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Digital Tools for Restructuring the Survey Class

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This paper discusses Eurocentrism as created by the structure of the survey and underlines some potentials of the digital platform to overcome the restrictions of the textbook and the traditional lecture-based courses on architectural history and challenge the fixed directionality of the Eurocentric master narrative. Tracing the Eurocentric structure from the inception of the survey of world architecture, the paper then reviews most common contemporary trends of the survey. It then discusses some potentials in the digital media to incorporate a few strategies, like replacing the mega-narrative of the text-book with multiplicity; eschewing the textbook's unintended effects of uniformity, totality, continuity, and collusion; and communicating the shifting scales, unit and methods.

Since its advent in the nineteenth century, the genre of world architecture has been Eurocentric in its content, methods, and structure. While claiming a global scope, it is often focused on Euro-American traditions not only as the main component of the core narrative, but also as a master narrative that dictates the criteria of evaluation and the methods of analyses for the rest of the book. This bias is supported by the book's organizational structure. In a typical late-twentieth-century survey of world architecture, while the stage for the triumphal entrance of the Greek style is often set by chapter(s) on Egypt and Mesopotamia, other non-Western styles like Chinese appear as isolated interruptions to the main narrative. This structure not only marginalizes non-Western traditions as unworthy of attention but also renders them homogeneous and static.

The past few decades have witnessed many criticisms to the way non-western architectural traditions have been classified as the "others." Partially in response to the criticism, a new direction in the discipline's pedagogy has aimed for an inclusive, global approach by enriching the subjects on the architecture beyond Europe. However, this additive approach can hardly avoid marginalization of what it classifies as "non-Western." My goal here is to explore some potentials in digital tools for moving in a different direction.

Following a historical review of some of the major trends in the survey textbook, the paper then discusses underlines some potentials of the digital platform to overcome the restrictions of the textbook and the traditional lecture-based courses on architectural history and challenge the fixed directionality of the Eurocentric master narrative, by using strategies, like replacing the mega-narrative of the textbook with a multiplicity of chronological, geographical, and thematic narratives; resisting the effects of uniformity, totality, continuity, and collusion often created by chapters of a textbook; and communicating the shifting scales and units of study (from the global scale to the individual architects or structures).

A HISTORICAL BACKGROUND

The Eurocentric structure that haunts contemporary survey classes is in part the result of its reliance on the survey text-books. Although the increasing accessibility of diverse material is significantly changing the classroom experience, the dominance of the textbook is far from over. Arguably, the Eurocentric structure of the survey is so embedded in the discipline, that most of us inadvertently replicate it in one form or the other. In fact, some of the contemporary strategies used to "decolonize" the survey are but some revivals of the models that were originally invented in service of establishing the Eurocentric narrative. By tracing this structure in at the inception of the survey, we can see the roots of the contemporary issue.

The survey of world architecture as it exists today is rooted in the mid-twentieth century, coinciding with a similar development in art history. The earliest example in architecture appears in those developed by James Fergusson over the course of three distinct versions from 1849 to 1865. His first version, *An Historical Inquiry into the True Principles of Beauty* (1849) adopted a general chronological structure, organizing different styles in three parts that reflected the then-common division into classical, antiquity and modern. Despite imposing the time periods of European art upon the rest of the world, this scheme not only included many traditions beyond Europe, but it also mixed them with European styles, especially in its second part, which would include "Eastern Asiatic Art" and "Mahomedan Art," along with "Byzantine Art," "Gothic Art," and "Lesser and Exceptional Styles."[1]

