

Laura Sharp

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Embodied cartographies of the unscene: A feminist approach to (geo)visualising film and television production

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[T]he frame refers to what is around the frame – a spatially and temporally contiguous ‘unseen’ that may, in its turn, subsequently enter the frame and so become actualized as a seen/scene... The essential thing about film, then, is not the framed image, but that which comes between the frames: the cut.[1]

For events to occur, they must occur somewhere. It was for this reason that, for Heidegger, the nature of being was immanently spatial. Events in film and television are no different. Because they serve as the stage on which all narrative events take place and are visual-material references to the audience’s lived reality, film locations are integral to world-building and the suspension of disbelief. Film locations provide insight into character psychology, helping viewers create emotional connections to them. Through establishing shots, long shots that periodically re-situate the viewer in the film’s current geographic whereabouts, viewers experience an emotional relief from the ‘cartographic anxiety’[2] of being unmoored from the physical world, a sense of discomfort produced by cinema’s phantasmagorical barrage of disjointed and geographically vague imagery. As cinema scholars become increasingly aware of the constitutive role that locations and geography play in film they have turned to cartography, in both theory and practice, to better understand this role. In this article, I explore a cinematic cartography that as of yet has still been little discussed: the cartographies of the moving bodies

behind the film camera. I refer to this here, in a reference to Doel,[3] as cartographies of the ‘unscene’, which are those practices and places that enable the scene to unfold without actually being visualised in the frame. I place the emphasis on the *scene* rather than *seen* to clarify that these practices and places are no less visual/visible for not appearing on screen.

In what follows, I first visit the current cartographic theories and practices used to study film spatialities before moving to feminist critiques of the objectivist and disembodied ontology that underlie these concepts and applications. I argue that the situated, embodied, and grounded approach to geographic information systems (GIS) advocated by feminist geographers as well as visual anthropologists elicits a richer understanding of the cinematic map than traditional spatial science alone can. To demonstrate this, I turn to a case study of location scouting for a movie made in Los Angeles, California: *Unit Zero*. [4] Practicing grounded visualisation, I retrace my steps of data collection and visualisation and conclude by identifying several ways these visualisations illuminate the data and cinematic cartographies more broadly. Possible analyses of the location scouting practices enabled by this methodology are suggested and will be expanded on in subsequent articles but are not themselves the article’s focus. Moreover, while the methodology I propose stems from feminist critique, the effects of gender on scouts’ labor practices are beyond this article’s purview.

Approaches to visualising space: Cinematic cartographies meets feminist GIS

Cinematic cartographies

The connection between cinema and cartography points to cinema’s innate ‘mapping impulse’ [5] on the one hand and a desire to re-humanise the map in cartography on the other. [6] Whereas Bruno [7] positions cinema as a ‘modern cartography’ with a virtual mobile gaze, Conley [8] broadly subscribes to this notion of affective, mobile geography of flanerie and positions cinematic cartography as a cognitive issue in which the viewer charts experiences and emotions onto mental maps of the world. Castro [9] not only positions early cinema as a cartographic effort of mapping the world through the ‘cartographic shapes’ of atlases, aerial views, and panoramas, but also within the context of topophilic expressions [10] of self-identity and discovery, an

emotional engagement, 'or primal urge of self-mediation: the desire to understand the relationship between the self and world, body and space'.[11]

While film scholars readily draw comparisons between cinema and cartography, it is only recently that they have embraced the use of GIS to understand cinema's spatial dimensions. Researchers are increasingly interested in the spatiality of film production, consumption, and narrative action. This scholarship benefits from GIS in the same ways as does any other type of spatial inquiry, namely as a tool for spatial data management,[12] spatial analysis,[13] and data visualisation.[14] In the introduction of their book, media scholars Julia Hallam and Les Roberts laud the use of GIS as a means to turn away from textual analysis, which has dominated their field. To this end, they state, '[w]hat is needed ... is a critical mapping of the multifarious spatialities of film on the one hand, and the expressly visual cultures of geography and cartography on the other'.[15] Several authors have taken this challenge on, though how they utilise the software differs.

