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Points of Interest and the New Tools of Psychogeography

It is as if the sea were not only the archetype of all smooth spaces but the first to undergo a gradual striation gridding it in one place, then another, on this side and that. The commercial cities participated in this striation, and were often innovators; but only the States were capable of carrying it to completion,, or raising it to the global level of a "politics of science" A dimensionality that subordinated directionality or superimposed itself upon it, became increasingly entrenched."
-Deleuze and Guattari, *A Thousand Plateaus*

The Points of Interest project is a new media artwork created with the intention of uncovering the relationships between people, their surroundings, and the vast information landscape of the digital age. Representing the effort of my final year in the DANM program, I have endeavored to create a work that engages with issues I find both interesting and relevant. These issues include questions about the nature of data generated by virtually every human activity and the ways that we use this data to inform our actions. These questions are posed, in part, to prompt answers about the ways and methods by which one should navigate a post-industrial urban space, as well as how visions of "informational ubiquity" are impacting the ways and contexts in which we use mobile computing technology. From conception to production, the working model for the Points of Interest application has been that of a functional software product. This was a conscious decision, made in order to raise questions about how such devices operate and impact our decisions. Similar to other products, the combination of the mobile device, database and user interface provide geographical information to a user in the hopes of facilitating action or motion. The resultant POI "product" ends up lying somewhere between a useful tool and a work of conceptual art. One of my major motivations for this project was to create a tool that helps users explore their surroundings in novel ways.

Drawing inspiration from a variety of sources-- the Situationist International, conceptual artworks and practices, and the Fluxus inspired writings of Allan Kaprow-- I have tried to make an artwork that is as much about the experience as it is the object. Believing that art is a necessarily embodied process and experience, I thought it best to try and create an object that was secondary to the act of using it. From a critical standpoint the POI project takes aim at the relationship between modern culture, urbanism, and how each impacts the other within the context of our information saturated existence. From a

conceptual standpoint I have drawn from a wide variety of inspirations including conceptual art, critical and post-modern theory, as well as more contemporary ideas about the way that art objects can act as tools for the exploration of increasingly complicated and reflexive networks of signs generated by modern media. The work raises questions about increasingly blurred lines between geographical representations and actual geography, the way that the information landscape informs our travel through the physical landscape, and how (if ever) our emotional existence is tied to navigation.

In terms of the structure of this paper, I will start with a design brief on the application itself and an explanation of the features of the application as well as a look at some of the details of its operation. From this point I would like to more thoroughly unpack the relationships between POI and what I see as the type of work that has most strongly influenced it. Additionally in this particular section I would like to explore the similarities between the way that the POI application and these works operate as art objects. I will address these broad categories in the context of the POI project in the hopes of situating it as an artwork. Finally I will take some time at the end of the paper to review some of the successes and failures of the pieces, as well as to project what further development might have in store for this project.

Application Brief

Designed to operate on a Nokia N800 series hand-held device, the Points of Interest application functions very similarly to a standard GIS application. This platform was selected specifically for its low cost and open source operating system. When started, the application presents a simple questionnaire to the user. The questions, drawn randomly from a larger pool, run the gamut from provocative to innocuous. They are worded in such a way as to provoke reflection on the plight of the post-capitalist urban dweller. For this iteration the geographical focus of the work is the city of San Jose. As with many large and thriving urban American cities, the culture of modern business, high technology, innovation, and meritocracy have been sewn into the social fabric. The questions are worded in an attempt to provoke a user to think about the forces in play that make the city unique. For example, the question “What shapes history more, people or industry?” is asked to prompt the user to think about how urban structures (buildings, parks, public spaces) are formed and ossified into the larger body of the city. The question, “Do you ever feel alone in the city?” stimulates thoughts about an individual's relationship to their environment, and the institutions, structures, and other people that

compose that environment. It has been argued that modern urban planning damages community relations, and alienates individuals from one another and their surroundings. The survey is designed to key in and force the user to think about the way the design of the city, both physically and economically, impacts them.