Fergusson's second version, *The Illustrated Handbook of Architecture* was published between 1855 and 1857, which maintained the global scope of *the True Principles* in a significantly
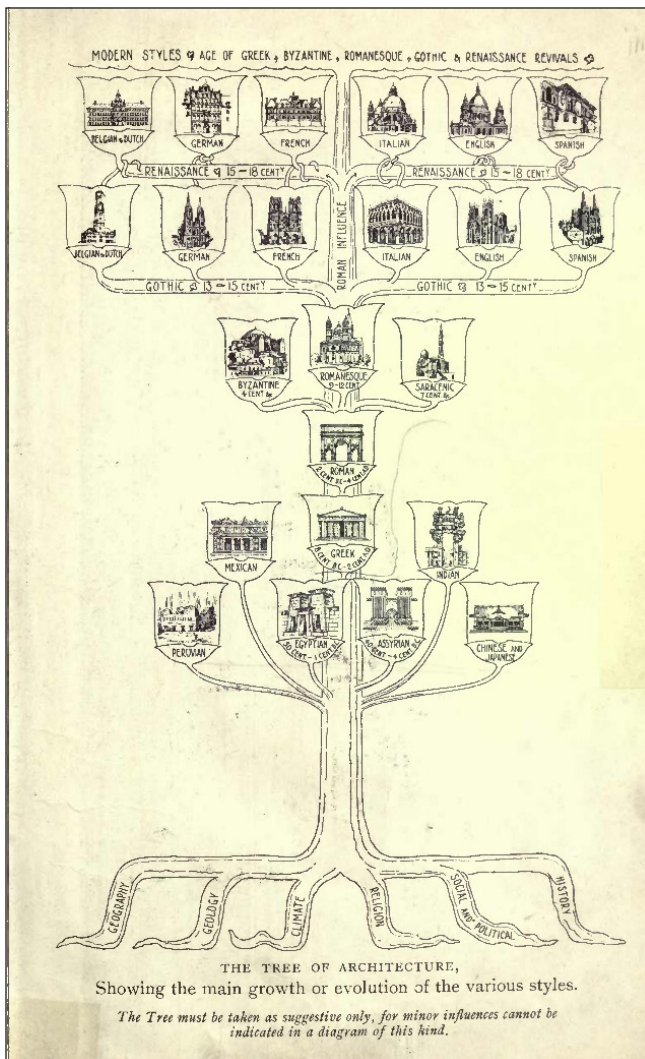
Figure1. "The Tree of Architecture," Fletcher and Fletcher, *A History of Architecture on the Comparative Method* (1905)

appropriated some non-European traditions to extend its historical past and equated its present with Christianity. Saracenic, Hindu, and other styles that did not fit in this Eurocentric narrative were moved to a third part, called "Pagan Architecture." *A History* used this admittedly misnomer to mix geographical regions as diverse as China, Persia, and Mexico. This inclusion of architectural traditions beyond Europe while situating them as either in the past or outside the central narrative has since remained embedded in architectural survey in different forms.

Although Fergusson's book enjoyed many revisions and translations, at the turn of the century it gave way to Banister Fletcher and Banister Flight Fletcher's *A History of Architecture on the Comparative Method for the Student Craftsman, and Amateur,* which first appeared in 1896. The Fletchers' book ran into 21 editions some with major revisions. The first edition, which did not claim a global scope, followed the established art historical model to start with architecture of ancient Egypt and western Asia and focus on Europe for the rest of the book. In the fourth edition in 1901, revised by Banister Flight Fletcher, the scope of the book grew to cover regions outside Europe like Indian, Chinese, Japanese, Central American, and Saracenic architecture. However, the new chapters were not integrated into the main narrative. Instead, they were grouped together in a separate section, resembling Fergusson's final model. Yet Fletcher pushed this logic one step further, tellingly calling them "the Non-Historical Styles," as opposed to the prime class of "the Historical Styles." Compared to the latter, which, according to Fletcher, had "progressed by the successive outline of construction problems," non-western styles were claimed to have "developed mainly on their own account and exercised little direct influence on other styles."[3] The famous "Tree of Architecture" was added to this version to contrast the scattered, static, "non-Historical" styles on isolated branches to a connected progressive western core (figure 1).

For over a century, the Fletchers' book has undergone various revisions, each reflecting the prevailing approach of its time. As for its overall structure, the "historical" and "non-historical" binary lasted for a few decades until the seventeenth edition of 1961, revised by R. A. Cordingly, renamed the two sections "Ancient Architecture and the Western Succession" and "Architecture in the East." While choosing less explicitly Eurocentric titles, it maintained the book's overall binary structure, which lasted until 1975 when James Plames finally restructured the book by mixing different traditions in forty chapters. However, while the explicit line between the west and its various others disappeared from the main category, it remained embedded in the structure, which reserved a continuous line of narrative exclusively for western styles from ancient Greece to the twentieth century while relegating other sections to a pre-Western status. In 1987, John Musgrove re-arranged the nineteenth edition of the book into seven parts mixing chronological and geographical order. Although three sections covered non-Western architectures, including the last one on "The Architecture of the Colonial and

different structure. Fergusson first drew what he considered a "both obvious and convenient" line between Non-Christian and Christian architecture, where the latter despite its title was limited to Europe. Accordingly, traditions as diverse as "Egyptian," "Greek," "Hindu," and "Saracenic" (today's "Islamic Architecture") were grouped together not based on any assumption of their internal connection, but only on the account of being outside what was defined as Christian Architecture.2 This religious-oriented, or rather Christianity-based, dichotomy would give way to a more complex form in the third version, published in 1865 as *A History of Architecture in All Countries from the Earliest Times to the Present Day*. Here, while maintaining Christian Europe as one distinct group, Fergusson changed the first part, rearranging traditions like Egyptian and Assyrian along with Greek and Roman in chronological order. Now renamed as "Ancient Architecture," the first part of the book served as the preface to the second part on "Christian Architecture." Together they created a coherent narrative of Europe that also

Post-Colonial Periods outside Europe," the arrangement still recreated a historical West and the a-historical others, which continued until the very recent rewriting of the book in 2020, under Murray Fraser editorial lead.[4]

While the history of these two books testifies to the persistence of a Eurocentric structure, the gradual expansion of its scope and move away from explicit binary structure are representative of the general change in the discipline, which has accelerated over the past three decades especially in reaction to postcolonial criticism.[5] In current practice, although some popular surveys, like *The Encyclopedia of World Architecture* by Henri Stierlin, still divide the world architecture into "Western" and "non-Western," this explicit duality has fallen out of favor.

