the interference of keyboard typewriting (in mobile devices and in keyboards) may also explain this phenomenon.

icardo Cruz

This exploratory study aims to observe the occurrence of capitals letters in manuscript handwriting (unjoined letters) and cursive handwriting (joined letters) (Alstad et al., 2015), correlating them to the usage of keyboard writing.

Students of five different classes (around 110 subjects – high school students – 10th and 11th grades) will be asked to write the same essay with the same word limit, on the same subject, in a separate sheet of paper. The written text will be produced in class, to allow direct observation by the teacher. One of the classes – the control group – will be given specific instructions to pay attention to the correct usage of uppercase and lowercase letters. All the other students will receive no instructions about specific letter usage.

Students will also answer an online form to correlate the frequency of uppercase letters in writing to the increased usage of digital devices.

KEYWORDS

Writing processes: Letter recognition; Cursive and typewriting; Uppercase

This paper presents a case study in which balconies and their ornaments have provided inspiration for contemporary type and design approaches.

The project was motivated by an academic master's degree challenge: based on a guided tour to the Ethnography and History Museum of Póvoa de Varzim, in Portugal, students were invited to develop an individual speculative research project into, through or for design, encouraged by a subject raised from the visit.

This study design brief is grounded on the ornaments of the balconies located in the city of Póvoa de Varzim. The idea came from observing the exterior facade of the Museum, as well as the surrounding buildings. In the interior of the Museum, tiles, and patterns often present, were also inspiring.

The goal of the Ornar system is to create patterns, which can be conjugated and built-in infinite ways, from the vectorization of the ornamented balconies located in the city of Póvoa de Varzim.

Ornar consists of six main shapes. The font can be set using simple keystrokes, creating letter patterns line after line or by mixing all the shapes to obtain patterns for various media. It is possible to mix the figures by either overlapping, flipping, or rotating them. Through rotation and inversion, the six main shapes (AEIMQU) create the next seven letters, thus completing the ornamental font system.

Ornar (Portuguese for 'to adorn') means to ornament, adorn, embellish, garnish, beautify, enrich, and illustrate. These are words that fit into the creation of patterns, patterns taken from the ornaments of the balconies with the aim of embellishing books, wrapping paper, glue tape, bags, crockery, t-shirts, pavements, among others.

Methodologically, the present study is qualitative and experimental, and it is divided into four distinct phases.

In the first one, a literature review was carried out, seeking to understand the origins of patterns in both balcony ornaments and tiles. Ornaments forged in iron took advantage of its malleability to create countless designs from basic shapes. These elements intertwine

with abstract, geometric, and figurative shapes composing syllables, words, and visual poetry. From small modules that are repeated creating patterns and even more elaborate designs. As well as in tiles, the shapes are repeated, mirrored, intertwined in infinite combinations to form patterns.

In a second phase, a collection of one hundred and forty photographs, taken to various ornate balconies located on the streets of Póvoa de Varzim, was conducted and analyzed, revealing shapes that were grouped within abstract and geometric shapes; nature's shapes; and concrete shapes.

In a third phase, case studies related with similar projects were gathered and analyzed, such as the project Urbano Ornamento by Fernanda Goulart, that consists of a publication about the ornamental railings of Belo Horizonte; Het Kaba, by Bram de Does explores a 30 year long, sketch based, research into the seemingly endless combinations of patterns, ornaments, and borders; and HWT Bernice, an ornament font system designed by Marian Bantjes for the Hamilton Wood Type Museum's border stamping machine as a contemporary application.

In the last phase, the photographic collection of the ornamented balconies was vectorized with the help of a digital pen to make the shapes smoother, that allowed the creation of an ornamental system. Additionally, the vectorized shapes allowed the creation of two stenciled rulers. These shapes are composed by joining several vector components that later give shape to the alphabetic system.

For the application of the patterns on various media, the ruler was also used in a more colorful way that allowed to make the applications more attractive and differentiated. After some studies, it was realized that more unexpected and uncontrolled results could be done through amplification, making the applications unique. Since Ornar allows an application on infinite media, the results can be used in infinite ways through the embellishment of books, bags, dishes, tape, wrapping paper, t-shirts, and Portuguese sidewalks.

In conclusion this project is not just about design but is made and thought for design. It allowed to create

a series of shapes that have infinite utility and can be combined and created in even more infinite ways, it is just up to the user's imagination.

KEYWORDS Typography; Pattern; Ornament; Vector; Balcony

Experimental Poetry has reinvented the act of reading and interpreting a poem. In this way, when confronted with a new project, the reader himself was challenged to react from a new sequential perspective: firstly, to contemplate the way in which the elements are arranged in the support, then to read the poem and, finally, to interpret it, considering the assembly of components arranged and the symbology of the words.

This study aims to raise the potential of Experimental Poetry, Typography and Graphic Design, its tools, and its creative capacity. Thus, it seeks to understand how graphic designers, because of their specific training, can uniquely interpret and develop a set of experimental poems, considering their vicissitudes, techniques, and culture, which are considerably different from those of a poet. Additionally, specific objectives were determined as follows: Define the concept of Experimental Poetru. contextualize it historically and relate it to the practice of Graphic Design; Analyze case studies with different scopes, in order to understand and dissect the type of choices: tupography, the poem's stain, the use of white space, the absence of the letter or word, the more or less fluid composition, among others: Understand the different ways of integrating a visual message into a proverb through typography; Select a set of Portuguese proverbs; Develop an editorial project and, consequently, explore the numerous formats and dimensions that this set of visual poems can present; Enhance the Portuguese heritage and the development of Experimental Poetry in Portugal, reinforcing the possibilities of its connection to Graphic Design.

Methodologically, the present investigation is qualitative and experimental, and it is divided into three distinct phases.

In the first one, a literature review was carried out, which sought to understand the origins and influences of Experimental Poetry, from its multiple states and avant-garde movements, which determined a more experimental and free of rules poetry, as we know it today.

In a second phase, the Case Studies were characterized, where records by Ana Hatherly

Mariana Fidalgo & Vitor Quelhas

and Ernesto de Melo e Castro were gathered and scrutinized. Their working method, the way theu thought and interpreted this experimental and tupographic concept, from the simple use of characters and words, made a difference in the attempt to constitute a greater visual message, being reflected in a higher aspect or in the answer to a problem.

In a third phase, to put the project into practice and, in the same sense, to expose the results obtained, an editorial object was materialized using research through design approach. A set of Portuguese proverbs, usually heard and not read/interpreted and with the expressive capacity that was ideal for the metamorphosis into experimental poems, was gathered. In this segment, the typographic choice was made, based on studies focused on typographic hierarchy, on the layout of the text on the page, and on the use of white space, with the purpose of undoubtedly enhancing the word. It ended with the printing and binding of the object and subsequent photographic record.

The results demonstrate that typography can reach endless levels of visual multiplicity. This choice of Portuguese adages, so popular in our culture, proved to be exquisite for the conversion of the intended imagination with graphic exploration.

This junction of concepts, perspectives and approaches was transported to an editorial object, where multiple popular adages, previously selected, were presented and illustrated in the form of experimental poems. Thus, all one hundred and twenty-five compositions made in an editorial object that intends to convey to the reader a new vision on how to interpret a work were disseminated.

With the development of the present investigation, typography was determined as a visual element, not only capable of filling text headlines, but also qualified to use white space as a filling element of the experimental poem, in the weight and size of the words, thus demonstrating the strength of the message.

It is factual with this investigation to conclude that experimental poetry and typography can constitute a

much more active presence in the practice of Graphic Design. With the selection of the proverbs presented, there is an ability for them to become promoters of our culture, both domestically and abroad.

KEYWORDS

Experimental Poetry; Experimental Typography; Portuguese proverb; Editorial Design; Publication

lorge Araújo, Pedro Amado, Rúben R. Dias & António Modesto

Typography and typesetting have undergone profound changes since the transition from the use of moveable type to the digital medium. These changes have occurred both in the way they are produced and in the way they are used. A medium that once depended on print to take shape and was, therefore, static now appears in the digital medium without the restrictions of print and possibly using motion.

