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Beyond Destinations: Exploring Tourist Technology Design Spaces Through Local-Tourist Interactions

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Abstract

Rather than seeing the design of new tourist technologies as situated naturally in an understanding of tourism as an information consumption practice, this paper takes a "performative" concept of tourism as its starting point. The research presented in this paper is part of a larger goal which is to suggest a shift in the socio-technical environment in which the design of more engaging technologies for tourists might take place. By drawing on recent approaches for understanding the lived social and material conditions of tourist places, we first show how contemporary tourism can be usefully understood as a form of networking. The paper then draws on early research about the roles of locals and tourists in making of place during the course of their networking activities, and suggests how the social environment of tourists might be used as a resource for the design of tourist technologies. Analysis of a staged encounter between a single tourist and four locals generated insights that were used to shape a design space, the first step in the development of appropriate prototype designs of technologies to enrich tourists' experiences.

Keywords - Design, Experience, Tourism, Video, Place-Making

1. Introduction

Although mass- and leisure tourism are still dominant modes of consuming tourist products, we believe that design-oriented interventions with ethnographic sensibilities, as well as creative and explorative design research, can play important roles in mediating other forms of interaction with tourist places. We suggest that this, among other things, entails exploring the conditions for digital technologies in facilitating place-making and affording tourists deeper engagement.

Our dissatisfaction with the direction of recent tourist technology design has motived us to seek new inspiration, so this paper sets out to use a performative concept of tourist experiences to support the design of new and more engaging technologies. Many current tourist technologies are somewhat utilitarian and fall short off allowing tourists to express the felt-life aspects of their activities. These felt life aspects are the sensory and affective sense-making aspects of life as a tourist, as it is lived, sensed and experienced outside their non-tourist lives. With respect to tourism, we are interested in how these might be mediated and enhanced by the relationship that people, as tourists, have with technology (see [McCarthy and Wright, 2005b] for more general description of this relationship). Tourists naturally fall back on familiar technologies that serve both their felt life and their more practical purposes well in their non-tourist lives. So, for example, tourists will use the Internet for purchasing tickets or to get recommendations about sightseeing venues they should visit, and they might blog about their experiences. They might access maps online to assist with wayfinding, and they'll frequently be found using digital cameras to record their experiences. They may well use social networking such as Facebook or Twitter to update friends and relatives on their progress. Yet, on a practical level, such technologies are not necessarily well matched to tourists' needs, or to their bodily practices, feelings and thoughts, as they go about the business of being tourists.

We do not wish to argue that the more mundane technologies have no place in tourism. Current technologies of course provide the first steps towards supporting the "organised, purposeful activities" that tourist undertake in order to be able to engage in the hedonic activities associated with tourism [Brown, 2007]. Rather, our enquiry is whether we could design technologies that both supported the mundane work of being a tourist, and also afforded and sustained the place making and networking

activities that make tourism enjoyable, provocative and aspirational. This question, when seen against the backdrop of recent advances in the understanding of tourist destinations as more than stable units of pre-ordained interaction with a pre-defined topology (i.e. the traditional service product of tourism, see [Saraniemi and Kylänen, 2011]), suggests that the practice of designing for technologies that are aimed at tourists is indeed worthy of reconsideration.

1.1 Critical voices in tourism studies

With few exceptions, 'tourism' (considered as an industry) and being a tourist are categories that are currently taken for granted by researchers working in the field of technology design or service innovation [Jamal and Hollinshead, 2001]. This approach, which is reflected in contemporary efforts to design and innovate technologies that enhance tourist experiences, seems to often undervalue the richness and complexity of the tourist experience itself, reducing experience to information consumption, or at best, basic information exchange. Current technologies seemingly do little to engage tourists in the experience of tourism itself at either an affective or emotional level; nor do they assist to any large extent with place making or networking during the course of tourism activities. So, whilst we can point to phenomena in the world that clearly belong to a class of activities that can be labelled 'tourism' or be seen as part of a repertoire of 'tourist' experiences, we argue that it is critical to start from the view that the tourist experience and being a tourist are complex and nuanced concepts. Tourism cannot simply be taken as merely 'going places' [Bærenholdt *et al.*, 2004] or consuming iconic locations, through visual (primary photographic, see [Sontag, 1979]) or other informational means.

As more recent critical voices in tourism research argue, the phenomena of tourism and 'the tourist' arise fundamentally from people being in a particular space, at a particular time, and, importantly, being there with a particular mindset [Bærenholdt *et al.*, 2004]. This shift, from a primarily positivist and functionalist social science-like tradition in tourism studies, has allowed some of the performative practices in tourism, including issues around gender, consumption, politics, and culture to be addressed (e.g. Selby [Selby, 2003] considers urban tourism; Ryan *et al.* [Ryan *et al.*, 2000] look at affective aspects of eco-tourism; Jamal & Hollinshead [Jamal and Hollinshead, 2001] discuss tourism generically). More generally, in this view, tourists always exist in a constant, processual interaction with the environment in its broadest sense, including, for example, the resources and topographies of particular places and cultures, but importantly also through socio-cultural reproduction in a variety of media and discourses.

In tandem with the resituating of tourism and the performative practices of tourists as experiential phenomena, tourism is historically a practice that has increasing mobility at its heart [Urry, 2007]. It is argued that current developments that support the need for a conceptual shift in the way technology design for tourists should respond to new forms and structures of tourism are twofold: firstly, as Urry argues, increased mobility and extensive travelling are central constituents of (late) modern societies. Tourist experiences happen more frequently and in more mundane settings, arguably incidental to the increase in movement of people through space. So, tourism is no longer confined to exotic locations and specialized spaces, but occurs as a subset of the overall rise in (primarily western, affluent) mobility. However, we not only travel more, for more diverse purposes, but we travel with more technologies, Hence, Secondly, with the advent of readily available mobile digital devices such as PDAs and smart phones with Bluetooth, RFID (Radio Frequency ID), NFC (Near Field Communication) and Internet access, as well as more extensive and accessible data networks, both local and global, personal as well as impersonal information sources are becoming ubiquitously available to tourists. These developments, seen together, enable new ways of performing tourism that do no necessarily rely on the same properties that made classical "grand tour" tourism work - the sublime, the unique, the canonical. Rather, as the world becomes smaller, sociabilities are becoming increasingly important aspects of travel and tourism as we travel to *meet* [Ibid.].

