



Seminario Di Cultura Digitale

MAPPING ART

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Introduction

Creating and utilizing simple links between items and locations in map-based systems has become a mainstream component of modern computing.

Art maps is a collaborative research project involving a multidisciplinary team. It's the Tate¹ and horizon working together to develop a suite of mobile applications to enable people to explore art through place, therefore applications that help them locate artworks in the landscape but also explore the idea of locating themselves through the art.

Approximately, one-third of the Tate galleries collection, comprising almost 70,000 artworks, has been indexed with information about locations, typically the site represented in the work. For some artworks this information is quite specific (e.g. exact latitude and longitude of the landmark/sight depicted in the work), but in many cases it is quite general, referring only to a city, region or major geographic feature. The art maps project aims to improve the quality of the geographic data relating to these works, with members of the public contributing information as well as to gain new insights into how people use technology to generate novel location-based interactions with their environment through art, and with art through their personal associations (e.g. what they know about that location). Tate artworks (indexed with specific and non-specific geographic information) are displayed on the Art Maps map, and users are encouraged to browse the platform by keyword (e.g. artwork's title, artist's name) and/or by location, and to confirm or suggest locations, as well as to share comments.

art mapping highlights potential for more active engagement with art through technology. but challenges existing systems for spatial representation. collaborative research project exploring how the public might relate artworks to places.

The tagging of items to geographical coordinates is an essential feature of online mapping, social and locative media, and photography.

The purpose of this paper is to explore support for 'art mapping' an activity that requires consideration of more complex interpretations of spatial relationships as users engage with identifying locations of relevance to artworks.

History of Art Maps

Tate holds and acquires the UK national collection of British art from 1500 to the present day and international modern and contemporary art. Currently Tate holds around 70,000 artworks and much of this collection is already digitized and available to search and browse online . Tate's vision includes exploring the future of museums through technology and specifically taking the collection beyond the gallery walls: finding ways to make artworks relevant to existing and new audiences, in their daily lives. In part Tate is doing this through the development of mobile applications (apps) and mobile-enabled web pages. Even while not all gallery goers currently own or have access to a smartphone, visitor research shows that this number is around 70 per cent at Tate Britain and is increasing across all age groups at the London Tate galleries. Around one third of the collection works are subject indexed with 'place' tags but these

¹ Tate is an institution that houses, in a network of four art museums, the United Kingdom's national collection of British art, and international modern and contemporary art

range from a precise identifiable location, such as a landmark or street name, to much broader place categories such as cities, countries, or even mythical places. The initial impetus for the Art Maps project was to develop a suite of applications that would allow Tate to improve imprecise geographical data on collection works, through crowdsourcing² more detailed information. However, in early project discussions, the complex and varied relationships between artwork and place meant this would not be such a straightforward task: could the relationship always be expressed as 'the artist stood here'? What about in cases where the work was a bricolage³ of materials and visual influences to create an artist's impression of somewhere, or a performance work, referencing a place but staged elsewhere? In addition, the experience of viewing the work 'on location' through a smartphone and the possibility of using the audio-visual documentation tools on mobile devices all suggested an opportunity for inviting more expressive and speculative responses in a range of modes, in addition to collecting locational data. In one sense location is about identifying one's position on a map, but as Ingold argues, 'places do not have locations but histories. Bound together by the itineraries of their inhabitants, places exist not in space but as nodes on a matrix of movement'.

The aim of Art Maps is that, using a smartphone or desktop computer, anyone will be able to find works in Tate's collection located on a digital map, through a mobile app or web browser. They can then share local knowledge to help pinpoint locations by confirming or suggesting new locations as well as adding tags – an 'annotative' form of mapping. The intention is also for people to employ the 'tracing' function of locative media, adding comments and photos or respond creatively, sharing images, experiences and memories associated with the location or the artworks, including the means for users to follow and create trails, 'tracing the action of the subject in the world. In effect, users can both map the artworks and orientate themselves through the art, in the sense suggested by Hall To orientate is to hop back and forth between landscape and time, geography and emotion, knowledge and behavior.' In developing this project as a research collaboration, rather than commissioning a digital developer as Tate has with other apps, using a design-thinking process an iterative model of creative, collaborative thinking: developing, refining, editing, testing, remaking. Through this trans-disciplinary approach it can be considered the technical, design and user experience elements of the project, as well as the museological and art historical aspects of knowledge creation, copyright and audience participation. The process tracks the way people are working, made open and explicit through blog posts and cross-disciplinary dialogue across digital humanities and computer science research communities. The role of the Tate's Curator: Digital Learning, is to document the audience experience and examine the possibilities for learning and interpretation through mobile technologies.

