



GRAPH-3163

Variable Fonts Workshop

COURSE INFORMATION

RISD Spring 2023

Instructor: Gabriel Drozdov (gdroz dov@risd.edu)

Location: Design Center 206

Time: Fridays 1:10–6:10PM

Class Website: <https://gabriel drozdov.github.io/vfw23/>

Section 1: 2/17 – 3/10

Section 2: 3/17 – 4/14

Section 3: 4/21 – 5/12

Office hours by appointment.

DESCRIPTION

Variable fonts offer graphic designers new ways to create dynamic, complex, and consistent typographic systems. While digital typefaces traditionally require multiple font files to cover a range of weights and styles, variable fonts instead store glyphs as a range of possible forms with infinite variations. In this four-week workshop, students learn how to utilize and design variable fonts for a wide variety of use cases including typographic identity systems, interpolated animations, and context-aware adjustments like optical sizing. Projects include designing graphics with variable fonts, modifying open source typefaces to introduce variable functionality, and conceiving of original variable font designs. Course instruction includes Glyphs for designing typefaces and basic HTML/CSS for animating variable fonts; no background in type design or coding is required.

COLOPHON

This course utilizes the typeface [lost*](#) designed by Owen Earl of [indestructible type*](#).

How does this course promote diversity, equity, and inclusion?

LAND ACKNOWLEDGEMENT

Each of your courses here at RISD includes a land acknowledgement in their syllabi. This is a small-but-significant way of trying to come to terms with the centuries of colonial oppression by European settlers in North America. As individuals living and studying in Providence, RI, this oppression is something we have benefitted from at the expense of the lives of others.

I am borrowing the land acknowledgement used by [Trinity Repertory Company](#):

We acknowledge the lands where [we stand in] Providence today as once the lands of the Masswascut — the Land between the two rivers, and the territory of Meshanticut, which are the ancestral homelands of the Narragansett, Pokanoket and Nipmuc people.

We also acknowledge that as contemporary Rhode Islanders, we hold the legacy of this state's economic foundation through its participation in the triangle slave trade. We encourage you to research and personally acknowledge these legacies, and support our contemporary Indigenous and Black communities in actionable ways.

I suggest reading "[Decolonization is not a metaphor](#)" by Eve Tuck and K. Wayne Yang. This essay talks about our use of the term "decolonization" as potentially problematic, because we still occupy the land despite "decolonizing" aspects of our society, like education. At the same time, the efforts to rectify egregious lies in our teaching and learning are incredibly important, but it is necessary to recognize the problematic "moves to innocence" we make to try to absolve the wrongs of past generations that are still impacting BIPOC (Black, Indigenous, people of color) individuals and communities today.

DIVERSITY AND INCLUSIVITY STATEMENT

Each of your courses here at RISD also includes a diversity and inclusivity statement in their syllabi. This is a way of directly acknowledging that diversity and inclusivity have not always been valued or accommodated, but that, both as individuals and as an institution, we are trying to recreate this environment as a space for all identities and backgrounds. That includes gender, sexual orientation, abilities, age, body size, socioeconomic circumstances, ethnicity, race, culture, religion, and anything I am forgetting. Everyone is accepted and valued for exactly who you are, and I encourage and trust you to feel the same for your peers.

The previous land acknowledgement is also a way of highlighting that BIPOC communities in particular have historically been excluded from academic spaces such as RISD. While we may think those exclusionary practices are a thing of the past, they are still a prevalent issue today. We can only help to dismantle these systems and create new ones if we first acknowledge their continued existence.

In this course, I will showcase the work of other designers, introduce historical concepts, and explain technical/technological principles. In curating these references and materials, I am aware that the work of white men disproportionately outnumber the work of individuals of other identities. When possible, I will highlight the work of designers that may fall out of the traditional problematic “canon,” and when I am not able to, I will acknowledge this lack of diverse representation.

These efforts are always a work in progress, and I would love any suggestions you might have as I continue to work on them.

LEARNING SUPPORT

If you need accommodations to complete this course’s requirements, please reach out to me during the first week of the course. We’ll work together with [Disability Support Services](#) to make sure your needs are met and that you can succeed in this class.

What is the point of this course?

GOALS

These are the conceptual objectives we'll tackle in this course:

- To research, analyze, and work with variable typefaces and fonts
- To explore the use cases for variable fonts
- To think creatively and critically about the possibilities that variable fonts afford us as designers
- To develop technical literacy (i.e. familiarity and comfort) with new design software
- To get inspired by the work of other designers (including your peers!)
- To find fun and joy in and through design

OUTCOMES

These are the skills and completed projects you'll leave the course with:

- Experience working within Glyphs
- Ability to analyze a typeface and a font file
- Detailed understanding of variable font technology
- Comprehensive overview of variable fonts in use today
- Research skills for discovering new typefaces
- Improved presentation and critique skills
- Collaborative variable pixel font
- Modified variable version of Jost*
- Original variable typeface
- The friends you made along the way

TEACHING PHILOSOPHY

I love teaching. When I teach, I first try to give everyone a common technical foundation through lectures and exercises. But, then I get to learn from each of you as you introduce creative ideas I could never have thought of. So, you become teachers to me and to each other. That's so cool!

