

Class: ARTD 2345 | DMST 2345 | Typography

Meeting times: Tuesdays and Thursdays from 8:00am to 10:50am

Professor:

Rafael A. Fajardo

rfajardo@du.edu [NB. I will not return emails Friday through Sunday]

Shwayder 212

Office hours Tuesdays from 1:30 pm – 3:00 pm, or by appointment.

(303) 871-3265 [NB. Voice mail is the least reliable form of communicating with me, email is better]

SYLLABUS for: ARTD 2345 & DMST 2345 Typography

Description: This class is a rigorous investigation of the expressive potential of typography as a critical element of visual communications and electronic media. 5 quarter credit hours.

Prerequisite: Introduction to Visual Meaning (ARTD 2315 & DMST 2000) and Fundamentals of Design (ARTD 2325 & DMST 2010)

Expectations: This is a demanding course intended for mature students. I will expect a full and consistent commitment of time and effort. Those who do not complete assignments on time, or repeatedly hand in work of poor quality, will be asked to leave the class. Projects that are late for critiques and deadlines will be failed. If after reading this syllabus, and hearing the class introduction, you are hesitant about your commitment do not take the class.

Objectives:

To explore, through studio based projects, the conventions and expressive potential of typography and typographic systems.

To attempt to educate knowledgeable typographers

Through exposure to micro-scale typography:

The space within and between letters;

The space within and between words;

The space within and between lines of words;

Through exposure to taxonomy of typographic forms;

Through exposure to history of letterforms & typographic technologies.

To expose students to breadth of graphic design practice

Familiarize students with "tools of the trade" and their appropriate use.

Familiarize students with professional standards and practices.

Strategy:

Our strategy is to move from the simple to the complex; from micro- to macro-scale; from conventional to exploratory; from analytical to generative. Although we will move in only one direction in class, in reality we should oscillate between these modes constantly, not resting.

We will proceed in the following order: single page, single column; multi-page, single column; multi-page, multi-column.

Required Textbooks:

Bringhurst, Robert. The Elements of Typographic Style. Hartley & Marks.

Felici. The Complete Manual of Typography. Adobe Press.

VanDerLans. Signs of Type. Emigre. (handout)

Berlow. "Adventuring along the Bezier curve." Information Technology Quarterly. Harvard University Library. (handout)

[NB: Bringhurst will be our principal resource for matters of visual composition, and history. Felici will be our technical reference resource.]

Digital Resource:

<http://counterspace.motivo.com>

<http://www.adobe.com>

Required Materials [prices are approximate, equivalents will be acceptable]:

Tee-square with ink edge; 24"

Triangle with ink edge; 45° 45° 90°, 6"

Pencil 2H; \$1

Pencil 4B; \$1

Faber Castell PITT Artist Pen; with black india ink inside, comes in various widths, \$2

Strathmore Vellum Bristol Pad; 17" x 14", aprox \$15

Strathmore Tracing Paper Pad; 17" x 14", aprox \$15

Scotch Drafting Tape 230, \$7

Factis Art Eraser Set; three of the most useful erasers have been assembled in one set, kneaded rubber, gum, extra soft white, \$2

B & J Brush Cleaner, \$6

Higgins® Waterproof Black India Ink; 1oz bottle \$2

Winsor & Newton Sceptre Gold Watercolor Brush(es); series 101, no. 1, 4, 6 round;

series 606, no. 1/8" flat, aprox \$25 the set

Higgins® Waterproof Black India Ink; 1oz bottle \$2

Pencil Sharpener.

1 CD-R Media or 1 DVD-R Media.

Attendance Policies

Attendance: Attendance and participation in all class meetings is required. A student may be absent from class three times during the quarter without his or her final grade being affected. There are no excused absences beyond those three. Any further absences will result in the student being dropped from the class with the grade of "F" due to lack of participation. Attendance will be rigorously monitored. Each student is expected to come to class fully prepared to work.

Students who will be absent on religious holidays will notify the instructor in writing within fifteen days of the beginning of the quarter in which those days will occur. Pending assignments will be completed and submitted prior to those days.

Tardiness: A student entering class after roll has been taken is tardy. Tardiness beyond three times is considered chronic and will result in a reduction of the student's quarter grade by one lettergrade for each additional incident beyond three. A student arriving in class after the first 30 minutes of the class will be considered absent. Those who realize that promptness and attendance might be or is becoming a problem should drop the class.

Grading: Individual assignments will be graded on adherence to the criteria (both in letter and in spirit) of the problem. All assignments will be completed. Incomplete or late assignments will receive a grade of "F."

A final, cumulative, grade for the quarter will be assigned by adding the average of the grades of individual assignments to the average of the grades of the exams given in class - if any. Points will then be deducted for tardiness, if applicable. The assignments will count for 80% of the final grade, while the exams will count for 20% of the final grade. If the final grade point is between two lettergrades, factors such as participation in class critiques, ability to verbalize concepts given, professional attitude and work habits will raise or lower the lettergrade.

Grading Criteria

Grades:

A.- Exceptional. Conceptualization, hand skills and visual skills are all close to a professional level. Concepts presented in class are used as a base for advanced exploration.

B.- Above Average. Responses adhere to requirements of assignments, exhibit an understanding of the concepts presented. Solutions are unique, noteworthy and beyond competent. Hand and presentation skills are advanced.

C.- Average. Student understands requirements of the assignment and is able to present an adequate solution with proper execution.

D.- Below Average. Student exhibits little understanding of the requirements of the assignment. May indicate below average conceptual skills, hand skills, or presentation skills.

F.- Failure. Student exhibits no understanding of the requirements of the assignment.

TYPOGRAPHY Syllabus

Class: ARTD 2345 & DMST 2345

Term: Winter 2005

Professor: Rafael A. Fajardo

This version dated: 2005.09.06

page: 3

Delay of Grade: If a student finds it impossible to complete assignments due to non-academic reasons (major health or personal problems), a written request stating the reason for a quarter grade of "incomplete" will be given the instructor prior to the deadline for the final assignment. A grade of incomplete must be cleared before the end of the next quarter. See page 26 of the DU Undergraduate Bulletin for procedural details.