The histories of written language and punctuation intersect but are interdependent. In ancient times, the written word was seen only as a record of the spoken word. It was due to this way of thinking that the invention of typographic signs became necessary. What started as a simple system to indicate to the reader when he should pause while reading (aloud), was transformed over the centuries, becoming progressively more complex, but also more regulated and standardized. Punctuation was developed in several stages that coincided with changing literacy patterns; new generations of readers in different historical contexts imposed new demands on writing itself.

What the investigation of the history of writing, typography and punctuation revealed was that this process of evolution of punctuation systems and conventions was ultimately ensured by typographers.

Until the advent of the printing press with moveable type, a text would leave the hands of its author and be handed over to scribes. The realities of manuscript writing and its transmission between scribes practically ensured that any two or more copies of the same text would have several differences; one of those would have been punctuation, in situations where one would expect the grammatical and rhetorical structure to be identical. Letterpress was able to assure that the same punctuation would appear on every page of every copy of a printed text edition. Typography therefore played a key role in promoting the standardization of the typographic signs used.

Letterpress had, thus, created a new situation in the history of punctuation. These new conventions became established and spread much more rapidly through the printed book, due to the number of

identical copies produced by this new process. This increased repertoire, as well as the adoption of only one symbol for each punctuation mark, made discrimination between the different functions assigned to each symbol imperative.

Between 1450 and 1950, during the 500 years that letterpress was the primary medium for written communication, the established conventions evolved organically and gradually, without major moments of disruption. The technological innovations of the 20th century, however, altered the practice and conventions that had been established in the meantime.

Digital media have opened up a host of possibilities and democratized the typographic medium. Indeed, the digital revolution has made access to typography and typesetting possible for anyone, anywhere. A craft that was initially confined to the print shop, and which later depended on contact with the big printers (spec type, for example), had left the shop and entered practically anyone's home. The problem is the inadvertent consequences that this kind of change can have, perhaps creating the conditions for typographic practices, particularly orthotypographical practices, to be neglected. Eventually forgotten.

It was in the face of this that we developed the study discussed throughout this paper and came up with the theoretical model presented.

The research presented in this paper aimed to simultaneously research and reflect on the historical and cultural heritage, as well as the contemporary landscape of design, through the lens of Orthotypography. The aim of this study is, therefore, the study of the identification, function and use (in different contexts) of the various glyphs associated with graphic communication, particularly typographic signs, symbols and punctuation marks.

We sought to understand the evolution of typographic signs and symbols over the centuries, framing their identification, form and function, always in an attempt to inform current practices. Historical and cultural research was then confronted with the evolutions and transformations around typographic

practice, such as technological, linguistic, and cultural advances. With this research, we aimed to develop a theoretical model for the Portuguese Language and a work tool that embodies that theoretical framework: a orthotypography manual.

To achieve this objective, a qualitative methodology was used, based on the inductive and comparative methods, in an attempt to build a sustained theory on the identified problem. Given the absence of significant studies on the theme in the national context, the bibliography was updated using the international context, which yielded mostly English and Spanish authors.

From this methodology a critical discourse on the theme began to take form, which is presented here as a conceptual model —a proposal of typographic conventions—, sustained by the intersection of the various references, the analysis of the historical context and contemporary approaches and practices. It was through this process that we sought to build knowledge about the field of Orthotypography.

Subsequently, this conceptual model was reviewed, synthesized and simplified, in order to transform its content to suit the tool it would inhabit: a manual on orthotypography, geared towards consultation. This manual is intended to be an aid to typesetting and may assist the pagination process. As a tool, it aims to speed up and secure the working process for all those involved in drafting texts and typesetting, while proposing a common language for everyone involved in the process.

By critically analyzing and comparing a multiplicity of discourses around the practices of typesetting, we sought to demonstrate that typographic signs and symbols can have an impact on cultural dynamics. Therefore, as cultural dissemination agents, Writers, Editors, and Designers — being Communication, Graphic, Editorial or Web, to mention a relevant few professionals for whom this work might be relevant — need to reflect on their own practice and also about the role of their disciplines.

The set of orthotypographic conventions built during the study can be found in the sample of

the manual that we present in this paper. This set of conventions invites its criticism and eventual contestation, seeing as this theme, so thoroughly linked with language and culture is mutable and forever evolving and, therefore, the conventions will need to be updated, regardless of their current pertinence.

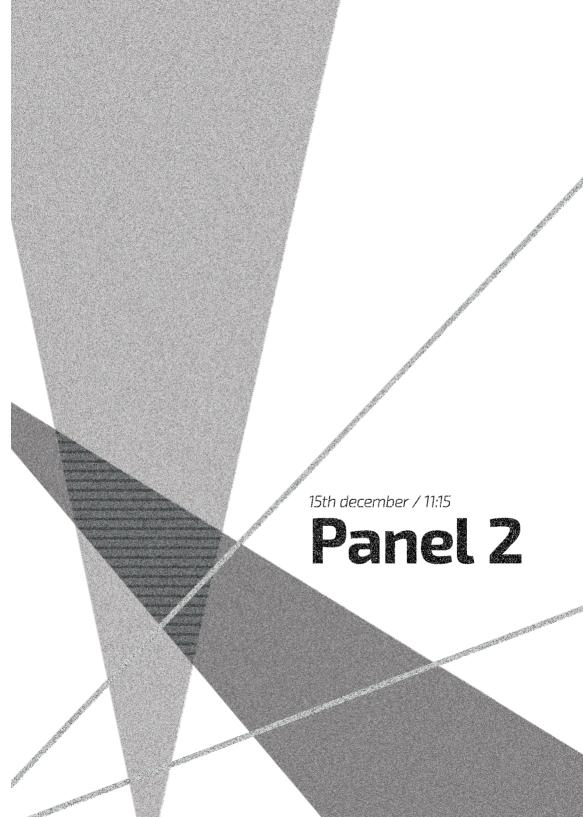
Acknowledgments

The work developed and presented in this paper was financially supported under the esad-idea project UIDB/05237/2020, funded by the Foundation for Science and Technology.

KEYWORDS

Orthotypography, Typography; Orthography; Typographic composition; Typesetting; Editorial design; Linguistics; Philology: Micro typography





In the course of the last decades, the design field has been influenced by identity reflections and politics, with impacts for practitioners and scholars alike (Pater, 2016). Such phenomena are not, however, new. They might be viewed as a new phase of questioning assumptions of neutrality and progress, well represented by modernist typography, such as the New Typography and the Swiss Typography, held to be the International Style (Kinross, 2004). One of the oldest of such identitarian influences on typography is nationalism. This political ideology exerted a strong role in the development of European tupography. causing some cultures and languages to demand their own idiosuncratic visual representation (Steinberg. 1959). This paper focuses on the analysis of two such cases: the Fraktur in the German world and the Gaelic tupes in the Irish World.

After two World Wars, a growing adoption of liberal democracy, and economic globalization through free markets, nationalism began to be deemed overcomed, only to become again a hot topic in global politics (Snyder, 2018). Renewed critiques and questioning of globalization and multiculturalism, both to the political left and right, make nationalism once again menacing and appealing. It is likely that this ideology will increase its influence on the typographic field once more, if so, it will surely also be deeply influenced by typography's capability of shaping language and acting as a means of reinforcing political messages and symbols (Carter, 2002; McLuhan, 1962; Febvre & Martin, 1976).

To pretend to know how these cross-influences will play out now is impossible, because our current political and economical conjecture is very different from previous centuries. However, by studying the history of how nationalism and typography converged and influenced each other will assist typographers and designers to gain intellectual strength and critical knowledge to deal with those likely to arise unsettling issues.

One of the modes of studying that interplay between typography, language and national identity has been through the analysis and practice of foreign

ilmar Rodrigues

scripts. Similar to how anthropologists gain insight of the general concept of culture by diving into the cultures of others (Geertz, 1993). This approach can be found in some activities of the ATypl and their annual meetings, compendiums like Language Culture Type: International Type Design In the Age of Unicode (Berry, 2002) or studies like National Letters: Languages and Scripts as Nation-building Tools (Nedelka, 2021), to name just a few. The increased interest and volume of "Non-Latin" scripts and Latin typefaces by non-Westerners are reinvigorating examples of that curiosity, openness and vibrancy in the field.

