

TYPELINE, A BILINGUAL TYPOGRAPHIC REFERENCE GUIDE
FOR CHINESE STUDENTS

THESIS

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by

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FOR CHINESE STUDENTS

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DEDICATION

This thesis is dedicated to my parents, Lam Mei and Teresa, for always providing me their best and for believing in me; my sister, Olivia, for being my best childhood friend who promoted the creativity within me; my dear friend, Lye Ming, for her constant encouragement and wisdom.

I thank God for His daily abundant grace.

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CHAPTER I

BACKGROUND

History and Typography

Words have been, and still are the main form of visual communication since pictographs first appeared in c. 3100 B.C. Subsequently, Nolen Strals and Bruce Willen, graphic designers and educators at Maryland Institute College of Art (MICA), define typography as “characters that can be uniformly reproduced through a single action” (2009, p. 127), representing words as the visual communication media to a mass audience. Typography exists in various forms: as ink on the printed page, pixels on the glowing screen, and three-dimensional objects on signage. Regardless of its format, typography is an essential element in graphic design. Robert Bringhurst, an educator and one of North America’s most highly regarded typographers and book designers, defines typography as, “the art and craft of handling [the] doubly meaning bits of information [interchangeable parts, or characters, within a language]” (2008, p. 23). At a micro level, this craft encompasses the shape of individual characters, and the arrangement of characters relative to one another; at a macro level, it involves arranging type in the form of sentences and paragraphs relative to the space on a page or a screen. A designer’s ability to manage this micro to macro scale that typography covers is indicated by his or her level of attention to detail and thoughtfulness in type selection and usage. As each typeface has its own personality and connotation based on its origin, different design

content will require different complementary typefaces that share common ground, as opposed to merely the accordance of the designer's subjective preference or the latest trend in the field. As Ellen Lupton, design author, educator, and graphic design MFA program director at MICA, points out, "selecting type with wit and wisdom requires knowledge of how and why letterforms have evolved" (2010, p. 51); the evolution of letterforms as a response to the social and cultural conditions of their time and geopolitical context is inseparable from their resulting forms, which make up the look and feel of a typeface. It is crucial for design students to understand this history-and-form connection in order to make informed selections of typefaces, and subsequently the appropriate arrangement of type, because "a good typographer handles them [letterforms] in intelligent, coherent, [and] sensitive ways" (Bringhurst, 2008, p. 23); and it is the goal of designers to achieve typographic excellence in order to lend interest, structure and tone to the written word.

Statement of the Problem

Acknowledging the importance of understanding design theory and history for both academic study and design practice, Jiwon Lee, assistant professor in graphic design at Old Dominion University, points out the barrier that non-native English speakers (Korean design students) face in comprehending Western graphic design history texts due to the lack of publications translated from English into the students' native language (2011). A similar situation holds true in the study of typography in Chinese postsecondary graphic design education. As Taiwanese professor Tseng Pei Yu describes, "there is a lack of understanding in the historical basis of typefaces and its influence on

type classification, ultimately reflected in [Chinese] students' misguided typeface selection and usage. This is due to a lack of shared heritage in the Western culture and students' limited English ability in understanding the original text [and the structure of a foreign language medium, which may differ from that of Chinese texts]" (2003). Existing translated typographic books in China follow the structure of a Western approach, which do not sufficiently improve the tangibility for Chinese students to obtain a clear understanding of the content. In China and Taiwan, where English is taught as a second language beginning in grade school and used sporadically along with Chinese text, postsecondary design students do not experience the same context that type is used within compared to students who are exposed to Western typography on a daily basis. In an interview with American professor David Fox, design educator in Shanghai, Fox observed that a traditional (Old Style) typeface such as Goudy does not appear as "old" (classical) to English-as-a-second-language (ESL) Chinese students as naturally as Western students due to their typical usage; Chinese students have a weaker understanding of the association between legibility and letter arrangement due to a lower English proficiency level (personal communication, October 22, 2011). It remains to be discussed whether typographic sensibility is directly related to language proficiency, or rather to the cultural context and the intensity a student is confronted with typography usage.

CHAPTER II

RESEARCH

SWOT Analysis

Research on the current state of typographic instruction takes the form of a SWOT (strengths, weaknesses, opportunities, threats) analysis to evaluate the existing typographic teaching tools available to ESL Chinese students.

Strengths

Existing texts for ESL Chinese students include the original texts and the Chinese translations of Ellen Lupton's *Thinking with Type, 1st edition* (2004) and *The Fundamentals of Typography* (2006) by Gavin Ambrose and Paul Harris. These texts provide an overview of type usage and typographic classification, along with historical background in the development of Western type, serving as practical foundation texts. Examples of existing web-based tools are *Font Shop's* educational resources (www.fontshop.com/education) and the accompanying website for James Craig's *Designing with Type* (www.designingwithtype.com/5). Application (app)-based learning tools include *A Typography Insight* by Dong Yoon Park and *Explorations in Typography* by Carolina de Bartolo and Erik Spiekermann; both tools are delivered as applications for the iPad.

Weaknesses

There is varying availability of the above translated textbooks within China. The aforementioned texts and tools, originally written and designed for Western design students, present information from only the Western cultural perspective. On the other hand, locally written typography textbooks focus mainly on Chinese typography and provide narrow coverage of Western typography and its historical development.

According to Roman Wilhelm, a design researcher and lecturer specializing in Chinese-Western intercultural communication and typography, “current bilingual publications explaining the development of the typographic form of the two writing systems is minimal and unsatisfactory” (personal communication, October 12, 2011). It is difficult for Chinese students to obtain an inclusive typographic perspective encompassing both cultures that will expand students’ typographic comprehension in their future careers.

Opportunities

Educational materials presented in both English and Chinese, and from both the Western and Chinese cultural perspectives ease understanding of technical terms in a second language; they provide a platform for simultaneous cross-referencing of related historical events, structural similarities, and other parallels relating to typographic history and form. With China being the second largest iPad market after the United States as of March 1, 2012 (Zhang, 2012), information that is housed within an interactive iPad would be accessible to a wide audience regardless of physical location. The interactive capability of an application can provide simulation of using hands-on writing tools, thus reinforcing the connection.

Threats

The delivery format of educational materials via an iPad app will limit the number of reachable students, excluding those who have limited or no access to an iPad.

According to Apple's iOS Human Interface Guideline (2012, p. 28):

People often use iOS-based devices while they're on the go, and in environments filled with distractions. Part of your [the designer's] job is to create a responsive, compelling experience that pulls people in and gets them to the content they care about quickly and easily.

Given the nature of an iOS app, the information covered in an iPad app will focus on important fundamentals in a concise scope, to maintain user focus and make the learning experience enjoyable. As a result, this reference guide will not supply the elaborated knowledge provided by textbooks; rather it will be a condensed version of these texts.

Methodology

The development process for this thesis adopts the methodology formalized by Paul Nini at Ohio State University, published in *Design Studies: Theory and Research in Graphic Design* (2006). Phase one involves identifying the problem through a literature review and interviews with design educators who specialize in typography and have taught the subject within the Chinese culture, followed by analyzing existing best practices in typographic instruction and in the design of educational interactive applications, gathering content, and developing a strategy for information presentation. Phase two involves prototype development of the interactive application, user testing by

Chinese design students and bilingual educators, and prototype refinement based on feedback.

Project Overview

Using the foundation laid by currently adopted Western typography texts in both the original English texts and their Chinese translated versions, as well as foundational typography curricula in the United States, this project assumes the format of a Western typography reference guide for an iPad app named *Typeline*. Upon introducing new concepts, instructors habitually use analogy to compare the unfamiliar with familiar subjects. The comparison of a pump to the heart and a camera to the human eye are common analogies in biology. In literature, writers use analogies to clarify ideas and to reinforce their argument: In her 1932 classic essay on book typography *The Crystal Goblet or Printing should be Invisible*, the typography publicist Beatrice Warde, compares textual content set in type to wine held within a crystal goblet to point out the significance of well-set type that frames and enhances, rather than obstructs the content it contains. Likewise, Bringhurst offers another typographic analogy: “Typography is to literature as musical performance is to composition: an essential act of interpretation, full of endless opportunities for insight or obtuseness” (2008, p. 19). *Typeline* adopts this analogy approach—while presenting a parallel explanation of historical typographic development between the Chinese and Latin scripts, the guide explains Western typographic terminology and forms through analogies with Chinese typography. Through a paired presentation of Western history with analogous events in the history of China, and by comparing Western type anatomy with familiar pen strokes in Chinese characters,

Typeline renders a new subject more tangible to Chinese learners based on the foundation of a familiar cultural context.

Target Audience

Given the importance of English as a global language and the rising role of design contributions from non-English speaking countries (Lee, 2011), in this case China, *Typeline* primarily focuses on a target audience of ESL Chinese foundational design students. The objective of the app is to strengthen the students' understanding of the fundamentals of Western typography and provide them with a solid groundwork upon which to build further design knowledge, as an effort to bridge the gap in cross-cultural design education. The guide also helps expand the Chinese audience who has an interest in Western typography, raising the quality of Western typographic design in a culture where English is commonly used along with Chinese text, but where the instructional focus on Chinese typography outweighs its Western counterpart.

Western design students constitute the secondary audience. Through a broader cultural presentation of typographic fundamentals, *Typeline* encourages receptiveness to designing with written languages beyond those of Latin origin, expanding the Western design language to be more multi-cultural in a world that is progressively more interconnected, and helping Western design students to view the unfamiliar through a familiar perspective. The ability for a designer to view characters as shapes, beyond their literal connotation, is essential to making discerning decisions in typographic design. The concurrent exposure to unfamiliar Chinese writing systems and pictogram-like characters promotes the viewing of type elements as shapes, training students into utilizing

typographic elements beyond their conventional usage as written text, into design elements that also expressively represent the content.

CHAPTER III

TYPELINE AS A REFERENCE GUIDE

Process

A wireframe lays the foundation of the interactive app, establishing the arrangement of content and the flow of information between topics (see Figure 1). Khoi Vinh, graphic designer and former design director for *The New York Times*, describes wireframes as “schematic drawings that capture the features and types of content that are required for each template [page]” (2010, p. 49). Based on the subject matter covered in adopted typography texts, *Typeline* features six major modules: Timeline, Classification, Anatomy, Typesetting, Glossary, and Specimen. Following the wireframe construction, the design process proceeds to the gathering of content, the translation of content into its Chinese or English counterparts, the illustration of content presented in the Timeline module as visual examples, and finally the arrangement of contents into their respective modules into a digital format as an iPad app prototype.

The name *Typeline* draws from the word *Timeline*, the module that represents this thesis’s primary objective—the presentation of parallel typographic developments within Western and Chinese cultures. The word *line* within the name also connotes the words *hotline* and *helpline*, as a metaphor to providing assistance with typographic reference.

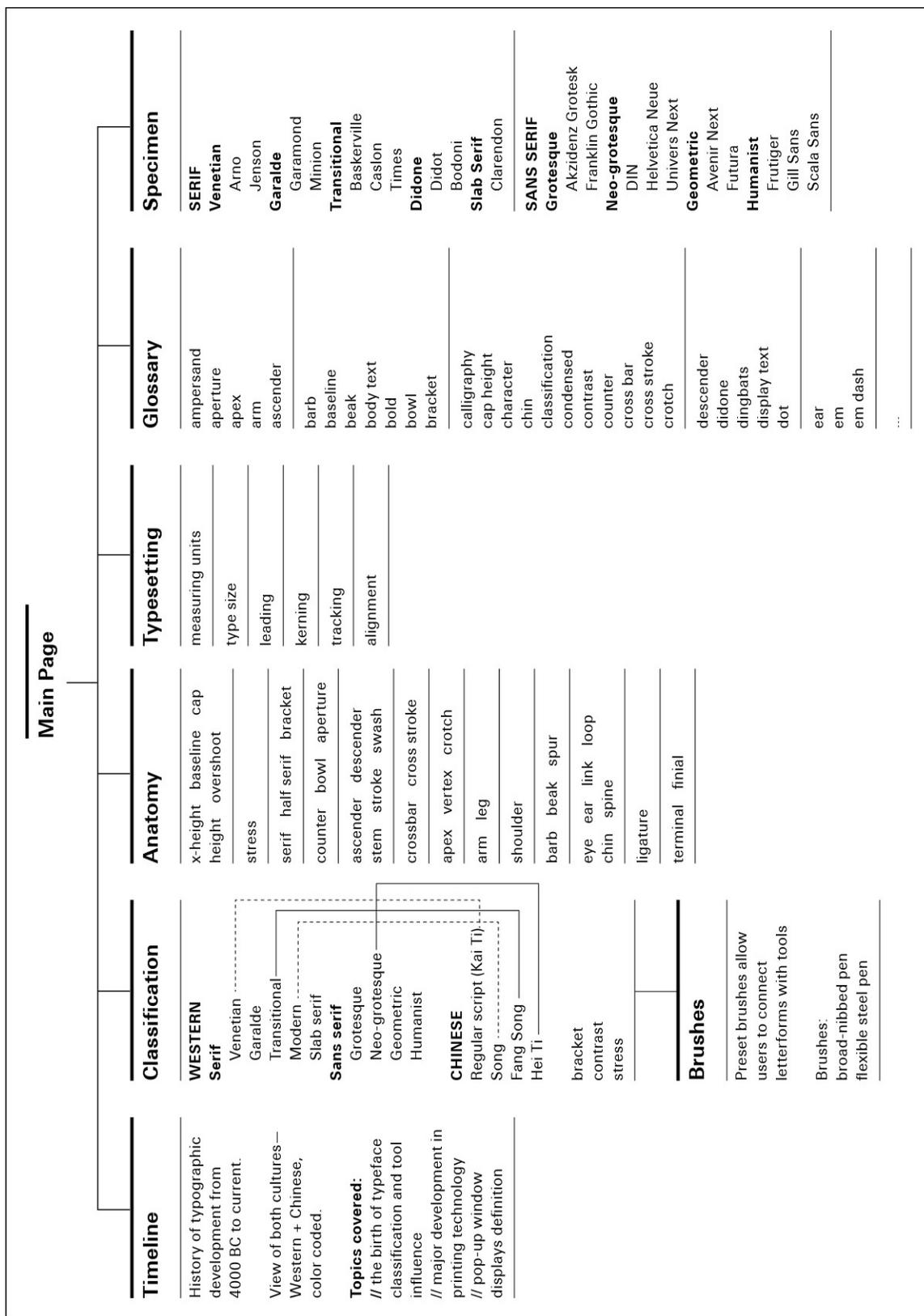


Figure 1. Wireframe for the interactive application.

Outcome Rationale

Logo and Splash Page

The icon with the *Typeline* logo, a combination of the letter *T* and a geometric parallel symbol, introduces the user to the app (see Figure 2). A six-section splash screen greets user with type illustrations that represents the contents discussed (see Figure 3). From here, the user can access these topics in the order of their preference.



Figure 2. Application icon.