Plagiarism: Solutions to assignments you submit will be your own work. A student who is discovered to have plagiarized another's work will immediately receive a grade of F for the course, and a recommendation for disciplinary action will be forwarded to the Dean of Students.

Evaluation Criteria:

Contact: Student-teacher contact is an essential aspect for the process of learning in higher education. How regular or active was student-teacher contact?

Course Participation: Beyond student-teacher contact there is a commitment to the process and to participate beyond one's personal work. What was the course participation for in-class discussions and group critiques? Was work performed in a timely fashion? What was the student's attendance record?

Motivation: Motivation forms enthusiasm and devotion to the tasks and the studies for the road ahead. How motivated is the student (in studio work, or the major, or the course, or the subject)?

Craft: Craft is a skill that is essential to all design and product making. Craft is viewed in all respects of product making and product presentation. How good is the student's craft?

Visual Skills: Students develop concepts and skills in visual language (perception, aesthetics, and use of form). They become visually literate, but also skillful in the use and application of this language. How skillful is the student with the visual language?

Conceptual Skills: Design is a conceptual process, requiring critical thinking, correlating theory and practice as well as inquiry into the subject at hand. Visual form, after all, is the visual representation of ideas and of content. This thinking becomes evident in the work itself, adding depth and value to content. How skillful is the student in this conceptual process?

Search: Design is a process of search: to experiment and seek alternative solutions. The product is a fall-out of this process. How much of this process does the student involve to resolve a design solution?

Risk Taking: The creative individual, in search for something other than imitation and mere adoption of convention, is willing to take risks. From failure we learn, and trial and error make essential components in design. How is risk taking evident in the work?

Final Products: The final product is, after all, part of the process, and a test of that process. How beautiful in form and structure is the final product? How clear is the communication? How well do form and content relate to their purpose?

Personal Development: Over time it becomes more evident how one's development of knowledge and skills relate to the individual. How is the individual developing over the time of a project, quarter, or more?

Other: (an opportunity to suit a special circumstance...)

Evaluation Ratings:

- 4 = excellent
- 3 = good
- 2 = satisfactory
- 1 = unsatisfactory
- 0 = fail

Evaluation Matrix

criteria:	ratings:				
	4	3	2	1	0
contact:	-	-	-	-	-
course participation:	-	-	-	-	-
motivation:	-	-	-	-	-
craftsmanship:	-	-	-	-	-
visual skills:	-	-	-	-	-
conceptual skills:	-	-	-	-	-
search:	-	-	-	-	-
risk taking:	-	-	-	-	-
final products:	-	-	-	-	-
personal development:	-	-	-	-	-
other...:	-	-	-	-	-

Schedule:

January 04

In class reading of syllabus and of laboratory policies. Leave to collect materials and texts.

Homework: Read Felici, "Typographic Basics:

2 Units of Typographic Measurement; and,

3 About typefaces".

January 06

Lecture: Parts of a letterform; and, Rules of thumb for micro-scale spatial relationships; and, Stylistic divisions of letterforms.

Demonstration: How to find optical center of a page; and, how to transfer drawings from tracing paper to bristol board.

Studio work: In class sketch by hand in pencil then in ink assignment #1 Futura.

Homework: finish assignment #1 in ink, read Bringhurst 2nd ed. page 241.

January 11

Present assignment #1 for evaluation.

Lecture: San serif letterform history.

Studio: Work in class to sketch by hand in pencil and then in ink assignment #2 Garamond.

Homework: finish in ink assignment #2, read Bringhurst 2nd ed. page 218-220.

January 13

Present assignment #2 for evaluation

Lecture: Old Style letterform history.

Studio: Work in class to sketch by hand in pencil and then in ink assignment #3 Baskerville.

Homework: finish in ink assignment #3, read Bringhurst 2nd ed. page 205.

January 18

Present assignment #3 for evaluation.

Lecture: Transitional and Modern letterform history.

Studio: Work in class to sketch by hand in pencil and then in ink assignment #4 Bodoni.

Homework: finish in ink assignment #4, read Bringhurst 2nd ed. page 207.

January 20

Present assignment #4 for evaluation.

Lecture: Industrial Era letterform history.

Studio: Work in class to sketch by hand in pencil and then in ink assignment #5 Clarendon

Homework: finish in ink assignment #5, read Bringhurst 2nd ed. page 211.

January 25

Present assignment #5 for evaluation.

Lecture: Bit-map letterform history & trivia.

Studio: Work in class to sketch by hand in pencil and then in ink assignment #6 Bit-map.

Homework: Homework: finish in ink assignment #6, read Bringhurst 2nd ed. page 288, 290, 292, 295, 296, and handouts. Select three Haikus.

January 27

Present assignment #6 for evaluation.

Studio: work in class to sketch in pencil and then in ink assignment #7 (Haiku part 1).

Homework: finish in ink assignment #7.

February 01

Present assignment #7 for evaluation.

Studio: work in class to sketch in pencil and then in ink assignment #8 (Haiku part 2).

Homework: finish in ink assignment #8.

February 03

Present assignment #8 for evaluation.

Studio: work in class to sketch in pencil and then in ink assignment #9 (Haiku part 3).

Homework: finish in ink assignment #9.

February 08

Present assignment #9 for evaluation

MIDTERM EXAM

covers Type Identification, History, and Praxis.

Homework: Read Felici, "Typographic Basics: 6 Typesetting versus Typewriting".

February 10

Lecture: Introduce Adobe InDesign as a tool for setting type.

Studio: Assignment #10

Read Felici, "How To Set Type: 9 Measure, Point Size, and Leading".

February 15

Studio: Assignment #11

Homework: Read Felici, "How To Set Type: 10 Controlling Hyphenation and Justification".

February 17

Present Assignment #11 for evaluation.

Homework: Read Felici, "How To Set Type: 17 Typesetting With Style Sheets".

February 22

Studio: Begin Assignment #12.

Homework: Assignment #12.

February 24

Studio: Work on Assignment #12, present for interim evaluations.

Homework: Finish Assignment #12.