² the practice of obtaining information or input into a task or project by enlisting the services of a large number of people, either paid or unpaid, typically via the Internet.

³ (in art or literature) construction or creation from a diverse range of available things.

Before introducing the project in more detail and studies, there will be a summarise relevant trends to show how art mapping holds potential as a novel form of engagement with art and location.

Involving through Location

Research around geotagging has highlighted that engaging the public in structured data collection can lead to valuable outcomes, such as improved geographical image search or quantifying the 'aesthetic capital' of locations . Art mapping may hold similar potential, but understanding of the processes of engaging in this activity are minimal. Relevant insights can be potentially gained from other technologically-mediated locative activities, such as geocaching - leaving items in locations for others to locate via GPS and the web. Researchers have found that geocaching holds diverse motivations, from provoking exploration of new locations, to seeing a well-known one in a new way . It also provides structure through which stories and experiences can be shared. Focusing on engagement with place-construction, Schaefer et al. created a collaborative authoring environment to support the use of location as an expressive element in creating narratives. While aware of the contributions of others, participant's activities did not generally involve consensus-building or collaboration around features in the environment, but instead resulted in multiple individual interpretations. These "sociolocate" practices: Social acts communicating around a physical location, have mainly focused on storytelling about authors or specified locations. Art mapping extends this to include an intermediary object: an artwork, and by extension, artists, and the processes and context of the creation of the work. Activities that fit within our definition of art mapping have emerged elsewhere: Halley Docherty merged figurative paintings with Google Street View perspectives for the Guardian , and HistoryPin host an activity of "Putting Art on the Map" to crowdsource locations for World War I artworks from the Imperial War Museum, UK, with over 200 "mysteries" now solved. This highlights that art mapping could, like geocaching, engage and sustain interested communities.

Enhancing Interaction with Online Art Collections

The project was framed by trends in the museum and art gallery sector, where in many cases, digital technologies are maturing towards more central roles. Two key trends in this are engagement beyond the physical institution, and provisions to open-up authority in engaging the public. A large number of art institutions have created online interfaces to their collection databases, with the rationale that these reach greater audiences and increase profile. Essential features include functionality to search and view images of works. Commenting, keyword tagging, and games have been used to further engage users . User- generated keyword tagging and folksonomy have potential to augment professional interpretations. The type of artwork may affect how consistently people can suggest tags, but tagging has potential as an access strategy, open to personal meanings, and bridging gaps between the public and professional discourse. Recent discussions of "Open Authority" in museums argue for platforms to encourage community curation, knowledge crowdsourcing, and greater support for public use of institutional resources. In summation, art mapping is a means of producing and interacting with new forms of geotagged information. It could be valuable as a means to active engagement in

museums, by opening up interpretation and supporting exploration of locations in relation to art. In order to design for these qualities, we need to understand how such activities can be engaging, and define the types of relations that people interpret art as having with location.

Context And Aims Of The Artmaps Project

Like many collecting institutions, Tate has created an online catalogue of their collection, including a web interface to digitized images of artworks, metadata, and text explanations. This in turn leads to a desire to find ways to extend online engagement beyond simple browsing or thematic tours. In this context, the ArtMaps project was conceived, aiming to find new ways to engage the public in activities that generate and reflect upon geographic information in relation to the collection, and to link work on interpretive tagging and authority in the museum space with sociolocate activities. In contrast to the other art mapping initiatives, we chose to take an open approach with a large, diverse collection of artworks, so as to explore the kinds of interpretations of art mapping that could be made. Our research questions were: How do people engage with, and respond to, activities involving the linking of artworks to mapping systems? And how can processes of mapping art, and the outcomes of these, be understood and designed for?