Notably, of the authors interested in querying film production from a cartographic standpoint, as I do here, none have attempted to consider the map from the experience of those who enact it. Lukinbeal,[16] for example, in his analysis of 3,781 film and television film location points collected from the San Diego Film Commission between 1985-2005, used a mixed-method approach to understand why filming in San Diego occurred where it did. In addition to interviews with the San Diego film commission, Lukinbeal showed film and television density and clustering by using techniques of kernel density, point pattern and hot-spot analyses, and Moran's I to compare all data with individual production types (feature film, television, and made-for-TV movies). Similarly, Ravazzoli[17] applied density and cluster analyses to location data from the Internet Movie Database (IMDb) to show production clustering around three nodes across Italy. She argues that this distinct fragmentation reveals a selective image of the country that has implications for how the country is perceived locally and nationally.

Instead of looking at many productions in aggregate but continuing the approach of the distanced observer, Cacquard[18] has focused on mapping an individual feature film, *Ararat*, arguing that mapping the geographic components of narrative cinema helps us understand the film's spatiality and, as Ravazzoli[19] also argued, how those geographies may contribute to the production of geographic imaginaries. For Cacquard, understanding the spatiality of a narrative means mapping the locations where the film is set, not

where it was filmed. Cacquard's methodology uses graduated symbols to represent locations where characters spend more or less time and different types of lines to show the different ways that action is displaced from one location to another. Each of these studies demonstrate the possibilities offered by the aggregative techniques of GIS to identify macro-scale patterns in film production. However, by taking this strictly Cartesian, inference-based approach rather than a practice-oriented or ground level approach, the lived, contingent details of the filmmaking process are lost. In the next section, I discuss feminist critiques of GIS, articulating as I do so how the study of cinematic cartographies benefits from a more embodied and partial approach.

A view from between? Bringing contradictory positionalities to the cinematic map

Like feminist critiques of science, feminist geographers have sought to interrogate social differences and the power relations that underpin them in our everyday lives. This critical approach further extends to power relations within academia and the discipline of geography, as well as to the way research is conducted. These ideals of disrupting geography's masculinist culture and its practitioners' long tradition of legitimising the discipline as a science through allusions to objectivity, distance, and deductive reasoning accord with science and technology studies (STS) critiques of science as socially constructed and locally situated.[20] The work of Donna Haraway, in particular, has inspired feminist geographers through her concepts of situated knowledge, the god-trick, and cyborg theory. These concepts have been used to reconsider the researcher's positionality within research and relation to research subjects, as well as how we conceptualise geography's technological visualisations through GIS, which has been critiqued as masculinist and as operating from a view from nowhere.[21]

Haraway's work has focused on blurring traditional boundaries of Western thought such as those between male and female or biology and technology. In dismantling these dualisms, Haraway finds evidence of the cyborg, an organism-machine hybrid. The cyborg helps Haraway articulate the fluidity and overlap between entities naturalised as whole and bounded. To shift to a cyborg perspective, Haraway[22] writes, we must occupy these mutually-contradictory positionalities simultaneously because both reveal experience and knowledge that the other cannot.

Cartographically, we may think of these contradictory positions as the detached, omniscient, and objective God's eye view from above, which grants

broad and abstracting views of the world while obscuring the viewing subject and also the grounded, subjective, and self-reflexive view from the ground. The partial view from below is articulated through Haraway's concept of situated knowledge. Rejecting the privileged positionality of objectivity and its associations with masculinity, capitalism, and war, in 'Situated Knowledge' Haraway establishes a new feminist philosophy towards identity politics and the role of women in the study of science. Arguing against the 'god trick,' she states,

I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on people's lives. I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity. Only the god trick is forbidden.[23]

Looking back to the work of Lukinbeal, Ravazzoli, and Cacquard, the takeaway from Haraway's work is not that the cartographic view used by these authors is 'wrong' but that it, like the view from below, is partial. When we choose to inhabit both positionalities rather than one or the other we are able to come to a richer, if always incomplete, understanding.