Before engaging further with the description of the project itself, it is important to note that, as it stands, the Points of Interest application is a very early prototype. A more fully realized version of the project would more carefully and completely emulate the consumer grade applications it is trying to criticize. This emulation would include increased navigational functionality and a more rich user interface. For this iteration of the project, the focus was on creating functionality that generated a route through the city based on external data and user input. I will spend some time later in the paper exploring ways that future iterations of this project could more faithfully resemble the products and functions that it is trying to subvert. Much like its consumer counterparts, the Points of Interest application is designed to help a user find something. Also like its consumer counterparts the system accepts input, consults its own internal store of data, and outputs geographically relevant navigational information. However, whereas most consumer grade GPS devices are constructed to find the most efficient way from one point to another and have data stored on tourist attractions or sights of consumption, (gas stations, hotels, retail locations), the POI application privileges an exploration of the urban environment through the creation of custom walking routes generated using a variety of demographic and sociological data. And though it uses standard route finding algorithms, the places and ways that a person is routed through can vary wildly.

The data used to determine the routes for the POI system is an eclectic collection of statistics and demographic data about San Jose. At the core of the database is census figures provided by the city of San Jose¹. This data, collected in 2000 and part of the “long form” Summary File 3² data has been assembled into a more discreet collection of tables to provide a more concise picture of the various statistics. These tables include information on poverty, unemployment, and property value to name a few. The POI data store also includes collections of various categories of businesses and institutions. Fortune 500 companies, schools, churches, government facilities have been geocoded, and entered into the POI database. These categories of locations are then associated with the answers to particular

1 <http://www.sanjoseca.gov/planning/Census/>

2 <http://www.sanjoseca.gov/planning/Census/data.asp>

questions in the survey. When a key question is answered, usually one that gives the user two choices of broad categories, the system selects one location out of the larger group of locations in that broad category. In this way the key points of the route are selected. The route questions, or those that offer the user a range of answers, are used to select the points in between the key locations. These questions are tied to specific table of census data. For example, when one answers the question: "Can money make you happy?" the census figures for income are consulted. From the figures provided by these tables, the application calculates weighted averages of the census tracts and selects a sample of the highest and lowest values. The samples are weighted according to the population figures for each particular census tract. The ten tracts with both the highest and lowest values are selected and then used to calculate the exact positions of attraction and repulsion. If the individual's answer was relatively positive, (greater than three) the individual is attracted to the highest calculated values, and repelled from the lowest. If negative (three or less) the opposite is true. The intensity of the attraction and repulsion is also tied to the intensity of the response. So for example an answer of five would modify the route significantly more than an answer of one. The analysis of the data, though simple, is effective in adding great variation into the procedurally generated route.

Points of Interest in Modern Urban Space

The classification of a city, such as San Jose, is notoriously difficult. Unlike canonical American cities, such as Detroit or Chicago, constructed around, and against a backdrop of major heavy industrial production, many modern west coast cities, including San Jose, have matured under a very different set of circumstances. They are a new breed of city, shaped as much by the global connections of the industries that they host as they are by the inherent dislocations (social, economic, and cultural) between members of their communities. High speed communications, along with a perpetual real-time news cycle, decays certain aspects of community in an urban setting. Additionally, the city operates on the scale of the automobile, and is designed to accommodate quick access and exit, a deep engagement with city at the scale of the pedestrian becomes increasingly more difficult. Over the past century, San Jose, like similar "new" cities, has seen radical transformation along a trajectory from laconic agriculture based economy to a thriving nexus of global capitalism and high technology. In the case of San Jose, the structure, shape, social fabric, and even the perception of the city itself by its residents, has been forged at the crossroads of military aerospace and high technology firms, just-in-time manufacturing, an aggressive free-market ideology, and a zealous entrepreneurial spirit. Then it is only

by viewing the city from within this framework that one can discover the details that set it apart from other more traditional cities. Though the city itself is not necessarily a direct product of the information and digital age, the *construction* of the city, including the shaping of public spaces, the design of architecture and traffic flow, the zoning and placement of institutions and commercial sites has all been influenced if not dictated by these factors. This organization of the city is a result of land value, geography, and economic factors that directly relate to the machinations of new post-Fordist economic models. Many of the selected key points of the POI application are chosen to bring the user to locations that are important to the economic history and historical development of San Jose. Included in the points are Adobe Systems, AT&T, Knight Ridder, and many typical sites of the new information and communications economy. Also included are a selection of public artworks as well other traditional public spaces (parks, museums), that may not be as critical to the history of the city but represent some of its character. A user of the system, is routed by these places to stimulate an awareness of the corporate and economic forces that have shaped the structure of San Jose over the past twenty years.