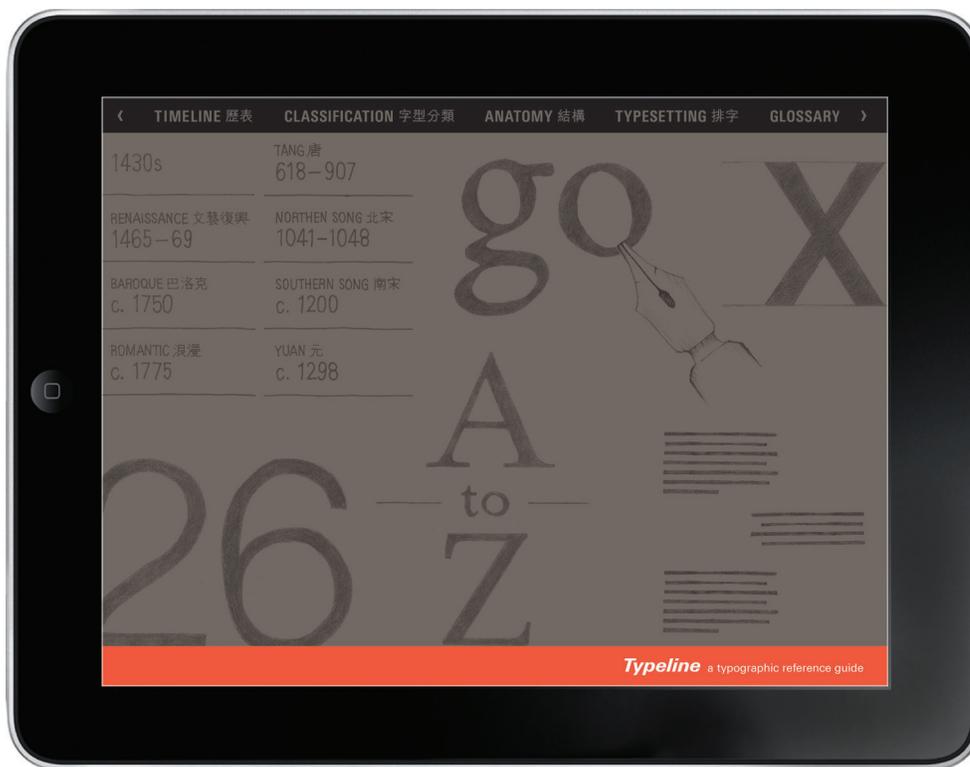


Figure 3. Splash screen.

Timeline

In addition to referencing information from the aforementioned foundational texts and their translated versions, *Typeline* also draws from authoritative texts in the U.S., such as John Kane's *A Type Primer, 2nd edition* (2003) and *Meggs' History of Graphic Design, 4th edition* (2006) by Philip B. Meggs and Alston W. Purvis as references for historical information pertaining to the West. For Chinese typographic history, this project draws primarily on *An Illustrated History of Printing in Ancient China* (1998) by Shubao Luo and Esther Liu's *One Character, One Life: Chinese typographers since 1949* (2009).

Historical information from the West and East are laid out alongside each other, with the Eastern and Western information arranged on the right and left side respectively,

following the convention of a compass orientation. The timeline, color-coded per culture, covers the period from 4000 B.C. to the beginning of the 21st century. Historical eras in China are traditionally represented by the dynasty that occupied the period, as a result, the Eastern timeline is partitioned by annotated dynasties until year 1912, the establishment of the Republic of China that marked the end of dynasties. The Western timeline is partitioned into periods with typographic milestones; since European art movements and the Industrial Revolution carried significant influence on Western typographic development, these events annotate the period they took place within. When a user selects a timeframe, corresponding events appear within the divided content area, allowing concurrent viewing of independent Eastern and Western events. The colored and annotated text marks special terminologies, which upon tapping reveals a definition in a pop-up window (see Figure 4). Illustrations help students to visualize the information displayed, in particular the character forms. The use of a hand-sketch illustration style not only evokes the starting point of the general design process (the planning of ideas through sketching), its consistency in style also visualizes content in a cohesive representation.

Inevitably, “History touched at certain points, other points they diverge” (Bringhurst, 2008, p. 142). The Timeline module also presents related historical events using the *analogous display* function. Tapping on the *parallel* icon on the top right corner of the screen activates a view of analogous or interconnected events between the two cultures (see Figure 5). Since these events are analogies, not equivalences, the parallel symbol indicates this nature through a pair of similar but different strokes, a solid and a dashed line that run in the same direction. When an analogy exists for an event, the content on the opposite culture automatically scrolls to the corresponding event; the line

that usually divides the content for two cultures disappears to reinforce the connection of histories; and the highlighted text (in chartreuse) indicates the specific elements that are analogous.

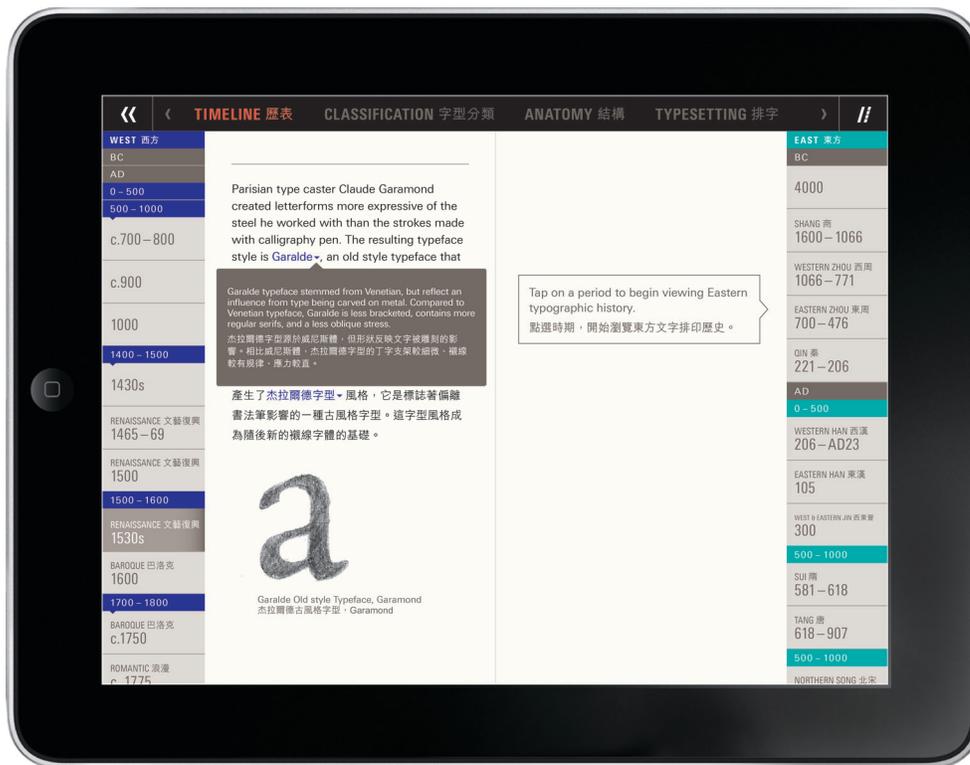


Figure 4. Timeline: history displayed with expanded definition.

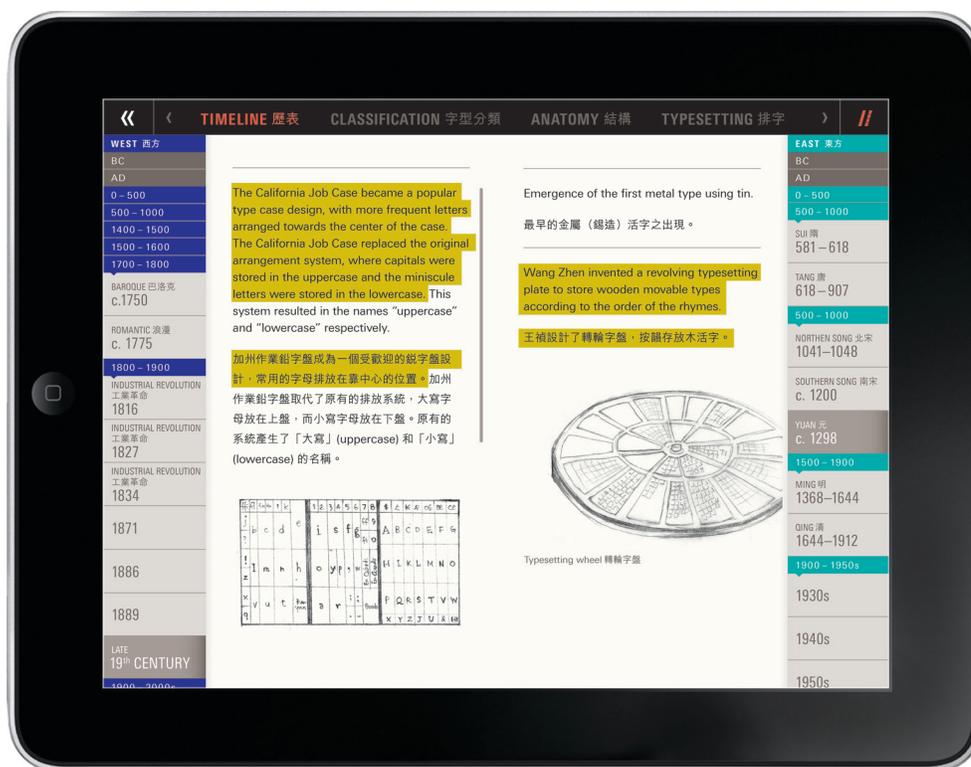


Figure 5. Timeline: parallel events simultaneously displayed.

Classification

Classification is the categorization of typefaces based on their origins and structure. This module focuses on text typefaces as opposed to display typefaces, due to the subtlety of structural differences to the untrained eye. According to Strals and Willen (2009), “The designer’s ability to balance and control legibility, context, and creativity is the power to shape the written word” (p. 5). In the midst of an endless selection of typefaces, a common problem that challenges beginning design students is the appropriate typeface choice for their subject—finding the balance between readability, and the use of type in order to contribute to the tone and mood of the words; and legibility, the clarity of the type forms that allows the reader to distinguish between different letters. The classification of typefaces based on their structural similarities sets

foundational perimeters for students to view unfamiliar typefaces within. A condensed tabular format along with corresponding color-coded segments on the enlarged letters *o* and *k*, letterforms which bear the measuring criteria as examples, describe the classification's physical characteristics.

As Chinese typeface designer of over 50 years and design educator Yu Bing Nan explains, “Latin and Chinese characters are two different language systems that vastly differ; however, from a design, in other words, an artistic perspective, both are governed by the same principles—positive and negative space, contrast, scale, and focal point” (Liu, trans. 2009, p. 118). Based on Yu's observation, this module also presents structural analogies between Latin and Chinese characters. While the corresponding Chinese analogy does not share similar origin and writing tool influence, it presents similarities in form. Whenever a classification has an analogy in terms of Chinese type classification, the Chinese example character 好 (Hao, one of its English translations being *ok* or *fine*), appears with certain segments colored in order to correspond to the Latin anatomical parts of the same colors (see Figure 6). Since origin and structure go hand-in-hand, a timeline tab quickly brings up the historical information of each type class (see Figure 7).

Serif typefaces contain feet-like extensions at the terminals of their letters. Early serif typefaces have a basis in calligraphy, with various writing tools influencing the elements within letters, such as the shapes of the serif, the contrast between the thickest and the thinnest strokes of the letter, and the orientation of the letterform. Providing students the experience of writing with these tools enables them to comprehend the pen-and-structure connection on a first-hand basis, as opposed to merely memorizing the facts. Whenever a type classification contains structures influenced by calligraphy, a

matching pen tool is available for users to “pick up” by tapping on the pen, and then write on top of letter outlines. The resulting pen strokes created by the users affirm the relationship between writing tools and letterforms (see Figure 8).

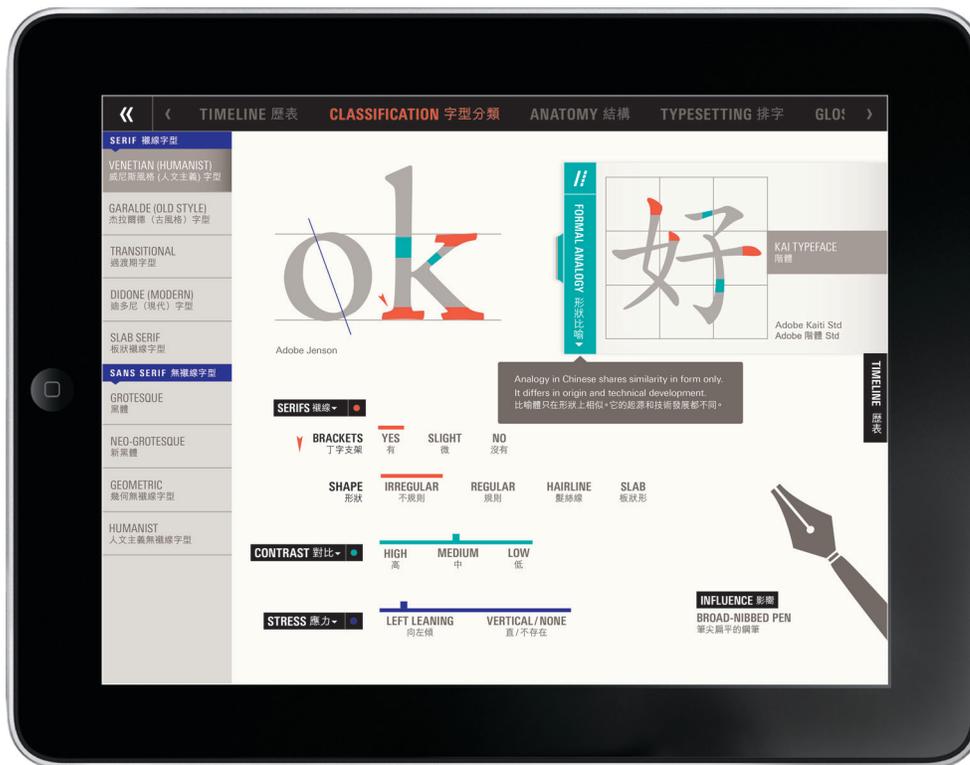


Figure 6. Classification: analogous Chinese character displayed.

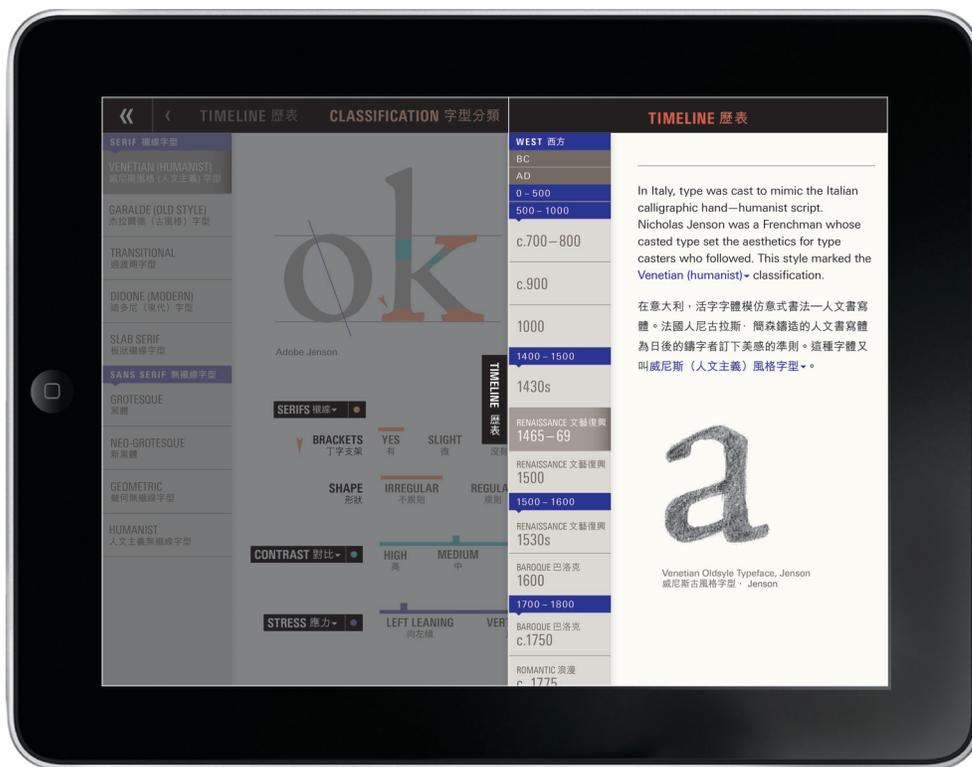


Figure 7. Classification: cross-referencing between classification and origin.