A prevailing trend among today's surveys of world architecture uses the organizational strategy of the nineteenth edition of Fletcher's book. Take, for instance, *Buildings Across Time (the edition to 1989 "A World History of Architecture).*[6] It shrinks non-Western traditions and places them between Western topics to which they bear little connection. For example, Pre-Columbian architecture is between Gothic architecture and Renaissance architecture. China and Japan in one group and India and Southeast Asia in the other seat between Greece and Rome. In this approach, although the non-western styles are dated, their pasts are extremely shallow, limited by the dates of Western styles. One may argue, implanting others, within an otherwise coherent, chronologically-ordered Western architecture as well as the contrast between the former's geographical, racial or religious designations and the latter's temporal specifications inevitably recall Banister's category of "non-historical," despite the great differences in the depth of investigations.

In line with this overall division, often the contents of individual sections support the binary of historical and non-historical. While various Western styles are well distinguished in separate classes, or book chapters, large bodies of material (such as "Islamic architecture" or "Indian architecture") are shrunken in single groups. Though the word "non-historical" has been removed from the present discourse of architecture history, a similar effect is still produced through the stereotypes formed in this approach. For, as long as the expand of history covered in small units allow only commonalities to be looked for, not changes, often only static features and qualities are represented and dynamic changes are ignored.

The North American university curricula reflect similar approaches of exclusion or separation. For example, as Zeynep Aygen's study shows, at the University of Washington, courses with titles such as "Appreciation of Architecture," "Architecture of Ancient World," "History of Modern Architecture," and " 20th Century Architecture" are exclusively focused on Western architecture, while other courses are specified under titles such as "Africa and the Middle East Seminar" or "South Asian Architecture."[7]

SOME ALTERNATIVE TRENDS

In the past three decades, partially in response to the post-colonial criticism, a new direction in the discipline's pedagogy has focused on enriching the subjects on non-Western architecture and revising the structure of the survey. Many have argued for replacing "the predominantly Western architectural canon" with a more inclusive one. In American architecture programs, ideas such as "inclusiveness" and diversity, also required by NAAB (National Architectural Accrediting Board), has encouraged expansion of the geographical and temporal coverage of the field of survey, and the addition of some elective courses that exclusively focus on non-Western architecture. However, this additive approach often operates within a Western-non-Western binary. The separation of classes, as Zeynip Çelik has noted, "points further to the persistence of older categories."[8]

Notwithstanding the significance of the content, a more consequential component of the Eurocentric survey is its singular narrative, composed in a linear chronological order. Recently, a few survey books have re-structured the history of world architecture to give equal voices to different styles and traditions. For instance, *A Global History of Architecture* by Ching, Jarzombek and Prakash (2006) substitutes chronology for history. The chapters titled by dates give a synchronic cross-section review of global architecture and urbanism. This approach apparently avoids the Western-non-Western binary and achieves a global balance. However, it still maintains a strong trace of the uneven focus on Europe, especially when it gets closer to modernity.

Kostof's *A History of Architecture: Settings and Rituals,* among other achievements, has been hailed for "devoting more attention to non-western architecture [...] and in attributing value to low, vernacular architecture." It brought into attention many previously ignored buildings and sites. While the original book maintained a sharp distinction between Western Architecture and the others (often assimilated into the same structure of a Eurocentric grand-narrative architectural history),[9] in its 2013 edition by Ingersoll, *World Architecture: A Cross-Cultural History,*[10] the geographical coverage of non-Western architecture has been increased and its structure has been revised. The book is divided into twenty time-slots each covering three different regions/styles. Nevertheless, a Western course of history ties all the chapters together, while Non-Western architectures lack such a continuity of narrative, shifting from one region to the other, and almost absent from the narrative of modernity in the last chapters.