Another possible mode of study is by analyzing and putting into question Europe's own History and heritage in a defamiliarization process. That is the route this work follows, its main worth consists in allowing designers raised in the typographic tradition of the West (the Latin script) to leave a tendency of regarding itself as a universal behind. The role of the Fraktur for Germanic peoples and the Gaelic for the Irish was thus analyzed not as abnormalities, standing in the way of the all-mighty Roman as the only correct rendition of the Latin script, but rather as a crucial part of the development of the Western typography.

By incorporating the contributions of the Cultural Studies, particularly through the key-concepts of representation, identity, production, consumption and regulation (du Gay et al., 1997), this comparative analysis between the Fraktur, the Gaelic and the Roman presents a synthetic and intelligible overview of their characteristics, historical developments and political and cultural implications. This study reveals how superficial and misleading discussing national typography can be if one stays only on the surface of the similarities. By highlighting the differences between how both the Fraktur and Gaelic represented their nations show how rich is the typographic diversity in the West, but it also illuminates how these cultural roles can play out in contemporary global practices across different countries and by the hands of different political parties and ideologies. This approach does not make other reflections superfluous, quite to the contrary, the typographic field needs many different

modes of inquiry in order to enrich its narratives and expand its intellectual reach to recognize its importance and responsibilities. This contribution aims to not only narrate and compare historical facts about the Fraktur and the Gaelic that were sometimes overlooked, but though this different gaze point out possible better ways of representing identities, without falling prey to the dangers of tokenism, chauvinism or diminishing the potential designers have to influence political life.

KEYWORDS

National identity: Nationalism; History of Tupography; Cultural Studies; Fraktur; Gaelic Types

Type is not just a tool of conveying worded information. It often acts as a vessel of history, culture, people. and places. It doesn't always have to be legible in the conventional definition of legibility, rather, it can take upon a new definition of being legible. The Jali typeface makes use of tupe as a semiotic indicator of design that is representative of a special and unique part of India. Jali's are carved stone lattices with swirls of intersecting organic and geometric shapes forming beautiful patterns. These Jali's are omnipresent in India. They can be found in the swankiest of buildings such as the Tai Mahal as well as the slummiest of slums. While they have beautification purposes, they also have functional qualities such as allowing air and light to pass while minimising the rain and sun.

The Jali Tupeface takes inspiration from the Indian Jali's to create type structures which combine the organic and geometric shapes commonly found in different Jali's. The typeface makes use of negative space to accentuate these forms. The type letters were taken further and to form patterns by twisting, turning, and replicating to form digital Jali's. These can serve as multi purpose graphics that can be extended into Indian packaging design, print on cloth, carved into actual wood, and so much more. The Jali typeface may not be entirely functional. But, it acts as a signifier of culture and design for a nation.

yushi Jain & Nadine Ouellet

KEYWORDS

Cultural design; Experimental tupe: Cultural semiotics; National identity; Indian design; Indian tupeface

When Persia arose to recover from the ruins of the of Mongols (13th century) followed by the Timur's destructive invasion (14th century) a calligraphic script arouse its presence – to mark this period of renewal and hope: the Nasta'līq script

A derivative of the Taliq script, Nasta'līq was soon being used in various Urdu and Malay manuscripts. Her formal aesthetics with slopes and Kashidas that create multi layers characters and words, soon resulted in her dominance in Persian poetry circles. In centuries ahead, Safavids and Abbasids royal courts pursuit of poetic culture and productions solidified Nasta'līq as the script for Persian Poetry.

Many calligraphic masters arouse within the Persian culture to adjust the aesthetic and pragmatic nuances of this script, amongst which Mir Emad Hassani (d. 1615), and Mirza Mohammad Reza Kalhor (d. 1892), are considered the most prominent. Many works of these masters and their students produced – to present era – are treasured by arts and cultural institutions, across the globe.

However, arguably Nasta'līq has defied the limits of any ancient calligraphic script, and has metamorphosized into the contemporary digital realm. Through her presence in smart-digital typefaces the advents of contextual menus have allowed her multilayered implementation to remain intact and usable by typographer and designers. Numerous apps and plugins have come forth to allow the production of her complex forms and branches (eg. Tasmim, Nasatlique-Writer, Nastalique Google plugin). Furthermore the growth of graphic design, and animated media have taken full advantage of her aesthetic elements of narrow, nuanced curves and bold fluctuating Kashidahs.

Perhaps beyond what any other ancient script may have accomplished, Nasta'līq has come to embody the national identity of present day Iranians and Persian culture. While a proposal allocating Nasta'līq as the official national script is in the process of being reviewed at the Iranian Congress (Majlis), a brief walk in Tehran's streets and bazars, or a look at recent

iya Jahanshahi

protest signages, makes it clear of the prominence of Nasta'līq in Iranian's everyday lives.

This paper delves deeper in the anthropology of the Nasta'liq script, and attempts to locate her presence through the frameworks within Iran as well as the international Iranian diaspora. Analysis includes perspective through the lens of commerce, art and design. Some as aspects in this research pertain to: How can an ancient script rise to such significance in a contemporary era? In an age of non-matter and dominance of digital content how does a script that originated as an ink-to-paper maintain its prominence? In a global village realm where many writing script lose their national origins, what is unique about the characteristics of Nasta'līq script that allow it to become associated with national identity?

KEYWORDS

Calligraphy; Metamorphosis; Script; Typography; Graphic Design

Paul Antonio

This lecture was developed in 2005 as a lecture-demonstration to give the lay public, students, and professionals an overview of the history of the western alphabet bringing together my love of both calligraphy and palaeography. The presentation starts off with a short introduction on why this line of questioning is important for practitioners. I will then sit and write the letters chronologically addressing the evolution of Latin letterforms by demonstrating the various landmark scripts from Romans Capitals to Irish Uncial, Carolingian to the Gothic Scripts, then to the Renaissance Scripts through the English Roundhand Period finishing off with American Spencerian Script effectively covering two and a half thousand years of writing.

Despite being a well-established lecture delivered at multiple international venues, this is the first time I will present new insights in that what we think we are seeing on the page, in terms of letter shape and morphology, is not what is written, wherein, the tool we are told the letters were written with in our historical extant writing, is not what might have been used in the scribal tradition. I will also show how arm flexion which we accept as a 19th century invention was present in 15th century script execution.

In this talk, I will demonstrate how we are taught the square cut broad edged quill is used to write traditional letters, I will then write the same letters with the various angled cuts on the tip of the quill to compare these two shapes exhibiting how subtle movements of the arm and the cut of the tool can make for imperceptible shifts in the morphology and structure of a letter.

The practice-based research is centred around carefully looking at letters in manuscripts and attempting to actualise them with tools I was taught they were written with which subsequently failed to produce the exact shape and sense of the historical letters. This led me to reconsider not only the tools and movements we use, but also to discard the biases I was taught about the letter shape.

My hopes in presenting this material to professional designers, teachers and students alike,

is to allow you the space to consider the shapes you are composing on the screen, as much of type design is based on tool shapes which may not be the original writing implement.