Figure 8. Classification: pen strokes formed by a brush tool.

Anatomy

The discussion of letterforms requires knowledge of the components that make up the letters, including the spaces and guides that letters interact with. Instead of arranging terms in alphabetical order, the Anatomy module arranges terms in related groups: parts that share similar structures with names that are easily mixed up, such as *cross bar* and *cross stroke*; parts that are counterparts of each other, such as *apex* and *vertex*, *arm* and *leg*. A selected term on the sidebar triggers the highlighting of a visual example of the part of anatomy and the display of its definition.

Similar to the keyword *hamburgetonstiv* or the pangram *the quick brown fox jumps over a lazy dog* in Latin alphabets, Chinese calligraphy tradition has it that the term 永 (Yǒng) serves as a practical sample character. Combinations of eight basic stroke types make up the anatomy of Chinese characters. *Yóng*, which contains all of these basic strokes, serves as the example for anatomical analogies. The *Yóng* character appears whenever an analogy exists between the part on a Latin letter and the stroke on a Chinese character (see Figure 9).

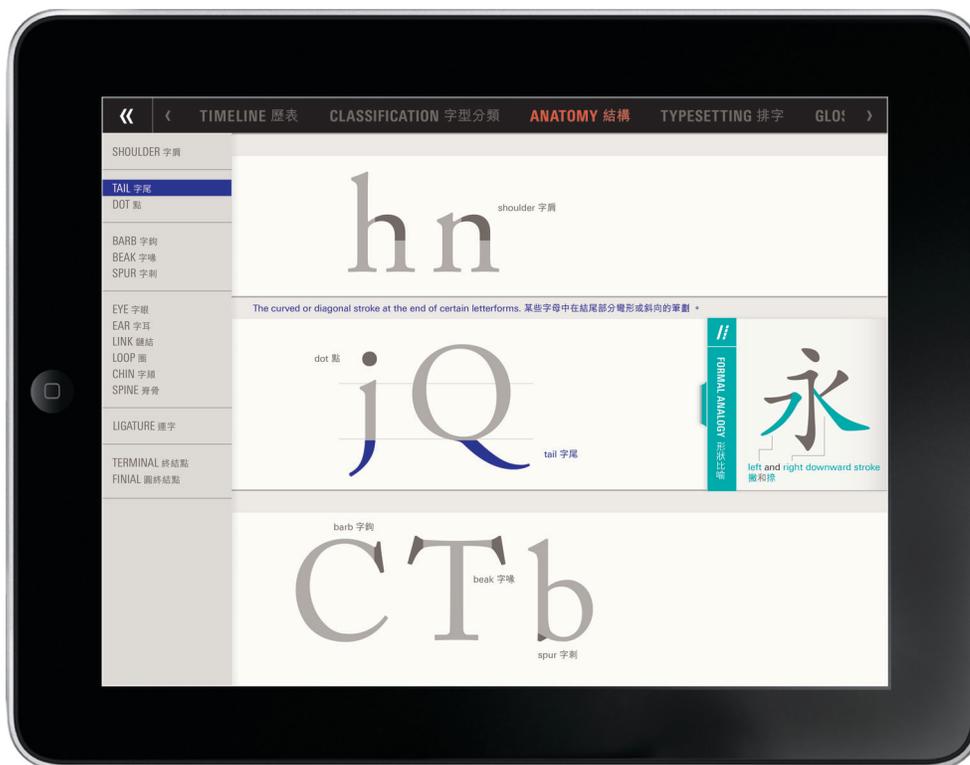


Figure 9. Anatomy: corresponding analogous parts displayed.

Typesetting

The Typesetting module introduces learners to the arrangement of type elements: from a smaller scale of learning measurement units for type elements and understanding the relationships of typefaces, letter sizes, and legibility; progressing into a larger scale of setting words, sentences, and subsequently paragraphs.

Bill Moggridge, founder of the global design firm IDEO, explains, “Design thinking harnesses tacit knowledge rather than the explicit knowledge of logically expressed thoughts. Designers operate at a level of complexity in the synthesis of constraints where it is more effective to learn by doing...” (2007, p. 650). This module’s use of responsive controls allows users to adjust settings for individual typesetting elements, helping them visualize the effects of their adjustments. An expandable *Note* tab

elaborates each topic and provides scenarios of desirable and undesirable typesetting results under common typesetting situations, providing guidance for users to evaluate their typesetting outcomes (see Figure 10 and 11).

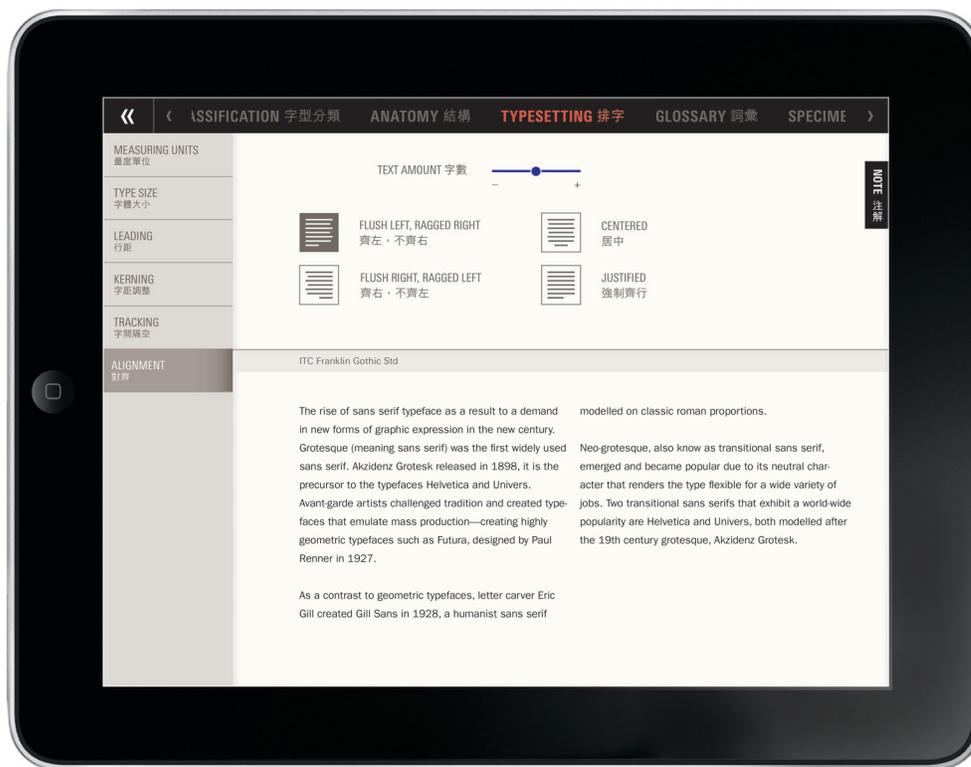


Figure 10. Typesetting: controls allowing users to adjust setting.

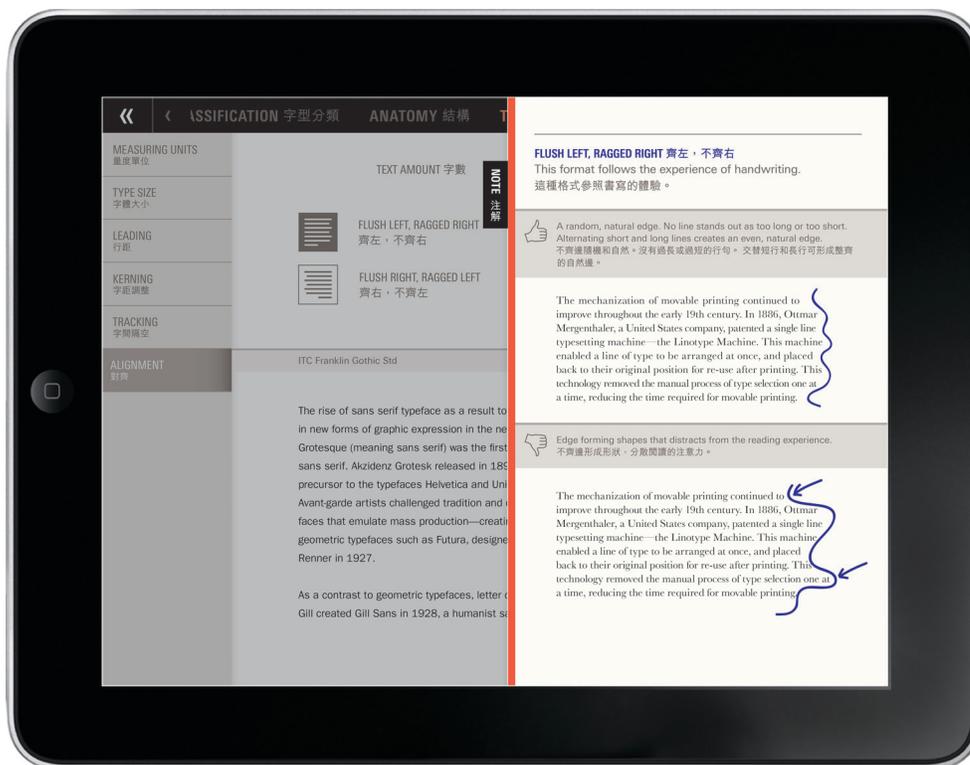


Figure 11. Typesetting: Note providing explanation and guidelines.

Glossary

Glossary module contains a collection of common typographic terms (see Figure 12). Definitions in both English and Chinese are especially helpful to Chinese students in clarifying terms that bear ambiguous translations across translated textbooks, such as *typography* and *typeface design*; and terms that are commonly used interchangeably but bear different meanings, such as *typeface* and *font*. Explanations are given within the context of usage in Western countries.

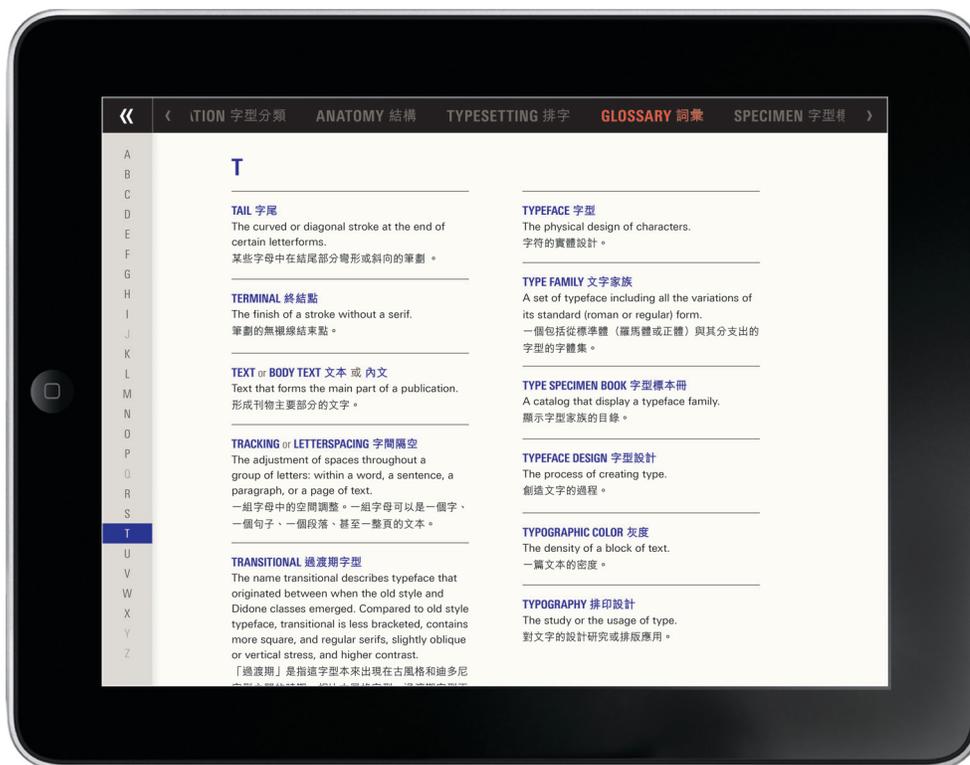


Figure 12. Glossary for terms beginning with the letter *T*.

Specimen

A type specimen is a catalog of a typeface and its respective styles (roman, italic, bold...etc.). The Specimen module showcases 20 essential typefaces that epitomize the classifications they represent. The grouping by classification echoes the categories covered in the Classification module, allowing users to use the specimens as extended examples for the discussed classifications (see Figure 13).

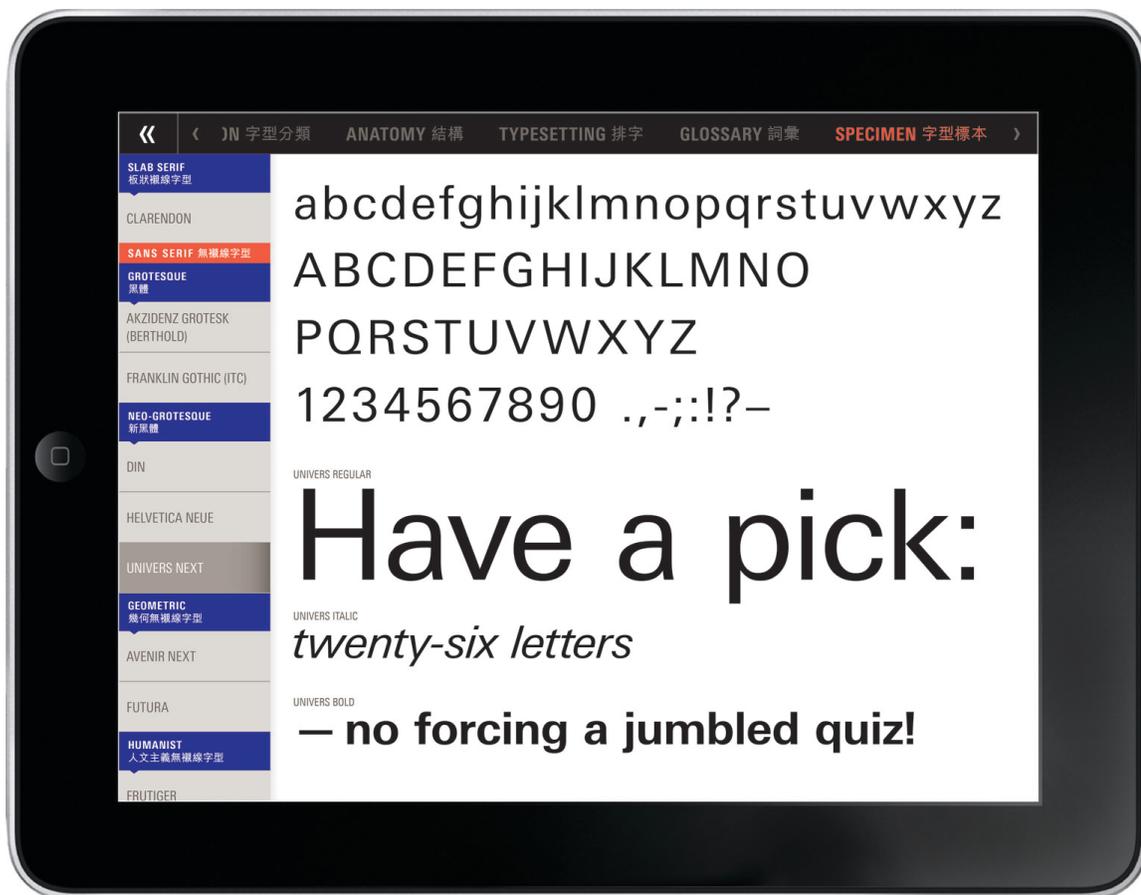


Figure 13. Type specimen for Univers Next.