1.2 Objectives

This paper has two objectives inspired by and drawing upon the groundwork laid down by the abovementioned conceptual turns in the understanding of tourism and the tourist. First, in adopting a view critical of the notion of the "tourist destination" as a simple unit or marketable place, our purpose is to begin to unravel why and how designers of tourist technologies need to respond to a new environment in which increased travel and mobility, as well as embedded, localized and simultaneously globally connected technologies, are becoming ubiquitous. The challenge here is to sensitise designers of tourist technologies and services to a more critical and diverse view of what tourism is and what tourists do. The second objective is to demonstrate how this turn might affect the design of tourist technologies. To meet this objective we focus attention on the design sensibilities that emerged from the analysis of an empirical study, which explored "meeting the other" as an integral part of a tourist's effort of making place. The process of the analysis of a staged encounter between a tourist and locals, is treated as a technological site of interaction that yields artefacts grounded in the original activity. The concern here is to show how such artefacts might be used to shape a design space that is better aligned with the notion of tourist-as-networker and tourist-as-place-maker rather than simplistic notions of the tourist-as-flâneur or tourist-as-sightseer. As such, the paper works on an assumption that conceptually challenges the field of tourism Information Technology (IT), as well as bringing forth and interacting with data in ways that demonstrate how such challenges are central to an explorative design effort that encourages "new solutions, new directions, new technology and new usage, to broaden the overall design space or to rock the boat, without necessarily trying to solve existing and well defined problems" [Fallman and Stolterman, 2010, p. 270].

The resulting design space that we outline in the shape of design sensibilities (see [Wright et al. 2008] for a discussion of design sensibilities as opposed to design guidelines) should be understood as a dialogue between the conceptual turn presented in the first parts of the paper and the empirical intervention (a staged meeting between a tourist and locals). The primary contributions of the paper are thus a conceptual revision of the notion of the tourist in the fields of IT and design, as well as an advancement towards defining a design space for tourist IT that goes beyond informational consumption.

2. Tourist Technologies

2.1 Tourist systems as guides

This paper is concerned with an approach to the design of digital tourist technologies that transcends the disciplinary framing of mainstream IT research. Inevitably, this leads us to level a critique at the current state-of-the-art and the metaphors that guide design and innovation work within that field. Various research and commercial projects have approached tourism and tourist sites as fields with many possibilities for design of localized, mobile and digital information systems. Projects such as those mentioned below draw their impetus from a tacit understanding of tourism as an information consumption practice, the guide being one of the driving metaphors in development work. Primarily explored within proof-of-concept frameworks, research has focused on the practical validation and evaluation of mobile visitor information systems prototypes for different kinds of tourism (e.g. [Park et al., 2006], [Garcia et al., 2008]). With inspiration from the seminal Cyberguide project [Abowd et al., 1997] and the GUIDE project [Davies et al., 1998], several projects have focused on various forms of mobile information systems for tourism. For example the mobiDENK project [Krosche et al., 2004] shows how monuments, an archetypical feature of a tourism topology, can be embedded with smart phone accessible information. Similarly, context sensitive systems such as the before mentioned GUIDE and Cyberguide systems consider the tourist context to be almost entirely made up of topological and informational features and presupposes a set of expectations or well defined motives from a target user. Such an approach is often sensible from the point of view of systems design and architecture since it makes "context" amenable to quantification and hence computation [Dourish, 2004]. Technology acceptance research, assessment of end-user acceptability and adoption potential of digital technologies for tourists are also strongly represented in the design oriented tourism literature (e.g. [Evjemo et al., 2007], [Schmidt-Belz et al., 2003], [Mich et al., 2007]). Tourism research into technology has shown a particular emphasis on the adoption of digital technologies by operational divisions of tourism businesses, while other work is done in relation to tourist attitudes to the inclusion of digital technologies in the tourist experience itself (e.g. [Benckendorff *et al.*, 2005], [Benckendorff *et al.*, 2006]).

2.2 Disciplinary framing

In addition to IT's traditional preoccupation with information systems, it is understandable that IT draws upon the kinds of disciplinary framing that takes place in tourism research. Pernecky, for example, notes on the malleable subject of tourism research that;

"through an anthropological lens, tourists are seen as sightseers or leisured travellers, taking part in the touristic process, and making an impact on host societies. When it comes to geography, Franklin (2007, p. 133) states that there has been something "quintessentially geographical about tourism" thus predisposing tourism as a spatial phenomenon. It is in Mitchell and Murphy"s (1991, p. 59) review of geography and tourism, we learn that "the environment is the totality of tourism activity, incorporating natural elements and society's modifications of the landscape and resources" ([Pernecky, 2010, p. 3])

We would argue that the net result of this disciplinary framing, viewed through the lens of IT and digital technology development practices, is the notion of the tourist as frequently but unnecessarily constrained by an underlying assumption of tourist behaviour as that which mirrors "information needs" and "information seeking" models of human behaviour ([Wilson, 1981], [Bawden, 2006]). We believe that the relationship between IT and Information Systems research in the service of tourism technology on the one hand and the disciplinary framing in mainstream tourism research on the other, as expressed in pre-occupation with mobile guides and information systems, only serves the apparent needs of the recipient community as long as this central though unstated metaphor remains intact. Our research is designed to bring this into question.

2.3 New tourism, new technologies: some conjectures

In turning away from the practical approaches and unstated informational metaphors for tourist technologies outlined above, we seek to shape a new design space that allows due consideration of the value of the tourist experience itself. As a starting point, we have chosen to begin to unpack the meaning of tourism "in place" by considering the role of subjective place-making in tourism, on the one hand, and a propensity of situated digital technologies to afford mobility and networking, on the other.

Our *first* conjecture is that the design of tourist technologies should take into account the dynamic and changing nature of tourist experiences in interactions with place as well as the rich, embodied, sensual as well as social connectivity to place. In particular, we are concerned with how a tourist continuously and dynamically 'makes' places through interactions with locals and the environment. Messeter's call for research into the specifics of place [Messeter, 2009, pp. 29-41] entails examining tourist practices as they occur, in the interplay between human actors and between human actors and the environment, often in the course of place making. An understanding of the making of meaning that occurs during these embodied and social performances, and discourses of 'what-it-is-like' to be a tourist or to be a local participant in tourism can provide powerful inspiration for the design of tourist technologies.