A few books have refused reading world architecture based on Western architecture. For example, *Traditions in Architecture* totally rejects the chronological surveys of architectural history. Instead, the book is arranged thematically, according to its authors, "to show the basic commonalities of all human communities."[11] However, Western traditions are excluded. Thus in effect, it naturalizes the class of "non-Western" as a homogeneous category in itself. In practice, Traditions in Architecture

serves as a complement to a Western survey, which further reinforces the "Western" -"non-Western" dichotomy. As Dell Upton reminds us, the notion of the "Western" architecture and its separation from a "non-Western" tradition has been historically used to "relegate a large portion of the world to insignificance."[12]

At a theoretical level, some scholars have used Deleuzian notion of rhizome as a conceptual model for the survey. For example, Kimberly Mast argues for "refram[ing] the art history survey" through the concept of "nomadic education." One of her strategies for braking away from the fixed directionality of the survey is "privileging geography over time."[13] Although historically, this approach alone has been more susceptive to certain equation of far away and long ago, it can unsettle the fixed directionality of the traditional survey.

From this glance at a few of the best existing textbooks, my goal is to argue that the linear framework of the book cannot accommodate the ambition of a geographically comprehensive coverage in a coherent narrative. Often time, despite the mentioned intentions, books are structured around the core of a progressive, Western architecture and the category of non-Western is created and inevitably denigrated. Exceptions such as *A Global History of Architecture* are criticized for losing cohesion of the narrative; as a reviewer has noted, "the text as a whole is more of an encyclopedia than a conventional history."[14] Even if it were logically possible, in practice, considering the limits of the two or three required courses in history, the ambitiously large temporal and geographical scope of a comprehensive global history can be covered only at the expense of reducing the complexity of various architectural practices into capsules of information about different traditions. It runs the risk of stereotyping them, leaving no room for setting visual forms in the larger political, cultural and technological conditions that make architectural knowledge and action possible. Losing the depth of inquiry, this approach also undermines the relevance of architectural history to contemporary practice by reducing its function into the provider of a depository of forms and solutions, which perhaps can be easier achieved through typological or thematic studies.

In fact, the issue of representing the other's architecture is rooted in the formation of the modern subject-citizen and cannot be easily settled. As Donald Preziosi has argued in a different context, the notion of style, as well as the separation of the Western from the Non-Western are instruments of art history, which has had a significant role in validating the notion of "nation-state" as a natural entity.[15] Over two decades ago, in an analysis of the Fletchers' book, Baydar Nalbandoglu argued that by rendering non-Western architecture as non-historical and yet considering it as a necessary component of the history of architecture, the 1901 edition exposed the problem of representing others. This problem was recognized by the following editors; however, it was not problematized, rather normalized by changing titles to apparently innocent geographical categories or restructuring

the book. The problem of the survey, as Nalbandoglu points out, "needs to be kept alive as a problem."[16] Given the current overemphasis on coverage as the main response to historical bias of the survey, it is crucially important to avoid fixing the symptoms of the deeper problem of the survey. As the desire to arrange the world in a comparative model and represent the other through its architecture are rooted in the imperial expansion, the formation of the modern subject-citizen, and the creation of "western" and "non-western" dichotomy, the issues of the survey could not be solved in abstract from the ideological system that maintains this desire.

SOME POTENTIALS IN DIGITAL TOOLS

While digital visualization data-driven analysis are potent tools for analyzing the complex models that contemporary surveys present,[17] recent development of digital tools has opened up many opportunities for new pedagogical models. Focusing on the latter, here my goal is to explore some potentials that digital tools offer for problematizing the Eurocentric structure of the survey course through a few strategies, like replacing the mega-narrative of the textbook with multiplicity; eschewing the textbook's unintended effects of reality, uniformity, totality, continuity, and collusion; and communicating the shifting scales, unit and methods.

Acknowledging the selective nature of making histories has become a postmodern gesture in the introduction of most survey books. However, the rigidity of the book's structure, the fluidity, cohesion, and collusion of its narrative win back its relinquished claim to "reality." Mark Miller Graham pointed out over two decades ago, "students are seldom exposed to the actual debate and disagreement that constitute the scholarly process."18 This situation, sadly, has little changed in the textbooks. Perhaps the only exceptions is the latest edition of Fletchers' book, where chapters are written by different scholars, all responding to the original book by Fletcher.[19] Even here, the book remains a coherent autoreactive source. On the other hand, using the increasing free online material on different subjects, many instructors have replaced the single textbook with multiple sources, occasionally using videos such as those developed by Smarthistory and mixing them with other sources.[20] This seemingly simple gesture of introducing different perspectives on the same subject, or studying various aspects of one tradition, which do not immediately add up into one complete image, can help challenging the authority of the narrative imposed by the book. Perhaps more effective than the content of individual courses, the spread of digital platforms help us rethink the overall structure of the class.