Feminist (geo)visualisations

In geography, Haraway's work has been extended to address issues of reflexivity and the apparent disunity between feminist epistemologies of embodiment and masculinist epistemologies of objectivity.[24] As a 'science', GIS is often understood as unable to accommodate data collected on subjective experiences[25] such as sensory knowledge, affect, or emotions. Through Haraway's cyborg, however, we learn that, rather than strive for epistemological unity, i.e. between the user and technology, we ought to remain open to the shifting boundaries between our bodies and machines. This rearrangement of power allows us to decide what our relationship with technology is. Thus, although GIS is often criticised as innately masculine,

geographers can decide whether their cyborgs will be masculinist or feminist. By engaging with technology, women have the opportunity to reconstitute it – a political action.[26]

Feminist research has further pointed out how geography and GIS rely on vision to construct knowledge and concomitantly position knowledge from

a masculine, 'God's eye view'. Concerning GIS, Kwan[27] argues that 'the problem is less the use of vision or GIS-based visualisations per se, than the failure to recognize that vision is always partial and embodied and to acknowledge the risk of privileging sight above the other senses'. Addressing the critique of vision through a feminist GIS practice requires the recorporealisation of 'all visualisations as embodied and situated practices',[28] something Haraway[29] calls 'feminist visualisation'. For Kwan, feminist visualisations destabilise dominant ways of seeing, but to do so we must practice reflexive knowledge production, clearly articulating a politics of partiality rather than omniscience, or as Katz[30] writes, practicing minor theory rather than mastery.

With the proliferation of data and visualisation tools, GIS increasingly makes feminist geovisualisations of partiality and embodiment possible. It further enables inductive research models that, when combined with GIS data visualisation, 'allow[s] non-hypothesis based conclusions that are nevertheless academically acceptable'.[31] To this end, Knigge and Cope[32] have developed the methodology of 'grounded visualisation', which combines grounded theory with methods of visualisation. Grounded theory is a qualitative approach to data collection and analysis that entails iteratively questioning, comparing, and coding data to allow theories about the data to emerge. Citing Slocum et al.,[33] Knigge and Cope[34] describe geovisualisation as 'any recently developed novel method for displaying data',[35] ranging 'from the use of paper maps to the use of GIS and other highly interactive tools for exploring data'. Knigge and Cope, therefore, argue that GIS visualisation can be combined with qualitative methods 'to identify themes and processes, raise new questions, and begin to build theories'.[36]

This iterative visualisation process was deployed by Kwan and Ding,[37] who combined geocoded life path data, interview text, photos, and sound clips in a GIS. For Kwan, the study of narratives as 'geo-narratives' complements the life-path methods of time-space geography because both are a chronological ordering of spatial events. Life paths[38] are lines drawn (or digitised) on a map to represent the movements and spatial decisions of a research subject who then describes to the researcher what factors and decisions contributed to the path that is shown. Following the new mobility turn,[39] methods that capture mobile experiences such as Kwan and Ding's life path approach have come to the fore,[40] including methods that incorporate GPS tracking devices to look at pedestrian mobility and travel time[41]

or to analyse urban tourism habits.[42] Inspired by this, I applied similar mobility tracking and extra-textual data capture techniques when undertaking the research for this article to learn about the spatial decision-making of my research subject, Claudia Eastman, and thereby Claudia's lived enactment of the cinematic map.

To record Claudia's path, I used a cell phone GPS tracking application, Motion-X GPS. To capture Claudia's rationalisation of this path, in addition to other non-cognitive dimensions of the experience, I used interview, video recording, and photography. Although visual representations such as video and photography are historically associated with objectivity,[43] they are, like all methods, partial and constructed. Moreover, as Jacobs[44] has argued, lumping these methods in with 'visual methods' occludes their non-visual elements. In Jacobs's[45] words, 'film is a better fit in the body of research methods that are multi-sensorial, multi-modal, practice-based and targeted towards how we experience our lived environment'. According to Pink, when we record videos while walking with a research subject, this simultaneous act of movement and recording is an inscriptive operation in that. This is because 1) 'there is usually a relationship between the walker's routes and a mapped reality', and 2) 'while footprints in the grass may be transient, the trace of the video walk is preserved in the record'.[46] The video does more than represent a certain event and the bodies within the frame, however; it rather produces a new experience of empathy and connection between the bodies on screen and those in the audience. Citing MacDougall,[47] Pink[48] asserts that videos are 'not just the images of other bodies; they are also images of the body behind the camera and its relations with the world'. In this sense, making video recordings with the research subject is a reflexive practice that actively situates the researcher and the partiality of their observation within the research.

Geovisualising the embodied cartographies of the unszene

The location department of a film production is made up of crew members responsible for locations: finding them, securing them for use, and managing them on shooting days. In their day-to-day lives, these location scouts and managers not only experience the cinematic cartographies that academics analyse but create them. Film commissions and private location libraries

have databases of address data; location scouts use Google maps or its equivalent to find and save locations and identify how close each location is to one another; location managers make maps of each location indicating where trailers should be parked and explaining to the crew how to get there.