Secondly, Harvey has argued that the new opportunities of at-a-distance communication as well as faster, cheaper, and more convenient travel has given rise to a compression of time and space [Harvey, 1989]. This, so Larsen et al. have argued, challenges the paradigmatic notion of the tourist as a seer-of-sights, normally to be found primarily in iconic tourist locations, doing 'typical' tourist things [Larsen et al., 2007]. An example of this is the rise in popularity of digital Social Networking Sites (SNS) which further emphasizes Harvey's notion of time-space compression as a way of describing geographically dispersed but intimately linked identities and mobilities. With the increased possibilities for communicating, keeping in touch and finding up-to-date information, contemporary tourism is underpinned by social practices of networking. Tourists, as seers-of-sights, are sustained by a variety of networks, including information gathering, scheduling, navigating, ground handling, and socializing. However, where networking is often described in exclusively social terms, the networks that tour-

ists utilise are also linked to locations and, by extension, given the meaning making achieved there, to place.

3. Tourists, locals, technologies: networks in place

In this section we discuss broader conceptual aspects of tourists encountering 'the other' in tourist places and how the locals are implicated, both as part of the experiential landscape and as partners in relationships occasionally and loosely created with tourists. It challenges the conventional view that tourists' experiences are relegated to depend on the touristic "gaze" [Urry, 1990], and it unpacks some of the preconditions for the turn towards performativity and place making. We discuss how interactions between tourists and locals can be seen as an essential part of place making. Tourists' place making is, in part, dependent on their access to tourist service networks and other resource networks (including material/technological networks and infrastructures) which often necessitate accessing information held by locals and community social networks. We exemplify the role of technologies in tourist-local mediation.

There is more at stake in relations between tourists and locals than a simple dichotomy of being inside or outside. Rogelja [Rogelja, 2002], for example, argues that an important part of a tourist landscape is the activities of locals in place. In this sense, local regulars "work" in tourism as their mundane practices and routines become a central part of the experiential landscape for tourism. The role of locals in tourist places is not transparent to the locals themselves. They can, so Rogelja argues, be quite aware of their role as part of the tourist place and of their performance of a particular cultural system. As such, locals are, at first sight, performers of 'authentic' practices that tourists come to consume. Tourists also interact with networks of local people, from those specifically involved in delivering tourist services to the more fleeting interactions with locals whose everyday lives are regularly lived in the locations the tourists are visiting. Conversely, locals interact with tourists in either being directly involved in the tourism industry, or by interacting with tourists who "see" the local world and thus become consciously enrolled as peripheral commodities or cultural subjects that provide the human-cultural furniture of a place. Larsen *et al.* similarly argue that tourists' place making is driven by interactions with the locale and with locals during the course of the tourist visit, and this is done through the mechanism of networking [Larsen *et al.*, 2007].

While tourists, in a practical sense, exist effectively and necessarily on the outside of local practices, tourism also thrives on a fantasy of "becoming local" or of revealing some authentic quality of a place that originates in local, un-staged practices [MacCannell, 1999]. Such meetings occur in what Bruner terms the tourist "borderzone" – the hectic, transitional, and dynamic zone of interactions between insiders and the outsiders [Bruner, 2005]. Bruner argues that this zone is a place of creative negotiations, where identities such as the un-informed visitor and the skilled, knowledgeable local are continuously made and unmade. As Rogelja suggests, the meeting can be a vehicle for reflective identifications on the part of the local community; those who are looked upon [Rogelja, 2002]. Yet the visiting tourist is not a powerless subject. The tourist can discover or unearth the local, retaining the power to define what is worthy to gaze upon or interact with. While tourists do not gain membership of local communities, since the time being there is so compressed and since interaction opportunities are often constrained, a number of intense, usually brief, instances of engagement do take place. These are based in part on tourist fantasies of local cultures, of becoming local, and on actual engagements or meetings and play a critical role in the tourists' making of place.

3.1 Network socialities in tourist encounters

Wittel's notion of *network sociality* aptly describes a post-social alternative to the idea of community [Wittel, 2001]. Where "community" is understood to indicate belonging and being, network sociality, in contrast, designates the constant "becoming" of social relations and ephemeral-but-intense relations with fast cycles of integration and disintegration. The forms of social relations that take place as part of tourism are less likely to be truly *communitarian* in nature. Rather, tourist forms of sociality are *ephemeral* in as much as they are not likely to be concerned with belonging, the initiation of long-term relationships, or long term mutual obligations, and they are *intense* in as much as they take place

within a restricted amount of time and are performed on a background of a variety of experiential intentions on the side of the tourist. Expressions of such intense forms of relational tourist activities can be gleaned from travel guides such as the popular "Lonely Planet" series of guidebooks that emphasizes "responsible travel" and urge travellers to reflect on their "impact on the environment and local cultures and economies" (www.lonelyplanet.com). Coincidentally, many tourists seek out what they would describe as 'authentic' experiences. This includes wanting to engage practically with a local



Fig. 1 Profile of 'local expert' from localyte.com (anonymised)

yond") or concepts such as "the untourist" (e.g. "The untourist guide to..."). Similarly, several "context sensitive" smartphone apps draw on the same locality trope. The popular Aloqa application platform for location based service delivery, for example, has the tagline "Always Be A Local" (Android



Fig. 2 "Get the real Copenhagen experience" - a CPH Bike rental flyer. Overleaf reads, "Rent a Bike and Commute like the Locals"

and sites such as <u>untouristpdx.com</u> ("travel like a local in Portland OR, and bearist guide to..."). Similarly, several "contrope. The popular Aloqa application plathe tagline "Always Be A Local" (Android market, accessed 20.01.2011). Such longing for the authentic is also represented in other forms of technology. In a Danish context, many companies offer rental bicycles as a way to "commute like the locals". The Copenhagen bike rental company Baisikeli, for instance, advertise their services with the tag line "Get the Real Copenhagen Experience" (see fig. 2). Bicycles as a technology in this case are

community and becoming familiar with

the tourist destination surroundings at a

local, backstage level {Allon, [Allon,

2004], [MacCannell, 1999, p. 10]). Con-

currently, with the rise of global digital

social networks, new forms of sociality

that have their basis in tourist encounters

are becoming possible by way of ICTs

(Information and Communication Tech-

nologies) and digital networking technol-

ogies. The idea of "becoming local" is a

potential mode of tourism that is aided by

established SNSs such as localyte.com

(see Fig. 1), spottedbylocals.com, and

couchsurfing.com, and a range of more

localized blogs with "local" travel tips

Technologies such as those in the IT examples as well as the more mundane example of bicycles set in motion new forms of tourist embodiments that rest not only on the distanced visual "sight-seeing"

literally vehicles to mediate the perceived

distance between locals and tourists.

sense of visitors (and the ready technological metaphor of *information*), but emphasize new forms of dwelling-in-mobilities, new forms of tourist realities that bridge the senses of belonging and the senses of displacement and mobility [Urry, 2000].

