

Introduction

In the LetterStudio second and third year students of the KABK and exchange students can follow courses, i.e., modules, on letters in the broadest sense of the word. This includes, but is not limited to, writing, type design, font production, font technology (including coding), and everything else that is, or could be part of the métiers of the graphic designer, calligrapher, lettering artist, and type designer. The offered spectrum is defined by the staff-lecturers, the guest-lecturers, *and* the students, and the scope is not restricted to the developments in the professional field. The expertise of the lecturers implies that different, or even opposite opinions are represented, which guarantees the pluralism of the course.

Students have to sign in on modules that cover the areas they want to explore. The length of a module is a full semester (twelve sessions) and two modules have to be followed during a semester. It is mandatory to select modules that are different or even contradicting, i.e., that they represent opposite points of view. Selections have to be accompanied by a solid motivation and decisions are made in consultation with the lecturers.

The level of the listed modules differ. In some cases a first level module has to be finished before being allowed to go to the next level. Basically the modules are defined by the lecturers, but in exceptional cases tailor-made modules can be set up by the students in, of course, consultation with the lecturers.

The modules below are listed by the accompanying lecturer (in alphabetical order).

1. *From writing to type: the LeMo method* (level 1)

Frank E. Blokland

<http://www.lettermodel.org>
<http://www.dutchtypelibrary.nl>
<http://www.fontmaster.nl>

Writing with a broad nib is a good starting point for exploring matters like construction, contrast sort, contrast flow, and contrast. However, translating handwriting into type is not very straightforward. Even for me as experienced calligrapher (for example, I set up a calligraphy course for the Dutch television and wrote a book for it end of the 1980s).

There is not much discussion possible about the fact that written letters were initially standardized and eventually formalized by the Renaissance invention of movable type. However, there is no known Humanistic handwriting predating movable type that shows such a clear standardization as roman type. From my measurements of Renaissance prints, punches, matrices, and type –as part of my PhD research at Leiden University– I conclude that standardizing and systematizing matters as character widths were prerequisites for the Renaissance type production. Proportions and details of letters were adapted to this standardization and systematization.

In this module you will translate the Foundational hand (a formalized Humanistic minuscule) that you practiced with a broad nib in your first year at KABK's Graphic Design department into a digital typeface using the most recent scientific insight that is translated into the 'LeMo Method' (<http://www.lettermodel.org/wordpress/?p=2365>). Even if you are not a very

skilled calligrapher you will still manage to produce a solidly rhythmically patterned type design. And it provides you with a good reason to improve your hand!

End terms

The emphasis is on the practical part, specifically on the translation of hand-writing into type.

- Presentation: a number of digitized glyphs and an essay. Also the essence of the study has to be presented on three A2-sized panels.
- Evaluation criteria: depth of the study, the quality of the digitation, and the gained insight into the matter.

2. *1001 ways to digitize type (level 1)*

The title may be somewhat exaggerated, but the conversion from analog letterforms to digital glyphs can be done in several ways, and with (a mixture of) applications running under different operating systems. In this module you will explore the options to create digital type. For the design and the production of fonts, different powerful applications are currently available, such as FontLab Studio, Glyphs, RoboFont, GlyphMaster, and FontForge.

The purpose of this project is to make you more familiar with font-production tools and to investigate possible workflows.

End terms

The emphasis is on the practical part, which is the digitization of glyphs and the development of (a part of) a font. A relatively brief (and well-designed) essay on the investigated font tools has to be written.

- Presentation: a number of digitized glyphs and an essay. Also the essence of the study has to be presented on three A2-sized panels.
- Evaluation criteria: depth of the study, the quality of the digitation, and the gained insight into the matter.

3. *Revival of a historic Renaissance typeface (level 1)*

For this module a revival has to be developed of a typeface from the Italian or French Renaissance. For this recent insight in Renaissance production methods, as presented on <http://www.lettermodel.org>, is used. The standardization of roman type structured the handwritten pattern and directly influenced details and proportions of letters. All of you have been conditioned by these letters and are capable of optically reproducing and judging the patterns. Hence, you could conclude that the origin of the patterns is purely an optical one. From my PhD research at Leiden University I conclude that matters are more complex.