The glimpse of location scout Claudia's activities that I tracked, recorded, and visualised in Story Map are part of and continuous with the film's mise-en-scène in that they are a vital component of actualising the locations that appear on screen (Figure 1). And yet, to achieve geographic realism and the suspension of disbelief, these activities are simultaneously framed out[49] of the final product to inspire in viewers' minds a map of the characters rather than of the crew. This selectively framed cinematic map is then reproduced by cinema scholars who narrowly focus on only the locations that are used in the final product or on where the narrative is set. As a slice of the ongoing and spatially contiguous relationship between film and film production, the data is continuous with the film, the rest of the film's production process, and even film production throughout Los Angeles and the world. Thus, although this data is spatially and temporally specific, it is part of the ongoing connections between the rest of the cinema's embodied and unscene cartographies, thereby making it potentially endless.

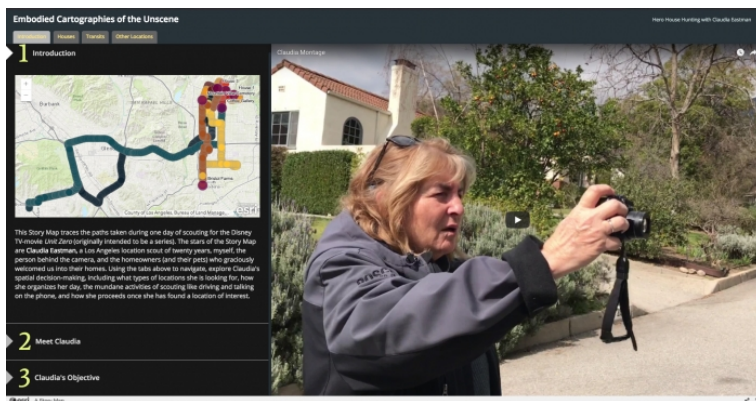


Fig. 1: Story Map of Embodied Cartographies of the Unscene (Story Map link: <https://goo.gl/UMrFY9>).

Tools and data collection

The GPS data and videos were created over the period of one day, from about 8 in the morning to 5 in the evening. On this day, location scout Claudia Eastman was scouting for the Disney channel for the pilot of a new television

series that was eventually released as the made-for-TV movie *Unit Zero* (Figure 2). The movie, which is about CIA agents, takes place in Langley, Virginia. Claudia's task was to find the 'hero house' – that is, the home of the main character, Jackie. To prepare for this, Claudia had read the script, noting each location that it required and paying special attention to the description of the home, the manner in which characters and the camera were described as approaching the home, and the descriptive qualities of the main character whose home it would be. It is important to note, for instance, that Jackie is not only a CIA agent but also a single mother of three, as this impacted how Claudia performed her scout. Specifically, we notice that the locations that Claudia considers are filtered through her understanding of what Virginia looks like, but also how Claudia imagines the socio-economic status of a government employee and single mother and what such a person could afford in Virginia (Figure 3).

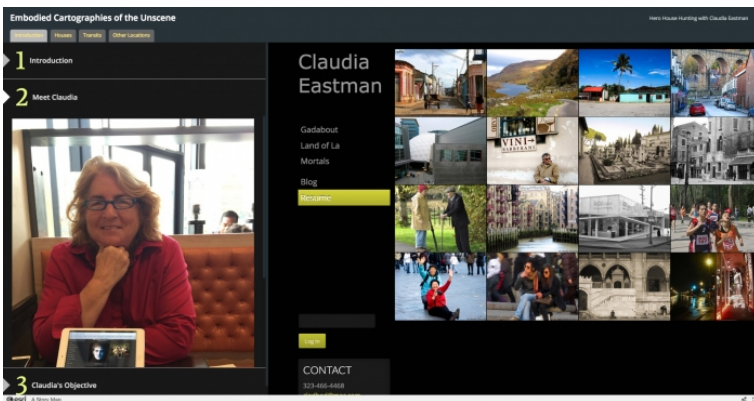


Fig. 2: Location Scout Claudia Eastman.