4. Study design - a tourist's first visit to Denmark

Since we believe that designing for tourists requires intimate knowledge of the processes through which tourist experiences emerge, we use a single case study approach that permits an in-depth examination of a number of events surrounding a single tourist. Our approach is motivated by Nash's suggestion to undertake 'small scale, intimate stud[ies] of the social action of groups involved in [a] tour-

istic situation' [Nash, 2004] We report on the staging of a tourist encounter which later lead to the development of prototype designs in collaboration with the local and visiting participants in tourism. In doing so we follow Nash in believing that such studies reveal knowledge about "being the tourist" that is systematically overlooked by quantitative and survey-based methods.

The case of a young American tourist visiting Denmark is used to elicit inspiration for how tourist place making and the sociabilities of place maintenance could be supported through design. By using an egocentric observational method, i.e. attempting to capture video directly from the participant's perspective [Browning *et al.*, 2009], our conjecture is that we can better record a variety of sensual interactions activated in the encounter with, and making of, touristic places. Our video method allows tourist activities to be viewed as a particular performance that emerges from interplay between a topology, a tourist, intentions/expectations, services and socialities. Using principles from grounded theory, the analysis of the video and resulting artefacts becomes an interactive "site" of inspiration for design rather than a source of "hard" or objective data.

4.1 The Nature of the Case Study

The choice of the intervention was motivated by the conceptual work described in the previous sections as well as our objective to produce data that would be inspiring for a design process. Raijmakers et al. [Raijmakers et al., 2006] emphasize how various styles of documentary filmmaking can be used to inform early stages design and to elicit design inspiration. They argue that using video as inspirational design material, should entail reflections on the status of the realities represented in the film. Exploring and documenting tourist behaviour can be done in a wide variety of ways. From the conceptual framework developed in the previous sections, we aimed to design a study that would enable us to grasp interactional features of tourist-local interactions. The intervention took inspiration from the Cinema Verité filmmaking wherein actors often "play" themselves in a staged-but-realistic setting. Thus, we chose not to rely on what Silverman has termed "naturally occurring data" ([Silverman, 2005]) such as observing incidental meetings between tourists and locals. The phenomena we were interested in using for design inspiration is not necessarily a typical "naturally" occurring event. However, we felt the need to provoke a situation that would highlight some of the dynamics of "meeting the other" in a tourist setting. This impetus for the study is aligned with Mogensen when he argues for "provotyping" as a particular way in which "to provoke by actually trying out the situations in which [these] problems emerge: provoking through concrete experience" [Mogensen, 1992, p. 10]. As Mogensen argues, provotyping can be an effective vehicle for problematizing the taken-forgrantedness of practices. By staging the meeting, we aimed to intensify our sensibility of the situation and the encounter and to focus on specific tactics of the interaction. Furthermore, while meeting locals is not a rare occurrence on a tourist visit, using a staged setting allowed us to prolong and deepen the kind of interaction that we intended to study, rather than relying on ephemeral, short, and often professionalized meetings that are typical of local/tourist interactions (see e.g. [Jaworski et al., 2003]). As Svanaes and Seland argue, the "artificiality" of a staged interaction (such as a role-play-like situation) is often willingly suspended by the participants [Svanaes and Seland, 2004]. Similar to the experiences Svanaes and Seland report, the participants in our study quickly assumed what we found to be natural roles in their interaction.

The value of gathering data on momentary interactions in specific settings in which people think and act is unequivocal [Suchman, 1987]. However, capturing the immediate in situ meanings of a place that emerge during the experience of interaction is difficult. The varied physical and social contexts accompanying interaction in mobile settings thwart conventional methods to situate the researcher within a participant's experience at different geographic locations [Hagen *et al.*, 2005]. In past research, theories of perception of place are often derived from laboratory-based questionnaires, rating scales and physiological indicators around images of various environments (e.g. [Ittelson *et al.*, 1976], [Hall and Page, 2006]). We contend that such methods do not depict the contingent and ephemeral phenomena of "being in the world" [Dreyfus, 1991]. In fact they limit the immediate multi-sensory making sense of place. Instead we sought methods that gave us access to empirical data on the immediate transactions of personal experiences in a tourist setting. So while the study is limited in that it is

by no means empirically or probabilistically generalizable in describing how tourist-local interaction plays out in general, its relevance should be seen in relation to the theoretical and conceptual reworking provided in the opening sections of the paper.

In practical terms, we explored particular aspects of how a tourist goes about the business of interacting with a location. We were especially interested in how encounters between a tourist and locals might play out in the larger context of a tourist visit. People's immediate experiences and interactions, be they tourists or locals, are multisensory and corporeally complete as they dialogically interweave a place's plurality and the relationship between place and an individual's sense of self [McCarthy and Wright, 2005a]. Drawing on prior work, [***], we wondered how locality, habitus and otherness, and pride in being an insider, a local, might play a role in shaping the experience of tourist places and what aspects of such interactions are appropriate and useful for design intervention into tourist technologies.

4.2 The participants - visitors and locals

The participants were a visitor, an American student travelling abroad for the first time to Denmark, and a group of four locally resident *** (***) students. The visitor had been recruited to the study prior to her arrival in Copenhagen, having agreed to spend part of her visit participating in the research. The locals were students recruited during a class exercise that was designed to explore interactions in public spaces. Since we had no intent to conduct a study of wider cultural patterns or any statistically meaningful research, we chose a very small number of participants. This is not to say that the study did not yield a large amount of data. On the contrary, since we employed video as a means of data collection our dataset was both rich and large (see, for example, [Whyte, 2009]). We chose to focus on the tourist event and its aftermath rather than any prior expectations the visitors might have had, though we recognize that prior expectations and post-visit reflection play an important role in the tourist experience.