Aside from the monotonous narrative that unites all book chapters/course lectures, in a conventional format, these units (chapters/lectures) are treated differently. For instance, whereas parallelism between chapters like "Italian Renaissance" and "English Renaissance" highlight the dynamic interaction between these regions, single categories like "Chinese Architecture" and "Islamic Architecture" create self-contained units often with
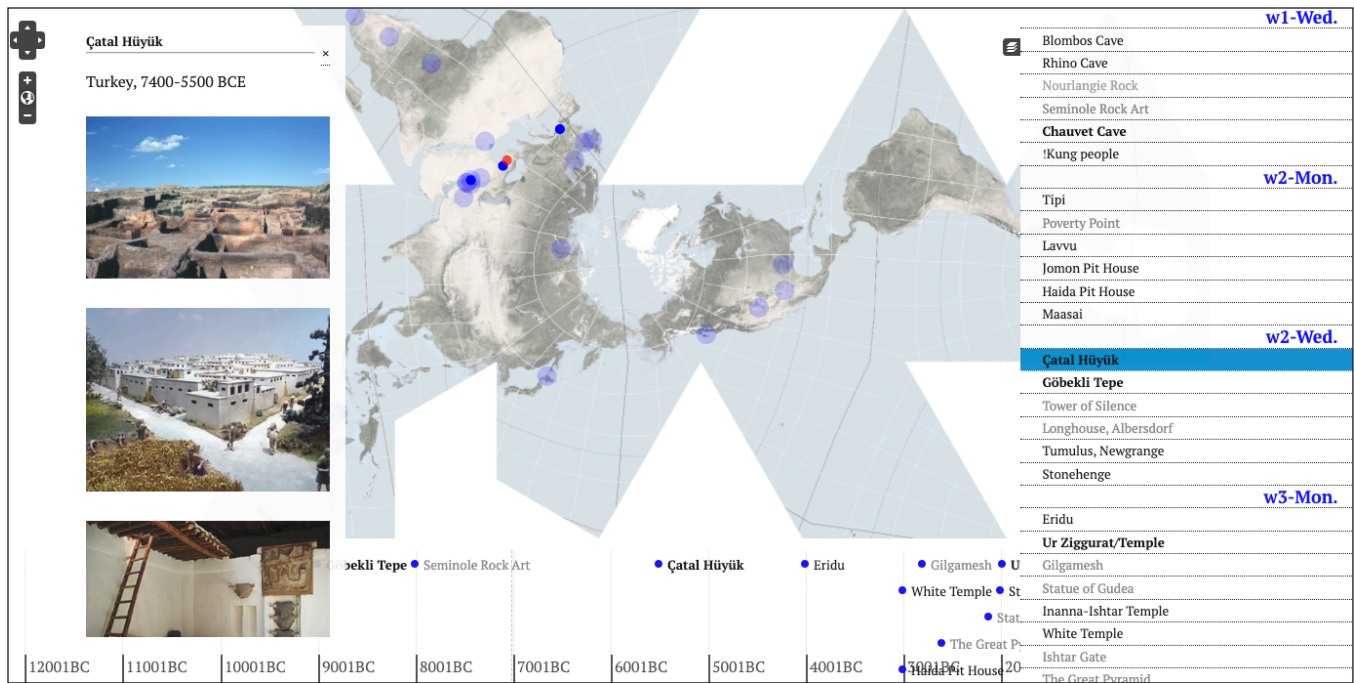
Figure 2. screenshot from the interactive map/timeline; module on global architecture

stereotyped characteristics, which assume and support the phantasy of stable cultures. In contrast, despite the shifting nature of its content and boundaries, the notion of a self-contained "West" is maintained in the linear march of its masterpieces. As the global historian Kenneth Pomeranz reminds us, when the studied traditions are framed within these common and easily recognizable units and categories, students often consider them as natural and real.[21] The book's self-contained chapters, with marked beginnings and ends, retain the notion of bounded wholes. Elimination of the restrictions imposed by the linear narrative and the finite format of a book can, at least partially, resist the effects of uniformity, totality, continuity and collusion, underline the contingency of canons and avoid naturalizing the created histories.

There are a number of new approaches to historiography that remove the traditional, chronological units. For instance, Dell Upton argues for abandoning the traditional categories and models of historical process, which has often resulted in the reification of culture.[22] While this approach is becoming more predominant among scholars, textbooks and courses structured after them often easily lend themselves to fixed categories. Upton's American Architecture (2020) uses a thematic arrangement instead of the more common chronology-, style-, or location-based structures.[23] However, this approach is much more complex at a global scale. The few books that have tried it earlier (like the aforementioned Traditions in Architecture) have resulted in further division of Western and non-Western. In the absence of such textbooks a thematic approach can easily result in confusion for students. Digital tools can provide a temporal and geographical structure.

Unlike a book, a digital platform based on a web of connections does not require categories with similar structures, lengths, and formats. Instead of occupying places within the book's hierarchical categories, buildings and sites can be navigated through various webs of connections. By challenging the rigid regional boundaries or clear-cut time slots, a wiki-style navigation can resist the implication of closure, which a book often creates either in the form of a climax or a failure. The histories created in this manner are not simply different narratives of the same material; rather each of them redefines the scope of its coverage and devices different units. A wiki-style navigation allows replacing the traditional mega-narrative with a multitude of narratives formed through various historical, geographical, typological and thematic layers.