Deleuze and Guattari would classify the modern American city as a perfect example of striated space. On the surface, urban space is clearly delimited, having fixed dimensions and structure imposed on it. The cycle of the business day determines the motions of the city. The growth of an American city, initially concentric, is now modular. The directions of sprawl and expansion are dictated by the complicated interactions between people, geography, and economy. The lines along which this expansion takes place are those of the major routes and highways that connect location to location. These travel networks allow for the movement of the population to further and further outlying “edge cities,”³ spaces that are mixture of suburban and urban space typically occurring at the nexus of major highways. As another example of the striated nature of the modern city, we see increasingly more technologies and techniques for subtly (in some cases not so subtly) controlling access and movement. The institutions of municipal governments, law enforcement, and private enterprise deliberately implement specific architecture and urban planning features in an attempt to manipulate/manage human behavior. These efforts further striate the space, and it undergoes a similar transformation as described in the quote below.

3 Flusty, Dear, 154.

The Maritime Model. Of course, there are points, lines, and surfaces in striated space as well as in smooth space (there are also volumes, but we will leave this question aside for the time being). In striated space, lines or trajectories tend to be subordinated to points: one goes from one point to another. In the smooth, it is the opposite: the points are subordinated to the trajectory.”⁴

In striated space, the points are the atomic unit of physical space, and the city is defined by its boundaries and the discreet points within those boundaries. So then the question becomes: how does one design a system to navigate the striated space of the city? How does this navigation effect an individual's perspective, and their relationship to the city as a whole? In the case of the POI system, the answer has been to create an application that recognizes the nature of the modern city as striated space and works within that context to create an experience whereby that nature becomes more clear. The Points of Interest application is then a device ideally designed to navigate striated space; the way that the system models the city is as a collection of points. The underlying data points that the application uses for routing come from the OpenStreetMap⁵ project. The OpenStreetMap project is a community driven effort to create free and open source digital maps. An entry in the about page on the OSM website sums up the process:

This is not just a software project. We are getting out from behind our computer screens and surveying the towns and countryside to create our maps. This is very much a community mapping effort. We use wiki-style collaborative editing software to support this, which means that our maps will keep growing bigger and better. If you have a GPS unit you can contribute any tracks you have recorded⁶

The OSM project provides high quality maps that are user generated. The OSM data consists of nodes, these nodes are attached to ways, collections of nodes, that make up streets, intersections and the like. This large store of data points is used to compose the graphical map. These nodes are the data the POI

4 Deleuze, Guattari, 478.

5 <http://wiki.openstreetmap.org/index.php/FAQ>

6 Ibid.

system uses in considering the route between two places. Again, we have a system that is reducing urban space to an collection of points; yet is done in the hopes that this data will provide more holistic understanding of the place. In terms of the striation of urban space, the POI device is simultaneously complicit and subversive in the way it presents a map and route to the user.

Michael Dear and Stephen Flusty explore the nature of the new post-modern urban landscape in *The Iron Lotus: Los Angeles and Post Modern Urbansim*, in an attempt to expose the underlying forces at work in the rise of a new type of urbanism. At many points in the article, it becomes clear that even the current vocabulary of urban studies is ill suited to describe the new phenomenon. Flusty and Dear evoke Michael Sorkin in introducing the concept of the “exopolis.”

Edward Soja identifies Orange County as a massive simulation of what a city should be: “a structural fake, an enormous advertisement, yet functionally the finest multipurpose facility of its kind in the country” he terms this assemblage “exopolis,” the city without, and asserts that something new is being born there – based on but different from the hyperrealites of more conventional theme parks such as Disneyland. The exopolis is a simulacrum, an exact copy of an original that never existed, where image and reality are spectacularly confused.⁷

The space described as the exopolis is at once a place where image and presentation takes precedence over reality and at the same time a space where each detail is deliberately inscribed on the environment for very specific reasons. These reasons include control, perception management, or efforts to increase productivity and consumption. In order to most effectively overcome these features, travel through a city has to be non-traditional and spontaneous.

In terms of the architectural, or urban features that facilitate control, Flusty has identified broad categories for such devices. It is here that Flusty lays out his taxonomy for what he refers to as “interdictory” or defensible spaces that appear again and again in new urban architecture. The classification of these spaces is meant to differentiate between all the varied ways that contemporary

⁷ Flusty, Dear, 156.

urban architecture and planning manages the behavior of the individual.