March 01

Present Assignment #12 for final evaluation.

Studio: Work on Assignment #13, present for interim evaluations.

Homework: Work on improvements and revisions for next class.

March 03

Present progress on Assignment #13.

Studio: Work on Assignment #13, present for interim evaluations.

Homework: Finish Assignment #13.

March 08

Present Assignment #13 for final evaluation.

March 10

March 10–12 Final Exam Period

_____ scheduled exam period

Studio Project Briefs

Preamble to projects 1-9

Presentation will be held to professional levels, points will be deducted for inadequate presentation. There are to be no stray paint, pencil or pen marks, no fingerprints, no smudges. Cleanliness is a virtue. Be very detail oriented. This is a minimum standard. Work that doesn't meet this standard will be deemed unacceptable. You are to faithfully and accurately represent the shapes of the letter-forms. The smallest detail will affect the spatial relationships between letterforms. Inaccurately drawn letter-forms are likewise unacceptable.

Assignment 1: Futura (How well do you know your name?)

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. Draw your name, using Futura Roman (Regular), capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline two inches below the first one. Draw the date of your birth – month (spelled out), day (numerals), year (numerals) – centered, on the second baseline, using the same parameters as on the first line.

You are attempting to create a perfect page. Find the optimum letter-spacing by beginning with the "rules-of-thumb" passed down by the Swiss typographer Jan Tschichold.

Readings:

Bringhurst 2nd ed. page 241

Assignment 2: Garamond

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. Draw your name, using Garamond Roman (Regular), capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline two inches below the first one. Draw the date of your birth – month (spelled out), day (numerals), year (numerals) – centered, on the second baseline, using the same parameters as on the first line.

You are attempting to create a perfect page. Find the optimum letter-spacing by beginning with the "rules-of-thumb" passed down by the Swiss typographer Jan Tschichold.

Readings:

Bringhurst 2nd ed. page 218-220

Assignment 3: Baskerville

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. Draw your name, using Baskerville Roman (Regular), capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline two inches below the first one. Draw the date of your birth – month (spelled out), day (numerals), year (numerals) – centered, on the second baseline, using the same parameters as on the first line.

You are attempting to create a perfect page. Find the optimum letter-spacing by beginning with the "rules-of-thumb" passed down by the Swiss typographer Jan Tschichold.

Readings:

Bringhurst 2nd ed. page 205

Assignment 4: Bodoni

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. Draw your name, using Bodoni Roman (Regular), capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline two inches below the first one. Draw the date of your birth – month (spelled out), day (numerals), year (numerals) – centered, on the second baseline, using the same parameters as on the first line.

You are attempting to create a perfect page. Find the optimum letter-spacing by beginning with the "rules-of-thumb" passed down by the Swiss typographer Jan Tschichold.

Readings:

Bringhurst 2nd ed. page 207

Assignment 5: Clarendon

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. Draw your name, using Clarendon Roman (Regular), capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline two inches below the first one. Draw the date of your birth – month (spelled out), day (numerals), year (numerals) – centered, on the second baseline, using the same parameters as on the first line.

You are attempting to create a perfect page. Find the optimum letter-spacing by beginning with the "rules-of-thumb" passed down by the Swiss typographer Jan Tschichold.

Readings:

Bringhurst 2nd ed. page 211

Assignment 6: Chicago

Brief

Find the optical center of a piece of 17 x 14 inch, smooth bristol board. Measure up one inch from that point and make a baseline. This baseline will become the reference point from which you will grid your page. Measure your sample of Chicago. How large is a pixel? Very lightly grid your page using the pixel as the size of your grid. Draw your name, using Chicago, capital and lower-case letters, a capital height of one and one-half inches, centered on width of the page. Then make a baseline twelve to fifteen pixels below the first one. Draw the date of your birth month (spelled out), day (numerals), year (numerals) centered, on the second baseline.

You are attempting to create a perfect page, but here Tschichold's rules of thumb must be reconciled with the constraints of a strictly gridded page. If in doubt obey the grid.

Readings:

Bringhurst 2nd ed. page 288, 290, 292, 295, 296

VanDerLans. Signs of Type. (handout)

Berlow. "Adventuring along the Bezier curve." Information Technology Quarterly. (handout)

Preamble to projects 7-9

For projects 8-11 (inclusive) you will need to research and select three Haiku poems from either the library or the world wide web. You will bring your selections to class, typewritten and with your name at the top, the first class day after the project has been introduced.

A haiku is an unrhymed verse form of Japanese origin having three lines containing usually five, seven and five syllables respectively.

Assignment 7: Haiku part 1

Brief:

Choose a haiku of your liking and a typeface from among the the ones we have been working with and render the text of the poem, by hand. The typeface used in your interpretation should maintain a 72 point body-height. You can create

a sample of this size be reduction-photocopying the samples you were given in class. The interpretation should be produced by rendering the letterforms – in ink or paint – on a 14 x 17 inch sheet of smooth Bristol Board. The goal of your interpretation is to balance the positive and negative spaces among and between letterforms, words, lines and the edges of the page. You should maintain a measure of leading known as "solid", that is to say 72 points measured from baseline to baseline. Your poem should be set flush left and ragged right. You may add emphasis to one word in the poem by using an italic form of your typeface. The space between an edge of the page and any letterform should be at least one and a half times the space in between lines.

Assignment 8: Haiku part 2

Brief

Choose a haiku of your liking and a typeface from among the the ones we have been working with and render the text of the poem, by hand. It would be good if you chose a typeface other than the one used in assignment 7. The typeface used in your interpretation should maintain a 72 point body-height. You can create a sample of this size be reduction-photocopying the samples you were given in class. The interpretation should be produced by rendering the letterforms – in ink or paint – on a 14 x 17 inch sheet of smooth Bristol Board.

The goal of your interpretation is to balance the positive and negative spaces among and between letterforms, words, lines and the edges of the page. You should aim for a measure of leading somewhere between 120% and 200% of the body-height of your letters. Your poem should be set flush left and ragged right. You may add emphasis to one word in the poem by using an italic form of your typeface. The space between an edge of the page and any letterform should be at least one and a half times the space in between lines.