As a step in this direction, my history course uses an online interactive platform where major sites and buildings covered in each lecture are presented on a map and the timeline (figure 2). This interactive map is created using Neatline plugin in Omeka, a free and open source application. By clicking on a building (available through a list, map, or timeline), students can see some images and basic information about it. This map/timeline has a few benefits over a simple print version. At the most basic level, it helps students see geographical and temporal connections and contextualize different traditions in the larger picture without reducing the whole to a single master narrative. Like a traditional static map, this online, interactive map/timeline offers an overarching view of the content. At the same time, it expands the limits of the traditional model in providing ample visuals and information.
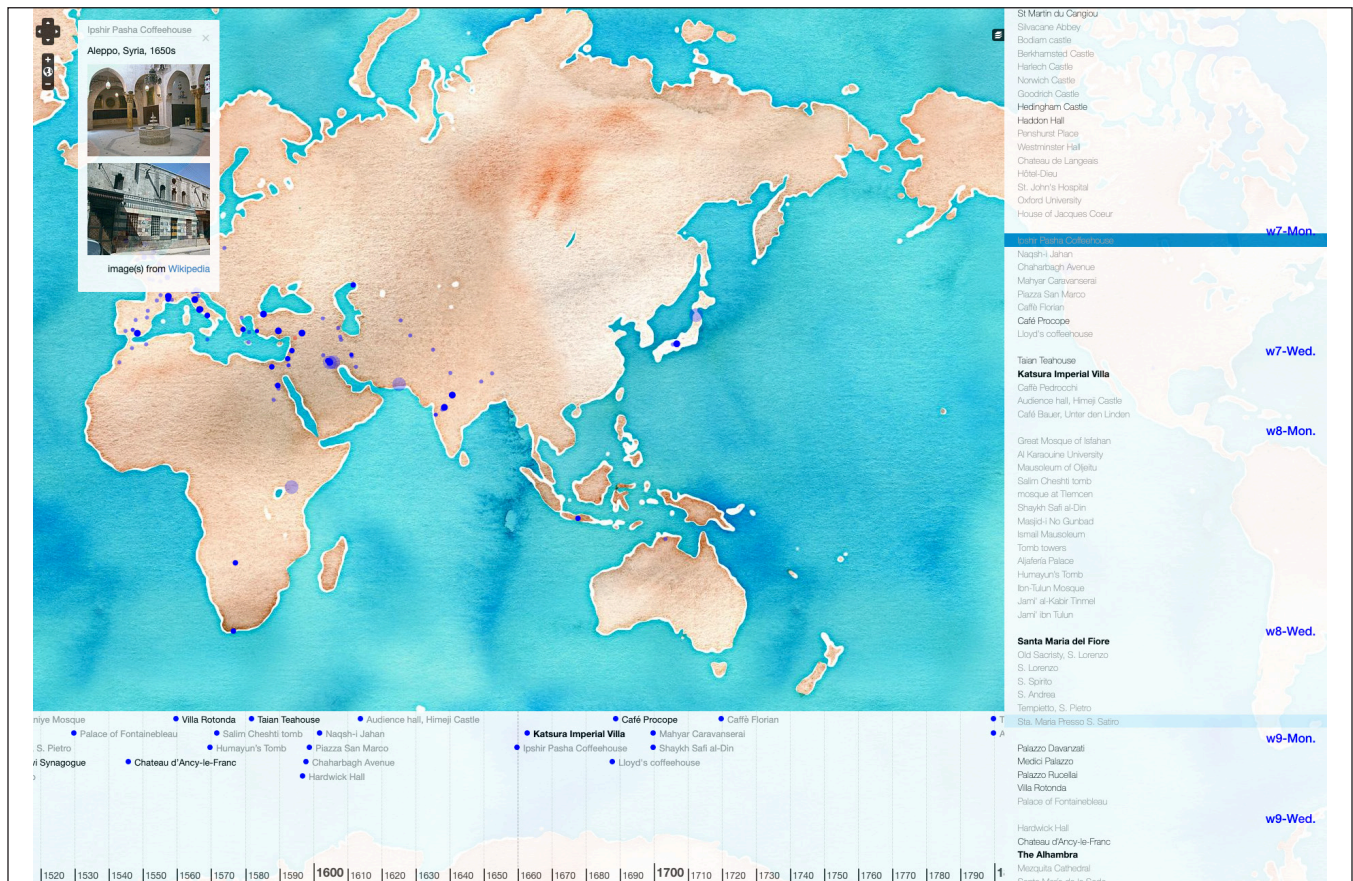
Figure 3. screenshot from the interactive map/timeline