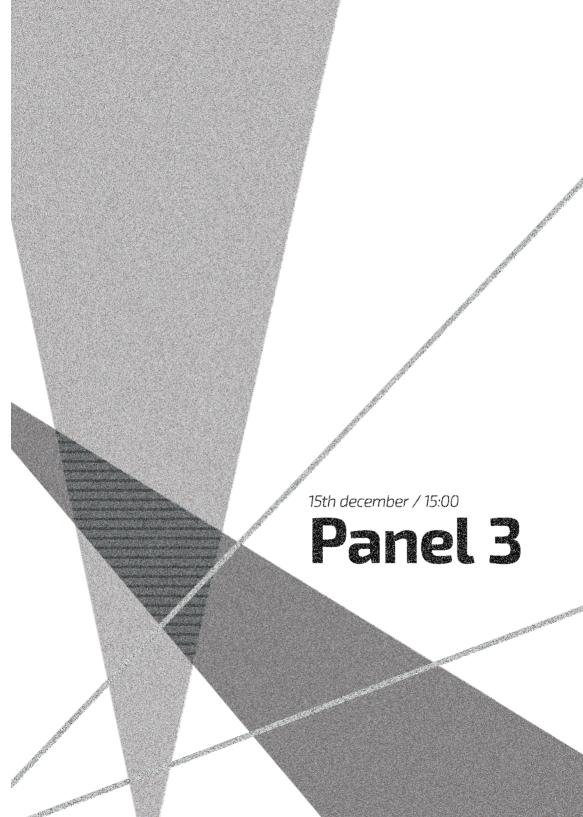
Ana Teixeira, Maria Fernanda Antunes & Sílvia Maria Espada

Nowadays and as a result of the many advances within the field of high technology, electronic devices such as tablets, computer screens and e-readers are used on a daily bases when seeking knowledge for whatever reasons. This allowed to test multiple typographic variables in combination and in their tupical ranges rather than in possibly unrealistic configurations. Several tupographic variables displayed a significant effect on reading performance and on brain and heart rate activity. It is by the means of this communication configuration that the interpretation of resulting data and its interconnections make it highly possible to understand clearly and to suppress any apparent ambiguity. The concept "readable" is a generic act between authors and text readers. Manu researchers believe in the relevance of a text in order to be understood and ensure that there are standards which exist to reject "unreadable" characters making it impossible for unrecognizable letters to appear in instances where communicability needs to be perceptible and without any hesitation. Visual variables have a crucial role in understanding reading performance and its significance in the history and contemporary practice of typography. The aim of this work is to study and perceive the impact of typography on humans in terms of reading. In order to achieve the purposed objective of understanding the influence of different visual variables as a result of a more precise reading process, several tests were performed to quarantee the intended outcome. The number of variables studied were twenty using different sensors, such as the Brain Computer Interaction (BCI) device, to measure the levels of brain activity (active, neutral and calm) and the heart rate activity (HRA). The reading time and the reading speed, the score and number of error were also considered. This study took place over a period of two months in a quiet and familiar environment known to each participant for the sole purpose of providing comfort in order to obtain the most favorable results possible. The visual variables studied were: size of letter, sans serif and serif typefaces, typographic weights, tonal contrast, vertical and stacked text, leading, line

length, tracking, and upper and lowercase. Each experiment was done considering the follow strategu: scientific or children s texts, printed or digital. This research wishes to reveal the most favorite tupes and forms of selected reading material by studying the data collected when testing its participants and bu understanding said reading selections with the utmost of comprehension. The results show that the visual variables have a different impact considering the type of text (scientific and children's text) as well as the reading medium (paper or screen). In addition, the results show that preferences varu according to the type of visual variables as predicted and as confirmed bu the measurements taken during the reading process. However, oddly enough, the participants when questioned during the survey, their answers were not coincident by the measurement results. For this reason, this empirical study in interaction design is important as a future reference approach to the perceptibility and readability of text. On the other hand, the use of BCI and HRA parameters is not widely described in the literature. So, this study allowed to perceive and identify the most adaptable typographic parameters both in the type of text and in the reading medium. Theoretically, the results highlight the importance of visual variables, corroborating the emphasis of recent psychological models on visual attention and crowding in reading.

Typography: Visual Variables; Sensors; BCI; Design





Leonor Secca & Antero Ferreira

The Ludlow Typograph (LT) system, 1905-2003, is part of a new period in the graphic arts industry that occurred between the end of the 19th century and the beginning of the 20th century, marked by major technological developments that allowed the transition from manual printing to mechanical industry. This system resulted in a semi-automatic machine, with manual composition and mechanical casting, prepared for the casting of lines of text and specifically designed to work with larger type sizes in order to compose and cast titles. Having as object of study the Ludlow Model M machine (SN: M18454), which belongs to a private collection in Oporto, the objective established for the article named "Fundição tipográfica com a Ludlow Typograph. Compor manualmente e fundir com um sistema semiautomático (Model M. 1966)" [Hot metal typesetting with Ludlow Typograph. Hand- set and linecasting with a semi-automatic system (Model M, 1966)] was to acquire the necessary knowledge to be able to cast lines of text with the Ludlow Typograph system in this day and age.

First, the history of the Ludlow Typograph system in general, as well as of the American company responsible for its launch, the Ludlow Typograph Company, is covered in more detail. Then, the entire universe concerning the object of study LT M (SN: M18454) is explored, thereby presenting: the results of the research about the origin and pathway of the machine to get to the place where it is today in operation: the conclusions of the survey carried out for the possible location of other LT machines in Portugal; the listing of the items belonging to the case study, where the catalogues and operating manuals, the equipment components and their dimensions, the component makers, the accessories, the tools and consumables, and the white materials are listed: finally, the explanation of the 3D production of the die gauge and identifier which made it possible to classify the die collection.

Then, the steps that allowed the equipment to be operated under conditions are presented, including: the description of the cleaning and maintenance activities of the machine, the explanation of measurements, tests

and operational attempts, the design and production of a manual extractor, and, finally, the report of the first successful casting attempt and the development of the proof sheet of the cast lines referring to the four typefaces of Ludlow available in the collection: Bodoni, Condensed Gothic, Record Gothic, and Tempo.

KEYWORDS

Ludlow Typograph: Typesetting: Typecasting: Type Specimen

Leonor Secce & Antero Ferreira

Hands-on Type, Learning from letterpress heritage, was an event that sought to explore graphic production from the technology associated with movable type, reflecting on today's letterpress and valuing teaching methodologies based on know-how.

The main point was to build a parallel narrative between high and low technology in teaching and Design practice.

The project emerged during the development of the printing workshop at ESAD — Escola Superior de Artes e Design de Matosinhos (Matosinhos School of Arts and Design). This workshop aims to be a teaching tool and, simultaneously, to stimulate interest in non-conventional production techniques. Through moveable type typography, it is possible to recover and ensure other ways of thinking and executing design, giving students, as well as the community, the opportunity to handle technologies that are generally considered obsolete and difficult to access. The aim is also to create the necessary involvement in developing typography as a practice in the design field, opening space for creating a critical mass on the subject.

Based on the centenary historical legacy of the practice of typography, relations are restored in the evolution of the communication design field, from the exploration of the technique in a workshop approach to the transition from the role of typographer to that of the designer. The aim is to present methodologies, from the implementation to the use of the workshop, as well as proposals to adapt them to the needs of today's users and working methods suitable for the present day.

With this project (Hands-on Type), we seek to share practices and knowledge, promoting information synergies. Above all, we wish to foster discussion, learning, contextualise and develop contacts with an international scope to enhance future partners in exploration activities and theoretical and practical research.

KEYWORDS

Design; Letterpress; Typography; Movable Tupe; Education This project was born from the possibility (and necessity) of producing wood type that could be used at the letterpress workshop that belongs to the School of Education of P.PORTO. Slats of wood (beech) from the flooring of the faculty's gym were about to be binned and that presented an opportunity to turn the throwaway wood into moveable type. This approach uses the principles of the circular economy and of eco-design, namely the development of new products through the upcycling of old materials.

The first stage of the project was the preparation of the wood slats. They all need to be rectified and plained down to type height. A question that still remains is the optimal use of the grain direction. Ideally, it would appear, the type face — i.e., the top of the actual piece of type, where the character is engraved — should be cut on the end grain of the wood slat. Is this case, however, the sourced wood didn't have enough girth to allow for that, so the grain runs side to side on each type, not top to bottom. After each slat was plained down to the correct height (23,566mm) the wood needed to be lightly sanded down (so as not to remove too much material/height of the pieces) and sealed.

The second stage of the process was the design of the typeface that would be carved on the wood surface. We started by examining existing type we had at the workshop, that had been cut in wood. The analysis referred to both the shape of the actual typefaces, but also the means of production of each one, namely how they had been cut, which was a process that appeared to be mostly done, or at least finished, by hand, with a chisel. In this case, we wanted to avoid manual retouching of the type face after the milling process and, therefore, the type needed to take into account the characteristics of the CNC.