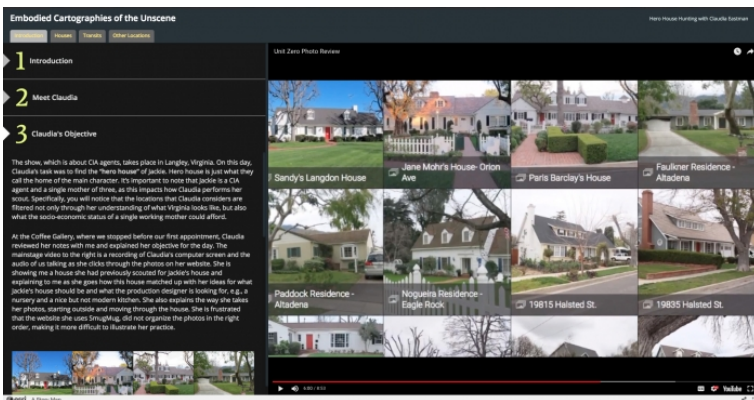


Fig. 3: Claudia's Location Scouting Objective.

The point data used to make the map were recorded using the smartphone application Motion-X GPS, which records a GPX table of X, Y point locations and a time stamp. Points were recorded every ten seconds. The data was uploaded as a GPX file to the ESRI software program ArcMap, where it was converted from a GPX file to an ESRI shapefile. This data shows the location of Claudia and I and a time stamp indicating the order in which each point was recorded but not the time of day. Once the data was converted, I uploaded it to ESRI's online platform, ArcGIS Online (AGO), where mapping and Story Mapping took place. Story Map, one product offered on AGO, is a web application that combines maps with narrative text, images, and multi-media content to make 'room for the non-spatial components of a story'.^[50] In addition to the GPS data and with the permission of Claudia and each of the homeowners, video, photographs, and audio recordings were made throughout the day and accompany and contextualise the GPS data. The focus of the media data collected was thus on capturing Claudia's scouting protocol within the homes and on the way she interacts with and evaluates the landscape as she drives. Story Map is made up of two primary elements: the map, which shows the spatial dimensions of a given phenomenon, and the story through which the map and its significance are communicated. In what follows, I discuss how I created the maps and how I operationalised these within Story Map's framework (Figure 4).

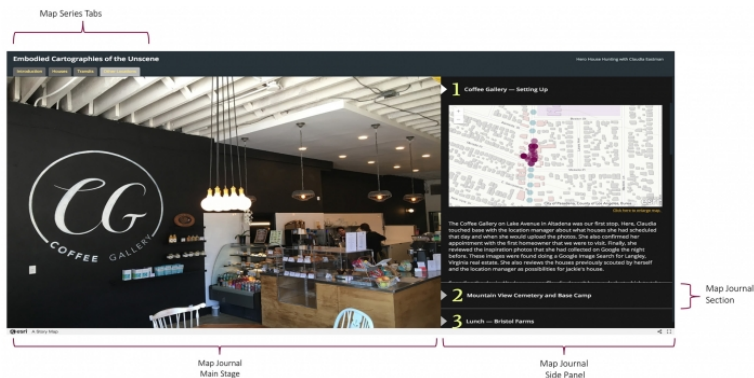


Fig. 4: Format of Story Map.

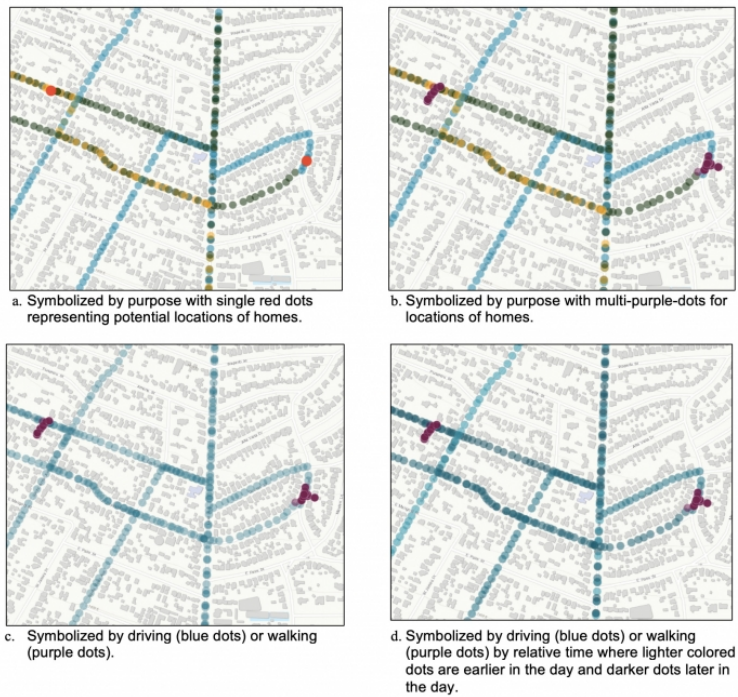


Fig. 5: Exploring different symbolisation and abstraction schemes.