Data Collection Preparation

ArtMaps utilizes the Tate collection database of 70,000 artworks. Of these, around 23,000 have place name tags, added by curators. Originally, these were not related directly to coordinates, indeed, over 200 relate to fictional or mythical places. Most tags are countries, cities, or landmarks (e.g. "India", "New York" or "Eiffel Tower"). The automated conversion of these tags into coordinates was attempted as a starting point for the project. Tags were geocoded against databases including GeoNames and Google Places, producing coordinates for the vast majority. This was followed by an initiative for staff and the public to locate the remaining tags. Shortcomings in accuracy and granularity were noted (e.g. works tagged with a country name would all appear at the same point), and there remained over 47,000 works that had no place tags to identify. As such, while these automated exercises provided data to initially populate the system, they also emphasised the potential value of engaging the public.

Process of planning of the Prototype ArtMaps Platform

A website with a mobile-optimised version was developed to support art mapping with the collection. On entering the site, users are presented with a world map interface based on Google Maps, with the locations currently ascribed to artworks shown as pins. As localised knowledge is considered key, the system attempts to geolocate users and show them the local area on entry, but users can also search for locations and explore the wider map. In addition, users can search for artists, titles, or keywords, which returns a list of relevant artworks as search results.

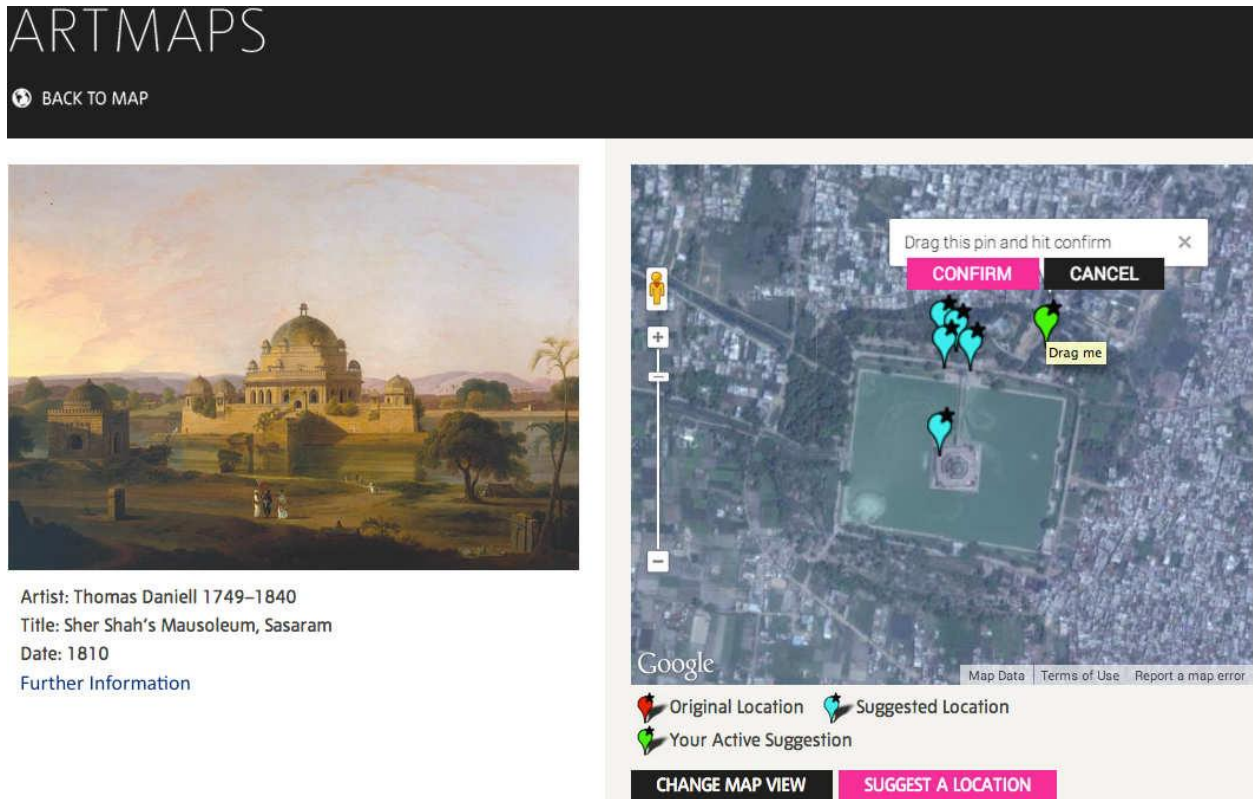


Figure 1: The ArtMaps Platform. An artwork is shown on the left - in this case, Thomas Daniell's "Sher Shah's Mausoleum". Users make and view suggestions through a map interface on the right. Previous suggestions from all users are shown as blue pointers.