His taxonomy of 'interdictory' spaces includes stealthy space, concealed by intervening objects or grade changes; slippery space, rendered unreachable by missing or obfuscated approaches; crusty space, made inaccessible by deliberate obstructions such as walls and checkpoints; prickly space, which cannot be comfortably occupied; and jittery space which cannot be utilized unobserved.⁸

The use and implementation of interdictory space can be attributed to many factors. Much of the critical theory that engages with these types of environments attribute these implementations to a larger overarching trend towards increasingly exclusionary privatization in advanced capitalist societies. A volatile economy, an ailing public infrastructure, an ethnically and culturally heterogeneous social fabric and a changing definition of the meaning and locality of community are all factors in shaping the new urban structure.

The points of interest application can help to expose these features to a user. The application generates unlikely routes between two places. Because these routes are greatly varied, they can backtrack or plot uncommon routes between locations. Many times the features of Flusty's interdictory spaces are not necessarily visible from the paths of approach. For example, "slippery" space is difficult to reach or access due to a deliberate attempt to obscure an area. Greg Smithson give an account of slippery space in his essay, "The Technologies of Public Space and Alternatives to a Privatized New York":

Access to the Battery Park City mall makes use of slippery space, which "cannot be reached, due to contorted, protracted or missing paths of approach." In particular, the mall is best accessed not by the street, from which it is barely visible, but across a pedestrian bridge from the World Trade Center. In turn, access to the plaza of the World Trade Center is slippery as well. At the entrance to the pedestrian bridge, it is well above street level, and access is most easily found a block or more still further

8 Ibid. 159.

east. The bridge and the mall are the direct path that World Trade Center workers take to ferries docked next to the park, making a daily entry into the mall almost unavoidable for the 13,000 people who ride the boats each day, but entry by others less likely.⁹

By accessing a location via a non-traditional route, or simply by passing a structure using multiple routes, one may be more exposed to the structures that fit into Flusty's taxonomy. Additionally, the arbitrariness of the paths generated by the POI application may also give a user access to a location that is specifically designed to repel human access. Such sites, perhaps those of “prickly” space, whereby the location is deliberately made uncomfortable to occupy, may become more obvious while one is using the system. Because the routes are chosen based on factors other than convenience, it may be that these places may fall in the path of the given user.

The POI application presents the view of the city to the user through high-resolution satellite imagery. The imagery itself is the result of collaboration between government intelligence agencies and high-technology companies. Again we see a medium or vehicle for information transmission that effectively blurs the line between the reality and the representation. With the increasing resolution, accessibility, and timeliness of such images contributes further to this confusion. It seems fitting to survey the post-industrial city via this medium. The concurrency of action and event with transmission and reproduction has been cited again and again by critical theorists as the epicenter of a profound cultural crisis. Paul Virilio, in his essay "Candid Camera," examines the wartime use of films and photographs as predictive and speaks to the conditions that allow for the confusion between reproduction and simulation: “With the interception of sight by the sighting device, a mechanism emerges that no longer has to do with simulation (as in the traditional arts) but with substitution.”¹⁰

Few images or technologies perpetuate this phenomenon more than satellite and satellite surveillance technologies. Access to highly detailed satellite photographs is a convenience that many of us could not live without, and yet the results of this access and the way that it effects our perception, and behavior does not seem to be interrogated. Geographical information systems, as well as high resolution satellite photography informs endless decisions, from the construction of a corporate office

9 <http://www.columbia.edu/~gs228/writing/techps.htm>

10 Virilio, Paul. 173.

park down to the individual assessing a new and more efficient route to work. An instrument of surveillance and control has been, as many times before, co-opted from the military to the private-sector as a means to increase efficiency and ultimately consumption. Like the usage of a car based GPS for navigation, or an aerial survey of a space to determine the location of a gated community the function of the [satellite image in the?] POI system is one of equivalence. A simulation of the experience is presented in the form of a route and satellite photos of the area, and it is left to the user to actually perform the walk and determine for themselves the qualitative difference between the actuality and the presentation.