To be a successful designer, you need creative and technical facility (i.e. skills), and you also need to be able to talk about your work and the work of others. These are my priorities for you. If you have other priorities, let me know and I can try to incorporate them into this course.

I hope that everyone in this room tries teaching at some point in their lives, whatever the subject may be. If you want guidance, I recommend starting with bell hooks' [Cultural Criticism and Transformation](#).

What will we be doing?

STRUCTURE

This course is a four-week workshop. That's not a lot of time!

We'll start the course by going over creative and technical fundamentals for variable fonts and type design in general. This will involve lectures, discussions, workshops, and exercises.

Our goal is to move quickly into designing your own variable font, which will occupy the majority of our class time.

I personally believe that the 5 hour studio format is not conducive to a productive learning and work environment (for graphic design at least). Everyone gets sleepy! Our brains get too full! I try to plan interactive days full of group exercises to keep everyone engaged, and otherwise work one-on-one (or in small groups) while the rest of class gets to manage their own time.

PROJECTS

There are two take-home projects for this course:

1. VARIABLE REMIX

Modify the "Jost-Template.glyphs" file to introduce a variable axis and a second font master.

Decide on one big creative change (or "move") to make to the original font.

Name your new variable axis to describe this creative decision.

Your design should change the character of the typeface, like Laurel Schwulst's [Times Dot](#) font.

Another example is my version of AUTHENTIC Sans on the [class website](#).

You should be altering at least 10 glyphs for this big creative change.

Make this change on the second font master to turn the font into a variable font.

To present your typeface, perform it using one of the instruments on the [class website](#).

2. TYPE DESIGN AS PERFORMANCE

Design a variable font.

You may either work from scratch or from a pre-existing open source font.

Your font needs at least 1 variable axis and 2 font masters.

Your font needs to have the following characters:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z 0 1 2 3 4 5 6 7 8 9

You can choose whether to create uppercase or lowercase letters. You don't need both. You don't have to represent letters and can instead create 36 variable illustrations if you'd like. If you work from a pre-existing open source font, you must make every glyph variable in some way. To present your typeface, perform it using one of the instruments on the [class website](#).

To receive a grade on your projects, you need to upload your Glyphs (.glyphs) design files and exported (.tff) font files to your folder in the [class Drive](#).

With your individual permission, I would love to include your typefaces as options on the [class website](#) once your section is complete.

MATERIALS

We'll be using the following software/hardware:

- [Glyphs](#) for editing and creating fonts
 - RISD provides a Glyphs license for anyone with a @risd.edu email address. First, download the Glyphs app, and then [download the license file](#) and run it to activate your license.
- Macbook laptop
 - Unfortunately, Glyphs is a Mac-only application, and I do not have school funding to provide alternative software for Windows users. The school offers [temporary Macbook loans](#), although I have not tested this service personally.
 - If you want to personally pay for Windows software, you can (at your own risk) use [FontLab](#), although I will be providing no technical support or instruction in this case.
- Adobe Illustrator for quickly generating design ideas
- [Google Drive](#) for course materials and submitting assignments

CRITIQUES

Critiques can be really exciting, or really boring. It depends on me, but also on each of you.

As peers, we are responsible for staying engaged with each other's work and offering encouraging, constructive feedback. You should not be using your laptop or phone while someone else is presenting their work.

As designers, we are responsible for presenting our work with courage, passion, and pride. This means speaking up, stepping out of our comfort zone, and actively engaging with the rest of the class.

Neither of these tasks is easy, but they also aren't that hard. Let's try our best!

Digital critiques (like presenting work on a projector) can be boring because we're all sitting and staring at something flat and bright. I've tried to make that more interesting by offering a [unique way of digitally presenting your work](#). Let's see if it helps!

Lastly, our critiques mainly focus on type design. If you struggle to provide commentary on type design, here are some things you can think about:

- What graphic forms do you see in the work? Is it geometric, curvy, angled, sharp, soft, light, etc.?
- What feelings do you get from the work? Is it playful, joyful, sad, distressing, angry, loud, etc.?
- What details do you catch?
 - Are there inconsistencies in line weights?
 - Is it serif or sans serif? Are the serifs consistent?
 - Do the letters form a cohesive alphabet?
- How does the work engage with variable axes?
 - Is the font's variation expected or unexpected? Is it clear how the font is changing?
 - What is the motivation or meaning behind the variable axis (or axes)?
 - Are the font states in between the two font masters interesting?
 - Are the extreme states (i.e. font masters) interesting on their own?
- In what context would the work be used in?
 - Did the designer pick the best instrument for their presentation?
 - Where else could the font go?
- How could the designer expand on their work in the future?

