

# A DIGITAL DÉRIVE: EXPLORING THE POTENTIAL OF A CROWDSOURCED SITE ANALYSIS

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**ABSTRACT:** The 20th c. French theorist Guy Debord devised a method for investigating the subjective qualities of an urban environment. He termed this method a *dérive*, which he defined as “...a technique of rapid passage through varied ambiances.” This method, a psychogeographic survey, would privilege experiential characteristics over objective, geometrically measurable ones. A reinterpretation of the *dérive* retains the subjectivity of Debord’s concept but capitalizes on the strengths of contemporary mapping technology, namely the aggregation and filtering of many data points and sets. This new method serves as a strategy for crowdsourcing the location of a temporary intervention in an introductory environmental design course offered to 150 students including architecture, landscape architecture, and city planning majors. This project, for which the digital *dérive* is phase one, suggests that in order to design for the built environment, we must be aware of the many complex elements and systems that compose it. A two-phase exploration gives students the opportunity to reflect on their immediate and surrounding environment, and to develop skills in mapping, cataloguing, representing, and abstracting those conditions. This paper describes the history, significance, and contemporary understanding of psychogeography and its cartographic representations, a specific methodology for (and outcomes of) a digital *dérive*, and the role of these cartographies in the design and transformation of the built environment.

**KEYWORDS:** geography, mapping, site, perception

## INTRODUCTION

This paper describes the appropriation and adaptation of a technique for exploring and analyzing an urban environment – Guy Debord and the Situationist International’s *dérive*. This technique, in its revised form, is being investigated as a tool for site analysis. This paper will describe the history, significance, and contemporary understanding of psychogeography and its cartographic representations, a specific methodology for (and outcomes of) a digital *dérive*, and the role of these cartographies in the design and transformation of the built environment.

Geography, as an inherently interdisciplinary field, provides a scaffold for a course designed as an interdisciplinary introduction to the principles of environmental design. Artist and geographer Trevor Paglan describes the field of geography as building on two fundamental ideas: materialism and the production of space (Paglan 2008). Paglan explains geographer-philosopher Henri Lefebvre’s theory of the production of space, saying:

Space is not a container for human activities, but is actively “produced” through human activity. The spaces humans produce, in turn, set powerful constraints upon subsequent activity.” (Paglan 2008, 29)

This feedback loop between the built environment and the people that inhabit it is a meta-principle underlying the course. Experimental geography, more specifically, is a realm of investigation of the built environment, which according to Nato Thompson in his book *Experimental Geography*, is “a field combining ambiguity, empiricism, techniques of representation, and education...” (Thompson 2008, 24) This definition also holds true for fields engaged in the design of the built environment, including architecture, landscape architecture, and urban planning.