Points of Interest as it Relates to Conceptual Art:

“Conceptual art's ideal medium is telepathy”¹¹

The POI application is a functional navigational tool, and yet the hope is that it also will act as a vehicle for a deeper examination of one's surroundings. Though the routes are based on physical points in the city, the hope is that the work will expose the user to something other than a neighborhood they have never seen before. Ideally, the combination of the questionnaire and the generated route will prepare the individual to experience the city on a deeper level. Perhaps the experience of walking a route will expose more of the symbols and structures that define our urban experience. For example one may see the ways that public space is impacted by a retail economy, or perhaps the socio-economic contours of the city. It may be that such a walk would allow a user to see that there are other motivations in the creation of “public” urban spaces, and that many times these motivations are not necessarily to provide the public with a location for community building.

I have found much inspiration in artworks that themselves operate as navigational devices to (or and) expose semiotic networks,. Much of the conceptual art of the 1960's and onwards fits into this category. Jack Burnham discusses some of the underlying motivations and currents that have directed the movement:

A yet more basic motive may underlie Conceptualism. The biologist

11 Burnham, Jack. 47.

Ludwig von Bertalanffy writes of a growing schisms between biological drives and symbolic values. One of the reasons for rapid technological change is increased proficiency in symbol manipulation, in philosophy, are, religion, literature, mathematics, and various forms of scientific logic. Belief in symbols and ideologies compels man to commit acts ordinarily against his biological well-being.¹²

This increasingly sophisticated usage of symbols, as Burnham points out, has resulted in advances in science and technology. A prime example of this type of symbol manipulation is computer code, and following from it all computer applications. This kind of manipulation has also led to increasingly sophisticated technologies for controlling and directing human behavior on ever-larger scales. In this particular quote Burnham speaks to the fact that at many times these activities are directly at odds with “biological well-being”, however, Burnham's larger point in this is the necessity for artists to recognize the spaces between the symbols and the realities, and the way that belief in these ideologies affects behavior. Burnham posits that the establishment of this vocabulary, within an art context, is the beginning of the conceptual art movement, the desire to create artworks that speak to the interrelations between human perception and experience.

Few Modern behaviors illustrate Burnham's point better than assisted navigation via the use of a GPS navigational device. The accuracy of the technology reproduces, almost flawlessly, the physical terrain through which the driver moves. The experience of motion and action is seamlessly merged with navigation of an information store. The perception component of navigation is reduced further as the device reproduces aspects of the physical world (signs, distances) that were previously critical to the act of navigating.

I have been particularly interested in the early collaboration between conceptual artists and engineers in the United State during the 1960's. These early explorations of the ways that data and information systems could be shaped and contextualized as artworks, provide a road map for artists to explore the information and data realms. In the article, "Art in the Information Age: Technology and Conceptual Art," Edward Shanken addresses some of these early explorations to establish fascinating linkages

¹² Ibid. 47.

between what has largely been considered significantly different methods of practice between the two disciplines. In foreshadowing his conclusion Shanken touches on the nature of these linkages: “The conclusion suggests the correspondences shared by these two artistic tendencies offer grounds for rethinking the relationship between them as constituents of larger social transformations from the machine age of industrial society to the so-called information age of post-industrial society.”¹³

While what Shanken is mostly concerned with in establishing these relationships is critically situating the artistic products of these early collaborations, he also lights on many of the methods that conceptual artists have employed to create works that engage with the profound impacts that information systems, and networks have had on culture. Particularly of interest to me for this project are the works of Joseph Kosuth and Hans Haacke. Both artists, while primarily known for conceptual works that rely heavily on philosophical concepts, are cited as individuals who created works that bridged this gap between art and technology. Shanken references work each artist submitted to a 1970 exhibition, curated by Jack Burnham entitled "Software Information Technology: Its New Meaning for Art." Shanken describes the piece submitted by Kosuth: "Seventh Investigation (Art as Idea as Idea) Proposition One" as consisting of a set of instructions printed on a billboard. The instructions provoke the viewer to engage and interrogate the ways that their mind processes and manipulates information, in the same way that the POI system provokes the user to engage with their perceptions of the city. Though Kosuth's work sets up a fundamentally “analog” process, the structure and framing of the work represents an algorithm consistent with those described in computer or information sciences. Shanken further expands on the way the work operates as a tool to explore one's semiotic environment:

By posing propositions that required viewers to investigate the cognitive functioning of their own minds with respect to the processing of information and the creation of meaning, Kosuth's Seventh Investigation sought to interrogate how and why what he called the “language game” of art functioned in a larger cultural framework. This critical project reflects the shift from an industrial to a post-industrial economic base, characteristic of the information age. Here meaning and value are not embedded in objects, institutions, or individuals so much as they are