This module will let you explore archetypal Renaissance patterning and the application of related artificial spacing of digital type using special software. This way you will also gain more insight into the basis and basics of typographic conventions.

End terms

The emphasis is on the practical part, which is the development of a revival. A relatively brief (and well-designed) essay on your research and the outcome has to be written.

- Presentation: a type specimen showing the revival and an essay. Also the essence of the study has to be presented on three A2-sized panels.
- Evaluation criteria: depth of the study, the quality of the revival, and the gained insight into the matter.

4. *Defining a grapheme system* (level 2)

The collections of graphic symbols used for representing scripts are quite arbitrary. As soon as such a 'grapheme system' is set up, the further development (evolution) and consequently the related conditioning is defined by the applied structures themselves. What is considered to be optically correct is only purely relative to (the conventions of) the grapheme system. This module comprises the development of a complete new grapheme system for the Latin script. Would it be possible for you to ignore or circumvent current conventions when defining a new grapheme system and related typographic rules (conventions)?

Developing a new grapheme is great fun but it is also complex matter, hence this is a second-level module. You will have to convince me that you are capable of handling this stuff!

End terms

The emphasis is on both the practical and theoretical part; the study results in a newly-developed grapheme system and in a relatively brief (and well-designed) essay in which the development is explained and illustrated.

- Presentation: a type specimen (on paper or digitally/animated) showing the grapheme system and an essay. The essence of the study has to be presented on three A2-sized panels.
- Evaluation criteria: depth of the study, the originality of the solutions, the developed insight.

Nota bene:

Besides discussing the design of your essay with the LetterStudio lecturers, it is recommended to also consult the typography lecturers of the Graphic Department.

1. *Python intro, generative letters, making digital typography* (level 1)

Just van Rossum

<http://www.letterror.com>

In this module you will learn the basics of programming in Python, using the DrawBot application. You will program letterforms that are controlled by parameters. It's the **idea** of a letterform that you describe in the form of a program, that can produce various results based on the input parameters. This sounds rather abstract, and it can be quite abstract indeed, but it can also be –more likely– as concrete as for example to control the weight or width of your letterforms with a number.

You will not only **create** programmed letterforms, but also a typographical system so you can make simple typography, **using** your letters. This will give you a good feel for the inner workings of digital typography (whether for print or for dynamic media), and what steps are involved to go from a text (the copy) to organized shapes on a page or a screen (the layout) that can be read.

Process

- There will be about six group lessons of about 1,5 hours, where you will learn the basic building blocks needed to accomplish the task of the assignment. After that you will work individually on the project. You will use the DrawBot application, a Python environment that allows easy visual output, not unlike Processing. You will minimally create a full lowercase **or** uppercase alphabet. You will **not** create a font in the traditional sense; your alphabet remains a program, which may use color and all sorts of visual possibilities that DrawBot offers, that are **not** necessarily possible in a font editor. In fact, it is required to **not** use a font editor for this module.

Requirements

- You will need an Apple laptop, preferably running 10.9 or 10.10 (alternatively, you may rent one occasionally and/or work in the computer lab).
- The DrawBot application: <http://www.drawbot.com/>
- You must have completed a Processing intro course or something equivalent.

End terms

- Presentation: You will present the possibilities of your alphabet as an A2 poster, as well as in a simple interactive presentation in DrawBot.
- Evaluation criteria: You must show that you have understood and can use the basic Python constructs. You must show that you understand the mechanics of digital typesetting. Show that you can translate an idea into a set of rules, and that you are able to translate those rules into code.

2. *Python for type design* (level 2)

Python is the de-facto scripting language for type design. It happens to be included in quite a few font editors, for example FontLab, RoboFont, Glyphs and FontForge. The use cases for scripting in the context of type design are manifold. For example, automating repetitive actions while producing a typeface. Or to create shapes that are hard (or even impossible) to draw manually. Or to create

shapes that are not fixed, but can change depending on parameters. Or to programmatically create proofs for otherwise more traditionally produced typefaces.