The web map

Following the conversion of data, the next steps were symbolisation and abstraction, where the cartographer emphasises the spatial importance of the data by highlighting some aspects over others. To discover the story that my data was telling, I considered different symbolisation options (Figure 5). Should I keep the data as individual points or transform the points into a straight line? What attributes could be added to help give the points contextual meaning? I chose to keep the points as they were rather than converting them to lines because the points highlighted that the day was made up of many discrete practices rather than one continuous movement or event. From here, I symbolised the data by the primary activity undertaken at a given moment. The categories I started with were ‘cold scouting’, that is, when the scout drives around looking at places with little to no predetermined locations in mind, and visiting pre-scouted locations (‘return scouting’), or when the scout is returning to places that were scouted before. In this case, the pre-scouted locations were ones where Claudia had left flyers the

day before. In other cases, however, a scout might be returning to a location found on another project, one that someone recommended, or one that the location manager asked them to visit. This symbolisation, I reasoned, would demonstrate the scout's relative allocation of time per activity – cold scouting in person compared with looking at locations on Google, uploading photos compared with taking photos – and thus the priority of activities in her overall workflow.

While cold scouting and return scouting seemed straightforward, I was unsure of how to categorise the rest of the day's events, such as driving to the coffee shop, driving to lunch, being at lunch, visiting a convenience store, and driving home. Giving each of these their own symbolisation made the map overwhelming and meaningless, so I created two more categories: 'other', which included miscellaneous driving activity, and 'on location', which included points corresponding to location visits. Not wanting to lose the details of these 'other' events, I created a new column and entered descriptions such as 'going to lunch'. These, then, became available through popups, visible when needed but otherwise unobtrusive. This second field helped add depth to the initial categorisation. With the addition of this field, I decided to add new codes to my original fields. Notably, I added 'cold scouting' to activities that I had initially tagged as being primarily about following up on previous scouting or going to lunch. However, I soon began adding 'cold scouting' as the secondary purpose for every activity and realised how limiting such a categorisation was in the first place: There was never only one 'purpose' at a given time. Claudia's activities were not either/or but rather both/and.

To represent where Claudia stopped, I first reduced each location to a single point. This would be ideal for display because it would lead to a single popup for each location. Due to the time intervals at which the GPS recorded points, and because we covered relatively little terrain while on foot, the details of these points are less telling than the overall day's path. In some places, only a handful of points were recorded and many overlap, either because so little movement occurred over time or because in each house we traversed multiple stories, causing points to gather on top of one another. The second concern I had with representing locations was that like driving paths, not all locations were 'equal' in that some were 'key' sites (potential film locations) and others were 'supplementary', needed primarily to support Claudia while she did her job finding the key sites. From this, I realised how little of our day actually involved what I had at first considered to be the 'most important'

aspect of the job – actually looking at locations. In all, less than 3% of points were recorded while looking at a potential location, 4% were recorded doing supplemental tasks, and 93% of points were recorded while driving. Based on my conversations with numerous location scouts about their process, Claudia's allocation of time is not unusual; rather, it reflects the time-intensive nature of traditional, in-person scouting compared with new trends in digital scouting.

Becoming aware of how much time was spent in the car compared with on location prompted me to create a new symbolisation of the data that helped compare the time spent in the car versus time on foot. For this, I kept the location data as multiple rather than individual points. The last way I symbolised the point data was by coding each subsequent trip in the car in a different colour value. This symbolisation serves as proxy for time, which my GPS did not record. Each transit relates to a different numbered segment in the 'Transits' side panel of the Story Map (discussed below). Here, where available, videos and notes about that segment of travel are presented. When looking at the map of transits with many different coloured point-lines overlapping and running into each other, we become aware of the spatial-temporal overlap of the day's events and, extrapolating from this, of the entire production's events (Figure 6).