The drill bit used can never produce inside sharp corner seeing as the cutting profile is always round in shape. The diameter of the cutting profile is determined by the drill used.

The milling process is usually done in several steps. First a bigger drill will cut away the majority of the area that needs to be removed. Then a smaller

Jeraldo Eanes, Jorge Araújo, António F. Silva & Ricardo Gonçalves

drill will clean up the edges and finally, a very small drill (similar to a ball point pen) will access the areas that the previous drill couldn't, thus refining the aforementioned inside corners into a shape that optically resembles a sharp corner. This process is, of course, time consuming, requires more materials (drills) and attention by the CNC operator.

In order to streamline the cutting process, we designed a typeface that had no inside or outside straight corner. This way, the whole cutting process could be done with just one drill bit, in a continuous motion for each contour (inside and outside contours).

The twenty-six characters designed for this stage of the research were all uppercase and were quite heavy in weight, also for the sake of speed/time (the lighter the weight of the character, the more time it takes to chip away at the wood). At this point, the only concern was to maintain similarly sized pockets of negative space throughout the character set. The main sources of reference were West Bubble Gum (an all-caps typeface designed by Dave West for Photo-Lettering in the 1960s), Rodger (by Central Type) and Softie (by Ohno Type Co.).

The third stage was actually cutting the letters in the prepared wood slats, which was mostly a trial an error process. The whole character set was cut in just one point size, which was determined by the wooden support. Each strip of wood was leveraged to the maximum width of the CNC cutting machine, cutting several characters side by side, creating a sort of wooden type "line cast". These were separated latter, so they could be used as individual characters (moveable type).

The project is still ongoing. We are trying to refine the drawings of the typeface in a struggle between harmony of shapes and efficiency and speed of the cutting process. We hope to add the numerals, accents and other characters later on. Also, the wood preparation process still needs to be revised, seeing as the test prints we have gotten so far aren't quite perfect.

KEYWORDS

Letterpress; Typography; Printing; Type design; Typographic patrimony; CNC milling In "Reinventing Print", David Jury (2017) mentions that letterpress and other past analog printing practices have been threatened with obsolescence several times. However, there has been a growing interest in these. Posing the question of whether these analog practices still make sense nowadays, and what their advantages are.

In this post-digital age, marked by constant change and evolution, the coexistence of analog and digital design processes is increasingly important. New technologies are shifting the panorama of printed materials' role and their users' experience, and there is a need for exploring different visual languages (Ludovico, 2012).

This project aims at exploring the crossover of different materials and technologies, such as letterpress and programming, to develop a sound-responsive system applied to the creation of graphic images for album covers in the current author-based post-digital context. These experiences fit in a hybrid printing approach, linking composition semantics to music and programming.

Letterpress is a printing technique whose plasticity, obtained through its manipulation and composition, enables several layers to be explored. In music, these layers are defined through varied sounds, rhythm, and positive and negative spaces. A link between letterpress and music is established not only through the constraints of their systems, but also through an experimental and iterative process.

Regarding computation, Carvalhais (2022) describes it as deterministic. However, computational design may surprise precisely because, when properly employed, it provides emergent design solutions that cannot be fully predicted. In this work, we can see how letterpress also relates to programming, as they both show their potential through their limitations and unpredictability during the creation process. Ultimately, this helps to express and offer alternative ideas.

This work presents a custom-designed case study: a generative modular system developed in Processing to create album cover compositions, using the music

Leonor Secca & Antero Ferreira

"Mind Mischief" by Tame Impala as an example. Each composition is designed with pre-defined families of shapes that the user chooses and gives as inputs to the sustem. To create movable tupe and compositions for letterpress printing, we employ basic modular shapes and, bu studuing visual grammar and flexible visual systems, one can obtain interesting design compositions. These shapes were designed referencing Ernst Chladni's figures of plates' vibrational behavior, which become more complex as the sound frequency increases. The digital modules in the system react the same way to the music and have four complexity variations to emulate Chladni's figures. Afterward, the user needs to choose a set of two colors (one of them reacts to the amplitude of the signal) and the system generates various compositions that the user can save. The user chooses its preferred composition to be printed in letterpress with the corresponding SLA 3D printed resin modules. There are multiple choices during the printing process, as one can modify the composition, removing or rotating modules, adjusting the press pressure, and even creating masks. This not only promotes the practice-led discovery of new design opportunities, but also enhances creativity and problem-solving skills.

In the final phase of the case study, we evaluated this system's utility and usability in a 4-hour workshop with 7 graphic and editorial design students, ranging from bachelor to master's level. During the workshop, we were able to assess that by employing this process, given its experimental and didactic nature, we facilitate the creative process and enhance composition capabilities. Some improvements in the system — related to user interface and experience — and printing process were also identified based on user feedback, to be implemented in the future.

Analog processes and techniques provide another plasticity and different textures, that lack in the strict digital processes. However, the latter have the advantage of being faster and allowing to try a higher number of different creative options.

This project intends to promote awareness on the opportunities presented by returning to and combining the analog process with emerging digital design and fabrication technologies. As we were able to confirm, it does not only facilitate the creative process, but also promotes new experimental spaces and forms of expression, as users gain historical and technological insights that empower their own practices.

KEYWORDS

Graphic Design; Post-Digital Letterpress; Computational Design; Creative Coding; Album Cover

-ábio Barata, Jéssica Parente & João Bicker

From paper to screen, from letterpress to keyboard, designing and composing typography is a task performed using endlessness of means. Sometimes seen as opposing approaches, analog and digital methods can bring value to the typographic scene when combined in agile forms. This paper aims to address the new possibilities of hybrid practices. For that, we conducted a study that reflects on the integration of analog methods and/or tools in the current context of typographic production. The main goal was to clarify their independent relevance but also understand what contributions theu might bring to the craft when combined with computational tools. We seek to prove that resisting huper digitalization does not only reflects on the artifacts, but will also brings more diversity to the process, therefore resulting in a wider space for creativity to proliferate.

Initially, we conducted a theoretical investigation of these methods by analyzing their historical trajectory and current state of the art. Collecting realworld testimonials from experienced practitioners who used these tools in their use of typography was what followed. Then, we accomplished a series of hybrid explorations that sought to take advantage of their possible strengths and overcome their weaknesses.

In the first exploration, we reflected on the importance of the manual scribing as a translation of the immediate gesture, creating a system capable of composing visual poems. This work mainly connects to typographic composition, and manifests itself in a tool in which it is possible to analyze and use parameters such as the thickness or direction of a stroke and use them to compose with typography.

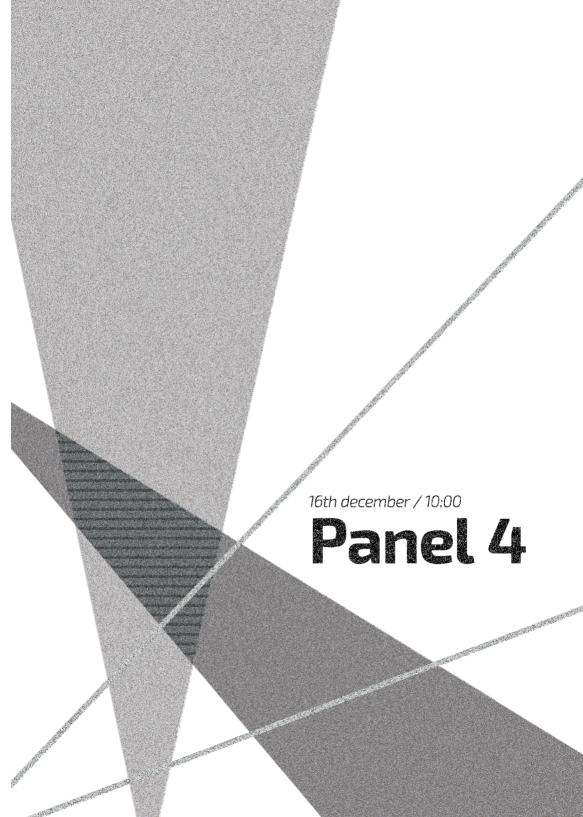
In the second project, the focus was the process. Many testimonials from designers acknowledge advantages in manual processes, such as increasing creativity, particularly in letterpress. This fact is related to the physicality linked to this process. Therefore, we tested a device for an hybrid approach inspired in letterpress called "Digital Proofing Press". In this tool it is possible to use the hands for typesetting, without to acquire all the material that letterpress printing implies. The main goal of this exploration

was to democratize the access to the advantages that composing with physical objects offers to typographic production.