4.3 The excursion

Using the EgoPOV video method described below, we ran two initial trials with the backpack mounted camera, both for proving the technical viability of the setup as well as to better understand the person we had invited to be a tourist in the study. Our tourist participant visited the art museum of Louisiana in Northern Zealand and the surrounds on her own accord. On this journey, she repeatedly interacted with locals, e.g. a florist and a local resident coming to visit a grave at the churchyard. She was sufficiently confident to strike up conversations with strangers encountered along the way, despite being equipped with an EgoPOV camera. This demonstrated that the participant was engaged and curious and that the camera, although in plain view, did not unduly limit conversation or become a conversation piece. Thus we were reassured that we would obtain interesting data by staging a scenario where she would interact with locals.

The excursion we report on in this paper took place in ***, a small public square near ***, in which there are some curious and not immediately obvious artistic installations. The staged scenario called for a meeting between the visitor and the locals and some interaction that would lead to them spending up to approximately one hour together. A researcher observed this interaction to solve any technical problems.

We briefed the visitor and the locals separately, the visitor being required to be in the square at an appropriate time and, to ensure the meeting took place, to wear an identifiable hat. The visitor was told that she should try to find out what was unusual about the square and that perhaps she could approach people in the square to assist in this. The locals were told that a visitor was exploring *** and would be identifiable by a particular hat. Such an explicit method of identification proved unnecessary since both the locals and the visitor identified each other very quickly by virtue of the camera-equipped backpacks, which although not obvious, were in clear view. The participants also noted that identification was facilitated by the relative ease with which locals and tourists seem to notice each other. So,

although the situation was somewhat contrived, it did include some elements that would not be considered unusual.

4.4 Using egoPOV video to understand tourist places

Egocentric point of view (egoPOV) video cameras have been used to depict both the fleeting and temporally ongoing experiences that contribute to creating meaning during spatially embedded interaction [Browning et al., 2009]. In this study we used two egoPOV cameras, one carried by the visitor, the other carried by one of the local participants in the study. The dual camera setup allowed us to document a meeting of the participating parties, enabling us to see the tactics of engagement performed by both sides. We used Oregon Scientific ATC2K video cameras to record the data. These are lightweight, selfcontained, hands free digital video cameras that allow one hour of 640 x 480 VGA video at 30 fps to be recorded. Separate audio recordings were made using an iPod with at-



Fig. 3 Adjusting the shoulder-strap camera's orientation on the local egoPOV carrier

tached microphone to supplement the camera audio. The video cameras were attached to the tops of shoulder straps of backpacks, the sort commonly worn by travellers and students, using Velcro. Small wedge-shaped blocks of foam were used to position the cameras so that they were roughly level.

Mounting camera on both the visitor and a local also allowed us to capture articulating references to physical resources and to capture how deictic communication is reflexively tailored with physical contingencies to construct meaning. Together with the audio, we believe this aids richer interpretation [Ibid.].

4.5 Analysing the video and audio

Video data is intriguing in that it promises a richer and more accurate account. However, it is difficult to use [Goldman-Segall, 1993], [Buur and Soendergaard, 2000]. In addition to video being cumbersome to work with due to the large files sizes, video and the processes surrounding it are, as Harrison puts it, "mutually defining and subject to multiple interpretations" [Harrison et al., 2007]. As researchers, we needed to be able to move from video data to informing the design space. We first transcribed the dialogue and then open-coded this together with the audio and video for verbal content, visual content (e.g. use of spatial resources, gestures) and qualities (e.g. timing and tone of verbal communication, positioning of participants, kinaesthetics and proprioceptivity), using HyperRE-SEARCH [2010] to index and retrieve examples. Open coding allowed us to identify specific interaction phenomena and the conditions relating to those phenomena. We were also sensitive to strategies and tactics that might be used by the participants to manage the phenomena and their consequences and to be aware of the consequences of such management efforts. We axially extracted themes from the initial coding, focussing on the contexts in which the interactions are embedded.

Data about people's experiences is messy. Particular interactional threads, in addition to occurring in parallel, are interwoven, incomplete, or dropped and then resumed, or repeated for emphasis. Since interaction always occurs in contexts that do not have precise beginnings and ends, the associated data provides an almost infinite number of possible relationships between its different elements. As is typical when analysing such data, the numerous themes that emerge are descriptive and interpretive, rather than objective statements of fact. They are also often interwoven, dialogical, processual and never finalised. Our method of analysis serves to provide a glimpse into the emotional, social, physical and spatial aspects of a tourist's visit by illuminating the interactional tactics by which phenomena are

carried out and the contexts in which they occur. These snapshots result in artefacts that are grounded in the underlying logic of the experience of tourism [Browning et al., 2009]. It is these artefacts that provide the material that we, as designers, can use to stimulate inspiration for innovation. Importantly such artefacts afford reflection on place making, i.e. the construction of the meaning of a place, as performed during the practice of tourism. In summary, by transforming the mass of video data into manageable artefacts, which invite further interaction, we are able to suggest design sensibilities that afford design inspiration for a particular interaction domain.

5. Emerging Design Sensibilities

We began this paper with the proposition that, based on the example of a single case study of a staged tourist encounter grounded in the reframing of the concept of tourist/tourism and coupled with a critical assessment of a specific breed of technological innovation, suggestions could be made for how design of technologies might respond to new understandings and forms of tourism. In this section we sketch out design sensibilities that emerge from this effort.

The artefacts that emerge during analysis of the video data have two general yet essential characteristics that help facilitate an explorative design process. First, these artefacts, being representations of a dialogical process of *immediate interaction* informed by analysts' and designers' *reflection* on their past experiences, are always transformed during yet further interaction in the design space. Secondly, they are always open to interpretation; whilst further interaction occurs, they can never be finalised. These characteristics result in a never-completely-resolved representational ambiguity that fuels the design space as a technological site for a cultural encounter [Browning *et al.*, 2008]. So, whilst the video and the resultant artefacts are necessarily superficial representations of the interaction itself, one that undoubtedly affords reflection on a richer contextual picture than by many other means, it is the further interactive encounters with the artefacts that are, in a designerly sense, interesting, productive and transformational. We see the design process as driven by these effects, but it is also important to realise that these properties do not spring into existence; rather they are grounded in our being in place and in the human quality of continual interpretation of that phenomenon that is crucial to our understanding of ourselves in the world [Casey, 1993].