Assignment 9: Haiku part 3

Brief

Choose a haiku of your liking and a typeface from among the the ones we have been working with and render the text of the poem, by hand. It would be good if you chose a typeface other than the one used in assignment 8. The interpretation should be produced by rendering the letterforms – in ink or paint – on a 14 x 17 inch sheet of smooth Bristol Board.

The goal of your interpretation is to visually express or reinforce the verbal message of the poem by your arrangement and size of letters on the page. Choose a typeface whose character will aid you in your interpretation.

Assignment 10: Exploration of Typographic Variations

Brief:

You will be using the following text for the next sequence of exercises:

When Owl was downstairs he said, "I wonder how my upstairs is doing?" When Owl was upstairs he said, "I wonder how my downstairs is doing?" "I am always missing one place or the other. There must be a way," said Owl "to be upstairs and to be downstairs at the same time."

The text is from the children's book *Owl at home*.

We will typeset and compose this short text in accordance with a varying set of constraints. The exercises are intended to reveal the "axes" along which we establish typographic contrast, heirarchy and the expressive potential of type despite an apparent poverty of means.

If you discover -- or think of -- a parameter that is not specifically prescribed in the exercise then you are free to manipulate that parameter in your composition.

7 x 7 inch live area

Variations:

10.1- Develop and express a hierarchy within the text without varying: typeface (fraktur, garamond, baskerville, bodoni, clarendon, futura, template gothic), "style" (outline, shadow, strike-through, underline), weight (light, medium, bold, black, regular, book), size (6, 9, 12, 18, 24 point), color (red, yellow, blue, black, white). Reading order is important in this exercise.

10.2- Establish and express a hierarchy within the text without varying: typeface, "style", color. You may vary the weight. Reading order is not important in this exercise.

10.3- Establish and express a sense of pictorial depth without varying: typeface, "style", weight, color. You may vary size. Reading order is important in this exercise.

10.4- Attempt to establish and express a sense of order using as many typefaces and weights as you can. Reading order is important to this exercise.

Time Frame: These are to be created and critiqued in class, with a thirty-minute deadline, and a fifteen- to thirty-minute in-class group critique.

Compositional variations:

There are visual relationships that should also be attended to while working on the above variations:

elements relate to each other

elements relate to the edges

elements composed in a symmetrical relationship

elements composed in an asymmetrical relationship

elements composed off-axis, that is to say off of the traditional vertical-horizontal relationship

Assignment 11: Intimate Scale Columns

Brief:

These exercises are organized as a theme and variations. Each variation builds on the one before it, and each subsequent exercise builds on the previous ones.

3" x 3" document, meant to be experienced between 15" and 24" from the eyes. Content: 200-300 words of continuous text. Compositional Goals: Resolve relationships that exist within and between words, within and between lines, within and between contents and frame. Technology: Adobe InDesign. Create a new document, define its size, learn the components of the "toolbox", input contents, define typeface parameters, compose document.

Variations:

11.1 FLRR, 10pt, Balance space above, below, left, right of column and within the column (think leading). Allow flexibility of leading, students will not be allowed to leave default settings in defining character and paragraph parameters.

11.2 Justified, 10/10, Word Spacing Parameters: 80, 100, 120; Letter Spacing Parameters, 0, 0, 0, Students are challenged to eliminate widows, minimize hyphens; reveal to students rivers and blocks in their column

11.3 Justified, 10/10, added flexibility to justification settings, attempt to eliminate rivers, in addition to those elements in 2.2, introduce the idea of hanging punctuation. Point out the difference between curly quotes and inch-marks. Explore how the software handles the "magic" of automated quote conversion. [Teacher's note, Professor Fajardo doesn't like to leave the software on the default settings, too much of what is happening remains invisible.]

11.4 (in class) Very intimate scale, 6pt type, 1.25" column width, justified, allow flexibility with word and letterspacing and with leading, arrange the left hand side of the column to lie 1.5" from left edge of live area, make an attempt to balance the space above, below and within the column and make a beautiful column.

Assignment 12: Single column, multipage, multi-element.

Brief:

Students will typeset a longer text, 1000-1200 words, across four pages. Students will attempt to achieve a consistency of placement and texture of columns from page to page. Students will be shown the "evils" of widowed lines and orphaned words as they continue to attempt to set a beautiful column and create beautiful pages.

Variations:

12.1 7x7 page, single column, four pages, page numbers, flrr

12.2 7x7 page, single column, four pages, page numbers, justified

Assignment 13: multi-column, multipage, multi-element pages

Brief:

The students attempt to increase their level of technical and aesthetic sophistication through ever more complex projects.

Variations:

13.1 7x7 page, double column, four pages, page numbers

13.2 7x7 page, double column, four pages, page numbers photos within text page

13.3 7x7 page, double column, four pages, page numbers photos can bleed, title, byline, captions.

Agreement

I have read the syllabus for ARTD 2345 & DMST 2345 thouroughly. My questions and concerns as of this date have been asked and I understand the content of the course and what is expected of me.

Name_____

eMail address_____

Signature_____

Date_____

Agreement

I have read the syllabus for ARTD 2345 & DMST 2345 thouroughly. My questions and concerns as of this date have been asked and I understand the content of the course and what is expected of me.

Name_____

eMail address_____

Signature_____

Date_____

Lecture Notes

Introduction

Overview of the field

What is "Graphic Design?"

Graphic Design was defined, from a period we can reasonably begin at 1950 and reasonably end in 1994, as the practice of preparing artwork for mechanical, mass-reproduction by the offset lithography press. Here artwork was defined as the visual representation of text, and as photographic images, and as drawn or painted high-contrast images.

This definition is no longer adequate

[in the classroom there was a deconstruction of the definition above, and a reconstruction with contemporary terms.]

The designers shapes narratives in two- three- and more dimensions.

Overview of the class and location within the field

Typography is an invisible artform that has cultivated a tradition of transparency. The typographer has purposely tried to stay out of the way of the "message" and so very few people are accustomed to really looking at type. But typography is an integral part of what a design activity and so we must look at it closely.