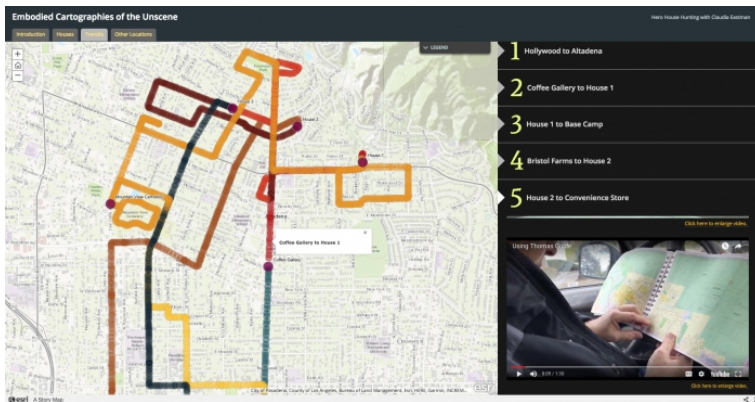


Fig. 6: Transits.

ESRI's Story Map

While Story Map authors can use computer code to embellish the appearance of their stories, ESRI's goal is to make Story Mapping as easy and accessible

as possible. To do this, they offer the user five premade templates with customisable options. Each template has a different format that enables (or limits) certain types of stories to be told. Choosing the best template for your story is the first step to making a Story Map. In most cases, the Story Map author would know the story in advance in order to think about how best to communicate their message. When using Story Maps as a grounded visualisation, however, threading the data through the different templates is useful for learning what kinds of stories your data is capable of telling.

My first thought about which template to use was based on the initial assumption that the most critical aspect of the data was the locations being considered to play the hero house. With this in mind, I chose the Map Tour template because it focuses on discrete points on the map and allows the user to jump between points using thumbnails at the bottom of the screen. Once I started this process, however, I realised two things: 1) the template limited the amount of media that can accompany each point on the map to one image or video and so is best when the author only wants to give an idea of what occurs at that location; 2) by focusing on discrete locations, this template obscured the time spent between those locations. With this in mind, my next effort used a Cascade template.

Cascade is one of two templates (the other is Map Journal) that requires the story's audience to scroll down continuously to be presented with new maps and media, making these best for telling linear narratives. Because Cascade allows the author to work with the entire screen rather than one section, Cascade is also ideal for stories that are media-heavy. As I began putting maps, images, and movies in place, however, I discovered that I did not know what piece should come next because there was no definitive, over-arching narrative that I was trying to tell. I thus moved on to the Map Series template. This template allows the author to organise data into separate tabs or pages within the application, enabling the audience to jump around between tabs, thereby taking the emphasis off linear storytelling. At the same time, it also uses a side panel that expands to accommodate the information or media you choose to include. I began by creating tabs for every type of spatial experience, e.g. one for each house, one for each segment of driving (which I call 'transits'), and one for each time we stopped for other reasons, for instance at the cemetery to see the base camp of another production.

With these tabs in place, I found that the application lacked organisation: all of the tabs were hierarchically equal with no unifying themes. Thus, while the map series is ideal for providing the user with the ability to self-direct

their experience of the application, this prevented a clear narrative from forming – the opposite problem of the Cascade. To overcome this, I configured a compromise between the strongly linear format of the Map Journal with the leap-frog format of the Map Series by creating separate Map Journals for each type of activity and embedding these within the tabs of the Map Series. The result is four thematic tabs at the top of the application, within which are panels that are subdivided by unique activity. Each subdivision of the panel contains information (text, pictures, videos, maps) for a unique spatial event. So, for example, the tab called ‘Houses’ contains a numbered panel for each house that we visited, with ‘1’ being the first house we visited and ‘3’ the last house (Figure 7). Similarly, the tab for ‘Transits’, which contains all of the point and video data collected while driving, has a panel with each successive transit (trip in the car) listed in temporal order. Thus, unlike some Story Maps that seek to tell one overarching narrative, this Story Map does not attempt to convey any particular message. Rather, it provides the user with a series of smaller thematically-grouped temporal narratives from which they can draw their own conclusions about the day’s events. By creating both thematic and temporal organisation of the data, the Story Map acts as a bivariate visualisation. This bivariate structure disrupts the logical flow of metanarrativity, enabling dynamic interrogation.