Depending on our class size, we may do one full-group critique, or several small-group critiques. If the class is feeling sleepy, we'll take a break and resume after a rest period.

How will I be graded?

REQUIREMENTS AND EXPECTATIONS

Since this course is a technical workshop, I have decided to grade it on a rubric. This means that your grade exactly corresponds to the work you complete as part of the class.

See “Assessment” below to calculate your own grade for the course.

You can also take this course pass/fail if you’d like. To pass the course, you must attend all class meetings and submit both assignments.

ASSESSMENT

The grade breakdown is as follows:

- 50% Attendance (all class meetings are required)
- 15% Project 1 submission (7.5% for incomplete submission)
- 35% Project 2 submission (17.5% for incomplete submission)

The GPA/letter grade conversions are as follows:

A	93–100%	4.0
A–	90–92%	3.7
B+	87–89%	3.3
B	83–86%	3.0
B–	80–82%	2.7
C+	77–79%	2.3
C	73–76%	2.0
C–	70–72%	1.7
D+	67–69%	1.3
D	63–66%	1.0
F	0–59%	0.0

PARTICIPATION

There is no subjective participation grade in this course because everyone has varying levels of comfort in the classroom. Instead, your participation grade is solely based on your attendance and your completion of in-class exercises.

You will need to present your work during in-class critiques, and I encourage everyone to stay active and attentive during these presentations. I may offer guidance on ways to effectively present your work or productively critique the work of others, but that is because I think those are useful skills, not because you will be docked points for substandard performance.

ATTENDANCE

Attendance is worth 50% of your grade. Missing one class due to an unexcused absence will mean you lose 12.5% of your grade. This means that the highest grade you can receive is a B+.

Missing two classes results in a 25% grade deduction, meaning that the highest possible grade you can receive is a C.

Missing three classes results in failure of the course.

An unexcused absence is any absence that is not communicated to me at least 24 hours ahead of time. The only exception to this rule is if you are sick the morning of, in which case you still need to send me an email before class begins. To let me know you'll be missing class for an excused reason, please email me at gdrozdov@risd.edu. If you are feeling sick but want to sit in on class via Zoom, I can send you a link for that day.

Acceptable reasons for missing class include illness, family emergencies, or anything of that magnitude. Because this class is only four weeks long, missing class for other reasons will count as unexcused absences even if communicated.

Showing up more than 30 minutes late or leaving class more than an hour early without prior notice results in a partial unexcused absence. This corresponds to a 6% grade deduction.

ZOOM

We live in a post-Zoom school era, so I am happy to record my lectures via Zoom as well as let you sit in on class if you are sick. Besides those use cases, there will not be any public Zoom link. If you

need to attend class via Zoom, I need to know at least 24 hours in advance (unless you are sick the morning of, in which case you need to email me ASAP that morning).

PLAGIARISM

To succeed in this course, you'll need to create original work. It's OK to be influenced by a designer or design, or to take lessons from the techniques used in another typeface, but the work you turn in needs to be your own. This means creating original letterforms and not copy-pasting another person's work.

That being said, it's sometimes hard to know the difference between inspiration and plagiarism. For instance, the font you're currently reading (Jost*) is inspired by another typeface, Futura. But, if you look at the vector paths for each typeface, you will see that they differ greatly when it comes to the details. The designer of Jost*, Owen Earl, used Futura as an aesthetic template, but created this new font on his own.

If you are worried about infringing on the work of another designer, or even on the work of a peer, please reach out to me (gabrieldrozdov@risd.edu) and I can help advise you if you're in the clear.

If you are maliciously copying the work of another designer, your work will not be accepted and you risk failing the course.

See also: John Caserta's essay "[It's probably not plagiarism](#)" and RISD's [Academic Code of Conduct](#).

Where can I go for inspiration and help?

TUTORIALS

We'll be going over everything you need to know through in-class demos, but if you want more technical guidance you can check out the following resources:

- [Lynne Yun's "Foundations of Type Design" course](#)
- [Creating a pixel font in Glyphs](#)
- [Creating a variable font in Glyphs](#)
- [Creating a color font in Glyphs](#)
- [Variable fonts in FontLab](#)
- [Technical overview of variable fonts](#)
- [Typographic anatomy](#)

COLLECTIONS

Websites showcasing an abundance of typefaces, both variable and not:

- [Variable Fonts](#)
- [Student work from Marie Otsuka's *Web Type* course](#)
- [Type Foundry Index](#)
- [Future Fonts](#)
- [Art of the Title](#)
- [Letterform Archive](#)
- [Fonts In Use](#)
- [Google Fonts](#)