In the last experiment we focused on typography design. More precisely, in particular form of modular typography - the typographic collage. We made tests for a structure that could offer the possibility to simplify a typeface according to a system of modules. These models should then be the guidelines for an independent image distribution that results in a typographic collage. The possibilities that this system offers is the unpredictability, the opportunity of giving semantic meaning to these collages, as a way of amplifying communication.

At the end of this study, we look forward to proving the relevance of these three hybrid tools/artifacts. For each of these, we: (i) presented the motivation and strengths; (ii) described the process; and (iii) discussed the obtained results. Finally, we pointed out development directions, considered fruitful to the progress of the different systems.





Ricardo Dantas, Pedro Amado, Rúben Dias & Fábio Martins

Study objectives

A book communicates not only through its clear and structured content but also through its adjacent materiality in a pleasant to handle form (Luna 2004).

Gérard Genette coined a new term in 1981—
Paratexts—, as a definition of all elements that lie outside the scope of the main text of the literary work (Genette, 1997, p. 1). However, these exist for the purpose of assisting, informing, or complementing it. As such, by defining and organizing these elements, communicating their features, and questioning their operational concepts, we aim to contribute to the understanding of the literary work as a whole. Opening the debate and creating a way of communication between the industry and the academy.

In Designing Books, Kinross and Hochuli (1996) define several typologies of books. New book models have emerged in the last three decades due to the emergence of new forms of book content and organization, as well as due to the need to introduce typologies that accommodate hybrid or uniquely digital book models. The digital media brought new models and platforms for the hosting and propagation of knowledge and content in general. Silva Silva, C., 2008, p. 67)

The spectrum defined in this article falls under the following constraints: Printed books > Books for extended reading > Body-text page > Notes. Firstly, this scope is defined to enhance access to the correlation of the printed matter and the history of the established paratext, as a case can be made for the necessity of it in a digital setting. Additionally, to approach a more democratic framework, utilizing as an example, a typology commonly recognized by most people, and culturally constrained in the number of peripheral elements necessary for its publication. Lastly, by zooming in on a particular page typology, and further on this specific paratext we could create a more thorough analysis, deepening the empirical aspect of the investigation.

In the context of this article, we'll analyze and explore the operational concepts of one of the existing

paratexts in the body-text page model in the book for extensive reading, notes.

Notes, as Genette (1997, p. 319) succinctly defines, are a statement of variable length, connected to a more or less defined excerpt of the text.

These are among the peritextual elements that do the most justice to the description of the paratextual element – their existence being, in most cases, strictly linked to the context of the text to which they are anchored. These can be disambiguating elements, sometimes complementary, or even referential to the content. Usually united by a character that provides a connection to the text, as in the case of numbers, asterisks, a letter that contains a graphical treatment that removes it from the continuous reading of the text, either by being in superscript, subscript, in a different color from the text, between braces, parentheses, square brackets, etc. or a combination of the above.

Notes, originally glose (in French), which, in turn, comes from the Latin (glōsa), are elements that owe their formal origin to the Middle Ages when the text on the main pages was surrounded by explanations on the margins. Between the 15th and 18th centuries, variations of this practice emerged, from side notes, footnotes, and endnotes, to notes appearing between the lines of the text.

In this article, we approach the following morphologies of notes, utilizing contextualizing illustrations, and dwelling into considerations of their operational concepts: footnotes, headnotes, side notes, endnotes, notes between columns, interlinear notes, cut-in notes, in-line notes and text interrupting notes.

Conclusions

In this article, we've presented a clarification of the notes paratext as a book design element, its constituents, and its placement on the page.

This project of typological and morphological definition also arises in order to encourage discussion about the various elements that make up the book object.

Compiling these considerations into an illustrated compendium, we believe to have created a brief communication that may be explored as a complementary pedagogic implement. Offering to the already established editorial design programs, with the help of visual aid, the opportunity to incite the students about the thought process to be taken into consideration during project development.

Leaving open an opportunity to extrapolate these concepts to either other book typologies or even different supports, being them physical or digital. In addition to deepening the themes exposed, it is also pertinent to consider other paratexts and page typologies for analysis.

KEYWORDS

Book design; Paratexts; Book morphology; Macro typography; Annotation Notes Low-pass filtering – usually some flavour of blurring – is ubiquitous in digital type design. Either as a feature of preview panels in font development software or as a demonstration of some concept regarding how deterioration of sight conditions affect letterforms – from defocus to halation and diffraction –, blurring text is an everyday task in type research and development.

In the latest iterations of font development softwares, we can find a Gaussian blur filter in Glyphs 3 and a Box blur in FontLab 8 as a preview feature. Gaussian blur is also thoroughly suggested in the literature (Unger, 2007; Beier, 2012; Neumeier, 2017), as well as variations of it, such as adding a threshold pass (Martins, 2014) or stacking and blending multiple filtered layers (Herrmann, 2012). Frequency filtering in spectral space has also been proposed (Ahrens et Mugikura, 2014), as well as Gaussian distributed pseudo-raytracing (van Blokland, 2014).

When a procedure is so conventional, one might shy away from asking why we use these tests. What are they testing? Once a satisfactory answer is provided, is the test itself adequate for what is being tested or simulated? Are there better ways to design such procedures?

As these are optical phenomena, we can describe them in order to scrutinise how closely this filtering approximates to their physical counterpart. For this, we can look at how computational optics approaches light simulation, so that we establish what results to expect. Also, inquiring on the optics of the human eye provides the characteristics of our optical system and, for this reason, the boundaries within which a fair assessment can be made.

This inquiry and comparison between the aforementioned optical phenomena and these low-pass filters shows us that their resulting images are quite far apart. So much so that, in general, it is reasonable to state that low-pass filtering alone is an unsatisfactory predictor of how an image is defocused or diffracted through our pupil.

The consequent step is to identify in which ways and for what reasons these filtering algorithms diverge from what the properties of light produce.

Fábio Martins, Carlos Rosa & Rúben R. Dias

The main shortcomings of these filters, with exception of van Blokland's, is that the algorithms look at values equally, disregarding luminance. As a principle, light diffracts and scatters – the absence of it, however, does not (Keating, 2002).

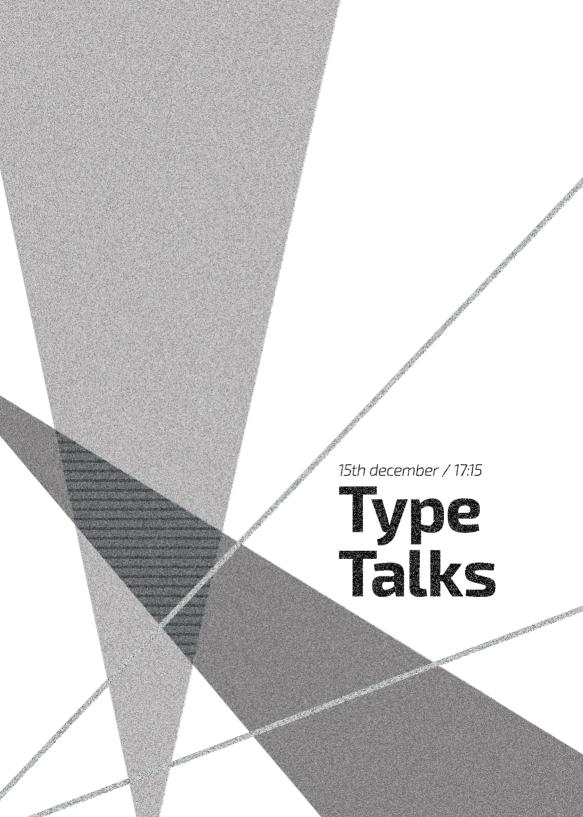
With this in mind, if a filtered image is value inversible – to be precise, if both an image and its value inverse are filtered and again inverted produce the same results –, a correlation between optical phenomena, even when provided a generous leeway, cannot be made.