## 1.0 HISTORY AND SIGNIFICANCE OF PSYCHOGEOGRAPHY

### 1.1. History of Psychogeography

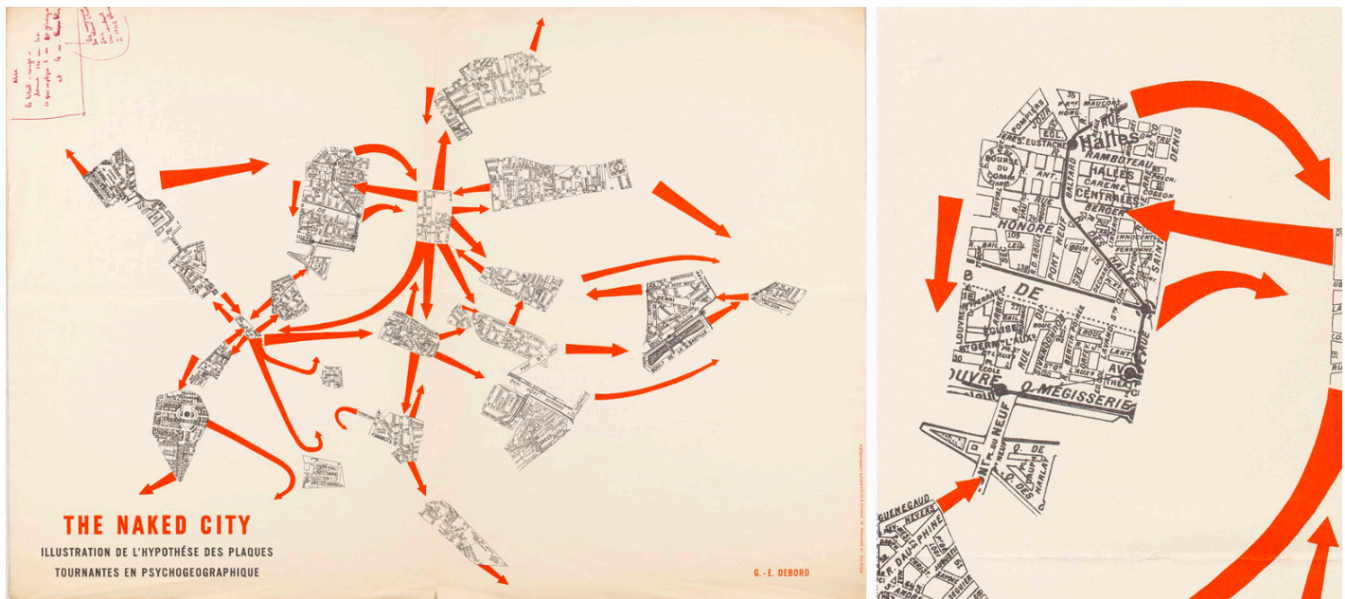
Psychogeography, a subset of experimental geography, highlights the psychological component of our perception and experience of the built environment. This includes the concept of *affordances*, a term and concept introduced by the psychologist J. J. Gibson. Affordances are the opportunities that the environment may offer to someone occupying that environment – it is relative and speaks to the interaction between the environment and the occupant – in contrast with the physical characteristics of the environment (Gibson 1979).

Psychogeography is commonly associated with the Situationist International, an interdisciplinary and politically-motivated organization active in Europe in the mid-20th century. Guy Debord, co-founder of the Situationist International, defined psychogeography as: “the study of the specific effects of the geographical environment...on the emotions and behavior of individuals.” (*Internationale Situationniste* #1 1958) Under the rubric of psychogeography,

the Situationist International developed the *dérive* as a tool for their theory of unitary urbanism, defined as a strategy by which: “The environment is explored and challenged...to provide alternative ways of using and living in the environment.” (Barnard 2016, 108) The *dérive* is a method of analysis which provides the framework for intervention. Adam Bernard, in his essay “The legacy of the Situationist International,” describes the value of unitary urbanism as a strategy which values sensory perception and emotional provocation, critiquing the prevailing strategy which privileges financial models (Barnard 2016). Subjective and sensory experience become lenses through which the urban environment is viewed. Debord articulated the *dérive* as a method for investigating the subjective qualities of an urban environment.

In a *dérive* one or more persons during a certain period drop their relations, their work and leisure activities, and all their other usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there. Chance is a less important factor in this activity than one might think: from a *dérive* point of view cities have psychogeographical contours, with constant currents, fixed points and vortexes that strongly discourage entry into or exit from certain zones. (Debord 1956)

With regard to representations of the *dérive*, Debord appropriated the Surrealist collage technique called the exquisite corpse, and applied it to cartographic representations of psychogeography. Existing maps of cities were cut up and reassembled, often with gaps between areas of the city to more accurately reflect the experience of the city, specifically its discontinuities. It is important to note, however, that while Debord was influenced by Surrealism, he was critical of Surrealism’s emphasis on the unconscious of the individual, neglecting external forces (Thompson 2008). *The Naked City* map from 1957 was created from the Plan de Paris, a popular map of Paris at the time (Fig. 1). Nineteen sections of the map were extracted and reassembled, and red arrows were added to illustrate “spontaneous turns of direction” that one is compelled to make when moving between these sections, each of which has a “unity of atmosphere” (McDonough 1994, 60). The “renovated cartography,” in Debord’s words, constructed here creates a synthesis between existing conditions and the human experience.