A map can easily turn into a device of maintaining and normalizing boarders and units. For instance, maps in chapters of the traditional model tend to separate the content of each chapter from the other chapters, which limits a student's understanding of the gradual changes over time in each region/site/building. On the other hand, by combining map, timeline, images, and other layers of information in one place as interconnected elements, this digital model helps students contextualize each building/site and explore them in thematic layers. Similarly, in the digital platform, though the problem of projection and its implications still exists, the map is not bound to begin in one place and end in the other. Buildings and sites can be located on a map, free from categories and fixed designations (to avoid seeing architecture through the lenses of nation-states). While maintaining the commonality between traditions within nearby areas, this approach resists drawing sharp lines and grouping under the apparently fixed designations.

This interactive map/timeline not only enhances students' grasp of the course content and makes the absence of one narrative line manageable, but it also plays an essential role in challenging some preconceptions of history as an objective reality. For instance, following *A Global History of Architecture*, I use a Fuller/Dymaxion projection, which helps to draw attention to the cultural connections (through the North Pole and the Pacific Ocean) that the common Mercator projection misses. More importantly, this uncommon projection also serves as an opportunity to discuss the ideological components of the map as a falsely objective representation of the Earth and to challenge the familiar Mercator map and its centering of Europe.

The idea of a global history is criticized for its dependence on the notion of universal human, which may reduce individualities into the simple effects of the conditions. Large-scale narratives can become "disconnected from the time scales of human lives." However, as Pomeranz has argued in the context of global history, we do not need to avoid large-scale narratives; rather we need to clarify their relationship to other scales and emphasize the fact that "different historical scales do not nest neatly within each other." 24 However, the common textbooks in architecture history often create nesting scales, where the global scale serves as an introduction to the rest, while chapters with different scales are equated. They often disguise the shifts of scales and units, by arranging different scales of investigation into equal lengths of chapters. For instance, "Chinese Architecture," "Indian Architecture" or "Islamic architecture" each in one chapter are juxtaposed and compared to the more focused scales of the separate chapters on "Western architecture," which cover much

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regions covered in each chapter of Harwood

				Australia	Japan	China	India	Iran	Egypt	Northern Africa	Eastern Europe	Greece	Italy	Austria	Germany	France	Spain	England	Scandinavia	North America	United States	Central America	South America
A	PRECEDENTS	Cultural Precedents	4
B	EAST ASIA	China	14
		Japan	24
C	ANTIQUITY	Egypt	36
		Greece	46
D	MIDDLE AGES	Byzantine	81
		Early Christian	74
		Islamic	90
E	RENAISSANCE	American Colonial	169
		English Renaissance	156
		French Renaissance	147
		Italian Renaissance	124
		Spanish Renaissance	137
F	BAROQUE	English Restoration	207
		Louis XIV	195
G	ROCOCO	American Georgian	248
		English Neo-Palladian and Georgian	232
		Le Regence and Louis XV (Rococo)	222
H	EARLY NEOCLASSICAL	American Federal	287
		Late English Georgian	275
		Louis XVI and French Provincial	271
I	REVOLUTION	Industrial Revolution	302
J	LATE NEOCLASSICAL	American Greek Revival, American Empire	348
		Directoire, French Empire	315
		English Regency, British Greek Revival	335
		German Greek Revival, Biedermeier	328
K	VICTORIAN REVIVALS	Exoticism	411
		Gothic Revival	365
		Italianate, Renaissance Revival	381
		Second Empire, Rococo Revival	395
		Stick, Queen Anne	425
L	ACADEMIC HISTORICISM	Classical Eclecticism	452
		Colonial Revival	469
		Romanesque Revival, Richardsonian Roman..	440
		Spanish Colonial Revival	484
M	REFORMS	Aesthetic Movement	513
		English Arts and Crafts	530
		Shakers	502
		Shingle Style and American Arts and Crafts	544
N	INNOVATION	Art Nouveau	560
		Chicago School	590
		De Stijl	614
		Modern Forerunners	603
		The Bauhaus	623
		Vienna Secession	577
O	MODERNISM	Art Deco, Art Moderne	649
		Geometric Modern	684
		International Style	638
		Modern Historicism	718
		Organic and Sculptural Modern	702
		Scandinavian Modern	669
P	EXPERIMENTATION	Environmental Modern	789
		Late Modern 1	740
		Late Modern 2	771
		Neo-Modern	808
		Post Modern	757

Figure 4. screenshot from the interactive table of contents.

smaller units such as "English Gothic" or "French Renascence." Here, the main issue is not as much the global scale of some chapters, as it is the structure that parallels these uneven scales. As the world historian Eric Lane Martin emphasizes, the large-scale overlapping questions of world historians are qualitatively different from those focused on smaller areas and require different tools and methods.[25] When this difference in method is not explicitly communicated it often implied as difference between the subjects of inquiry, i.e. Western and non-Western architecture. In parallelism of "English Gothic" and "Chinese," the latter's inevitably more generic discussion reduces the multiplicity of practices into a few sterotypical features and implies a static culture.