One of the consequences of using video data is that analysis yields large numbers of potentially useful artefacts. Knowing which of the many artefacts to prioritise is critical because their inspirational power can only shape the design space if they afford a designerly co-construction of meaning [Wright et al., 2008] pertinent to the domain. In this respect McCarthy et al's view of enchantment seems particularly relevant. McCarthy et al describe enchantment as the "...experience of being caught up and carried away, in which, although we are disorientated, perception and attention are heightened" [McCarthy et al., 2006]. Tourism indeed involves a degree of disruption, displacement and even disorientation. Importantly these qualities are not necessarily negative or wedded to fear. The very fact that tourists temporarily discard the stabilising aspects of their ordinary everyday lives allows them to look more closely and engage more explicitly with the place in which they conduct their tourist experience. In contrast, the everyday, ordinary world is one that is already defined, catalogued and considered finalised. People notice changes and breakdowns in that familiar world, but their unfamiliarity as tourists opens up not only the possibility of wonder and enchantment with the tourist destination, but, in having to attend to the problems of doing tourism, a more conscious engagement with the tourist place [Brown, 2007] and the attendant awareness of heightened senses. Place making is thus central to the process that allows people to attend to the disruption that accompanies being in a less familiar world. This leads us to believe that lasting enchantment with a tourist destination ultimately comes from the sensual, emotional and affective components of place making rather than from the purely cognitive and operational aspects of being in a tourist destination such as seeking out information or doing sight seeing (see, for example, [Dann, 1996; Yuksel et al., 2010]).

So, in order to design interactive tourist technologies that afford engagement we need to consider how we might shape the design space in ways that foreground design sensibilities rather than design frameworks. Engaging experiences during the course of tourism, such as enchantment and place making, cannot be engineered by applying rules, principles or guidelines, as would be implied by a design

framework [Wright et al., 2008]. Designing tourist technologies that incorporate some generalised notion of engagement cannot be done using scripts and recipes; to try is to destroy the ineffable, flow-like property of engagement that the designer seeks to incorporate. Instead, we should attempt to structure interactive tourist technologies and services in ways that provoke engagement. We should design affordance rather than the characteristic itself [Harrison and Dourish, 1996]. To enable this design objective, we seek to foster a relationship between the affective aspects of the experience of tourism, (as a tourist or other stakeholder), and those of interacting, (as user and designer), with artifacts representative of the tourism experience, during the course of the design process. It is this budding relationship between the participants in tourism, designers and the analytical artifacts that shapes the design space. Wright et al, [Wright et al., 2008] use the term "sensibilities" to highlight the sensual, affective and emotional aspects of this relationship. Sensibilities are embodied in peoples' ways of interacting with the world and incorporate the unfinalised and interpretive characteristics of the design space artefacts. It is this processual interaction that we believe inspires innovation.

To this end, we chose three artefacts, out of many more, which embody themes that prioritise feelings, reflection, emotional consciousness and sensation over cognition and ontological 'work'. Each artifact is also a strand that contributes to the deepening of the understanding of the place in which the interaction occurs. Each nourishes the experience for both tourist visitor and local alike by not only serving an immediate purpose, but by also creating the background associated with a location that can be reflected upon and used as a resource for the grounding of future experience. We see these as exemplars of socialities with which place making is done. In interacting with these artifacts and others like them, participants in the tourist experience and designers are sensitised to the transformative and interpretive nature of tourism and are thus more likely to develop innovative technologies that afford engagement.

5.1 Establishing veracity through shared context

If interactants, who have either no ties or very weak ties, are to share explicit and tacit information with a degree of confidence an establishment of the degree of reliability through the mechanism of social networking needs to occur (see, for example, [Brézillon, 2005], [Fernie et al., 2003]). Commitment to this network is likely to be ephemeral and participants seek to establish the necessarily flexible and dynamic structure relatively quickly, without requiring the level of trust brought about by deeper ties that one might find in familial, marital or friendship relationships. Social networking on this scale affords problem solving during the course of tourist practices in place. Shared context, a precursor for social networking, seems to serve as a heuristic recommender-like system for establishing the likely veracity of information gained from such short-lived networks [Terveen and McDonald, 2005]. The mechanism by which the degree of shared context is established is dependent on the affective and emotional characteristics of the interactions between the participants, against a backdrop of their current affective states. In the case of weak ties, the affective and emotional characteristics are revealed, though not usually in an ontological sense, during the process of 'measuring up' the protagonists [Levin and Cross, 2004].

We saw a number of examples of this process during the interactions between the tourist and locals. Attending to the activities other people are engaged in is one important way of establishing the degree to which a shared context might exist. This might be as simple as giving directions when asked, but can also be more involved. In the present case, even where we 'manufactured' a meeting, the participants used a number of tactics for making sure any shared context was revealed. So, for example, the visitor and the locals, who had not been previously introduced and knew very little about each other, quickly established where each unknown party was from. A key verbal cue for this interaction was the different accents, so the locals immediately picked up on the visitor's Southern United States drawl, which she had playfully accentuated. During a subsequent interview she revealed that she had done this instinctively as a way of being humorous. She surmised that as she felt very much a tourist on her first ever trip abroad a good tactic would be to get people to accept her and she further suggested that this felt like a natural thing to do as a way to establish rapport quickly. She, in turn, noted traces of

North American accents in the locals' English. No doubt there were numerous other cues that we did not pick up on or try to investigate, such as clothing, mannerisms and speech affectations.

A second example of establishing a common context was the suggestion that they go for some refreshments together. Suggesting a shared activity not only creates an immediate shared context and but also affords further interaction. The local participants did this by asking the visitor if she drank beer and suggesting that this would be the local, Danish way of going about a casual afternoon meeting. So, not only are the locals creating a space in which the interaction might continue, but they are also informing the visitor about local places in which to participate in social networking, partake of refreshment in accordance with cultural norms and affording the visitor the opportunity to engage in place making that is to an extent guided by the locals' views of the place. Whilst the visitor can use such interaction as a resource that allows her to attend to some of the problems of being a tourist, the locals have the opportunity to stamp their imprimatur on the visitor and to exhibit their connection with the place.