TYPEFACES I LIKE

A short, incomplete list of variable fonts I find interesting:

- [DM Serif Kudzu by Jenni Oughton](#)
- [Phraktur Leet by Kit Son Lee](#)
- [Choreo by Dan Luo](#)
- [Cross Chancery by Tiger Dingsun](#)

- [Arizona](#) by Elias Hanzer for Dinamo
- [Fit](#) by David Jonathan Ross
- [GT Maru Mega](#) by Thierry Blancpain for Grilli Type
- [Roboto Flex](#) by a bunch of people at Font Bureau for Google
- [Nabla](#) by Arthur Reinders Folmer and Just van Rossum for Typearture
- [Whirly Birdie and Whirlybats](#) by Alex Tomlinson and Richard Yee
- [Wind](#) by Hansje van Halem for Typotheque
- [Goertek](#) by Kontrapunkt

OPEN SOURCE FONTS

Places to get fonts that you can freely modify (make sure to check licenses first!):

- [League of Moveable Type](#)
- [Use Modify](#)
- [Velvetyne](#)
- [UNCUT](#)
- [Open Foundry](#)
- [Typothèque Esa 75](#)
- [Google Fonts](#)
- [ETC](#)

CASE STUDIES

Variable fonts in use for a variety of projects (in no particular order):

- [Canal Brasil](#) by Tátil and Plau
- [Tech Central](#) by For The People
- [Lubeznik Center for the Arts](#) by Firebelly Design
- [M&M'S](#) by Jones Knowles Ritchie and Monotype
- [The Mellon Foundation](#) by Eddie Opara's team at Pentagram
- [Brand New Conference 2022](#) by Under Consideration and Sultan Jum (aka GEO)
- [Mode](#) by Gretel and WiseType
- [Evolved by Nature](#) by R/GA
- [San Francisco Symphony](#) by COLLINS and Dinamo
- [RISD](#) by Gretel and Ryan Bugden

- [Amsteldok by VBAT and Fontsmith \(now Monotype\)](#)
- [Freeform by COLLINS and Monotype](#)

READINGS

Technical and creative readings about variable fonts and type design in general:

- [“Variable Brand Voice” by Plau Type & Design](#)
- [“A font for the people” by Olivia King](#)
- [“Recursive” font by Stephen Nixon of Arrow Type and site by Talia Cotton](#)
- [“Higher Order Interpolation for Variable Fonts” by Underware](#)
- [“Roboto ... But Make It Flex” by Sarah Daily](#)
- [“Variable Color Fonts, how do they work?” by Typeature](#)

TOYS AND TOOLS

Some things that will let you test variable fonts out:

- [Variable Fonts Workshop tester](#)
- [Dinamo Font Gauntlet](#)
- [Space Type Vartype](#)
- [Font Playground](#)
- [very-able-fonts.com](#)
- [Type Network Variable Fonts](#)

STUDENT-PROVIDED RESOURCES

Things that y’all informed me about:

- [Variable Axes & Superglyph](#)
- [Occlusion Grotesque](#)
- [Typeature](#)
- [Calcula by Shiva Nallaperumal](#)
- [MuirMcNeil](#)

What is our schedule?

WEEK ONE // WHAT CAN A LETTER BE?

Things due	<ul style="list-style-type: none">— Install Glyphs on your computer and activate it with the RISD license
Things we'll do	<ul style="list-style-type: none">— Introductions— Read over the syllabus— Exercise: Bitmapped— Exercise: Open Sourced— Exercise: Digitized— Exercise: One Big Move— Introduce Projects 1 + 2

WEEK TWO // WHAT CAN A LETTER DO?

Things due	<ul style="list-style-type: none">— Reading: “A font for the people” by Olivia King— Project 1 (modified version of Jost*)— Three ideas for your variable font for Project 2 (bring in sketches!)
Things we'll do	<ul style="list-style-type: none">— Present and critique Project 1— Lecture— Exercise: Variable Gamut— Small group meetings— Demo: Drawing Letterforms

WEEK THREE // DELVING DEEPER

Things due	<ul style="list-style-type: none">— Finished first master for your variable font ABCDEFGHIJKLMNOPQRSTUVWXYZ 0123456789 (any case)— At least 3 finished glyphs for your second master (“NOP/nop” or “HOP/hop” are sometimes helpful to start with!)— Upload your work from Project 1 (.glyphs and .ttf files) into the “Student Work” folder in the class Drive
Things we’ll do	<ul style="list-style-type: none">— Make sure Project 1 is uploaded to the Drive— Small lectures: color fonts, components, programming variation— One-on-ones

WEEK FOUR // FINAL PERFORMANCES

Things due	<ul style="list-style-type: none">— Project 2 (finished variable font)
Things we’ll do	<ul style="list-style-type: none">— Present and critique your variable fonts!