Continuing and especially in the case of diffraction, Gaussian convolution kernels are a rough and apodized approximation of what the maxima of the point-spread function of a circular aperture would be (Goodman, 1996), indicating room for the improvement of filters.

Finally, we propose to the community the proceedings for implementations, aiming to approximate filtering to these optical phenomena, and under two distinct goals: ease of implementation by using 2D pixel-to-pixel convolution and a more rigorous approach using Fourier transforms.

Moreover, small variations are suggested, approaching defocus and diffraction separately.

As a closing note, by questioning and improving upon the tools type designers, type educators/ researchers and students use in their everyday tasks, we hope to provide a better understanding of how their work will perform, as well as alleviating and shortening the testing process. And, of the most relevance, to inform the intuition of present and future type practitioners on how light affects how we perceive form.



eonor Secca & Antero Ferreira

The Ludlow Typograph system (Chicago, 1905) resulted in a semi automatic machine, with manual composition and mechanical casting, prepared for the casting of text lines and specifically designed to work with larger type sizes in order to compose and cast titles, in complementarity to the most common systems of those times (Linotype and Intertype).

Getting the equipment up and running was a slow and arduous process that was only possible through a process of trial and error, since it is now over two decades since someone in Portugal operates a Ludlow.

Reading manuals and direct contact with people in the printing industry or with specific knowledge about this equipment were fundamental for resuming the hot metal typecasting activity in Portugal.

Thus, since the first attempt made to cast with this model in early 2022, a series of failed attempts followed, which played a vital role on the path towards the first casting (5th August).

This presentation shows, in five steps/minutes, the casting process with the sole Ludlow system currently working in Portugal, in this case, in the city of Oporto.

- 1. General lubrication
- 2. Type selection and hand-set mats
- 3. Equipment preparation
- 4. Linecasting of white lines
- 5. Linecasting of text (9" video).

KEYWORDS

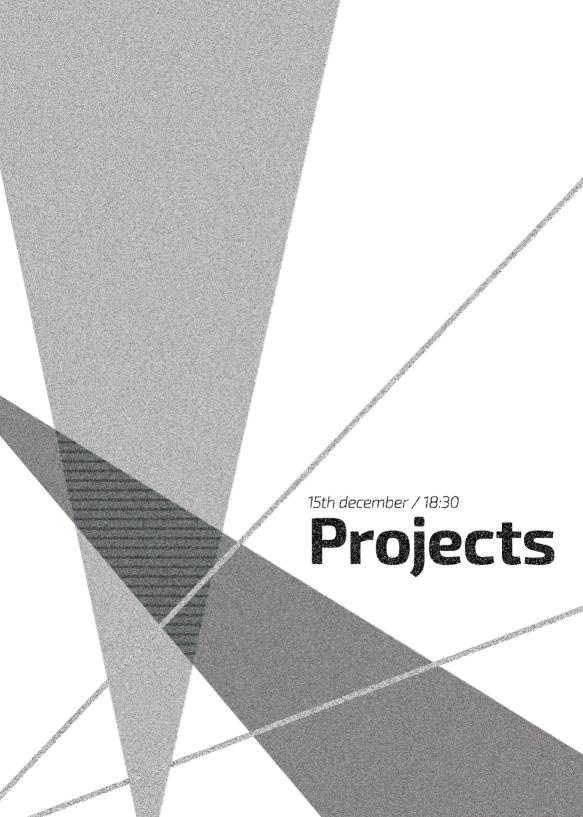
Ludlow Typograph; Hot Metal Typesetting; Linecasting; Type Specimen

HANDS-ON

TYPE

Mariana Fidalgo & Vitor Quelhas **Book presentation**

Mariana Fidalgo & Vitor Quelhas



Pedro Matos & Regina Delfino

This project includes issues related to the inventory and organization of hot composition types and matrices, from the Linotype, Monotype and Ludlow systems, existing in the Print Shop of the Polytechnic of Tomar (IPT). This research is part of the project Print Shop of the Polytechnic of Tomar. An industrial heritage to safeguard and enhance, from the Techn&Art, Technology, Restoration and Arts Enhancement Centre, with internal reference CEPI2021/04.

Mechanic setting font matrices are not always easy to identify and organize. Its manufacturers used specific and quite varied codes, whether the most well known brands of machinery, or other foundries that produced compatible mats. Its organization also depends on particular criteria, whether in its own places or elsewhere.

On the other hand, the places where these matrices are kept, whether they are the original boxes of the foundries or others, either simply do not identify the faces and their body sizes or, when they do, it is done in a summary, dubious or coded way. In certain cases, old terms were sometimes used, meanwhile fallen into disuse and/or replaced by clearer or more modern ones.

As this subject deals with obsolete and commercially inefficient equipment and techniques, for some decades, information on these codes and certain denominations is dispersed, scarce, or is held by a few specialists, mostly English-speaking. So, it turned out that the identification of matrices and fonts was relatively difficult (in some cases even impossible, so far) but undoubtedly very enticing. In this context, the proposal we make is to show and explain how the matrices are coded and how to identify the respective fonts and their body sizes. Complementarily, ways of organizing these matrices in cabinets

KEYWORDS

Letterpress, Mechanical Typesetting, Linotype, Monotype, Ludlow and cases, magazines or in alternative places or materials are shown.

The growing interest in these alternative forms of text composition and printing (today also considered an industrial heritage to be preserved) continues, also in Portugal, so this information may be useful to other researchers, creative, historians or similar estate holders.

The methodology used has been literature review and expert consultation. The first includes specialized books and all kinds of catalogues, mainly specimen books hitherto found, the vast majority online. In addition, we have found some information on websites specialized in the study of these technologies. Some of the experts contacted are responsible for some of these sites. Contacts have been made by e-mail or through specialized discussion forums.

The results have been conclusive in the vast majority of cases. Different manufacturers had different ways of identifying their matrices. In some cases we find this information in catalogues, as is the case with some Linotype productions. In other cases, there are particular forms of encoding that are identified through lists, such as Monotype, or by the use of specific equipment, in the case of Ludlow. The organization of matrices is a much easier task to perform, depending fundamentally on some patience and method.

The collection has been rich in current and historical images and documents. It is therefore our intention to highlight the current images of the inventory and reproductions of some of the most important old catalogues and brochures that have been used in this study. Some examples are shown on the following pages. Finally, we want to show the identified fonts.





