

**Turgay Kerem Koramaz**

He is working in Department of Urban and Regional Planning, ITU. He completed PhD dissertation on perception of urban historic sites through computer-aided visualization techniques in 2009. His research interests are, spatial analysis, internal migration, urban conservation, renewal, information/communication technologies in urban planning and design.

## Digital Representation of Urban History and Notes from an Exhibition, Urban Intermedia: City, Archive, Narrative

Architecture, urban planning and design professions use new information technologies, established with a set of tools for digitization and visualization of design solutions and proposals. Next to this operational function, new types of data representation and visualization in different media formats including drawing materials, maps, photographs, graphics, animations, video content and other hypertext materials, enhance the communication and interaction abilities as well. With the use of data visualization tools in urban and architectural history, perception of exhibited materials in digital collections, similarly increases the skills on narrating history via graphical and visual expressions for related professions.

This paper aims to discuss digital representation

and multimedia uses in narrating urban and architectural history through an exhibition case, which enlarges such opportunities with a methodological experiment for interpreting historical context of four different cities, individually. Narrating urban history by overlaying different media formats from selected archives, this exhibition "Urban Intermedia: City, Archive, Narrative" presents its experiment in a methodology of combining professional practices from architecture, urban studies, and graphical design. Media used in the exhibition and entire information content may help visitors to follow urban, social, political and ecological processes through changes in professional networks, crucial for understanding with their historical background.

Key words:

Multimedia; Urban History; Information and Communication Technology

## INTRODUCTION

Architecture, urban planning and design have benefitted from the use of new information technologies through their operational functions which mostly refer to establishing a set of tools for digitization and last visualization of design proposals. These professions have always demanded the improvement of spatial and graphical representation, mostly on computer visualization and simulation, enriched with material, texture, light modelling in high quality of artistic and realistic details. In addition to the graphical representation abilities of information and communication technologies (ICT), interaction skills highlighted communication functions of information shared among different stakeholders, involved in different stages of these professions [1].

Among these professions, architectural history and conservation use ICT in cataloging, documenting, and virtually reconstructing the urban, architectural, and archeological monuments and sites in common, for so long. The tools such as photogrammetry, remote sensing, and 3-D laser scanning have accelerated technological advances for modeling and managing historical data on urban and architectural space in a similar fashion to their usage in the fields of architectural design and urban planning. Although such beneficiary functions have been justified in architectural history and conservation practices, these practices can carry the professions to having a strong accent on anti-technology arguments [2]. Especially with the critical view on technological advances, such tools have been founded as triggering tools for simplification and marketization of heritage and entire documents, constituting the evidences of history [3]. Then, emerging technologies have tried to overcome the obstacles of anti-technology arguments in professional fields, which tend to have conventional practices and operational uses of ICT. Similarly, architectural history and conservation has reflected such concerns for their actual and prospective audiences in the last decade, with innovative uses of database and multimedia content to be used in narrating history, which seems to hold greater significance for disciplinary agenda than before.

One of most common utilization of ICT in art and architectural history and conservation can be referred with the digitization of museum collections and establishment of virtual museum. As one of the five principles Mitchell's e-topia idea which establishes "lean and green" technologies for future cities [4], virtual museum concept can be explained with dematerialization principle which is associated with conversion of former realities and materialized services into digital and virtual ones [5]. In its 9 (17) special issue of *Disegnarecon*, titled as "Virtual Museums of Architecture and City", Ippoliti and Albisinni gathered list of articles, examining different types of traditional and contemporary museums [6]. It can be validated that especially virtual museums, including both virtually installed digital boards and accessible online virtual content, enhance the interaction with audience by the use of "cultural sharing by multimedia platforms" [7]. Virtual solutions enhance the perception of digital collection of the museum and concurrently with digital architectural model of the entire museum building. As it is common, digital architectural representation enhances the perception ability of the users, with the use of multimedia merging entire digital materials [8], including published documents and text, drawing materials, maps, photographs, graphics, animations, video content and other hypertext materials.

In addition to these technological abilities, new types of data representation and visualization in different media formats listed above, also enhance these abilities on narrating history via graphical and visual expressions, as well. In its 76(4) issue of *Journal of the Society of Architectural Historians*, Bruzelius discusses how ICT tools present both opportunities and challenges to the future of the scholarship in architectural history [9]. In this article she emphasizes the fact that digital technologies introduce a new kind of evidence and "effective means of narrating historical process: changing time in places and space", thereby providing valuable "evidences for historical interpretation".