5.2 Travel advice – situating the visitor in the locale

Approximately halfway through the encounter, the locals began to offer assistance by way of tourist-related information. This discussion started when one of the locals asking the visitor where she was staying and what she intended to do whilst visiting Copenhagen. The resulting conversational thread allowed the local participants to demonstrate a collective, communal knowledge of the place, affording access to their habitus as youthful students, resident in Copenhagen. The locals' wish to assist visitors in accessing aspects of the locale of interest to the newcomers underpins many of these interactions and serves to strengthen the immediate *ad hoc* social network participation. This affordance is manifested in being open, caring, helpful, and by sharing local knowledge in a way that both draws the visitor in and also guides the visitor's place making. It is often done with a sense of pride in being local (see next section) but also with recognition that the visit is only temporary. In turn, the visitor played the role of tourist in exposing her likes and dislikes with respect to sightseeing.

Having discovered that the visitor, by her own admission, was "not really a big museum person," and thus not interested in the mainstream tourist fare, the locals only half-heartedly suggested the standard harbour canal trip. When this met with little enthusiasm, they suggested that the visitor go to Christiania. Whilst Christiania is recognised a tourist attraction in its own right, this recommendation was both a response to the suggestion that the visitor might be seeking something out of the ordinary and the fact that there had been a significant discussion about religiosity, during which it had become evident that the visitor had come from the Bible Belt in the southern United States and had been raised in an environment in which conservative social mores were the norm. The locals seemed to feel that a visit to Christiania would be a very different experience. The story of Christiania was told at some length with explanations of how it had become what the locals described as "a free state... ...outside of Danish law and outside of everything." The visitor was told about the non-payment of taxes and the open sale of marijuana in Christiania. The telling is a demonstration of lived familiarity, done with a sense of satisfaction that perhaps embodied feelings of pride in living in such a tolerant society.

Travel advice is perhaps the most obvious employment of tactics that attend to the problems of the practice of being a tourist and deployment of 'madeness' by the locals. Travel advice in this case is not merely about the practicalities of getting to a particular location or giving the tourist a set of options for good experiences around the town. The advice entails an affective component that emphasizes the possibility of the tourist becoming situated and an "insider" rather than a simple onlooker. The locals were eager to talk not only about the fact that a place such as Christiania existed, but also what it was and what it signified to them. The locals exhibited some pleasure in the "shocking" fact that Christiania is such a different place and their local knowledge and meaningful connection to the place (as a central node of Copenhagen sub culture) was strong.

5.3 Pride in being local and "authenticity"

Our analysis suggests that a particularly strong motivation for getting involved with tourists is a certain amount of "pride in being local" [***]. In a following discussion with the locals, the strong bicycle culture in Denmark particularly in a Copenhagen context, the local participants remarked how tourists are often somewhat distanced from the "real experience" of Copenhagen by being cooped up in public transportation or cars. When the locals seeing tourists travelling across the city on very fixed routes, our participants found that they missed some crucial aspect of the city - so, for example the strong bicycle culture in Denmark was a theme that denoted authenticity and a potential for experiential richness that tourists would often bypass in favour of planned-and-packaged tourist activities.

Authenticity was brought up as that included both issues of location - e.g. where to go or not to go in Copenhagen – and private knowledge or stories about locations that the locals retain. Notions such as 'the real Copenhagen' and 'what Copenhagen really is' came up on several occasions, indicating that the perceived lack in the experience of the visitors could possibly be mended by enabling interaction between tourists and locals. One participant remarked that he had an experience of how visitors were often "ignorant" about Danish values. For instance, whilst serving as a Royal Palace Guard ("a living tourist attraction"), he recalls how presumably ill-informed tourists would talk about Denmark, he himself being unable to correct them or engage in a dialogue with them while standing in attention. His frustration was illustrative of the kinds of relations often staged between locals and tourists; the locals are outsiders, looking at visitors, unable to correct or (consciously) take part in the construction of authentic experiences. More generally, the seeking of authenticity, the establishing of a sense of veracity about a place, is one of the mechanisms by which we come to recognise and locate ourselves within the sights, sounds, boundaries, norms and laws in a place. Locations become significant as we manage space by symbolising and experiencing different aspects of identity by establishing a finalisation fantasy, the provisionally closed world about which everything that can be known is known [McCarthy and Wright, 2005a]. In creating this fantasy we take a critical step in transforming a "destination" into a place.

The pride in being local and the issues mentioned around authenticity are seen as affording potentially pleasurable experiences in the sense that the locals retain some valuable information and experiences, somehow hard to get at for the visitors. Thus pride in being local and attention to the authenticity of place can be used as incentives to motivate tourist/local interaction. The theme indicates that the kind of pleasure that seeing non-locals navigate a location is tied to a process of constructing the self of the locals, thus also re-negotiating local values [Salazar, 2006]. Visitors give locals a possibility to perform, in our case, 'Danishness' and to conspicuously (and pleasurably) exhibit their local knowledge, which in turn can be translated into affective encounters where visitors can engage in some form of becoming local.

6. Implications for the design of tourist technologies

To support design inspiration for innovative tourist technologies, we have argued, first, that contemporary tourists are not merely seers-of-sights but place-makers, dependent on a variety of networking activities. Examples of networked mediation between locals and tourists included the use of generic and specialized SNSs as well as mundane technologies such as bicycles. This suggests the need to ground design in place-specific networking and the localization of tourist technologies, seeing how they can play particular roles particular settings. Tourist places are not just 'destinations'; they are not stable containers of sights and experiences to be taken in passively by visitors. Tourist places can be seen as porous borderzones [Bruner, 2005] wherein the emphasis is on the meeting of the foreign and the local and where cultural re-appropriations and negotiations take place, all very much part and parcel of the adaptation and appropriation that occurs during place making. In our particular case, designing engaging technological technologies for the tourist place requires, among other things, a sensibility of how place is negotiated in social terms through interactions between visitors and locals. We saw, in the staged meeting, how, for instance, canonical sights and "authenticity" were issues that were negotiated in the interaction between the locals and the tourist. Similarly, the social, as we have

shown, depends in crucial ways upon the place wherein it is performed, and in turn nourishes the making of place for the participants. Social encounters are indexical to their context and draw on both global and local resources to become meaningful.