Micro-aesthetics

Familiarity with type styles dictates our ability to absorb text. Thus it is the predominantly used typefaces that become the most legible ones. These preferences are everchanging, based on the evolution of the letterform.

---Emigre, 1986

Letterforms have changed through history in response to technological and to philosophical/ideological stimuli. Several systems have been brought forward to classify these changes, they have been outlined in Lawson's *Printing Types* as well as in Bringhurst's *Elements of Typographic Style* - in detail. We will concern ourselves with the least cumbersome of these as an introduction

Before we can classify typefaces, and typeface families we will need to have command over the anatomy of letterforms.

Anatomy of a Letterform (from Lawson, p44)

font:

baseline:

x-height:

cap-height:

body-height:

ascender:

descender:

serif:

bracket:

counter (or counter-form, negative space):

stress

leading:

stem:

strokes (vertical and horizontal):

spur:

bowl:

Typeface "Style" Classification (Lawson p.66).

Blackletter

Old Style

Transitional

Modern

Square Serif

Sans Serif

Script-Cursive

Display Decorative

Low Resolution Bitmap

It should be noted that this classification system is based mostly on fine distinctions in the shapes of letterforms, they are in essence a "morphology"

To those in Lawson we have added a classification called Low Resolution Bitmap (or Low Res). Low Res typefaces have not had the opportunity to achieve the kind of longevity enjoyed by the other classifications, however their inclusion afforded us the opportunity to introduce the consequences of contemporary technology on letterforms to students.

Rules of thumb for spatial relationships among and between letterforms and lines of text

How are we going to determine appropriate spacing between letters? Between words? Jan Tschichold gave us a set of guidelines that work more often than not. The students are to be reminded that - as rules of thumb - they are not hard and fast. The student is to be encouraged to develop an intuitive feel for "rightness of fit" between two letterforms. Tschichold's rules are only the place to begin their exploration of space issues.

Tschichold's Rules:

The correct amount of space in between words is the width of a lowercase "e" of the same typeface.

The correct amount of space in between letters within a word is the width of a lowercase "i" of the same typeface.

Corollary 1: the space between two vertical strokes should be the width of a lowercase "i".

Corollary 2: the space between a vertical stroke and a curved stroke should be two-thirds the width of a lowercase "i".

Corollary 3: the space between two curved strokes should be one-third the width of a lowercase "i".

A good amount of leading, at text sizes, is 120% of the point-size of the type being used. This rule of thumb has been pronounced by several typographers throughout history and has become a default for software.

Johannes Gutenberg, Black Letter and the Invention of Moveable Type

c. 1450

broad nib pen based letter forms, textura

very vertical stress, almost no curves, very high contrast between thick and thins.

invention of movable, variable width typography

invention of printing press

invention of ink formula

Manutius and Griffo

Sans Serif

A. What is "sans serif"?

Lawson p.110

B. When was it developed?

C. Where was it developed? Popularized?

D. Why was it developed?

E. How is "sans serif" different from other letterforms?

F. What are examples of the "sans serif"

1. Futura (Carter page 172)

Drawn by Paul Renner circa 1924-1926

released by Bauer Type Foundry, Frankfurt 1927-1930

Geometric Sans Serifs were extremely popular until the 1960's, when sans serifs such as Helvetica and Univers became dominant.

It is almost a complete monoline type, based on the geometric principles of compass T-square and triangle.

Following the Bauhaus dictum that form should follow function, European designers explored elemental geometry during the 1920's.

Futura proved to be so popular that a host of type foundries rushed to market with typefaces that were meant to compete for a piece of the pie. They ranged from bald-faced copies to richly unique solutions. Metro, Tempo, Kabel, Spartan, Gill Sans.

2. Futura (Lawson page 116)

Lawson, Meggs and Carter assume Renner was influenced by Bayer and Johnston. Futura was linked to the asymmetrical typography of the Bauhaus and of Tschichold. This combination had a tremendous impact on the appearance of German printing. American typefounders soon issued sans serif types when the new style proved to be not simply an avant-garde innovation but a design which had solid backing of typographers everywhere. By 1930, there were many new sans serif types available to compete with Futura, but none of them in the eyes of typographers had the élan of the Renner letter.

3. Early 20th century typeface design (Meggs 2nd ed. 301-303)

Johnston Railway type. Sans serif based on classical Roman letter forms. Inspired Eric Gill's Gill Sans. Eric Gill's diverse activities encompass stonemasonry, inscriptional carving, sculpture, wood engraving, typeface design, graphic design and extensive writing. Believed that work has a spiritual value. Gill argued that uneven word spacing of justified lines (of type) posed greater legibility and design problems than the use of equal word spacing and a ragged-right margin. Bayer's universal alphabet served as an inspiration for many geometrically constructed sans serifs. Futura was drawn by Renner. Renner believed very strongly that "designers should not just preserve the inheritance that they have been given and pass it on to the next generation unchanged; each generation must try to solve problems that were inherited and attempt to create a contemporary form true to its own time."

4. Futura (Bringinghurst 2nd ed. page 241)

Old Style

A. What is an Old Style typeface?

B. When was it developed?

C. What are Examples of Old Style?

1. Garamond (Carter page 208)

16th Century French

Named for Claude Garamond

Old Style types inspired by types cut for Aldus Manutius by Francesco Griffo in Venice.

Adobe Garamond, drawn by Robert Slimbach, is one of the most faithful contemporary interpretations of Garamond's letters. The italic is based on the letters of Robert Granjon which appeared on the same specimen used by Slimbach as a source.

Many revivals and interpretations of Garamond's letters are actually based on the letters of Jean Jannon -- who in turn had based his work on Garamond's. Jannon made several significant changes. These include Garamond No. 3, ATF Garamond,

2. Garamond (Lawson page 83)

An important innovation by Garamond was the design of an italic which was a consciously formed complement of the roman. Previously, italics had been considered as independent cursive types, following the first one which was produced for Aldus in 1501.

After Garamond's death in 1561, his punches were widely scattered - when his widow sold his punches and matrices. We can attribute the great popularity of this type to this scattering.