Then this paper aim to discuss digital representation and multimedia uses in narrating urban and architectural history through an exhibition case, which

enlarges such opportunities with a methodological experiment for interpreting historical context of four different cities, individually. Narrating urban and architectural history by overlaying different media formats from archives, this exhibition "Urban Intermedia: City, Archive, Narrative" presents its experiment in a methodology of combining professional practices from architecture, urban studies, and graphical design. This currently-traveling exhibition series [10] was the outcome of three years of interdisciplinary research, by the Harvard Mellon Urban Initiative, curated by Eve Blau and Robert Gerard Pietrusko, exhibition coordination by Gul Nese Dogusan Alexander, research directing of Berlin portal by Eve Blau, Boston portal by Stephen Gray and Alex Krieger, Istanbul portal by Sibel Bozdogan and Gul Nese Dogusan Alexander, Mumbai portal by Rahul Mehrotra [11].

## URBAN INTERMEDIA: CITY, ARCHIVE, NARRATIVE

The exhibition was displayed in the form of four-city "portals" Berlin, Boston, Istanbul, and Mumbai, each with its own textured panel projected with digital images and media-rich narratives. The output of narratives in the exhibition consists of superimposed digital materials, which are redrafted and recomposed from original and secondary sources and from site visits recorded in different media formats. These narratives frame the different urban experiences of the four case cities under three themes of "*planned + unplanned*," "*migration + mobility*," and "*nature + technology*." The booklet of the exhibition refers to this methodology and thematic structure as "*site-based intermedia narratives*" [12]. These narratives are digitally produced and projected onto timber and steel panels that had been individually designed and constructed for the use of the exhibition [13]. Design of the panels and their spatial installation allow visitors to follow each case city's narrative without being distracted by the narratives of other cities. The back of the panels that are shaped as benches provide much needed seating for viewers (Fig. 1).



Fig. 1 - Installation view of Urban Intermedia: City, Archive, Narrative, Salt Galata, Istanbul, Turkey, March 2018 (author's photo).

The visual content and the intended messages behind the integrated media used in the exhibition (such as maps, architectural drawings, photos) are largely derived from secondary sources visualized via conventional media. Nevertheless, the exhibition significantly succeeds in its search for the most appropriate and efficient interfaces to overlay these media, thereby enhancing discourses of urban and architectural history in a smart and peculiar way. For instance, empirical studies about the evolution of urban growth would prefer to use thematic mapping

techniques, briefly with re-drawn abstract maps, overlaying physical boundaries of urban pattern in macro-form, depicting the periodical evolution or major land uses of the city with degraded colors etc [14]. 'Urban Intermedia: City, Archive, Narrative' carries this simple, familiar, and conventional mapping technique to a clever complication of different historical urban maps in their original forms to represent the growth idea. As a representative implementation from the exhibition, Berlin portal successfully superimposes the historical urban maps

together and presents the evolution of the city in an animated - dynamic image (Fig. 2). All media used in the exhibition (historic map, drawing or manipulated images) preserve their unique features and distinctive messages, while they are effectively combined for stressing certain statements and registering other superposed media [15]. Each city portal uses its specific media types and content to verbalize a range of highlighted themes in the exhibition concurrently, and helps visitors to experience an alternative representation of data and information.



Fig. 2 - Screenshot from Berlin Portal in “Urban Intermedia: City, Archive, Narrative” Exhibition, November 2018 (with the permission of exhibition curator team).

The theme for the Boston portal, ‘Race and Space,’ stands out amongst other city portals with the use of statistics and quantitative figures that are combined with other media types. This portal’s visualization of the community profile depicts ethnic diversity and variety. Portal’s narratives express the urban story of the city with merged images more dramatically than the conventional historic narrations in its own literature which possibly use each media individually (Fig. 3). Data and knowledge would get their appreciation only if their content could deliver the story of communities and cities as this exhibition accomplishes rather effectively. In one of her talks urban theorist Sassen [15], emerging a concept of urbanizing technology to her frequently-cited literature [16], highlighted the fact that such experiences, as in the case of this exhibition, could have accomplished the objective of depicting urban stories over databases and digital content. When understanding and interpreting any urban phenomena, individual use of raw data may trap any of its stakeholders, mostly professionals and researchers, within rigidly deterministic and overly-rationalist positions that can only deliver some kind of

‘sequential, crystallized or frozen snapshots’ [17] of communities.