13 Shanken, Edward. 433.

abstracted in the production manipulation and distribution of signs and information.¹⁴

Shanken's quote speaks to the inherent arbitrariness in the assignment of meaning to objects in modern living. It is precisely this approach to balancing art and technology that I felt was critical to the production of a tool that would help a user explore and navigate through such a fundamentally post-industrial space such as the city of San Jose. The project should ideally expose some of this similar arbitrariness in the construction and usage of public space. A work that I found particularly useful in understanding and incorporating these ideas in my work was "New York Boston Exchange Shape" by Douglas Huebler. Jack Burnham describes the piece below:

"New York Boston Exchange Shape" dealt with large-scale hexagonal form superimposed on downtown areas of Boston and New York so that the corners of the hexagons provide site locations for photographs Huebler notes that, "I use the camera as a 'dumb' copying device that only serves to document whatever phenomena appear before it through the conditions set by a system. No 'aesthetic' choices are possible"¹⁵

The arbitrary nature of Huebler's process of picking locations to document, references this flexibility of meaning that Shanken discusses. And yet through this arbitrary selection, Huebler still works within a geometric system, and the documentation of the specific sites has meaning that is beyond that of random selection. The POI application functions in a similar way: a route is outlined, generated from the interaction between the answers to the questions and the data within the system, and the result is a personal observation and documentation that develops from these conditions. Although the particular route may seem arbitrary, there is a system and structure behind its generation that, similar to Huebler's work, gives the action of walking that route additional meaning while at the same time suggesting the randomness of any act of observation or documentation.

Locative Arts, Psychogeography and the Exploration of the City:

While I would not say that this project is solely a locative media project, I do think that a discussion of

¹⁴ Shanken, Edward. 435.

¹⁵ Burnham, Jack. 56.

the application within the context of locative media may help in understanding the goals and results of the artwork. Locative media works traditionally incorporate GPS systems or other mapping technologies, and explore the relationship between experience and information. Concentrating on the connections between embodied experience and perception when the latter is mediated through technology, such works are well suited for examining modern living conditions. Many of these works focus on the collapse of traditional boundaries and concepts of geography. Other projects have investigated the ways that information about perception or activity can be collected, and replayed in an effort to reproduce the essential elements of experience. Similar to many locative media projects, POI is intended to examine the relationships between perception, location and activity. A canonical locative media work, Christian Nold's bio-mapping, is a system which monitors a user's galvanic skin response while walking through a particular area.¹⁶ The GSR response is a loose indicator of the individual's emotional state; the resulting data, when overlaid on a map represents a type of emotional mapping of the space. From Nold's website: "By interpreting and annotating this data, communal emotion maps are constructed that are packed full of personal observations which show the areas that people feel strongly about and truly visualize the social space of a community."¹⁷

The POI system shares many similarities to this and other locative media works. Nold purports that the output of the Bio-Mapping project represents an emotional map that corresponds to the emotional state of the user when they were in a given location. In this case the user's *reaction* to the physical space results in a trace that changes our perception of a geographical location. In the case of the POI project, the user's input (input based on an assessment of internal state) creates a route through urban space that represents a physical manifestation of the user's internal or emotional state that results in a type of emotional map. Though both projects rely on externalizations of the user's thoughts or feelings, the Bio Mapping project does this in order to represent the environment from an individual's perspective, while the POI project performs this externalization to provide the user with a unique experience of the environment. One describes experience, while the other provides it.

Anthony Townsend, in his essay "Locative-Media in the Contested-Aware City," discusses competing visions in the way that geographical information will be collected and organized and eventually represented to a user in future consumer level GIS systems. He sees these disparities as a direct result

¹⁶ <http://www.biomapping.net/essay.htm>

¹⁷ Ibid.

of the context in which an application or process is conceived and the ways that the information used in the system is generated. On the one hand, he describes the systems created by institutions, government or corporations as follows: “For the most part what few visions do emanate from corporate research labs are usually hopelessly unrealistic engineering fantasies of top-down “pervasive,” “ubiquitous” or “continuous” computing.”¹⁸ On the other, Townsend opposes this view with the “bottom-up” approach to generating, and distributing geographical information. In this model, users empowered by increasingly cheap and accurate GPS devices, coupled with reliable wireless Internet access, are actively collecting, analyzing and eventually constructing geographical informational terrain in ways that Townsend argues, better reflect not only the actual usage of urban space, but also the fundamental purposes of architecture and urban planning. Townsend sites the OpenStreetMap project as a canonical example of this “bottom-up” approach to geographical information management. “Therefore, the Open Street Map project using the GPS track logs of amateur surveyors moving through the city to create a free set of digital street maps. This data then becomes another enabling tool for more bottom-up context aware experiments. Open Street Maps exemplifies how the best locative-media projects provide resources and foundations for the next cycle of innovation.”¹⁹