When users select a pin or search result, the screen is split between an image of the artwork and a map of the existing location suggestions for it (see figure 1). Basic information about the artwork is provided, and a link to another page that contains more detail - commonly a text description written by curators with links to related works and information about the artist. Users are asked to make their own suggestions of locations for an artwork, and to explain these with a text comment. The meaning attributed to a suggestion is a matter for the user to decide. Multiple suggestions can be made about the same work, and these can be linked to blog entries if desired. Users can also switch between the map and a Street View perspective.

Analysis examined how the location suggestions and comments made on the platform exhibited different interpretations and perspectives on the notion of mapping art. Responses to survey questions provided further data from which the potential for engagement with, and challenges of, representing these different forms of interpretations could be understood. Rather than attempt to classify types of art, looking to identify the types of meaning users interpret the artworks to have in relation to locations. From this perspective, there are still broad distinctions to draw between - for example - suggestions given to artworks that represent an identifiable location, when compared to those that do not. However, our purpose is to identify different forms of art mapping, the processes that occur, and the support required for them.

Tagging to geographic features

The tagging of geographic features was also a frequent approach (figure 2 right). Participants enjoyed locating works in familiar places, often choosing places that they had known in the past. One stated that “It was an enjoyable task trying to match up my memory of an area with a work” . Attitudes to locating unfamiliar places were mixed, ranging from stating that “locating artworks in places I do not know has been engaging like a treasure-hunt game”, and “I did enjoy discovering a new place through the artwork and through the maps I used to locate it” to alternatively remarks that they “did not feel comfortable” , or had “no motivation to” locate artworks if they had no local knowledge. Tagging to depicted features becomes more complex with artworks that contain multiple objects of interest, and in many cases these are not in realistic spatial relationships, so could not be tagged through a perspective-based approach. Take the example of David Hockney’s “Meeting the Good People”. This features several Washington D.C. landmarks, but does not present them in their natural spatial relations. An approach taken by a participant here was to individually tag the location of objects that appear in the work. A similar approach was taken in tagging pages of sketchbooks, where a single sketch may contain several locations. In this way, tagging to multiple features is a flexible approach that can overcome the non-spatial arrangements commonly found. As the system only provided a coordinate point representation, issues arose when attempting to tag at different levels of granularity. Tagging a point is inadequate in accounting for lower fidelity depiction of features, for example to represent that “ Blake's painting is definitely associated with England: the artist, the subject, the hero of the picture” . It is also notable that perspective and feature-based approaches were not consistently applied by the same participant, or to the same artworks. For example in figure 1, both approaches have been used, although the perspective approach dominates.



Figure 2: Multiple suggestions tagged to the artist’s perspective in relation to J.W.M Turner’s “The Colosseum, Rome, from the West” (left) and a tag for Sir William Nicholson’s “Plaza de Toros, Malaga”, on the geographic feature depicted (right).

Even abstract works often take inspiration from locations, and in some cases were tagged based on their titles, such as “Teatro Olimpico”, or “Oxford Street”. Again, investigation prompted by the request to map can lead to new discoveries and understanding. For example on Robert Delauney’s “Windows Open Simultaneously “, a tag was added to the Eiffel Tower with a comment that: “I chose this object because I like the colour and abstraction.... I didn't realise it was of the Eiffel Tower until I read the blurb on the website. It was easy to map this location for the content in the image, but not sure if the mapping should only be for what we can see in the image”

Discussion Regarding To Art Mapping

Art mapping presents opportunities to expand space-based systems such that location-relevant interpretations of meaning in artworks can be represented. In applying such Geographical Information Systems (GIS) towards “spatial humanities” research, geographers and humanities scholars have identified related opportunities and challenges to those faced here in a system for the general public: GIS are beneficial in linking diverse forms of data to locations, but were built with positivist, reductionist, and spatially- deterministic characteristics. Hence, key facets such as subjectivity and place are difficult to represent. Through devising challenging applications like ArtMaps, new forms of spatial systems and activities emerge. To draw implications the focus will be on two themes and highlight how existing concepts in HCI link with these: The first part deals with explore mechanisms through which art mapping provokes engagement. The second part, identify characteristics for systems that represent and use the “footprints” of artworks.