3. Garamond (Meggs 2nd ed. pp. 102104)

Claude Garamond was the first punch cutter to work independently of printing firms. The quality and beauty of his typefaces are credited as major reasons for the elimination of Gothic [sic Blackletter] types all over Europe.

Garamond apprenticed under Antoine Augereau and worked, briefly, with Geoffroy Tory. All three should be credited with propagating the switch to Roman letterforms begun by Griffo.

Around 1530 Garamond established his independent type foundry to sell to printers cast type ready to distribute into the compositor's case.

The influence of writing as a model diminished in Garamond's work, for typography was evolving a language of form rooted in the process of making steel punches, casting metal type, and printing instead of imitating forms created by hand gestures with an inked quill on paper.

4. Garamond (*Bringinghurst 2nd ed. page 218-220*)

Transitional

A. What are examples of Transitional?

1. Baskerville (*Carter page 30*)

Baskerville established his press in the 1750's in England

As the century opened, old-style typefaces (Bembo, Garamond) were dominant; by the end of the century the modern styles of Giambattista Bodoni and Firmin Didot prevailed. Baskerville fonts from the middle of this transformation are called Transitional types.

Baskerville sought to increase the contrast between thick and thin strokes, making serifs sharper and more tapered and shifting the axis of rounded to a more vertical position. Characters are more regular and consistent in size and form. His types were an important inspiration for Bodoni and Didot, who pushed their designs toward even greater contrast and geometric refinement.

2. Baskerville (*Lawson page 93*)

The term transitional describes types with characteristics based on the oldstyle fonts, coupled with features of the type style called modern.

The eighteenth-century type considered by most authorities to represent the real beginning of the transitional form was that of John Baskerville, an amateur printer who set up a printing office in Birmingham, about 1750. Baskerville introduced a number of technical innovations in his printing, most of which affected the appearance of his types. Baskerville's press was more solidly constructed than those of his fellow printers. He used a brass plate and favored a hard impression at a time when a cushioned squeeze was preferred. He also instituted the practice of passing printed sheets through heated copper cylinders to smooth the rough-textured paper then commonly used. Typographically, Baskerville was fond of wide margins and well-leaded pages, another departure from the style of his day. His efforts were unsuccessful in England but enthusiastically received in the rest of Europe.

3. Caslon & Baskerville (*Meggs 2nd ed. pp. 119122*)

Caslon's types followed English colonialism throughout the world. Caslon's types are "sturdy" and make use of irregular stress. In use they have an uneven, rhythmic texture. They are considered very legible.

Baskerville types, as compared to earlier ones, are wider and the weight contrast between thick and thin strokes is increased. The placement of the thin stroke is moved from a diagonal axis to a vertical one. The serifs flow smoothly out of the major strokes and terminate as refined points.

In use, Baskerville favored economy and simplicity over ornamentation.

4. Baskerville (*Bringinghurst 2nd ed. page 205*)

Modern

A. What are examples of Modern?

1. Bodoni (*Carter page 50*)

Giambattista Bodoni of Parma, Italy

1768 he became the director of the Duke of Parma's Stamperia Reale (the Royal Press -- or print-shop). There he designed his first roman types that were more geometric in appearance.

His letters are characterized by an extreme contrast between thick and thin strokes and a mathematically precise vertical stress. The ascenders and descenders appear long in relation to the x-height of the letters.

2. Bodoni (*Lawson page 101*)

widespread interest in copperplate engraving, encouraging types which were imitative of the fine lines of the engraver's burin.

effects of industrial revolution began to be felt. Book printing predominated up until 1820. Afterward commercial printing rose to dominance in response to the need to promote the sale of manufactured goods.

...new promotional techniques demanded new styles of type.

The swollen versions of modern faces became known as fat faces.

Modern letterforms don't work well for book typography.

3. Modern (Meggs 2nd ed. pp. 133135)

neoclassicism replaces rococo

Bodoni defined his design ideal as cleanness, good taste, charm, and regularity. This regularity the standardization of units was a concept of the emerging industrial era of the machine. Bodoni decided that the letters in a type font should be created through combinations of a very limited number of identical units. This standardization of forms that could be measured and constructed marked the death of calligraphy and writing as the wellspring for type design. Bodoni's precise, measurable, and repeatable forms expressed the vision and spirit of the machine age. It is noteworthy that as Bodoni was constructing alphabets of interchangeable parts American inventor Eli Whitney was assembling firearms of interchangeable parts in his New Haven, Connecticut, factory, foreshadowing the mass-production techniques soon to revolutionize western society.

In Bodoni's page layouts, the borders and ornaments of the earlier decorative style that had brought international fame to the Satmpera Reale were cast aside for a severe economy of form and efficiency of function. The severe purity of Bodoni's late graphic design style has affinities with twentieth-century functional typography. Open, simple page design with generous margins, wide letter- and line spacing, and large areas of white space became his hallmark. Lightness was increased by using a smaller x-height and longer ascenders and descenders. In some fonts, letters were cast on oversized metal so the type could not be set solid. As a result, these fonts always had the appearance of generous leading.

4. Bodoni (Bringinghurst 2nd ed. pp. 123125)

Square Serif

Bracketed and Unbracketed Serifs

stroke weights vary or are uniform

A. What are examples of Square Serif?

1. Clarendon (Carter page 118)

Beasley drew the first one in 1845

The strokes in Clarendon fonts are fairly heavy, with thick-and-thin weight contrast rather than uniform stroke weight. It has subtle bracketing.

2. Typography for an industrial age (Meggs 2nd ed. pp. 133135)

Dominance of book printing, both as an industry and as a method of dissemination of information, give way to commercial and jobbing printers creating advertising and posters. Larger scale, greater visual impact, and new tactile and expressive characters were demanded. Book typography that had evolved slowly from handwriting did not fulfill these needs.

The industrial age required that these signs (the alphabet) be transformed into abstract visual forms projecting powerful concrete shapes of strong contrast and large size from the billboards. At the same time, letterpress printers were under increasing competitive pressure from lithographic printers, whose skilled craftsmen rendered plates directly from an artist's sketch and produced images and letterforms limited only by the artist's imagination.