CHAPTER IV

EVALUATION AND FURTHER RESEARCH

Prototype testing

Moggridge (2007) defines a prototype as “a representation of a design, made before the final solution exists (p. 685)”, and further explains the importance of early and frequent prototyping: it assists designers in arriving at good designs by trying out ideas quickly and revising their ideas based on user responses and evaluations (p.725)

Typeline's prototype takes the form of a live interactive Flash-based website; a portion of the controls that represent the contextual functions are activated to simulate a realistic representation of an iPad app for students to interact with. A group of five Chinese students, respectively from Shanghai, Hong Kong, and Taiwan, participated in the prototype testing and provided feedback on the content and usability. Feedback was returned in the form of screen recordings that displayed cursor movement and anonymous survey answers. All of the students found the prototype easy to navigate and the contents organized. A majority of the students demonstrated an increased level of interest in the historical origins of typefaces and they found the Classification module helpful with the paired Chinese character, which affirms the effectiveness of the focus on analogies compared to an isolated historic approach. Student responses reflected a desire for the

app to include more practical exercises and a stronger hierarchy of information in the layout.

Possibilities

The prototype feedback process raised possibilities to collect more thorough responses in further testing:

1. Encompass a larger group of participants in user testing for more extensive responses.
2. Use a test based on a goal-driven action, in order to create constraints to be met for measurable results. For example, a student will select a topic of interest to look up prior to opening the app. His or her path to locating this piece of information serves as an indication of the ease of navigation within the app.
3. Maximize user feedback from prototype testing conducted remotely. In addition to using screen recordings that trace the cursor movement, capture audio recordings of users narrating their thought processes during the testing. A combination of audio and visual records will represent not only what users do, but also what they are thinking, in order to understand the context in which actions occur.

Taking the form of an interactive application, *Typeline* lends itself to ongoing updates, including: continual expansion of historical content, the addition of new typographic milestones, and the updates to Chinese translations as terminologies are established in Chinese textbooks.

CHAPTER V

CONCLUSION

Understanding the related historical and cultural background is crucial in the intelligent usage of typography in design. Research via scholarly journals and interviews with typography educators within Chinese postsecondary institutions revealed that Chinese students' lack of understanding in Western typographic history is resulting in poor type usage.

In an effort to elevate comprehension in typography's social and cultural background, this thesis actualizes a reference guide that serves as a supplementary educational tool for ESL Chinese design students. It presents parallel perspectives of Eastern and Western typographic histories to aid in understanding through students' shared heritage in Chinese history. The analogies presented in this guide enable cross-cultural historic references and formal comparisons, as opposed to offering prescriptive notions for typographic equivalence between the two cultures. In the context of Chinese language and heritage, *Typeline* engages Chinese students to comprehend, embrace, and more readily refer to the historical basis as the rationale for Western typographic design. It is the goal of this project to help spark new ideas and typographic expression in multi-cultural design.