Within this module there are a few sub-assignments to choose from:

1. Create a typeface programmatically. Define the rules that describe your typeface and turn that into working code that outputs a font.
 2. Create a typeface semi-programmatically: start with manually created letterforms (yours!) and process them with your script to create variations. (This could be done in collaboration with some of the other LetterStudio modules.)
 3. Create a complex system that requires OpenType features to automatically use alternate glyphs depending on the context. Interlocking letters? Use your imagination. (Combination with another LetterStudio module is possible.)
 4. Formulate an assignment yourself. We can discuss the possibilities.
- All these assignments require you to complete at least a full lowercase or uppercase alphabet and a minimal set of punctuation.

Process

- During this module you will learn about the various possibilities of scripting in the RoboFont font editor, through a short series of group lessons. There will also be an introduction to OpenType features, how to use them, and how to use Python to create them. You will also be shown how to create proofs (layouts to test and evaluate your typeface) programmatically. You will write scripts to create a font, or to process an existing font (made by you). The end result will be a working OpenType font that you can use anywhere, but the **process** of how you're getting there is essential.

Requirements

- You will need to have completed the Python Intro module, or have an equivalent understanding of Python.
- You will preferably use an Apple laptop with RoboFont installed (we can provide a temporary student license), but depending on what you will actually do, you can also use Glyphs, FontLab or FontForge (the latter two are also available for Windows).

End terms

- Presentation: you will present your font in at least two of the following ways:
 1. An A2 poster (good for typefaces that are targeted towards display use).
 2. A booklet (good for more text-oriented typefaces).
 3. A 1–2 minute animation.
 4. An interactive presentation, for instance a website or an app.
- Evaluation criteria: You must show that you can apply the learned techniques in a meaningful way to create a typeface. That can be rather hidden in the process of design and/or production, or abundantly visible in the typeface itself. Demonstrate how and why programming was essential in the creation of your project.

3. *Modular Letter System* (level 1)

You will design a collection of reusable shapes with which you will create letterforms. The individual parts may only be moved and rotated, not scaled or mirrored. Parts may overlap each other. It is up to you how many parts you will design, but be aware that less is not necessarily more: for example, with a single square you can do everything but you'll end up designing a pixel font, which is not the right challenge for this module.

The technique with which you will execute the assignment is free (it can be completely analog for example) but your approach needs to be systematic. Including a role for coding in your process is highly encouraged.

Your approach can be based on more traditional methods (for example look at writing with the broad-nibbed pen, or Frank Blokland's LetterModel), or you can take more freedom and experiment more wildly. The results still need to be recognizable as letters, though.

Process

- You will need to look at the task from two sides. On the one hand, you will make shapes and combine them to make letterforms. On the other hand you must look at letterforms and deconstruct them into parts. The design of the parts and the design of the letters go hand in hand.

Requirements

- The minimum number of letters you will design is a full upper- or lowercase alphabet and some basic punctuation (period and comma).

End terms

- You must present two things at the end of the module:

1. A visual explanation of your Modular Letter System (how it works, how the parts are used).
2. Your letterforms in use (for example in a poster).

The medium and format is free. Print is fine. An animation is fine, too.

- Evaluation criteria: You must demonstrate that you've done research about letterform construction and that you've gained more understanding of how shapes can repeat (or not) within an alphabet design.

I. *Script* (level 1)

Peter Verheul
<http://www.farhill.nl>

This project is about interpreting handwriting and formalization.
Make two digital representations from the handwriting of your choice.

1.1 Direct and literal translation which shows the exact characteristics of the handwriting.

1.2 Formal typeface based on the writing. What is essential and what is unwanted?

This is an interpretation of the handwriting.
Depending on the usability (text/display) the individual lettershapes will be formalized. Redrawing lettershapes considering proportional aspects like style, shape, weight, width, size, contrast, etc.

The range of required glyphs: capital letters, lowercase, figures and punctuation marks.