This raises issues of the value that such new technologies might have for both tourists and locals. When a tourist visits a location, they bring a sense of self-in-place with them that is reframed in light of the touristic experience and in the sometimes transitive and ephemeral, sometimes intense and meaningful, interactions with the tourist destination and, crucially, with others in that destination. In so doing, tourists experience a displacement of habitus, a decapsulation, which they need to rectify in order to feel more comfortable. Some visitors try to do this by seeking out connectedness; others avoid connectedness and use alternative tactics. In this study we concentrated on the former. Wittel's notion of network sociality as a post-social instantiation of community [Wittel, 2001] deftly describes the situation that many tourists find themselves in when interacting with a local culture. While 'community' is perhaps a too strong a word to apply to the kinds of meetings that are performed in a tourist visit, we believe that technologies that allow localized networking and in-situ, perhaps transient encounters between tourists and locals might afford closer communal bonds and communal meaning that can not only deepen the experience of place for tourists, but also provide a means of expression of local culture and the "pride in being local" for the locals.

As an example of an alternative approach we suggest that a design space could fruitfully be shaped by drawing on the sensibilities evident in the observed interactions between locals and tourists. Combining local knowledge with the visitor's perspective permits an understanding of social aspects of experiences-in-place and place making as a localized activity that is nourished by various forms of social interaction.

In essence, we suggest that locals, by performing appropriate behaviour-in-place, provide a critical patching of the strategic infrastructure (the destination) that a tourist finds foreign and therefore unsuitable for tactical appropriation in the short-term [de Certeau, 1988]. Thus, the locals – even the casual locals, the ones who are not overtly involved in tourist work – are a critical components to factor into the design of technologies that serve to aid in tourist's place-making.

Drawing on the conceptual work as well as our empirical intervention, we suggest that exploring place inspired design for tourist technologies entails giving consideration to:

- 1. Methods that examine the inside and outside perspectives of a tourist location which combine to tease out the dynamics of place. These methods entail supporting bridging social capital, e.g. how tourists and locals can meet, what resources they can share, and what value such resources might have. Here, for example, design consideration needs to be given to how tourists and locals go about establishing the veracity and thus reliability of their interactions through, for example the establishment of shared context (context that goes beyond simply shared location), recognition and trust.
- 2. Acknowledging the tourist as networker in place rather than merely a seer-of-sights. Tourists are not constantly (nor, arguably, primarily) engaged in seeking out the exotic and spectacular. Small things such as adopting typical local practices and getting insider information are valuable for the making of place. In this respect, designers could, for example, draw upon the mechanisms locals employ for situating visitors in the locale. This involves not only building the network but also drawing visitors into existing local networks and making local knowledge available, as our empirical intervention suggested.
- 3. Building a maintainable relationship with place. The building blocks that could support this are to be found in establishing and maintaining a shared context between interactants who are engaged in place making specific to that location. For example, we found that locals' pride in being local can be expressed by giving tourists the pleasurable experience of having access to privileged knowledge. This not only situates the visitor in the locale, but also affords the tourist pride in having connections to the local and in becoming part of the 'local' network themselves.
- 4. The relationships performed with locals. This constitutes a central if overlooked element in tourist place making. Tourists do not only navigate by ways of topographical affordances and strate-

- gic infrastructures, but also make sense of place by interacting (tacitly or overtly) with locals. Importantly, such relationships have both practical and affective components. For example, they can performed to get directions or details about a particular context, but can also feed on affective forms of knowing, e.g. the local experiences as personal stories and the temporary negotiation of local network boundaries and insideness/outsideness.
- 5. The centrality of place making for tourist experiences. The concept of the 'destination' as it is typically used in tourism studies, is merely shorthand for the branded, image-based construction of locations as well as their social and cultural reproduction. Mobilities, networks, and sociabilities increasingly interact to produce new spatial and informational topologies, and this requires a rethinking of the notion of tourism and destination. In order to fully grasp what is important for tourists, designs of tourist technologies should be grounded in practice, in the practical making of place that tourists are involved in.

7. Concluding remarks

This paper set out to use a "performative" concept of tourism, drawing on Baerenholdt et al. [Bærenholdt et al., 2004], against the inherent backdrop of place making activity, to support the design of tourist technologies. We have specifically approached the site of tourist visits as a borderzone, as a site wherein (ephemeral) networks are performed and where experience is potentially tied to social and affective meaning making in place. The tourist, in our view, is a networker and place maker rather than a sightseer. We propose that this turn can be generative for the design of new digital technologies.

In the paper, we respond to Messeter's call for research [Messeter, 2009] into the specifics of place with the aim of informing design, drawing on the "turn to place" in sociology for understanding the social and material conditions of tourist places. The conceptual development is exemplified in the staging of a single touristic encounter. These efforts are intended to enable researchers and designers to begin exploring new ways of performing tourist experiences through technology.

In the introduction we supplied examples of how the tourist has been approached in IS and Human Computer Interaction (HCI) design. The examples we provided have a strong *strategic* aim, preoccupied with the structuring, managing, and controlling of tourists behaviour. We critiqued the current approach to technologies for tourist experience to be aligned with an informational metaphor for human behaviour. This view is also very much in keeping with the classical view of 'tourist-indestination' where destination is utilized as a shorthand for the designed and ordered spatial resources, attractions, and services of a location and the business networks connected to it that function as the primary interface for tourists [Saraniemi and Kylänen, 2011]. It is widely acknowledged that, in practice, the *tactics* of actual use challenges and disrupts the scripting of behaviour and discourse that a designed interface presents, for example a cityscape [de Certeau, 1988], but also the regular interactions we have with technological artifacts e.g. [Paulos et al 2008].

Technologies designed for certain forms of use can be destabilized by actual practices and contingencies of the ordinary. Recent interaction design research has begun to examine tensions between digital technologies that are primarily designed to strategically define experiences and those that better enable tactical resistance and appropriation. Harrison *et al* argue that design of technologies that treat interaction as a way of making meaning are more likely to be subject to multiple interpretations over time and are thus more engaging [Harrison *et al.*, 2007]. Tactical, in this sense, also suggests that researchers and designers need to keep an eye on the 'messiness' of tourist practices. The unplanned, the incidental, the open-ended nature of being a tourist is as important as the archetypal activity of planning a route to traverse in a city or in a landscape. We believe that this approach is more in keeping with a perception of 'tourist-in-place'.

We have emphasized the meeting between two forms of knowing in our study. Our results encourage further exploration of methods that enhance place specific design with a notion of habitus and "inside-outside" knowledge as attributes that shape the design space of tourist technologies. The kinds of transitive and ephemeral social networks that occur between tourists and locals are clearly important and profound in terms of the ways they structure visitor experiences in a post-social and high mobility

society, and potentially they inform e.g. post-visit connections, networking and the propensity for revisitations to a place.

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