APPENDIX A

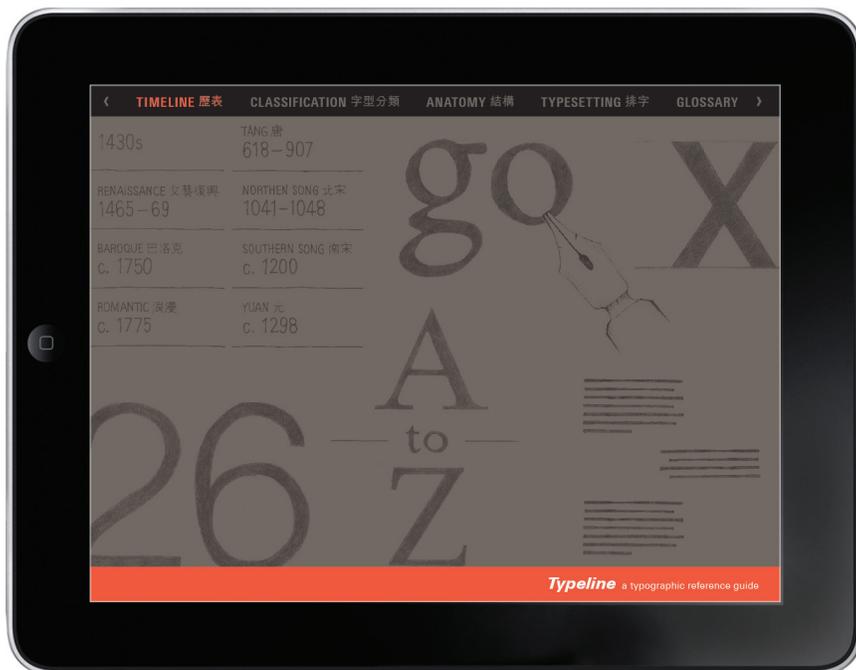
TYPELINE APPLICATION: STARTUP

TYPELINE APPLICATION: TIMELINE MODULE

APPLICATION STARTUP

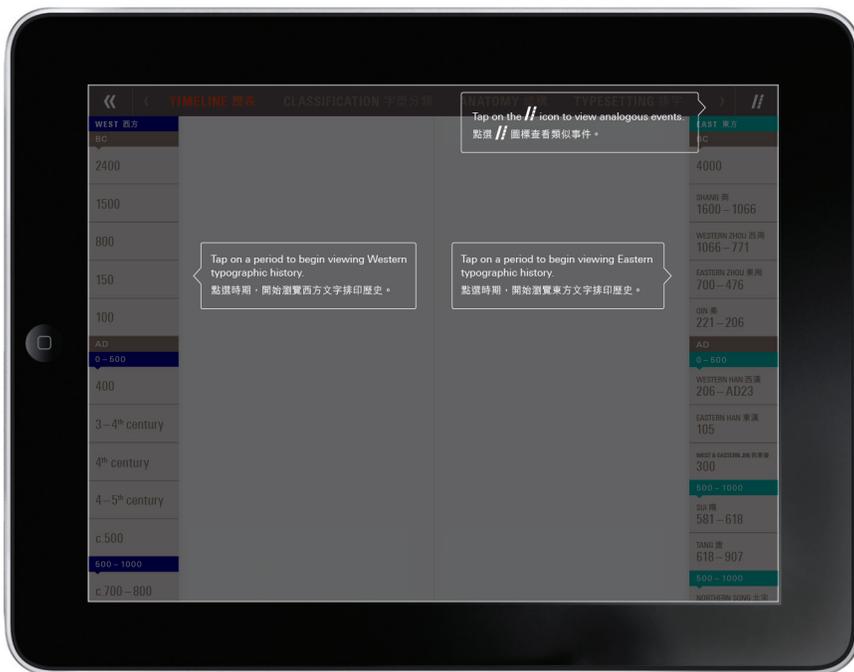


Application icon

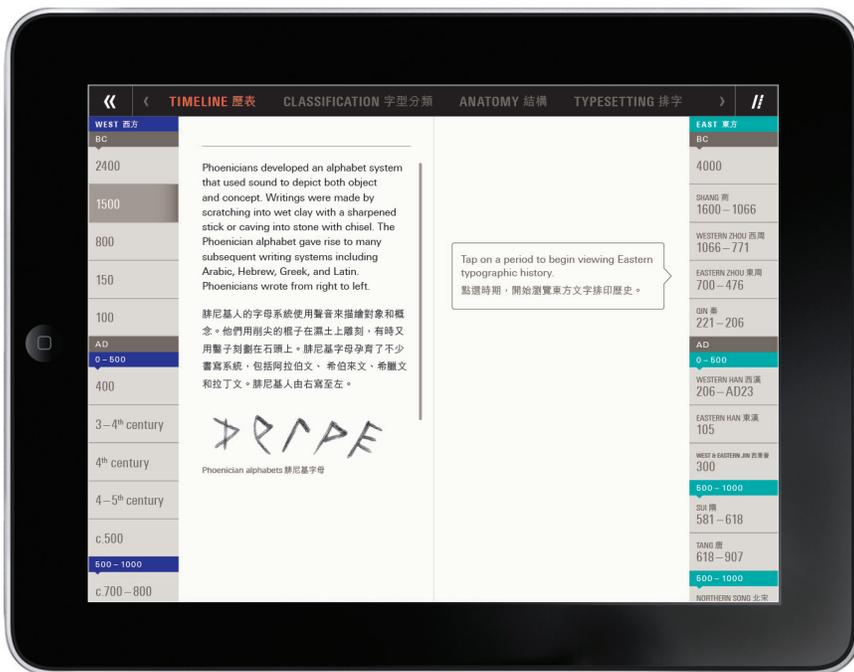


Splash screen

TIMELINE: viewing of independent events



Initial prompt to guide navigation

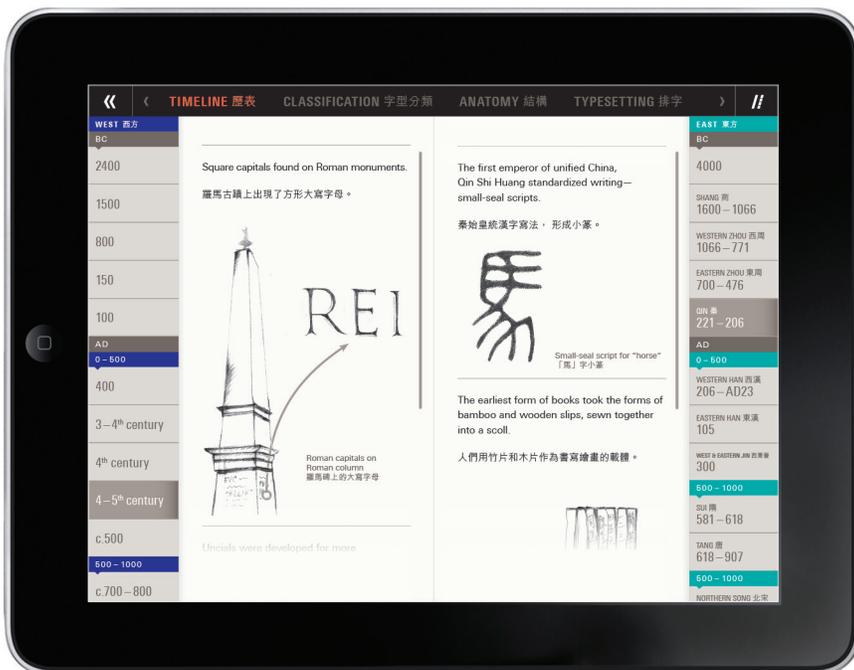


Viewing of Western historical events

TIMELINE: viewing of independent events

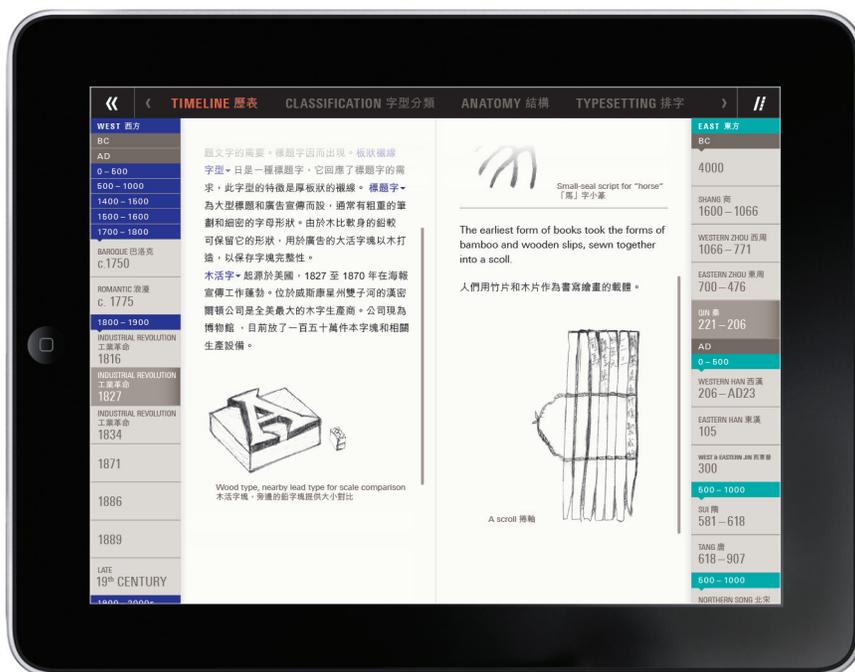


Independent historical events of the East and West

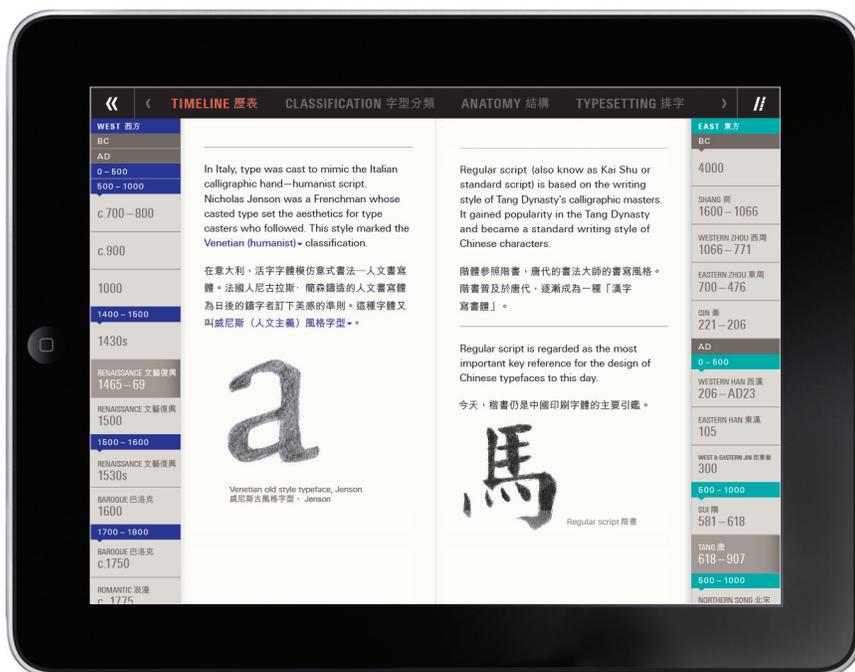


Independent historical events of the East and West

TIMELINE: viewing of independent events

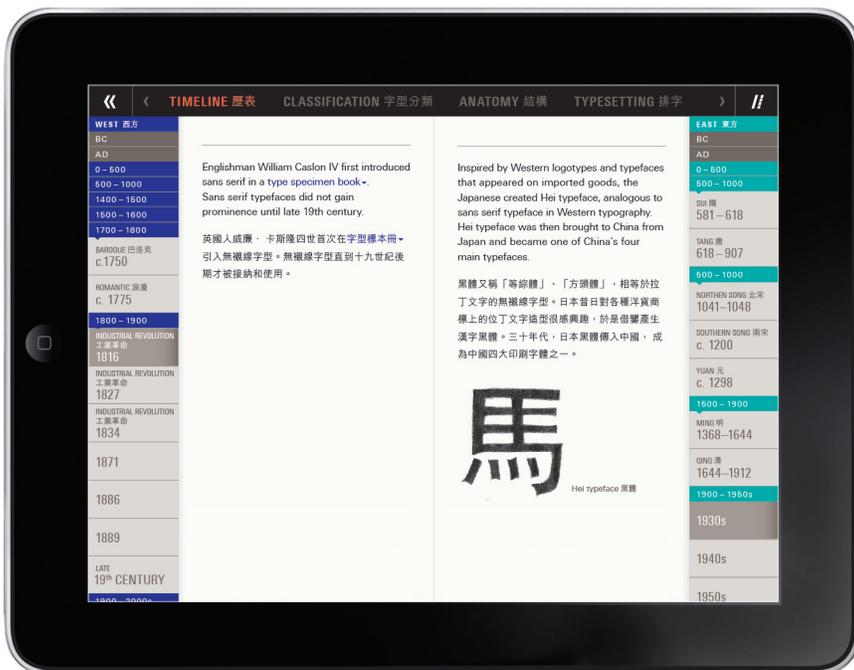
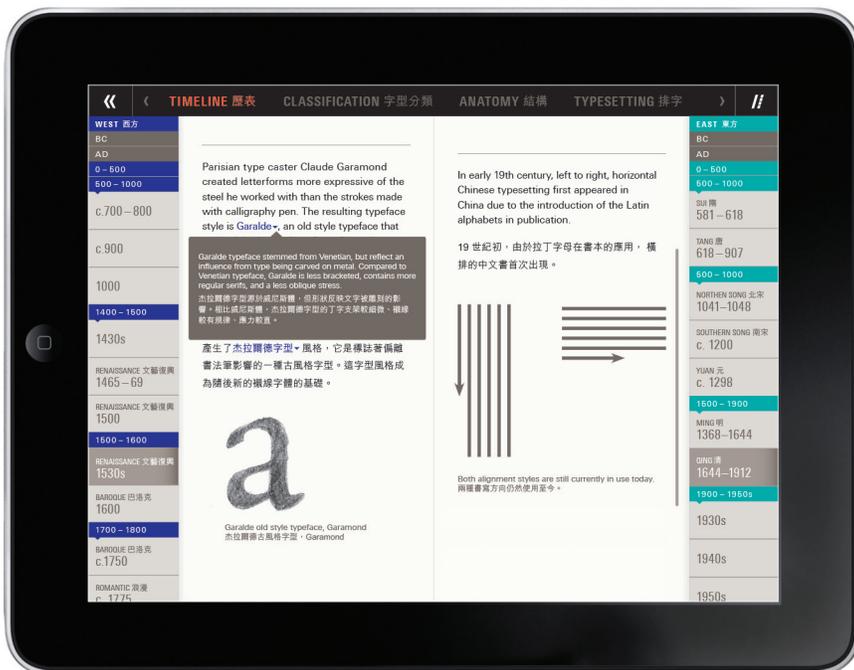


Independent historical events of the East and West

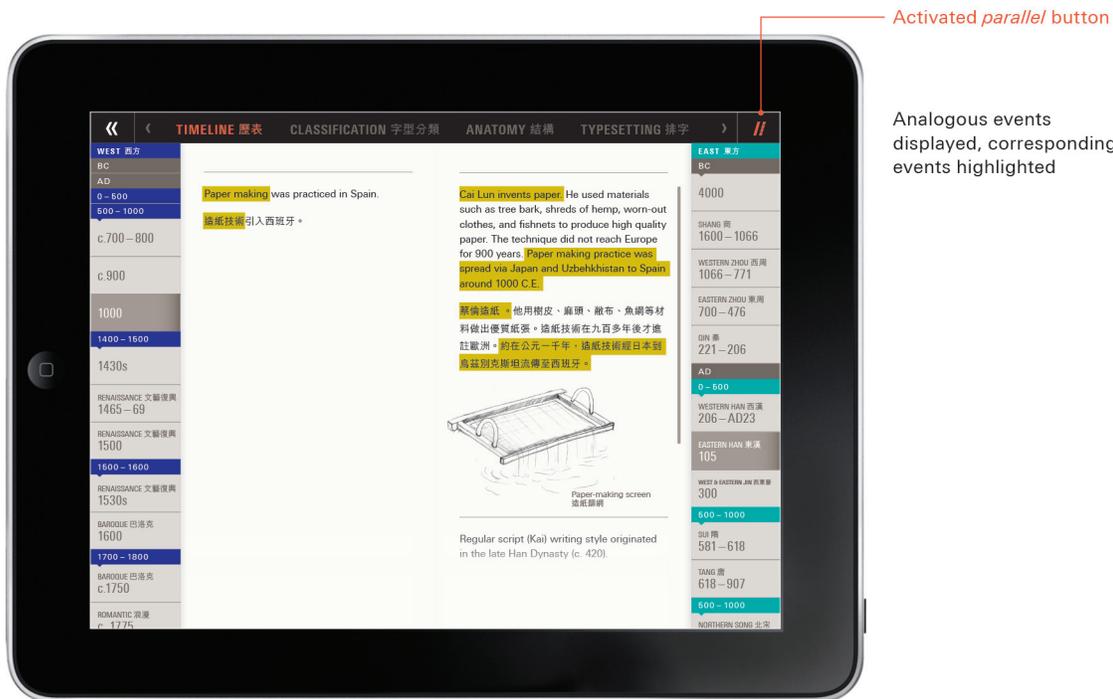


Independent historical events of the East and West

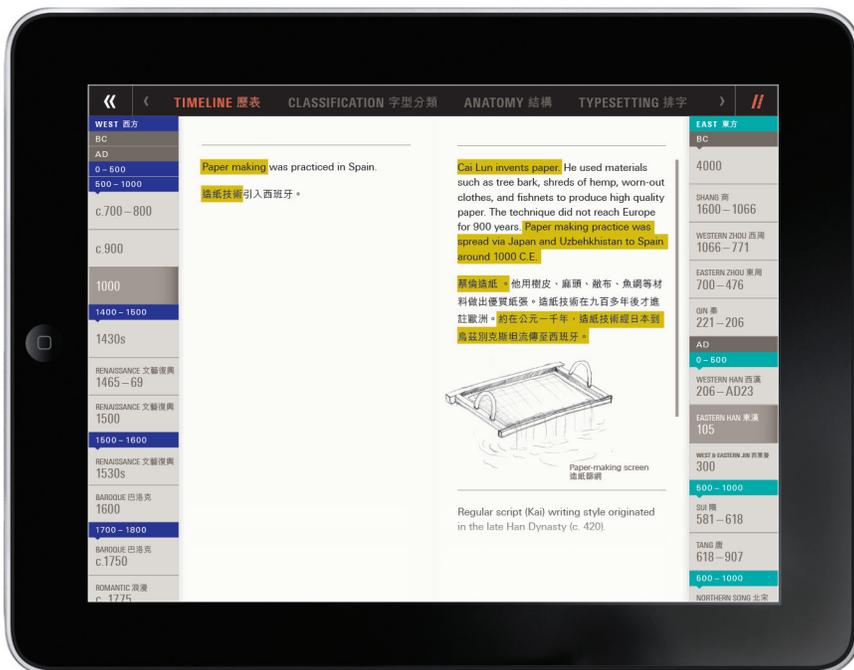
TIMELINE: viewing of independent events



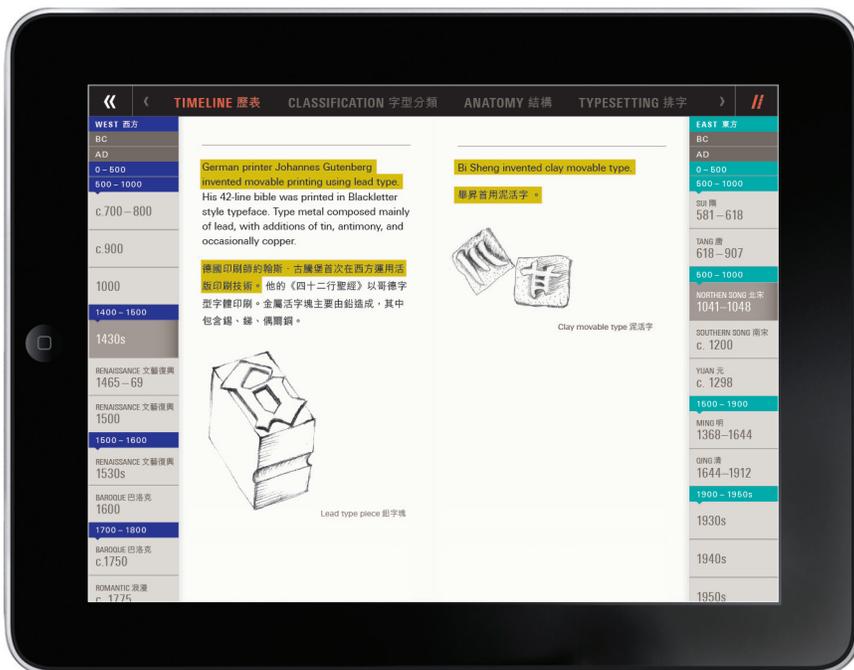
TIMELINE: viewing of analogous events



TIMELINE: viewing of analogous events

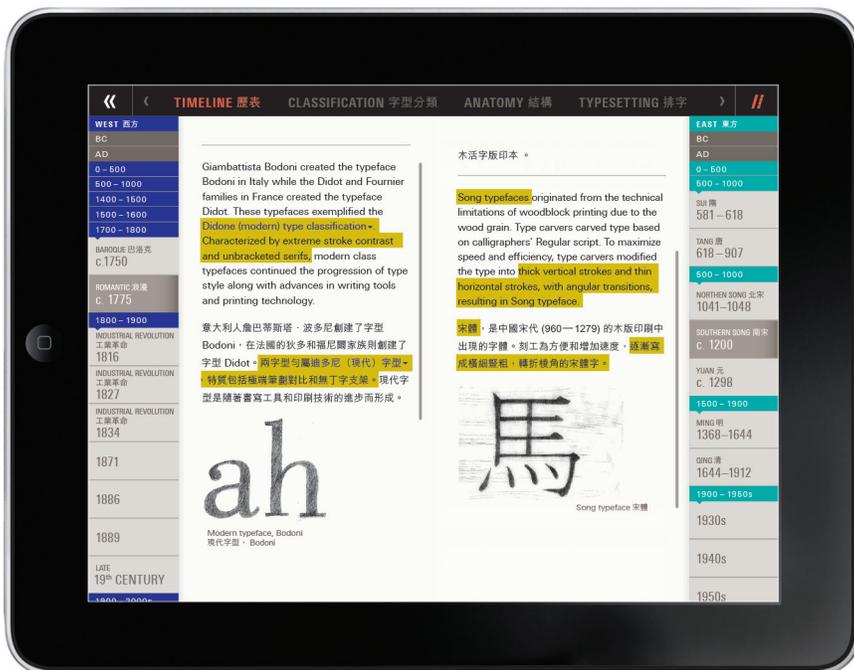


Analogous events displayed, corresponding events highlighted

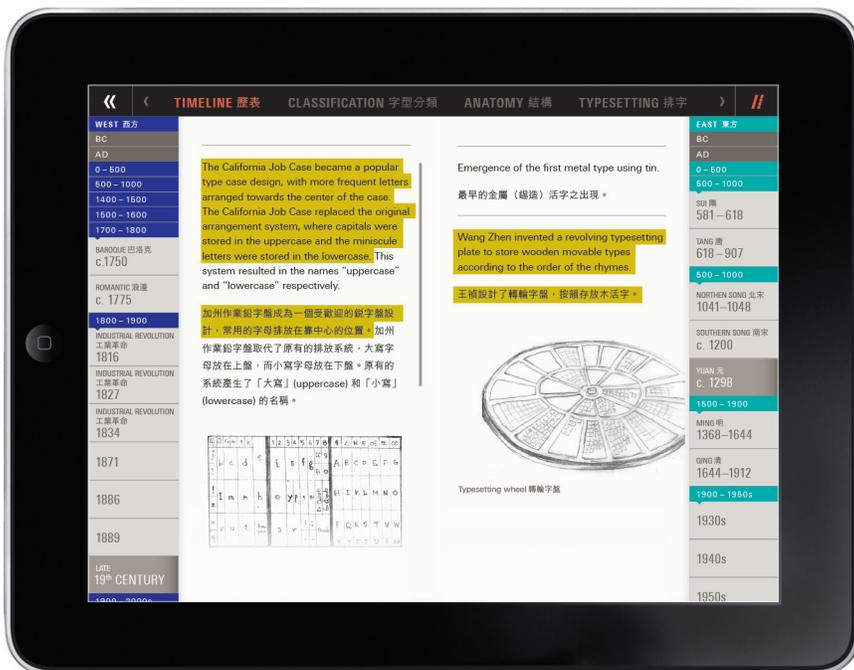


Analogous events displayed, corresponding events highlighted

TIMELINE: viewing of analogous events



Analogous events displayed, corresponding events highlighted

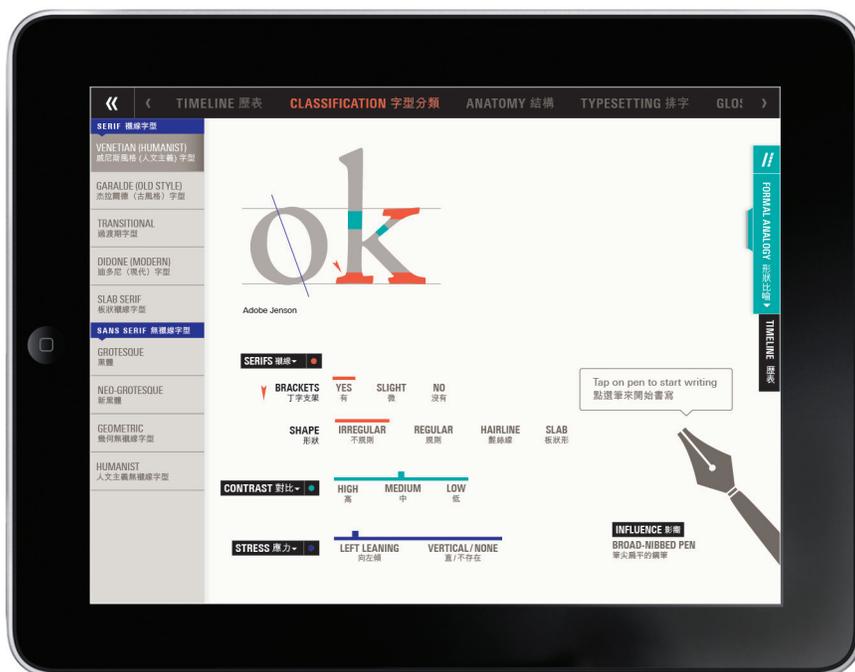


Analogous events displayed, corresponding events highlighted

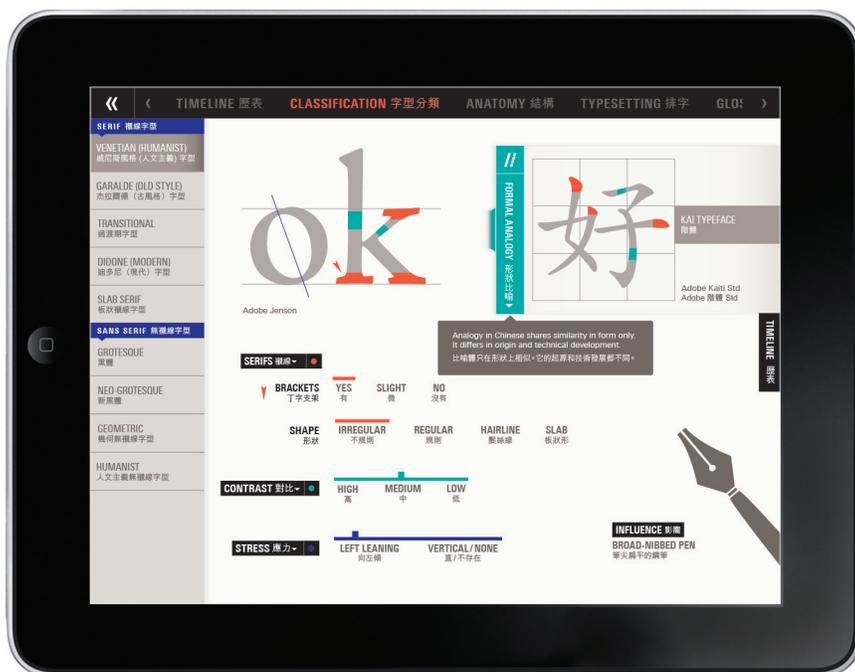
APPENDIX B

TYPELINE APPLICATION: CLASSIFICATION MODULE

CLASSIFICATION



Venetian (humanist)