While I generally agree with Townsend's analysis of the overall trends in locative media, I am not necessarily sure that all GPS based or locative media projects can fit easily into either category. The Points of Interest application is intentionally designed to trouble this relationship between user generated content and institutionally created content. For navigational purposes, the system uses a combination of satellite photography and Open Street Map data. The device relies on an outward presentation of a typical “top-down” application, and yet fully considers user input in the creation of paths through that urban environment. I have attempted to create an application that subverts a typical consumer GPS device, by giving the user a route from place to place that has little to do with standard notions of navigation. The visual language of the application is also slightly obscure, an attempt to highlight the ambiguous nature of the system. Many visual elements, for example the GPS track, way point data and satellite photographs are fundamental parts of the visual vocabulary of typical top-down GPS applications. The piece conceptually pivots on the tension between these two models in order to comment on both ways of thinking about location, as well as the presentation of information about location.

18 Townsend, Anthony 346.

19 Ibid. 347.

In closing this section on locative media, it should be noted that one can hardly talk about these works without addressing their relationship to the work of the Situationist International. The foundation underlying most locative media works are natural extensions of the larger concepts of psychogeography developed and refined by the SI. From certain specific techniques, most notably the *dérive* or “drift” technique, a participant explored the city in a relatively unstructured way so as to be able to see the psychogeographical contours of their urban surroundings. “By suspending the 'common sense' as we move from location to location in our daily life, we can rediscover the wilderness within the city. By exploring those areas we have no good reason to be in we can discover the reasons we are constrained to certain areas.”²⁰ Essentially the POI project, in the context of a locative media project, has attempted to technologically mediate the procedural aspects of the *dérive*. This was done to present an alternative to a consumer level GPS devices, which only serve to reinforce the stagnant routes through a city that provide the very common urban experience the Situationists were hoping to overcome in the act of the *dérive*. The GPS system will provide the same route between two points in perpetuity. The routing is done, generally speaking, in order to create the quickest point between two routes while traveling between the two locations by automobile. Guy Debord and the Situationist International were attempting to overcome the banal urban experience that occurs when individuals travel the same route everyday. As a way to overcome the urban design that dictates the way one moves through a city, the technique of the *derive* was an attempt to subvert these structures so as to explore the emotional or human contours of the city.

The lessons drawn from *dérives* enable us to draw up the first surveys of the psychogeographical articulations of a modern city. Beyond the discovery of unities of ambiance, of their main components and their spatial localization, one comes to perceive their principal axes of passage, their exits and their defenses. One arrives at the central hypothesis of the existence of psychogeographical pivotal points. One measures the distances that actually separate two regions of a city, distances that may have little relation with the physical distance between them. With the aid of old maps, aerial photographs and experimental *dérives*, one can draw

20 <http://www.infopool.org.uk/Why.htm>

up hitherto lacking maps of influences, maps whose inevitable imprecision at this early stage is no worse than that of the first navigational charts. The only difference is that it is no longer a matter of precisely delineating stable continents, but of changing architecture and urbanism.²¹

Here Debord speaks to some of the techniques, and the rationale behind the techniques of the *dérive*. What is most relevant to this particular project is the way Debord indicates that the *dérive* is an ideal method for perceiving the principal axes of passage within a city. Debord is referring to the heightened awareness of the way the city is constructed that is a result of exercising the *dérive* technique. Debord historically situates his assertions about the development of urban structures meant to exert control over a population. In many places he cites the Haussmanization of Paris in the 19th century as a standard example of the exertion of this type of control. Debord states, as well that more recent manifestations of this phenomenon have to do with city planning focused on the smooth circulation of the automobile, and generally architecture and planning that takes no consideration of the social or community aspects of a space.