Interpreting Location as a Means of Engagement

Responses to art mapping suggest new forms of interaction with digital collections, with the potential for self-directed interpretation and engagement that is desired by museums and galleries. Art mapping provides a frame and provocation for varied personal and shared experiences, from tracking down perspectives, investigating historical sites that are relevant to the work, or exploring associations that the viewer finds and the artist intends to provoke. Leveraging ambiguity by requesting certainty Broader notions of designing for interpretation have arose in HCI as part of a greater inclusion of the arts and humanities. Gaver et al. used examples of intentional ambiguity in art, such as the Mona Lisa or Guernica, to highlight the potential of ambiguity as a positive strategy in design. They argue that: “by thwarting easy interpretation, ambiguous situations require people to participate in making meaning... the artefact or situation sets the scene... but doesn't prescribe the result”. This can create a “deep conceptual appropriation of the artefact”. Two tactics that Gaver et al. suggest to enhance ambiguity are “Add incongruous functions to breach existing genres” and “Over-interpret data to encourage speculation”. In ArtMaps, the ambiguity present in the spatial meanings of artworks is leveraged as a means of engagement, by asking for a concrete response of specific coordinates. Giving these responses through a system for objective cartography could seem incongruous to both the study participants and artists, but it pushed them to investigate, decide, and create answers where they might otherwise remain passive. Harnessing the capacity for

multiple interpretations Explorations of ambiguity have extended to interpreting location in mixed reality and ubiquitous computing. One theme in this has been ways in which uncertainty around location is inherent, and can be dealt with by deliberately revealing it, as users are generally adept in exploiting and approximating it. This points to a gulf between human ways of understanding location and spatial approaches where ambiguity is excluded or considered negatively. Sengers & Gaver argue for the potential of systems that support multiple interpretations of their use and downplay the system's authority. In ArtMaps, supporting users to make multiple suggestions helps them to understand that no answer need be the single correct one, and collected data could include different interpretations of spatial meaning. Participants were led by the contributions previously made by others, and/or took their lead from suggested tasks. Results describe the set of observed interpretations of art mapping from these studies, but more could exist or be devised. While characteristics of the artwork may lead towards primary forms of interpretation or most-appropriate locations, users or designers could choose from a variety of foci. May decide to investigate the artist's perspective, or interrogate the history of the work to develop a spatial narrative around it. This plurality and adaptability should be harnessed in designing art mapping systems and activities, as a means to maintain engagement and create more holistic datasets for artworks.

Supporting the Creation of Footprints for Artworks

Based on findings, it would be suggest that the multiple, diverse relationships between an artwork and locations could be conceptualised as a whole as a "footprint", with spatial and "placeful" aspects. Such a data structure could be valuable in varied applications, from providing highly personal, contextualised mobile experiences, to new visualisations of the associations between an artwork, artist, or collection and its viewers. Here there will be a summarization of findings through this and highlight value that could be drawn, both from the data produced, and the activities that produce it.

Space and place in art mapping

Space and place in philosophy and HCI provide a conceptual basis through which to examine the potential characteristics of a spatial footprint for an artwork. For de Certeau, place is "the order (of whatever kind) in accordance with which elements are distributed in relationships of coexistence". Space "exists when one takes into consideration vectors of direction, velocities, and time variables". From a HCI perspective, Harrison & Dourish, consider that Space as "the opportunity", is usefully distinguished from Place as: "the understood reality". However, a layer-cake model that deems space or place to be the pre-requisite of the other misses the complexity of this. Instead, Harrison & Tatar identify the meaning of a place as a semantic tangle of mutually constituting resources: people, events, and loci - objects or locations that are a focus of attention. It has been argued that the notion of space is detached from realities of experience. Yet spatial systems underpin how online information is linked to the physical world. Brown & Perry note that a map is "very spatial in the sense that it is both abstract and geographical", but also has "platial" characteristics, like being read in specific places, or altering how we perceive a place. Dourish argues that current spatial technologies are limited by a focus on navigation, and