Venetian (humanist) with
analogous Chinese character

CLASSIFICATION

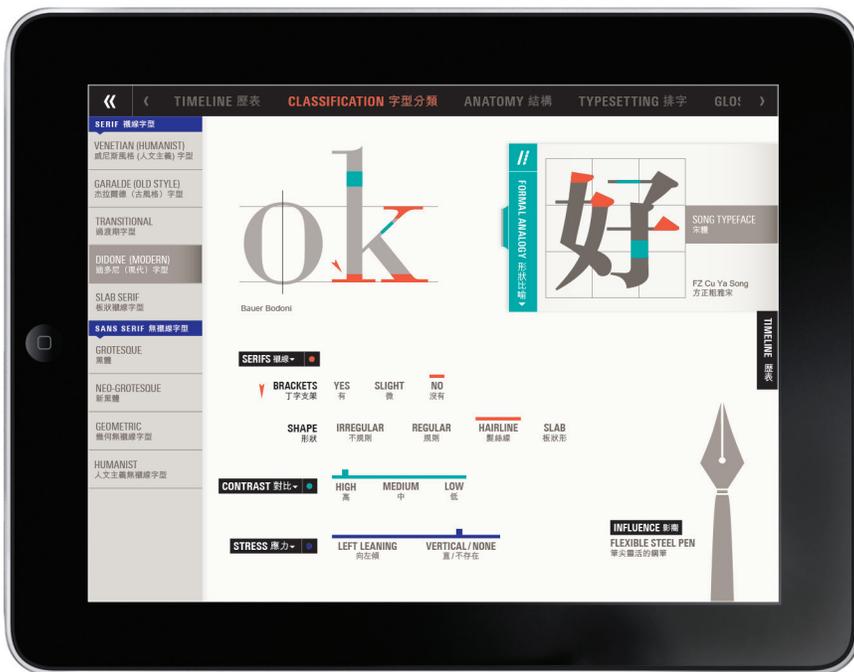


Brush tool for Venetian

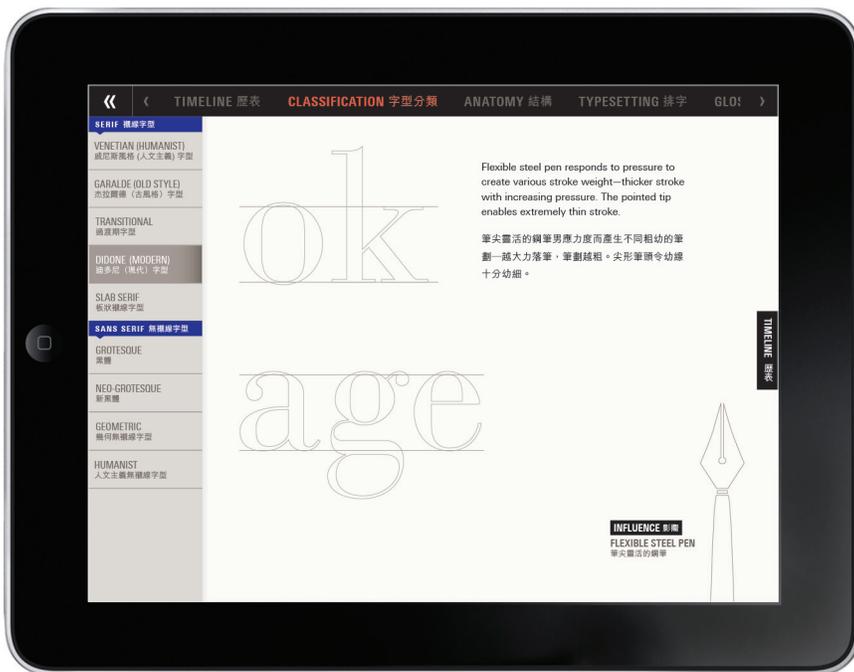


Interactive broad-nibbed pen tool allowing user to write and experience brush strokes that influence letterforms

CLASSIFICATION

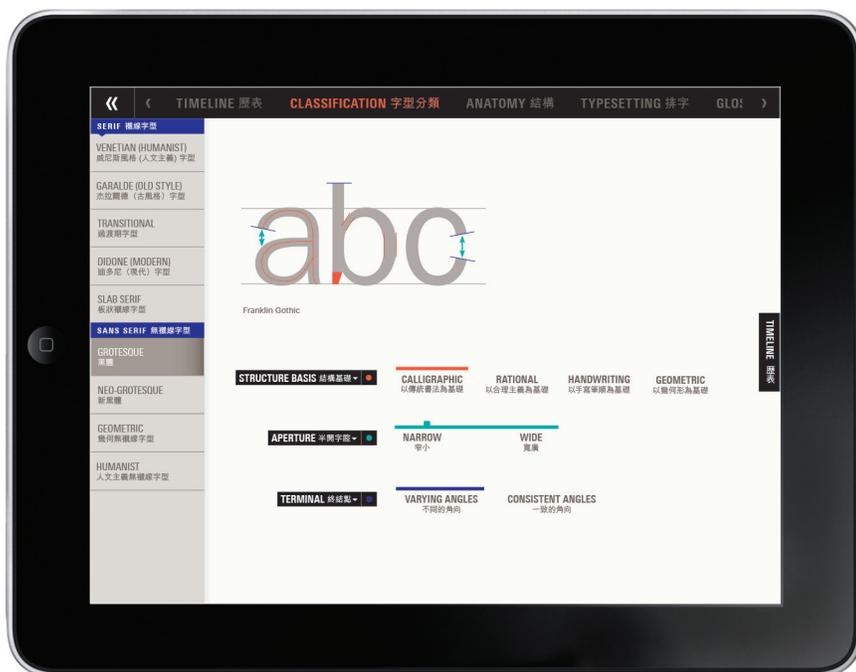


Didone (modern) with analogous Chinese character

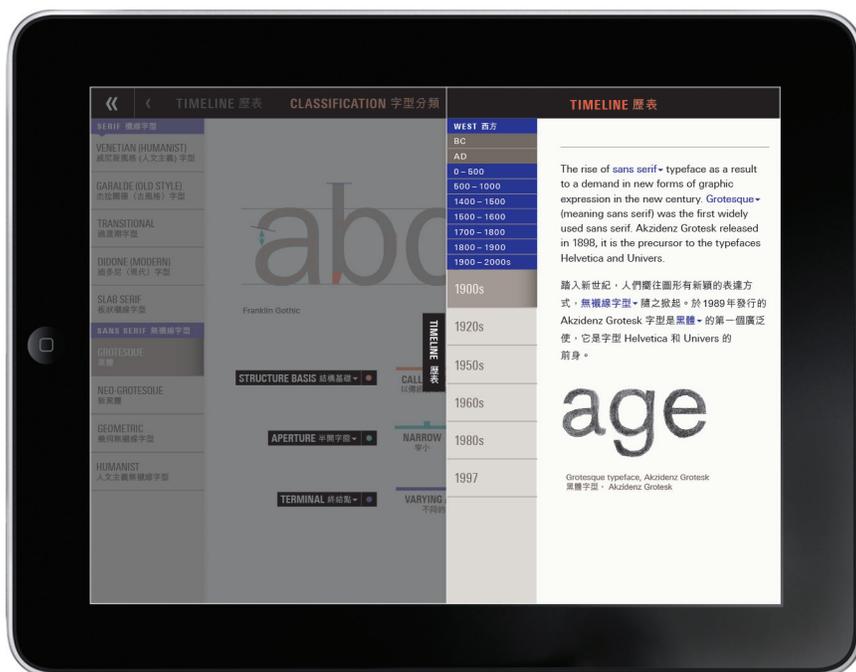


Interactive flexible steel pen tool for Didone (modern)