The idea of larger and fatter letters was embraced by founders, and type grew steadily bolder by the decade. This led to the invention of fat faces. A fat-face typestyle is a roman face whose contrast and weight have been increased by expanding the thickness of the heavy strokes. The stroke width has a ratio of 1:2.5 or even 1:2 to the capital height. Having a bold, machinelike feeling, these antiques [sic. square serif types] were characterized by slab-like rectangular serifs, an evenness of weight throughout the form, and short ascenders and descenders.

In 1845, William Thorowgood and Company copyrighted a modified Square Serif called Clarendon. These letterforms were condensed with stronger contrasts between thick and thin strokes and somewhat lighter serifs.

4. Clarendon (Bringinghurst 2nd ed. page 211)

Low Resolution Digital (Emigre)

Preamble

On the electronic page, text and image exist as manifestations of the same media and there is no longer a distinction between illustration and type.

Designers of pre-computer eras have constructed geometric letterforms with complicated manually drawn structures based on the circle and the square.

The resolution of the bitmap is fixed. Therefore, obliquing (the "tilting" of a roman form to render an italic-like form) with bitmaps results in more distortions than with outlines (cf. Berlow), which can be scaled to a variety of sizes and resolutions.

Regardless of resolution, all digital type and images are built out of blocks on a grid structure. These building elements are called pixels and the resulting image is the "bitmap" literally the "map of bits".

Diagonals and curves are particularly difficult to resolve acceptably in low-resolution. The availability of 8-bit grey scale and 24-bit color monitors allows type designers to create illusions of smoothness by manipulating the intensity of pixels in those areas.

A. lo-res (lecture)

In 1984 Apple introduced the Macintosh computer to the public. In 1986, together with Adobe Aldus and Canon

How many of you, when you were younger - or more recently, have put your face right up against your TV or your Computer Monitor? (response should be near universal)

What did you see when you were there? (response expected: lots of colored dots)

Lots of colored dots, and how were these dots arranged? Were they scattered willy-nilly? (response expected: no, they were organized in rows and columns)

Rows and columns make up a ... (together: grid)

bit map

bit: 1 unit of information. In computer "universe" a bit has two possible states, "on" or "off".

byte: 1 "chunk" of information. A group of bits that form a "word" of information. We can make a generalization that 8-bits = 1-byte.

Grid

Raster: a grid unit

Pixel: acronym for picture element

Dot: generic description of pixel

Resolution: can be expressed in two ways. 1.- as an area, e.g. 640 x 480 units or pixels. 2.- as a linear density expressed in PPI or DPI, e.g. Macintosh monitors typically have a resolution of 72 dpi. (This is a rational correlation to typographic history, i.e. 72 points = 1 inch)

Cathode Ray Tube (CRT): a device consisting of a (cathode) ray gun and a surface coated with phosphorescent dots. The phosphors are arranged in a grid. The grid points can be addressed by (x,y) coordinates. The ray excites the phosphor. Initially the phosphors could only be on or off. Later the intensity of the brightness of the phosphors could be controlled in discrete units (of either voltage or luminosity).

B. What are examples of Low Resolution Digital?

1. Chicago (lecture and Meggs 2nd ed. pp. 469)

Originally drawn by Susan Kare (b. 1954). (cf Meggs)

Released in 1984 by Apple® Computers Inc. as one of a collection of twelve default typefaces included on the Macintosh® personal computer.

Chicago uses a 12-unit body-height

Chicago uses a 9-unit cap-height

Chicago uses a 7-unit x-height

Ratio of vertical stroke width to horizontal stroke width is 2:1. This is an attempt to reference historical geometries within the confines of a restricted grid. Counters are two units wide

2. Oakland 6 (lecture and VanDerLans Signs of Type handout)

Zuzana Licko for Emigre Graphics. 1996

The rationale behind them (Emigre's first release of low and high resolution fonts) is derived from that of the grid and the digital characteristics are incorporated as design elements.

The coarser the grid of the output device, the more limited is the possibility of pixel placement, and the variety of representable font characteristics is limited accordingly.

Oakland 6 uses the minimum number of pixels required to define a complete upper-case alphabet while maintaining the characteristics of its family.

3. Emperor 8 (lecture and VanDerLans Signs of Type handout)

Zuzana Licko for Emigre Graphics. 1996

The Emperor family consists of a series of fonts that maintain the same on unit stroke to two unit counter, horizontal proportions while varying the vertical cap height units. (Emperor 8 therefore has an eight unit cap height). Emperor 8 uses the minimum number of pixels required to define a complete alphabet while maintaining the characteristics of its family.

4. Various (*Bringhurst 2nd ed. pp. 288, 290, 292, 295, 296*)

Other Bibliographic References, Some Are Out of Print

Futura

Carter page 172
Meggs 2nd ed. pp. 301-303
Lawson page 116

Garamond

Carter page 208
Meggs 2nd ed. pp. 102-104
Lawson page 83

Baskerville

Carter page 30
Meggs 2nd ed. pp. 119-122
Lawson page 93

Bodoni

Carter page 50
Meggs 2nd ed. pp. 123-125
Lawson page 101

Clarendon

Carter page 118
Meggs 2nd ed. pp. 133-135
Lawson page 109

Chicago

Carter (none)
Meggs 2nd ed. pp. 469
Lawson (none)

X. ——— Other Required Readings from Looking Closer

A. ——— ~~Odge. "A Clockwork Magenta and Orange".~~

- ~~— Odge portrays a grim possible future for graphic design as an industry.~~
- ~~— he makes a very good brief description of the practitioners that comprise the field of print-based graphic design.~~
- ~~— priveleges the use of hand instruments~~

B. ——— ~~Meggs. "The Obscene Typography Machine".~~

- ~~— computers are bad [more accurately, computers are powerful, power in the hands of the uninitiated and the many is bad].~~
- ~~— computers as design tools in the hands of amateurs will pervert our visual culture.~~
- ~~— one must have special knowledge to be a good designer.~~
- ~~— sometimes designers can be trusted with computers.~~

C. ~~Rock. "Typefaces are rich with the spirit and gesture of their own era".~~

D. ~~Kalman, Miller, Jacobs. "Good History / Bad History".~~

E. ~~Heller. "The Time Machine".~~

Traditional, Transparent Typography vs. Expressionistic Typography

Haiku 1

The frame is not neutral, it forms an active part of any composition

Be disciplined in your sketching process. A bar napkin sketch is valuable, and viable, but when you translate that sketch to canvas, paper, or screen, you must keep the proportions consistent, or else your sketch will have been useless.