that designers should move from asking “how we might find our way” to “how, in our encounters with space, we might find more than our way”. To use these concepts while avoiding a layer-cake model, it would be suggest that certain aspects of art mapping, such as identifying a perspective, are primarily spatial as they reflect interpretations of how an artist represents space. But comments show that these activities also provoke valuable thoughts in relation to place. Other activities, still with a spatial basis, primarily focus on developing links to places, such as investigating where the artist lived or worked, or reflecting on emergent associations in viewing archetypical representations of place. All of these activities can create spatial data, and there are multiple ways in which this can enhance a sense of place. The footprint should therefore represent different relations of art and space (perspective, features), and also support further interaction around personal and contextual aspects of art-place relations (e.g. historical, archetypical). Thus identify characteristics that would give a footprint value from each perspective:

A placeful perspective on footprints

Combining narrative, art and spatial representation provides a new means to construct and appreciate places through historical and personal stories, and find numerous examples where art mapping drew greater attention to places, in situ of a relevant location, or at a distance. The potential to support greater “placeful” engagement with the footprints of artwork is therefore an important challenge and opportunity, with the following key characteristics:

Presencing

Further activities conducted in the project have involved walking between the galleries and locations depicted in the works on display, and combining historical tours with prompts to view relevant artworks. In this vein, and in line with the views expressed in the artist’s reflections, envision footprints supporting further “presencing” activities - experiences designed to bring a sense of being present in a particular place. For example with the artist at the point where the work was created.

Accommodating memories and associations

Art mapping can prompt and record memories and associations around places as a particularly personalised type of engagement. With this in mind a footprint could support personal narratives intersected with artworks, and further presencing activities that share personal experiences of artworks in place. Collected data could also be used as a basis for participatory interrogation of what the artist has achieved in terms of provoking associations with place for the audience.

Identifying placeful relevance

Aside from relevance to particular locales, artworks can hold place-related meanings that are archetypal - e.g. a zoo or domestic scene. This suggests potential to relate works with all instances of a form of place. Stronger ties may be found with some instances, e.g. based on the colour used, the shape of an object, or the activity or mood depicted. Thus interfaces could broaden relevance by making visible artworks that are resonant with particular surroundings.

This would constitute a novel application of Harrison & Tatar's suggestion to design "specific places for specific people engaged in specific events in specific location"

Concealing the spatial

Findings suggest that in some cases an overtly spatial view can overwhelm appreciation of artworks and places, focusing attention on abstract spatial distribution or accuracy of location. In certain contexts, there may be value in covering up the spatial underpinning of art mapping, to allow placefulness to come to the fore.

Conclusion

Art is a diverse range of human activities in creating visual, auditory or performing artifacts (artworks), expressing the author's imaginative, conceptual idea, or technical skill, intended to be appreciated for their beauty or emotional power. Art mapping takes these expressive forms, and asks us to represent them via geotagging. In this, art mapping is an unconventional activity that both utilises and challenges spatial systems. By analysing the different approaches, the potential for conceiving engagement with a broader "footprint" of an artwork can be highlighted. Through this, systems could make visible human ways of understanding artworks, while maintaining the benefits of a spatial approach. A further iteration of ArtMaps is available online at: <http://artmaps.tate.org.uk>, with source code available to reuse or adapt with other collections. In this iteration, The research group have begun to address some of the design issues raised here, such as classifying forms of suggestion.

References

Locatelli, C., G. Giannachi, and R. Sinker. "Art-Mapping Smart-Cities: Accessing art collections outside the museum." (2014).

Sinker, Rebecca, Gabriella Giannachi, and Laura Carletti. "Art maps—Mapping the multiple meanings of place." *International Journal of Art & Design Education* 32.3 (2013): 362-373.

Carletti, Laura, et al. "Digital humanities and crowdsourcing: An exploration." *Museums and the Web*, 2013.

Coughlan, Tim, et al. "ArtMaps: interpreting the spatial footprints of artworks." *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems*. ACM, 2015.

<https://www.youtube.com/watch?v=YMN7zvHaXZI>