CLASSIFICATION

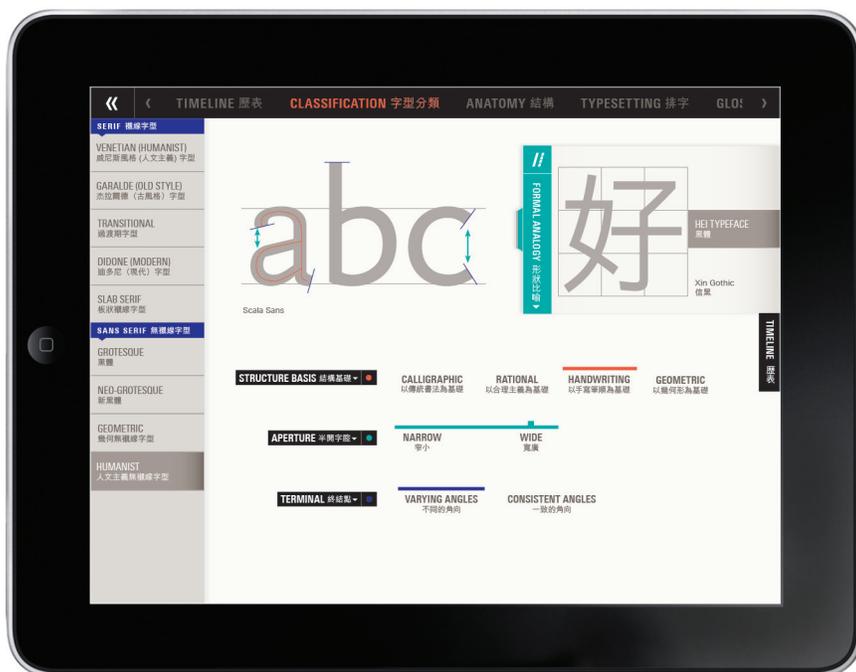


Grotesque

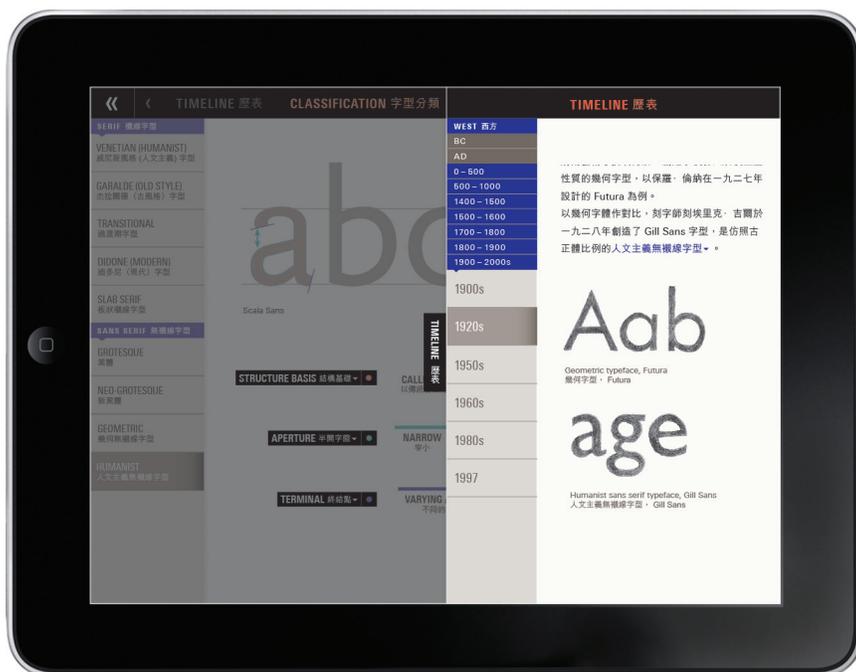


Cross-referencing historical information for grotesque

CLASSIFICATION



Humanist sans serif with analogous Chinese character

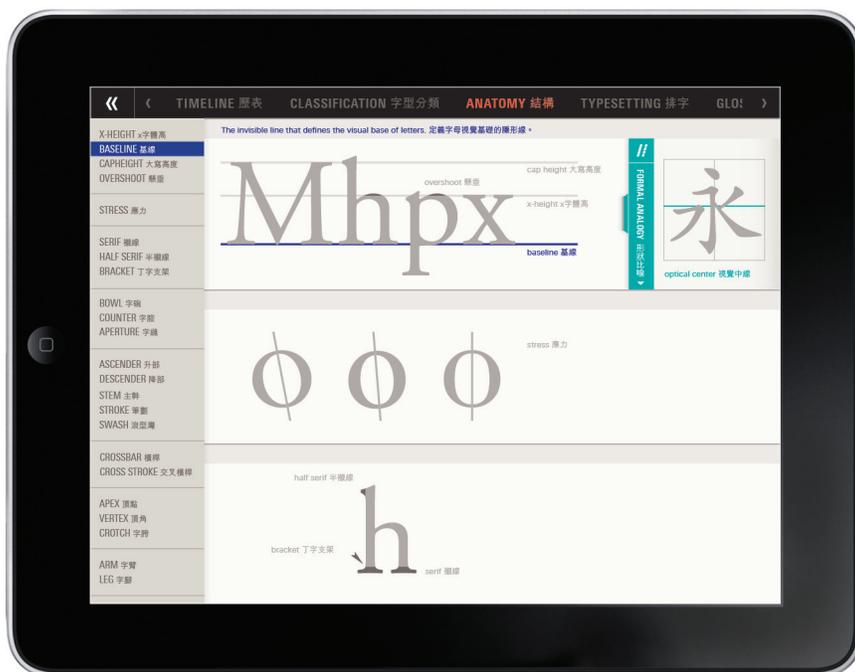


Cross-referencing historical information for humanist sans serif

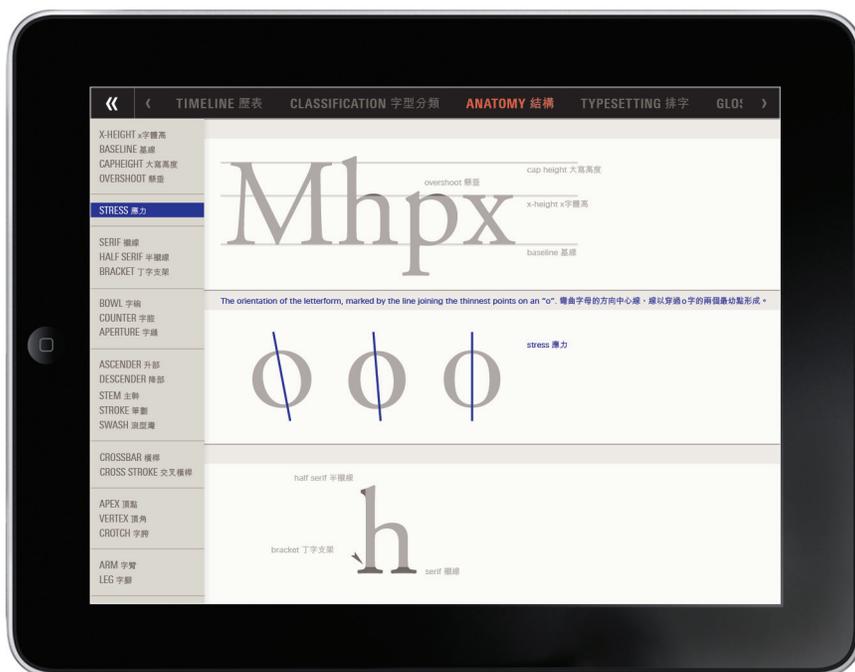
APPENDIX C

TYPELINE APPLICATION: ANATOMY MODULE

ANATOMY



The term *baseline* defined, along with its analogous segment



The term *stress* defined

ANATOMY



The term *stem* defined, along with its analogous segment

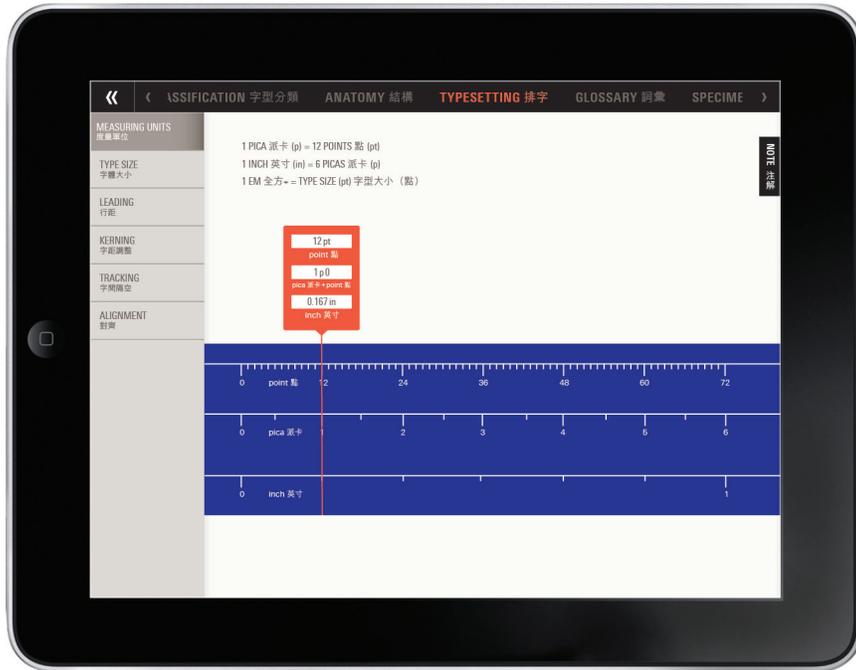


The term *cross stroke* defined, along with its analogous segment

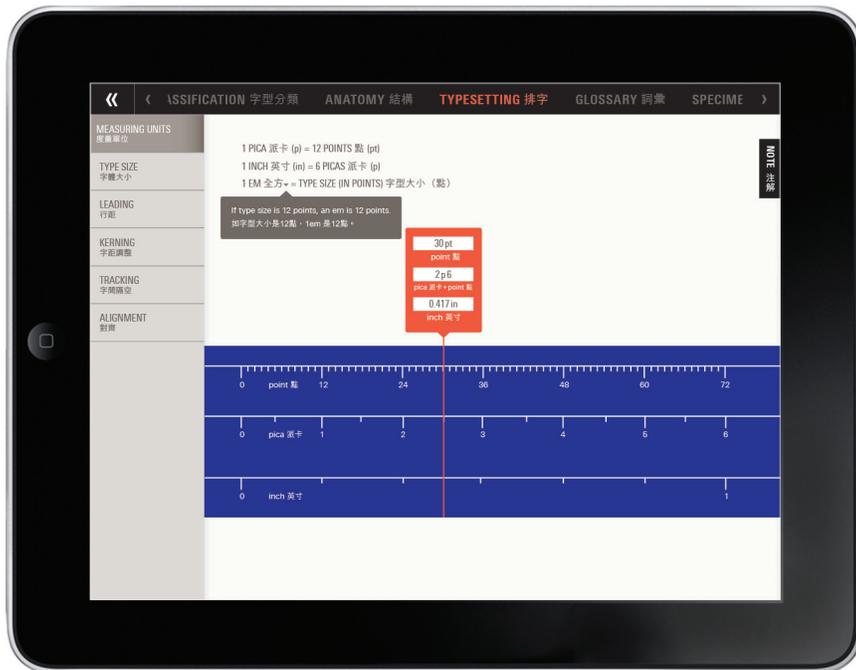
APPENDIX D

TYPELINE APPLICATION: TYPESETTING MODULE

TYPESETTING

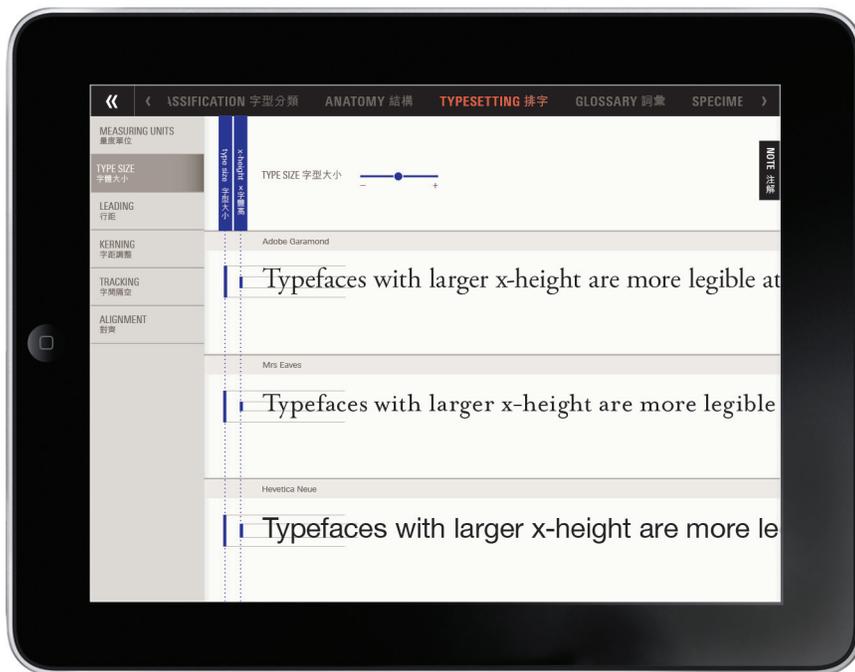


Measuring Units: responsive pointer indicates unit equivalences based on its position on the ruler

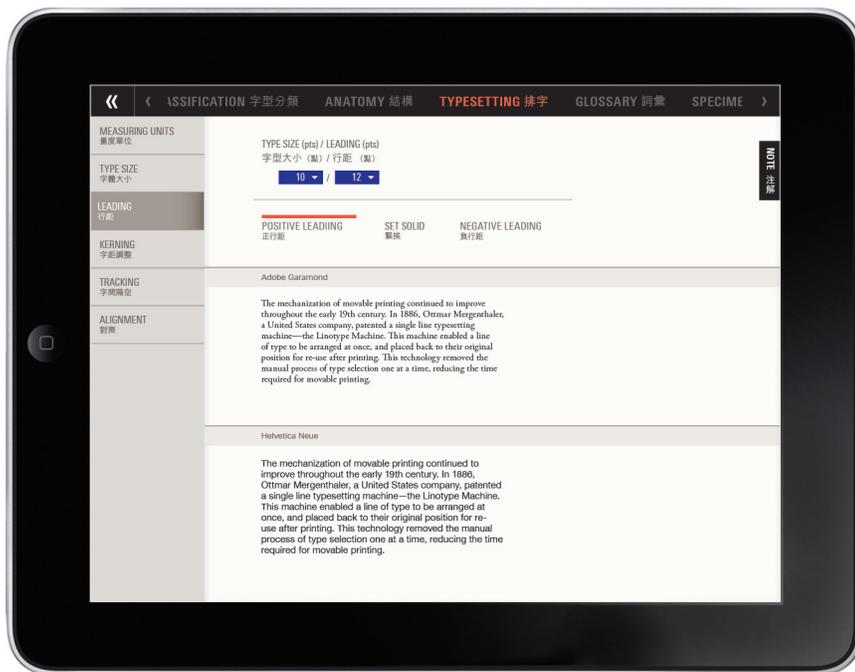


Measuring Units: expandable dialogue box displaying definition

TYPESETTING

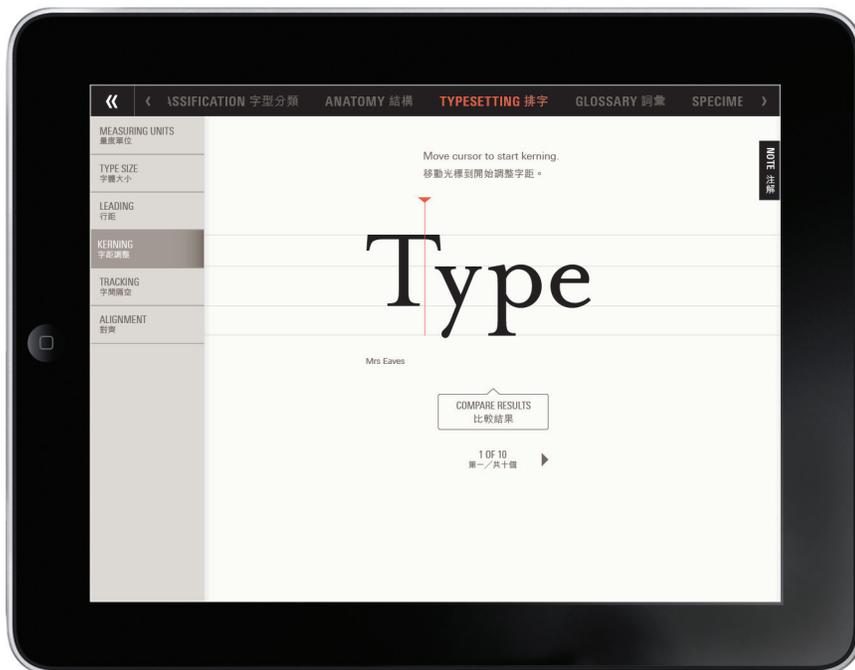


Type Size:
control allows changes in
type size



Leading:
controls allow changes in
type size and leading

TYPESETTING

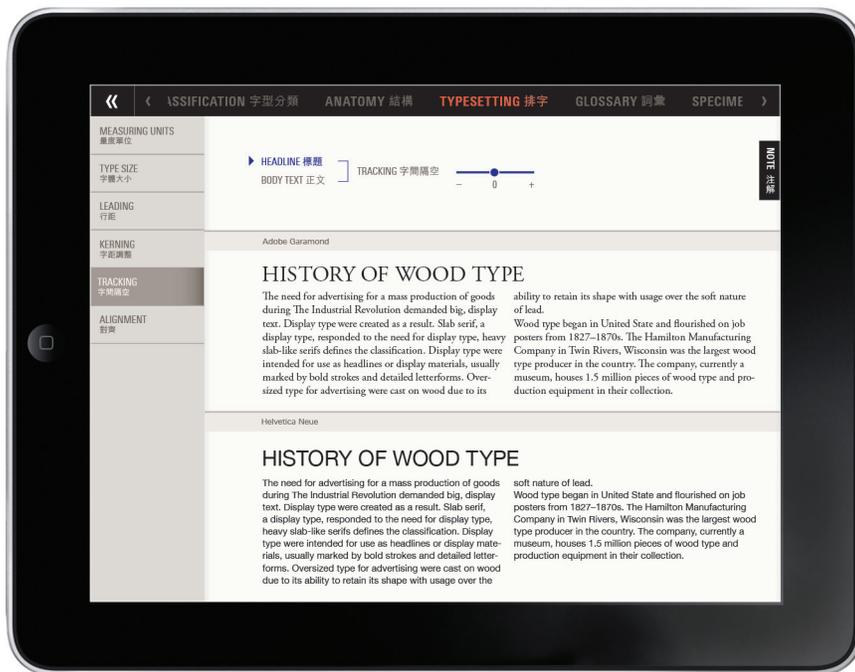


Kerning:
cursor allows changes in
spacing between designated
pair(s) of characters