Final Reflections on the POI Project

The goal of the POI project was to build a prototype system that facilitated urban discovery through mobile technology. In this section I would like to take some time to review some of the successes of the project, as well as some of the things that would be improved in future iterations of the application. I feel that as an instrument that mediates the practice of the *dérive*, the POI project has been quite successful. In his writings, Debord was careful to make the distinction between a haphazard stroll, and a *dérive*.²² Whereas the former could lead to urban discovery, the latter had a structure that maximized the participant's observations, whether it was rules about the time of the activity or arbitrary instructions about the ways that the space was to be covered. This type of structure is provided by the POI system. The routes are delimited (both in time and space), include stops at carefully selected key locations, and are shaped by the user's input. It could be stated that the "principal axes of passages" and the approach to the key points are a direct result of the profile generated by the user. The combination of device and application, would also allow a user to generate routes repeatedly, with great variation in

21 <http://library.nothingness.org/articles/all/all/display/314>

22 <http://library.nothingness.org/articles/all/all/display/314>

result. While it is clear to me that the device would give an individual a unique view of the city, would it have the same gravity as a derive performed in Paris of the 1950's? Debord states that at the time of writing the "Theory of the Derive," the structural planning of the city was already favoring the automobile.²³ A city like San Jose, so steeped in driving culture, is decidedly different in scale than Debord's Paris. This fact, combined with the phenomenon of urban sprawl, may lead me to reconsider some of the logistics of the POI application. So then, perhaps in future iterations of the project the routes would have to be scaled accordingly. The device could take into consideration modes of travel, and properly return a route of the appropriate length. I feel it would be interesting, for example, to optimize the application to routes that only utilized public transportation, or bicycle, or taxi. In functioning at the scale of the city, perhaps the derive technique would reveal more about it. Additionally it may be interesting to incorporate a system that generates these routes on the fly, while an individual is actively engaged with the device. In such an instance, the first section of the walk would be generated, while on the walk the system would accept input in the form of observations by the user or would collect data about how closely the user followed the established route. From this data the application would then be used to influence the calculation of the next leg of the route. Modifications to the program could also be done so that the format more closely follows that of a scavenger or treasure hunt. The system would lead an individual to a location, and then query them about that location. The user would be asked to provide observations, and then be prompted to look for specific details. This data would then be consulted when the next part of the route was generated. Another consideration for future iterations of this project may be the incorporation of user feedback, in the form of photos and texts. This information could be shared, exchanged, and commented on in the context of an online forum or social networking site. Aside from building a community around the usage of the application, subjects could exchange observations about particular routes, as well as share information about those routes that are truly interesting. Each of these modifications, when implemented, would require a much deeper engagement with the environment from the user. Hopefully this deeper engagement would provide the user with a much richer more meaningful experience.

In terms of assessing a subject emotionally, politically or otherwise for the purposes of generating a route I feel like the project has been somewhat less successful. As stated before, though the questions in the survey did not explicitly gauge the emotional state of the individual, I felt that they did provide

23 Ibid.

some insight into the person's feelings toward the city of San Jose. I am not sure that the topics of the questionnaire, and the questions themselves, have been integrated as cohesively into the work as they could be. The questions were designed to both identify locations that an individual may like to visit as well as routing them through locations that would reinforce, disrupt or otherwise change their preconceptions and experiences with the city. If I continued on with more of a community model for this work, I would consider having the user community determine the relevant/interesting questions for a given geographical location. A broader set of more geographically relevant questions may make the project more interesting and the experience of using the device more illuminating. I think that the concepts behind the Points of Interest are valid and provide the foundation for a very engaging artwork. . In future iterations of this project, in order to assure wider adoption and a broader user base, the application would need to be implemented on a variety of platforms. Ideally development would focus on the most common, lowest-cost devices. It would also be interesting to increase the level of input the user has in determining the operation of the device. Examples might include the incorporation of influential routing data of the individual's own choosing, or custom selection of points that are more meaningful to that particular individual, or the particular city within which they have decided to use the device.

I feel strongly that this prototype construction has been successful, both as an artwork and a utility. Obviously additional work would need to be done to make this object widely usable. But the application as it stands has allowed me to test the viability of such a device. My experience with it, as well as my observation of others using the device has convinced me that this work has the potential to be a very engaging artwork. Furthermore, I am now more convinced than ever of the artistic potential for mobile computing devices. Mobile computing is ideal for a project like POI where, a real engagement with an environment external to the gallery space is required for users/viewers to understand or experience the work. It is this experience that will truly make the work and experience meaningful to the participant.

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