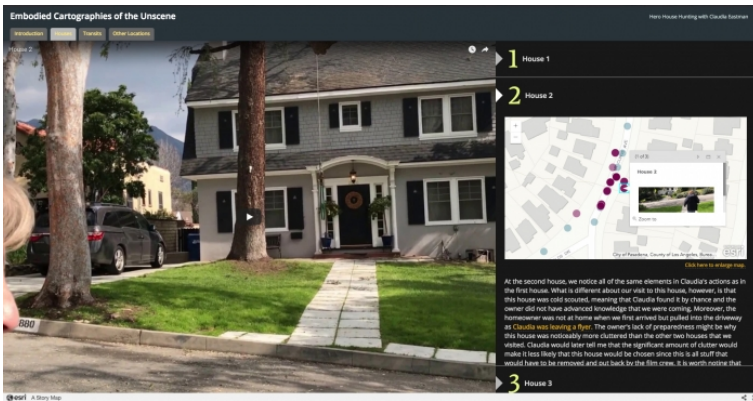


Fig. 7: Houses.

Discussion and conclusion

Feminist GIS and grounded visualisation provide new avenues through which to investigate cinematic cartographies. When we weave together the view from above and from below, we are able to think critically not merely about the map's underlying epistemologies but more importantly the implications this epistemology has for how we understand the geographies of cinema. Until now, a large swathe of the cinematic map has been occluded by a masculinist, top-down approach to what cartography and GIS mean and are capable of. The Story Map created here is a visual record of a process that is otherwise only visualised through the final product, the movie, which bears only the trace of these activities. This cinematic map is a snapshot in time of *Unit Zero*, a map that started when the project was initiated and which will continue on indefinitely as it is picked up by others even after the movie is complete. This geovisualisation reveals several things about the data that mapping and GIS analysis alone obscure. These observations, in turn, create more questions and thus pave the way for future research on topics of scout mobility, use of technology, labour, and the experiences of homeowners and homeowner decision-making.

First, after trying to determine the best way to categorise the data, I found that location scouting, like most things in life, is not something that can be perfectly summed up in a table. Instead, like the map and its crisscrossed and overlapping paths, scouting activities blend together and run into each other and are not limited to just the time spent at a potential location. Cold scouting happens on the way to an appointment for a previously scouted location, this morning's locations get uploaded on lunch break, and keeping in touch with your boss happens while keeping homeowners happy to host you. In this sense, it is possible to say that, for a location scout, scouting is never *not* happening, as information about the world is always being stored, if not for the current project then the next.

A second observation that the Story Map visualisation illuminates is the proportion of time spent doing things like driving to Altadena from Hollywood, driving to lunch, or organising ourselves in the coffee shop. This allocation of time reinforces the mobile nature of the scout's job and the living, tangled cartography of filmmaking. Spending the day in Altadena means Claudia does not have a desk at which to take her lunch, strong wifi whenever she is ready to upload pictures to the cloud, or a place to wait for her next appointment. Like the film locations in her portfolio, places like the Coffee

Gallery and Bristol Café become part of her geographic repertoire of work and part of the map that leads to the ultimate product of the film. Unglamorous, make-shift office spaces are part of the cinematic map too.

Finally, working with the data as a series of discrete points rather than a line suggested that the cinematic map is a process made up of many individual practices rather than a single, static event[51] in the same way that it is more than the film that it culminates in. Returning to Pink's argument that video walks with research participants convey an empathetic understanding of those both in front of and behind the camera, the video walk method dovetails with feminist geographers' calls for embodied, partial knowledge production, or the view from somewhere. The methods used here – my own active presence with Claudia while she scouted, my presence in the recording material, the presentation of the material in an interactive website, and finally, the time taken to write out the iterative geovisualising process – all strive to position the researcher, the researched, and the data within its context. In so doing this methodology takes seriously the cyborg philosophy of inhabiting two mutually-contradictory positionalities simultaneously, in this case the objective view from above – the map – and the subjective view from below – everything else.

Author

Laura Sharp is a Ph.D. candidate in geography at the University of Arizona. Laura specialises in geographic information systems (GIS) and cultural, social, and economic geography and has published articles and chapters on film and geography, popular geopolitics, and social media geography. Currently Laura conducts research in Los Angeles, where she endeavors to understand the spatial distribution of on-location filming, the socio-technical arrangements that make location filming possible, and how these arrangements affect the people who live in Los Angeles.

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Notes

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