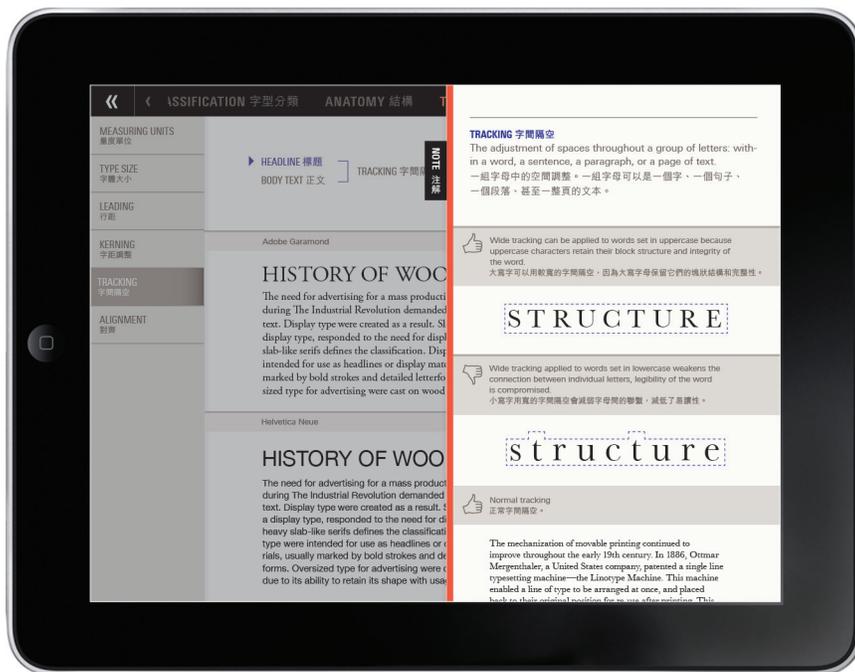


Kerning:
Note displays guidelines
for desirable and
undesirable results

TYPESETTING

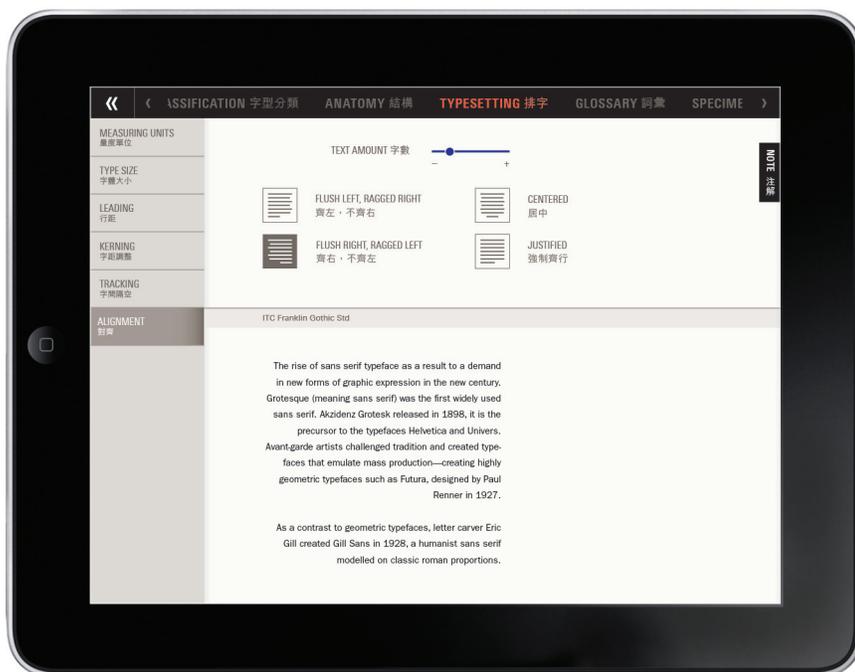


Tracking:
controls allow changes in
tracking within the headline
and body text

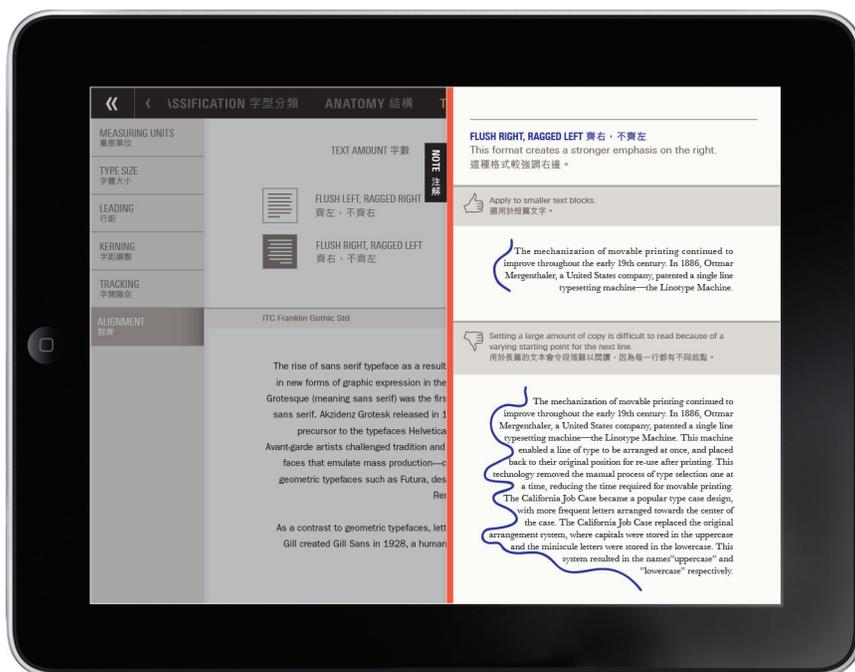


Tracking:
Note displays guidelines
for desirable and
undesirable results

TYPESETTING



Alignment:
controls allow changes in
text amount and alignment

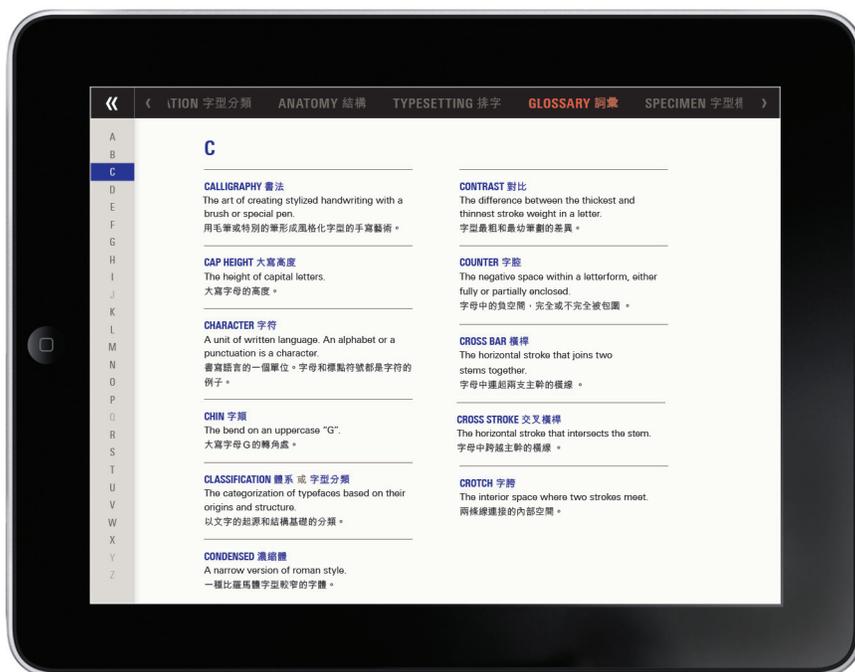


Alignment:
Note displays guidelines
for desirable and
undesirable results

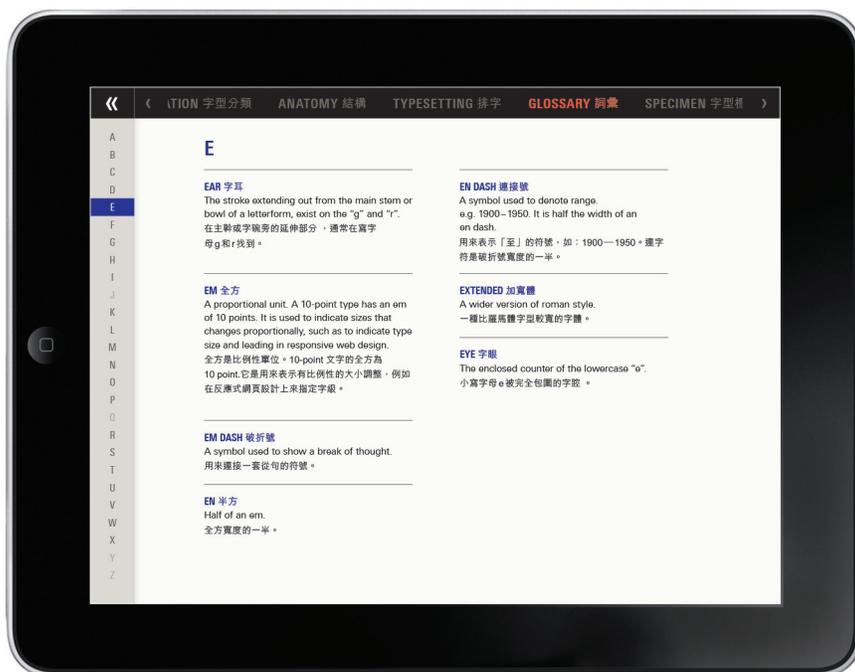
APPENDIX E

TYPELINE APPLICATION: GLOSSARY MODULE

GLOSSARY



Glossary for terms beginning with the letter C



Glossary for terms beginning with the letter E

GLOSSARY



Glossary for terms beginning with the letter G

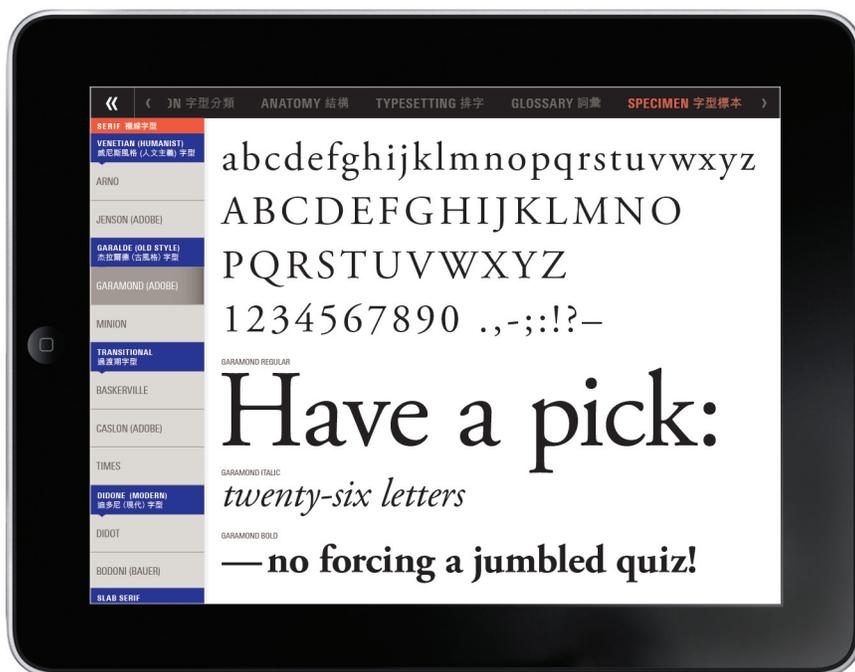


Glossary for terms beginning with the letter L

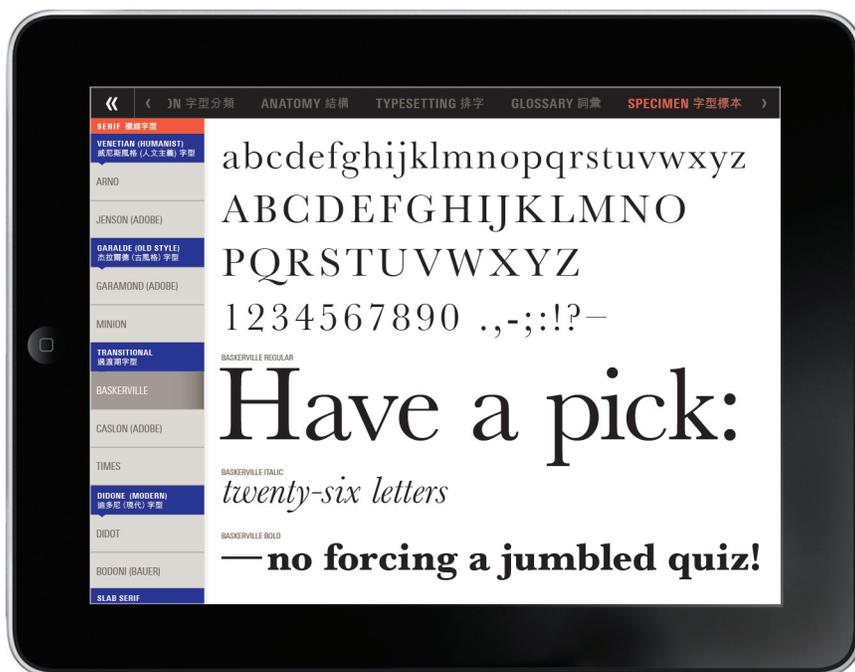
APPENDIX F

TYPELINE APPLICATION: SPECIMEN MODULE

SPECIMEN

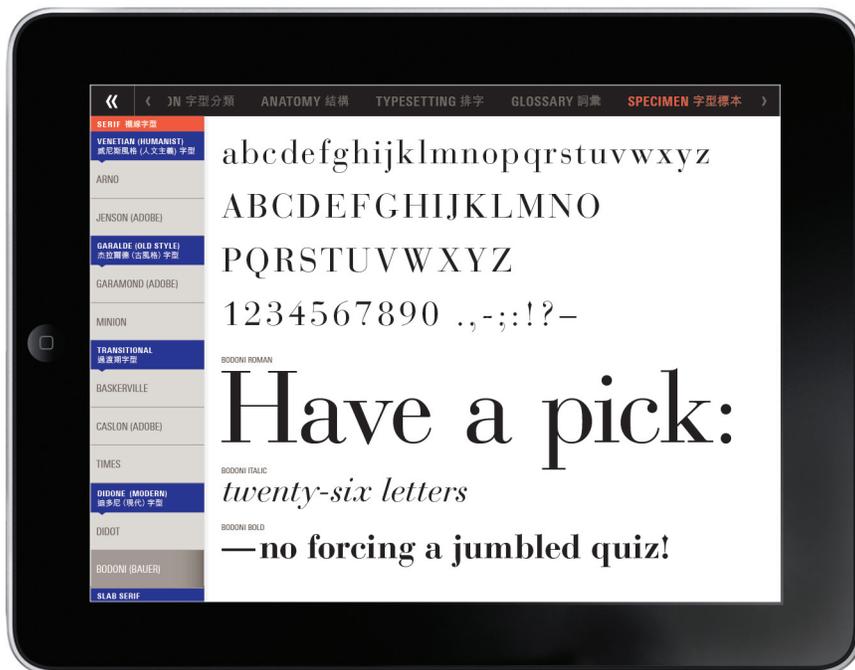


Type specimen for Garamond

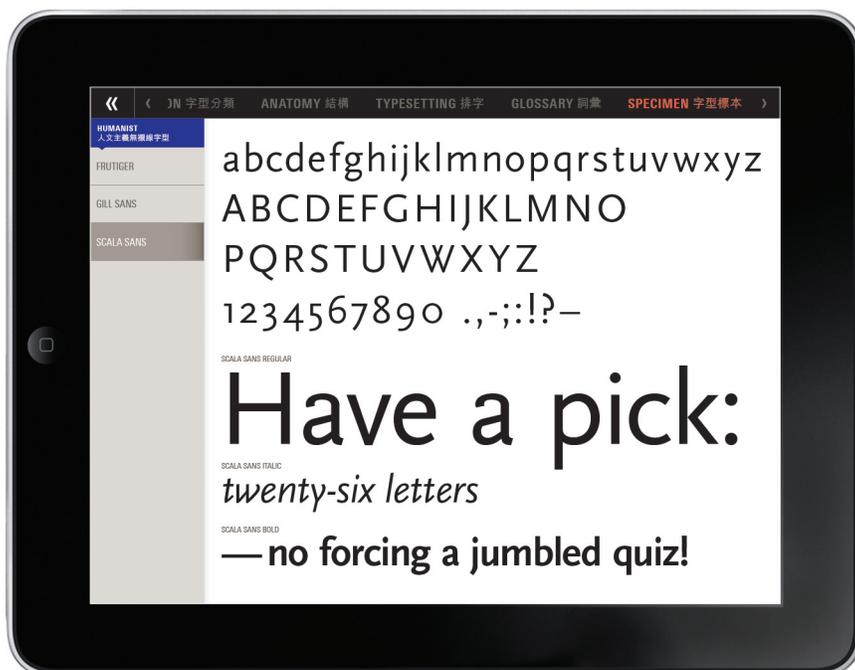


Type specimen for Baskerville

SPECIMEN



Type specimen for Bodoni



Type specimen for Scala Sans

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VITA

Born and raised in Macau, Anita Lam came to the United States to pursue her college education after completing her high school education in Macau. She received her Bachelor of Science degree in Medical Technology from the University of Texas at Austin in 2005. After her brief career as a medical technologist, she began studying graphic design at Austin Community College, where she received her Associate of Applied Science degree in 2009. In the same year, she enrolled at the MFA Communication Design program at Texas State University-San Marcos. In addition to her studies, she began teaching undergraduate design courses at Texas State in Fall 2010.

Anita's design has been published in the national publication *CMYK magazine*. Her work has been recognized in national and international competitions including *Good 50 x 70*, *AIGA Blue Ridge Flux*, and *Creative Summit*.

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This thesis was typed by Anita Lam.