Following global historians, one may argue for communicating the differences of scales as a way of maintaining a focused investigation of the canonical buildings along with a larger scale study of a global view without stereotyping "non-Western traditions." Thus, the lack of material would not be immediately translated into insignificance. To these, one may add the scale of individual sites or buildings, which could be chosen from any regions without labeling them with the existing styles or traditions. The digital platform offers easy ways for communicating the shifts in scale, from literally zooming in and out on a map, to changing interfaces, to re-structuring the narratives. By calling attention to the changes in strategies the utilitarian nature of history can also be highlighted.

While a projection with geolocation (like Mercator) is needed for accuracy of locations at the local scale, different projections communicate change of the scales of enquiry (figure 3). As the

type of large-scale overlapping questions of world histories are qualitatively different from those focused on smaller areas, communicating the shift of scales and units is necessary to avoid the stereotyping effects that generalizations at smaller scale would produce. One can extend this approach to include maps created at different time periods, for instance, those made throughout European surveys of the colonies as the colonizer's view of the world and as tools of expanding their control.

Finally, assignments and projects course can be redesigned to underline the instrumentality of historiography. The selective study of a group of buildings is indeed a violent act of exclusion, and it can be presented as such. Its mechanisms of omission can be exposed by resisting naturalizing the created history. By crossing the borders of the traditional geographical units, these fragmented stories can expose the contingency of the units and the fluidity of boundaries, remove the stability of canons, and resist the effects of inclusiveness. Digital tools can provide a much easier way of communicating the vast amount of exclusion necessary for composing a history.

Digital tools can assist engaging students in this process of selection and omission. In History of Interior Architecture I, the course project focused on composing a history for a selected region. Responding to the readily availability of information in the digital age, the project focused on asking questions rather than finding answers to pre-formulated questions. As part of the process, students (in groups of 4-5) read parallel topics from 8 different textbooks. To help them navigate through the otherwise daunting process of finding relevant material in these sources, I provided them with interactive charts and tables (figure 4). This graph not only simplified the process and helped us focus on the main issues, but it also clearly highlighted the disparity within the popular surveys of interior design and served as an opportunity to discuss the bias within the textbook.

The provided examples are only a handful of ways that digital tools can be used to expose the Eurocentrism of the conventional survey, though not to suggest an easy fix. In fact, it would be too naïve to expect from a simple shift in the medium or the structure of a course to resolve the problem of representing "other" architectures. Nevertheless, a digital-based structure can challenge some of the traditional functions of the history of architecture. Removing the restrictions imposed by the linear narrative and the finite format of a book can, at least partially, resist the effects of uniformity, totality, continuity and collusion; it can underline the contingency of canons and avoid naturalizing the created histories.

ACKNOWLEDGEMENT

ENDNOTES

1.   Fergusson published the first volume of the True Principles, which proved unpopular. Failing to sell more than a few copies, he never wrote the rest of the book. However, the first volume provided an outline of the entire project. James Fergusson, An Historical Inquiry into the True Principles of Beauty in Art, More Especially with Reference to Architecture (London, Longmans, Brown, Green, and Longmans, 1849), xiv.

2.   James Fergusson, *The Illustrated Handbook of Architecture: Being a Concise and Popular Account of the Different Styles of Architecture Prevailing in All Ages and All Countries*, vol. 1 (London: J Murray, 1855), vii–viii.

3.   Banister Flight Fletcher and Banister Fletcher, A History of Architecture on the Comparative Method for the Student, Craftsman, and Amateur, 5th ed. (London: Batsford; New York Scribner's Sons, 1905), 603–4

4.   For a history of the changes to the book see Fraser, Sir Banister Fletcher's Global History of Architecture., xxx–xxxv. For a critical review of the twentieth century editions, see Gülstim Baydar Nalbantoglu, "Toward Postcolonial Openings: Rereading Sir Banister Fletcher's 'History of Architecture,'" Assemblage, no. 35 (April 1, 1998): 7–17.

5.   For a critical review of these changes, see Zeynep Çelik, "Editor's Concluding Notes," Journal of the Society of Architectural Historians 62, no. 1 (March 1, 2003): 121–24

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9.   See Panayiota Pyla, "Historicizing Pedagogy: A Critique of Kostof's 'A History of Architecture,'" Journal of Architectural Education (1984-) 52, no. 4 (May 1, 1999): 216–25.

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