End terms

- Presentation: make an overview of your research with a type specimen explaining the process of design from begin to end with critical remarks. Present the same text (twice) showing the relation of the two different script versions (1.1 and 1.2).
- Evaluation criteria: understanding the specified limitations in dynamics for specifying the individual shapes of the letters in relation to each other and the whole. Show the ability to vary in possible stylistic diversities. From expressive to modest. Being able to make relevant design decisions which lead to greater functionally. Exercising drawing. From manual to digital. Define relevant typographic criteria based on the defined and designed typographic system. Ability to recreate in digital domain, by handling software to manipulate contour descriptions of letterforms.

2. *Type design, free of choice* (level 2)

Design a typeface which is not existing yet but needs to be there for a specific reason/use. Define the typographic area with its possibilities and restrictions. What influence do these requirements have on the definition of the shapes. Weight, contrast, construction, abstraction, detailing, etc.

The range of required glyphs: capital letters, lowercase, figures and punctuation marks. Possibly with additional glyphs/weights/variations depending on the requested outcome.

End terms

- Presentation: make an overview of your research with a type specimen explaining the process of design from begin to end with critical remarks. Present the usability of the typeface at the required size and exact materialization.

– Evaluation criteria: understanding the specified limitations in dynamics for specifying the individual shapes of the letters in relation to each other and the whole. Show the ability to vary in possible stylistic diversities. Exercising drawing. From manual to digital. Being able to make relevant design decisions which lead to greater functionality. Define relevant typographic criteria based on the defined and designed typographic system.

3. *Moveable type* (level 1)

The principle of stencil letters is very simple. To what sort of different styles is this system limited?

Make your stencil typeface in at least two different sizes and/or widths.

Production of stencils is required.

The range of required glyphs: capital letters, lowercase, figures and punctuation marks.

End terms

– Presentation: make an overview of your research with a type specimen explaining the process of design from begin to end with critical remarks. Present the usability of the typeface at the required size and exact materialization using the stencils.

– Evaluation criteria: understanding the specified limitations in dynamics for specifying the individual shapes of the letters in relation to each other and the whole. Show the ability to vary in possible stylistic diversities. Exercising drawing. From manual to digital. Being able to make relevant design decisions which lead to greater functionality. Define relevant typographic criteria based on the defined and designed typographic system.

4. *Monospace typeface* (level 1)

The most optimal width relations between glyphs in a typeface are proportional. In a monospace typeface all glyphs have the same width. The typefaces on typewriters are monospaced because of its mechanical system. Most typefaces have a set of monospaced figures to be able to set tables with. Does this limitation of a fixed width has a stylistic preference?

The range of required glyphs: capital letters, lowercase, figures and punctuation marks.

End terms

– Presentation: make an overview of your research with a type specimen explaining the process of design from begin to end with critical remarks. Present the usability of the typeface at the required size and the exact materialization.

– Evaluation criteria: understanding the specified limitations in dynamics for specifying the individual shapes of the letters in relation to each other and the

whole. Show the ability to vary in possible stylistic diversities. Exercising drawing. From manual to digital. Being able to make relevant design decisions which lead to greater functionality. Define relevant typographic criteria based on the defined and designed typographic system.

5. Contrast research (level 1)

Draw a word using the following glyphs: H, O, a, e, i, n, (b, d, p or q), o, s, t.
The word should contain at least one ascender and one descender.)

The sort of contrast has to be translation (broad nib). These letters have to be able to get reduced to text sizes. Find out how the values of thicks and thins in the letter shapes relate to the scale of usage.

5.1 Draw this word in three contrast variations:

- normal contrast
- high contrast
- low contrast

5.2 Digitize the glyphs and create two intermediate weights by using interpolation between normal and high contrast.

5.3 Draw one word in expansion contrast sort. Normal or high contrast. No low contrast.

End terms

- Presentation: present the words (in 5.1, 5.2 and 5.3) at text sizes, together with sample texts using the different characters (glyphs). Make a process book with clear explanations/comments and critical remarks.
- Evaluation criteria: understanding the difference in contrasts: High to low. Translation to expansion. Exercising drawing. From manual to digital. Being able to make relevant design decisions which lead to greater functionality. Define relevant typographic criteria based on the defined and designed typographic system.

Nota bene:

Make use of the workshop facilities at the KABK.

For instance:

- Processing and handling materials by computer (CNC Computer numerical control), lasercutting, etc.
- 3D printing