This exhibition improves the opportunities of animated multimedia uses, and overcomes this challenge while digitizing data with a methodological experiment towards a new way of data visualization in all four city portals by merging different type of media from different sources in varying content. For instance, in Istanbul portal, the city’s modern history of architecture and planning is narrated through recent large-scale interventions to the city, and is explained by several graphical evidences from different sources and materials. It addresses the urban impact of these recent mega infrastructural projects, with the use of animated collages of technical drawings, newspaper records, and images from cityscape and architectural transformations (Fig. 4). Then as in this case, all four portals in the exhibition translate the mixed-media, gathered from archives, into a ubiquitous agenda, so that past and recent arguments can be superimposed in a dynamic and associated circumstance.

The exhibition distinguishes itself from other digital archive and library experiences by superimposing its site-based intermedia narratives in four city portals

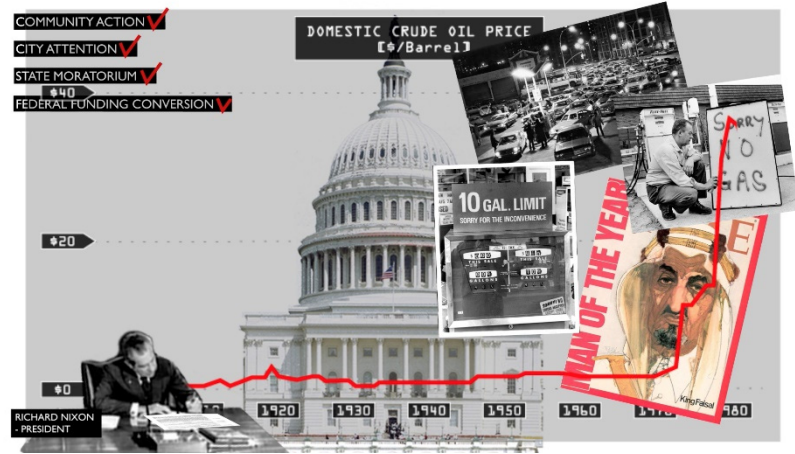


Fig. 3 - Screenshot from Boston Portal in “Urban Intermedia: City, Archive, Narrative” Exhibition, November 2018 (with the permission of exhibition curator team).

into a comparative and original domain. Portals evoke new cognitions and establish striking narratives for urban themes with relatively less cited original media. Collectively, all the multimedia installations of the portals can be a reference for cracking stereotypes of common visual libraries and images, traditionally entrenched in scholars’ cognition so far. As an evidence for this kind of challenge, there are few outstanding examples of research that discuss the patterns and commons in visual and iconic representation, for instance in the cases of global warming and climate change. One such research argues that climate change should not be depicted only with polar bears and ice caps since it does threaten more than that [18]. For instance, extreme weather conditions, freshwater deficiencies, flood and drought anomalies, energy dependency and over-consuming need to be stressed via comprehensive graphical media, to communicate the impact of climate change and global warming, inclusively. The exhibition ‘Urban Intermedia: City, Archive, Narrative’, tries to enhance contemporary uses of multi-media in the field of urban history, such as the highly illustrative case of Berlin ‘City-Energy: Berlin’s

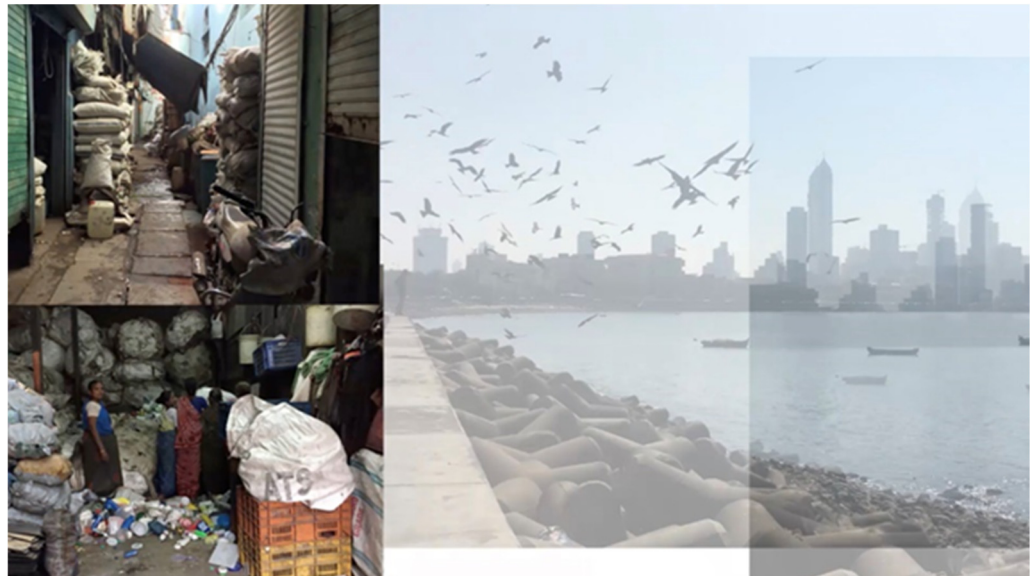
Shifting Carbon Footprint' theme. In Berlin city portal, this theme is a uniquely significant case for undoing our common sense and stereotypical cognition of carbon footprint reasoning with a narrative on the post-industrial transformation from lignite consuming to a prospective visioning of a fossil free city. A similar approach in a more conventional way is adopted by the Mumbai portal for understanding the planning and construction history of land reclamation, overlapped with political and economic challenges faced in the recent era (Fig. 5).