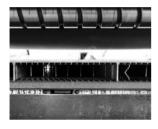








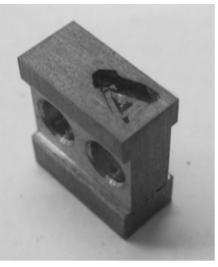






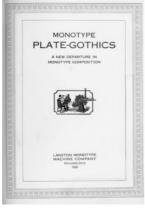






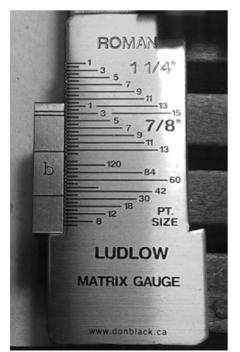






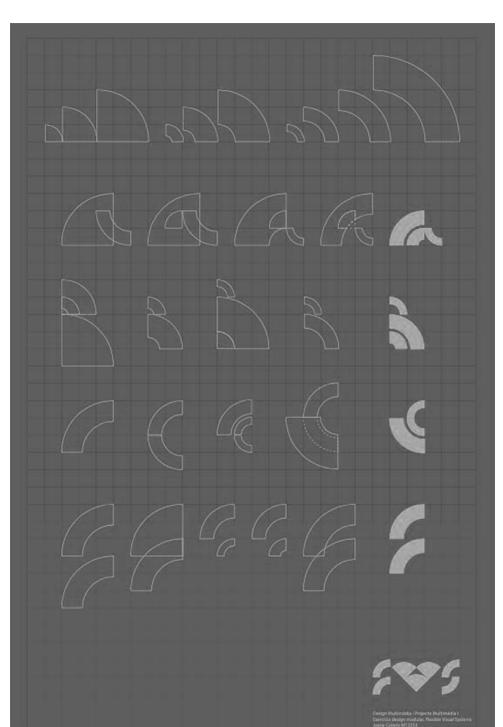


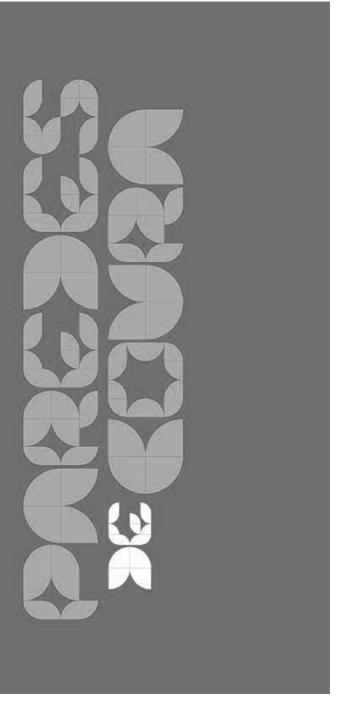


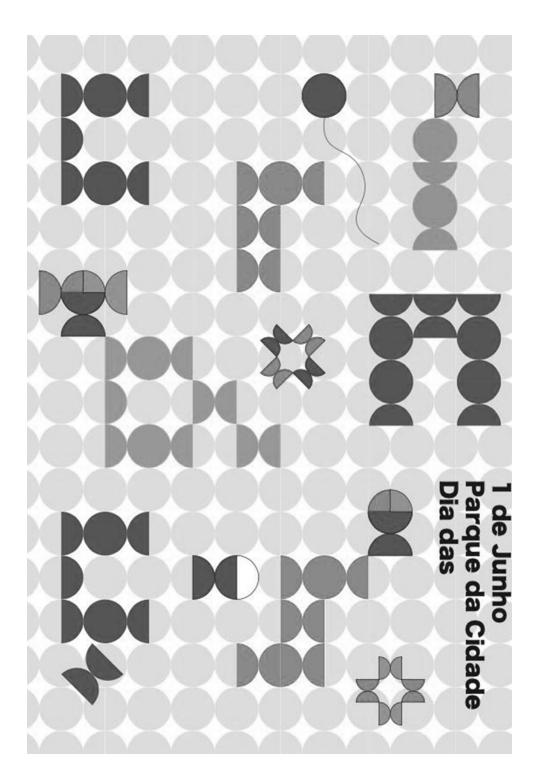


Based on the first assignment proposed by Martin Lorenz, in his approach to Flexible Visual Systems (see https://flexiblevisualsystems.info/challenges/) the 2022/23 Multimedia Design Masters class, from the UC in Multimedia Project, started an individual project based on that exercise. One of the main paths for the development of modular graphics systems is typography. This submission documents the results of the work done by students, following a path of typography, in that starting exercise.

Luis Frias, Joana Cabete, Miguel Pacheco & Margarida Soares







Where Helvetica and Bodoni unite as one.

This project is based on the creation of a typographic font that synthesizes and unites two of the greatest historical fonts. Helvetica and Bodoni. Two completely different and opposing sources come together in a single form, the HELVONI.

A versatile font, for everyday use but also strong enough to stand out in larger scale graphics applications as well as in more delicate situations.

An academic project built with the teacher's quidance, made over 1 month and which includes all uppercase base characters, signs and numbers.

The focus in demonstrating possible applications of the font was to highlight the versatility of typography, in terms of scale, hierarchy, color, graphic stain and formal richness. In this way, applications can be found in large mockups, with great highlights, always with a lot of dynamics, always in order to unite the modern with the classic.

The font presentation itself can be transformed into a video format through animation of elements and promotional posters.

KEYWORDS

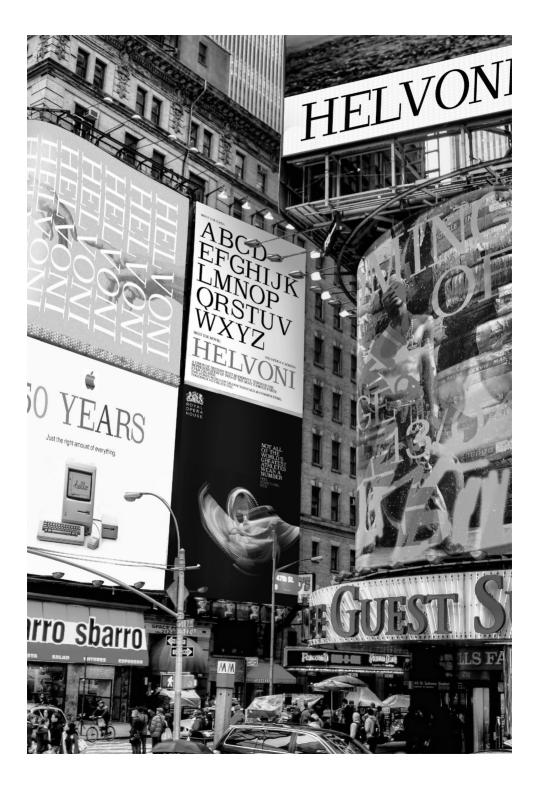
Tupography: Helvetica and Bodoni; New; Modern; Classic; Alphabet; Font

ABCDEFGHIJK LMNOPQRST UVWXYZ 0123456789 ?!&()*.,:;+-^/"

LOREM IPSUM DOLOR SIT AMET,
CONSECTETUR ADIPISCING ELIT. CRAS
RUTRUM, ORCI AC SOLLICITUDIN
TRISTIQUE, MASSA ARCU CONSECTETUR
FELIS, VOLUTPAT CONVALLIS LOREM
ERAT NEC FELIS. FUSCE EU FINIBUS
NUNC. UT IN PLACERAT MI. UT
BIBENDUM MI VEL
ORNAREELEMENTUM.
VIVAMUS ET SEMPER TELLUS.
AENEAN ID ENIM SED NISL ALIQUET
UI TRICIES

HELVONI





Beatriz Fernandes, Joana Teixeira, Margarida Silva & Pedro Amado

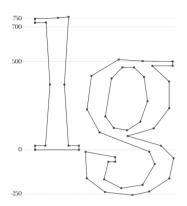
Schron Poltawski, is the result of an academic project from the Type Design Curricular Unit (MDGPE, FBAUP), which required a contemporary revival of an original type chosen before the 1970s. The selected reference was Antykwa Półtawskiego, by Adam Półtawski (1881-1952), designed in 1923-28 to represent the ideals of Poland, taking into account the characters frequently used in Polish, the w, y, z, and ł.

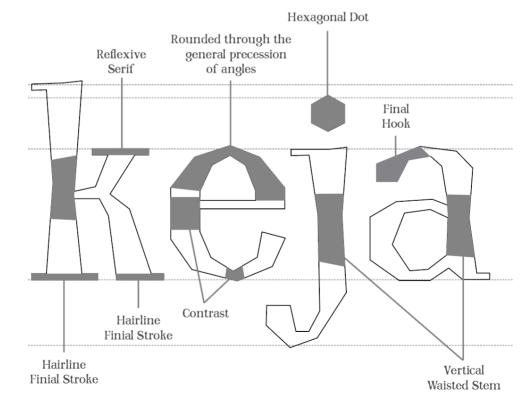
The reason for our choice was initially related to the unusual shape of the original source, and the story it carried.

Our intervention comes, conceptually, in line with Poland's current posture in the face of Russia's invasion of Ukraine, characterizing itself as a welcoming and protective country for war refugees. Thus, the ideal of armor and defense is materialized in the form of the letters we create. The result is its humanistic form, inspired by the original font, this time with faceted contours to evoke the Polish posture as a safe haven. Schron Poltawski is our homage.

Schron Poltasuski

äåāāą







12°Enc<mark>ontro</mark> deTipografia