The thing that you like about the sketch includes the relationship of the parts to the whole. The sketch that feels good intuitively has achieved a "proper" or "satisfactory" relationship between the marks and the frame, as well as between the marks themselves. Often students will be unaware of the relationship between the marks and the frame and create an unsatisfactory composition based on an inaccurate translation from sketch to "piece." If the napkin was square, the piece should be square.

With Haiku 1 we are exploring, at first hand, how the frame acts on the message. There are two compositional strategies that define the extremes of expressive potential on a two dimensional surface. One extreme is inwardly focused and typically ignores the edges of the composition. The other is outwardly focused and engages or "energizes" the edges.

The inward focus concentrates on a relationship between the elements and attempts to create an interesting counterform surrounding the elements.

The outward focus creates relationships between the edges and the elements and attempts to create interesting counterforms between the elements.

[next topic to be written, stability vs. instability?]

In a haiku that obeys the formal and conceptual strictures of that form one can find multiple readings within and among the three lines. If the three lines are treated as a unit spatially, compositionally, then the readings coexist, simultaneously and in oscillation. If we separate on the lines from the other two, then we find that we have foregrounded and fixed one of the readings and hence shaped and fixed the meaning of the text.

How we choose to configure or distribute space within and around a text is an exercise of the designer's/typographer's authorial voice. We shape how others will perceive and read this text.

Tanka 2

There should be some visual evidence of the heritage of what we have been learning

For an audience, it should be clear what your interpretation is

The audience should be involved in some semblance of reading

you are free to distort the shapes of the letterforms, but there needs to remain some conceptual link to what we have been learning up to this point

you need to explore the power of letters, and how you can manipulate letters. to do that I need to free you to do just that.

Think of the list of letterforms a raw material, you have to manipulate your raw material in order to interpret your tanks. If the letterforms don't end up looking like Gill Sans (for example), well then, ok. But you should start with one or more components of your list.

Exercise: Analysis of typographic conventions.

Teachers Edition:

The first teaching day of class should be spent exploring the definition of the word "convention" in a seminar format with the students. My strategy has been to ask the students to define it for me, and to record the different definitions that are offered on the chalkboard/whiteboard. The goal is to arrive at an extemporaneous, shared definition -- a conventional definition of the word "convention." This shared definition will become more important as the quarter progresses.

The shared definition of convention allows us to talk about the two "traditions" of typographic expression that currently coexist -- namely the "tradition" of center-axis typography and the "tradition" of flush-left ragged-right typography. The establishing and reenforcing of a convention also prepares students for the introduction to semiotics. On the day that the students bring the following exercise to class for evaluation I have taken a survey of the results to see if we can codify a conventional typography from evidence brought in from the printed environment. We count how many pieces arrange type into columns. We count how many columns per page. We measure column width, type size and leading. We measure page size and look at the range of all these parameters. If at least 8 pieces share any measurements we can say that we may have identified a convention. By having the students go out and find type samples in their environment we hope to remind them that what they are studying is alive and part of their reality. The exercises that follow this one can feel very abstract and so it is good to frame them with- and refer to reality.

Exercise 2: Intimate Scale Columns

Teachers Edition:

This exercise currently begins the introduction to typesetting with the computer. I normally poll the class to see how many have used word processors to write papers or to learn how to type. We want to identify anyone who has never used a computer before. You may find one or two. The population of people who have no experience with computers is dissolving. Computers are more and more prevalent in high-school and grade-school.

I try to make it very clear to the students that the classes are about design, and not about the software. I place the responsibility of learning the software tools squarely on their shoulders. Students typically don't understand this stance. We need to explain to them that the tools change very quickly and that it will be their professional responsibility to keep up with the changes. No one can actually "teach" them how to do this, they must discover how for themselves. What we can do - and I have done - is provide them with an introduction to the tool in the form of a "do as I do" demonstration and then give them studio time and a task to complete, and then get out of the way. We will remain present and available to answer questions and to prod slackers, but like with a paintbrush, you just have to do it to figure it out.

By forcing/allowing the students to "figure it out" for themselves we empower them to figure out novel situations by themselves in the future.

To plan and produce complex multi-part documents: Gutenberg 2000

Presume knowledge of setting type and composing pages in PageMaker™ or Quark XPress™ (covered in GD2)

Presume knowledge of making a laser-printed proof (covered in GD2)

Presume laser-printer and copier will be adequate for production

Determine what is the nature of the work?

how many different kinds of information are to be presented?

text?

how much text is there?

how many levels or sublevels are there?

is the text straight prose?

is the text poetry?

is the text tabular?

is the text broken up into chapters?

how long is the longest chapter title?

how short is the shortest chapter title?

repeat these questions for any further subdivisions

image?

how many images are there?

are the images to be reproduced in color?

are the images to be reproduced in greyscale?

are the images to be reproduced in high-contrast black and white?

is any of the images a diagram?

is any of the images a chart?

what will the most appropriate form be?

Plan and visualize the work

design the most mundane or common portion first

a page that consists only of text, a page number, and running matter

if there are any extended quotes design those next, including the place where the text goes from normal to the quote and back

design out from there

a page that contains all of the previous elements plus the title for the deepest level subdivision, then the next shallower level

it is often necessary to design by visualizing the shortest and the longest titles for each level

only now should you design a chapter title pages

then any part title pages

then the table of contents page

then the rest of the front matter

then the rest of the back matter, if any

then the half-title pages

lastly, design the title page

produce the work

impose the pages into signatures

print out the pages

fold and gather the signatures together

trim the pages

sew the signatures together

measure and make the case

attach the sewn signatures to the case