## CONCLUSIONS

Overall, the media used in the exhibition, the information content in all portals, and the selected themes, help visitors to follow urban, social, political and ecological processes through changes in architecture, infrastructure and landscape networks, which are crucial for understanding the ecology of human activities of our decade in their historical background. Such a methodological experience and a profound interpretation of superposing common digital media, site-based intermedia narratives, as referred in exhibition documents, can improve means of narrating architectural history, especially with delivering communication skills among different professions, and establishing critical spatial thinking in design and planning pedagogies. Further digital opportunities can be attached to the actual framework of the research of Harvard Mellon Urban Initiative, and to their outcomes, such as online archives and crowdsourcing applications.

Fig. 4 - Screenshot from Istanbul Portal in "Urban Intermedia: City, Archive, Narrative" Exhibition, November 2018 (with the permission of exhibition curator team).

Fig. 5 - Screenshot from Mumbai Portal in "Urban Intermedia: City, Archive, Narrative" Exhibition, November 2018 (with the permission of exhibition curator team)



## NOTES

[1] see Koramaz, T. K., & Gulersoy, N. Z. (2011). (pp. 543-548). London: IEEE.

[2] see Veltman, K. H. (2005). (pp. 4-22). Barcelona: Universitat Oberta de Catalunya

[3] see Silberman, N. (2007). (pp. 95-104). Budapest: Archaeolingua.

[4] see Mitchell, W. (1999). Massachusetts: The MIT Press

[5] see Koramaz, T. K. (2017). (pp. 599-600). Lisboa: Tecnico Lisboa, Instituto de Geografia e Ordenamento doTerritorio, Faculdade de Arquitetura - Univesidade de Lisboa.

[6] see Ippoliti, E., & Albisinni, P. (2016). (pp. 1-15).

[7] see Palestini, C., & Basso, A. (2016). (pp. 6.1-15).

[8] Koramaz, T. K. (2018). (pp. 183-194). Routledge.

[9] see Bruzelius, C. (2017). (pp. 436-439).

[10] Exhibition series started in Berlin-Germany, Aedes Architecture Forum (27 January – 21 February 2018) then respectively continued in Istanbul-Turkey, Salt Galata (7 March – 1 April 2018); Mumbai-India, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya

(CSMVS) (15 April – 9 May 2018); and finally Cambridge MA-USA, Druker Design Gallery, Harvard Graduate School of Design (27 August - 14 October 2018).

[11] for detail credits: <http://mellonurbanism.harvard.edu/crossportal/> and exhibition booklet.

[12] booklet of Urban Intermedia: City, Archive, Narrative, Harvard University, Graduate School of Design, Harvard Mellon Urban Initiative.

[13] Exhibition panels were designed by Höweler + Yoon, Eric Höweler, David Hamm, and Caleb Hawkins.

[14] for the use of conventional urban thematic analysis and land use planning maps, the Official Website of Berlin offers much information about the planning history. For detailed online archive for 'Historical maps on land use planning in Berlin', Retrieved April, 19 2018 from, <http://www.stadtentwicklung.berlin.de/planen/fnp/en/historie/index.shtml>.

[15] one of the case for mapping technique, used in the exhibition can be seen in the header image of online news page for the event, website of Harvard University, Retrieved April, 19 2018 from <http://www.gsd.harvard.edu/20>

[18/01/faculty-present-intermedia-approach-to-urban-studies-in-multi-city-exhibition/](http://18/01/faculty-present-intermedia-approach-to-urban-studies-in-multi-city-exhibition/)

[15] Sassen, S. (2011) Video archive European Journalism Centre (EJC), @PICNIC11: From database cities to urban stories,

[16] for further reading, Sassen, S. (2012) Urbanising Technology, London School of Economics, December 2012,

[17] See, Bruzelius C. (2017), p.436.

[18] See Manzo, K. (2010). (pp. 196-208).

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