**Figure 1:** Guy Debord, *The Naked City* map and detail, 1957. This psychogeographic map reflects a collage technique of the Surrealists, the exquisite corpse - Paris map fragments were cut up and reassembled to more closely mirror the human experience of the city. Source: (Frac Centre)

The cartographer Denis Cosgrove explains the significance of the *dérive*:

Thought of cartographically, the *dérive* was a conscious challenge to the apparently omniscient, disembodied and totalizing urban map that had become the principal instrument for urban planning and ‘comprehensive redevelopment’ during the post-war years. (Cosgrove 2005, 39)

Resistance to the disembodied, visually dominated approach to designing for the urban environment continues to be of concern over a half-century later. Both conceptually and as a practical tool, the *dérive* speaks to the contemporary interest in systems thinking as a strategy to manage complex and multivalent contexts for architectural intervention. The method does not presume to be comprehensive, but rather brings awareness to our richly layered and nuanced built environments and their affordances.

## 1.2. Psychogeography and Pedagogy

While it is difficult to ascertain the extent to which the *dérive* has been employed as a pedagogical tool, there is evidence of its use by the Situationist Constant Nieuwenhuys, who prompted students from the Institut d'urbanisme de l'Université de Paris to conduct a *dérive* in Amsterdam in May of 1969. After reviewing the maps and sketches created by the students, Constant voiced his disappointment, saying that they didn't understand the dialog between space and social practices. Situationist scholar Lucasz Stanek writes that Constant thought the students showed "a lack of interest in their own presence there, not seeing that their own presence changes this very street." (Stanek 2011, 221) The evidence of this interaction is found in text only: unfortunately, we can't view and analyze the physical artifacts (maps and sketches) of this particular *dérive* assignment.

More broadly, the concept of *situated pedagogy* is relevant to this discussion. This concept builds on the influential late-19th / early-20th century educator John Dewey's emphasis on the importance of experience in learning, on creating situations for interaction. Leading contemporary educators Ira Shor and Paulo Freire, described situated pedagogy as a way: "to challenge the givens of our lives and the surrounding system dominating daily life." (Kitchens 2009, 246) Bringing awareness to context and circumstances that have faded to the background and seem to no longer warrant our attention is one agenda of the project described in this paper. It is an agenda for the education of future designers of the built environment, but certainly sits in a broader context of situated pedagogy, which Kitchens describes as asking students:

"...to attend to their environment as psychogeographers, reflecting on the subjective and the objective, the internal and the material, with their bodies as well as their minds, and listening to what places have to tell us. Students read the world, experiencing living landscapes, and decode those politically, socially, historically, and aesthetically, participating in a remapping of those landscapes. A situated pedagogy attends to specific places and localities, but not merely as places for discursive analysis and academic study, but as the spaces for action, intervention, and perhaps transformation. (Kitchens 2009, 259)

Situated pedagogy provides an educationally-validated motivation for this project - bringing students out of the classroom provides greater learning opportunities as students link experience with abstract concepts to build knowledge.

## 1.3. Contemporary Psychogeography

The artist, designer, and educator Christian Nold has built his career on psychogeography with a contemporary agenda. He employs current technology for participatory mapping, or mapping in which data is contributed by a large group of participants. His book *Emotional Cartography* describes a bio mapping project, a participatory mapping project in which 98 participants wore GPS devices and galvanic skin response sensors to track their movements on an hour-long walk through San Francisco and record their emotional responses along their route (Fig. 2) (Nold 2009). What is unique about this strategy is that it collects personal, idiosyncratic, data which remains archived in the final map, but thanks to the large number of participants, the aggregated data points to commonalities in perceptual experience. Color indicates emotional data: the bright red dots indicate arousal, while the darker dots show points of calm. (Nold 2009) Nold has also conducted similar studies in Stockport and Greenwich in the UK, using similar technologies but experimenting with different cartographic representations. While Nold clearly builds on the *dérive* method of the Situationists, he critiques the narrowness of their agenda, saying:

Rather than the continuous drifting through the city that the Situationists imagined, the Greenwich Emotion Map suggests an experience of the city as a series of distinct 'events', by which we mean moments of distinctive attention. The actual nature of these 'events' varies from meeting people, taking a photo, crossing roads, to being annoyed by one's surroundings. What these events have in common is an element of novelty which has caused the person's attention to become focused. This vision of the environment as a stage for events suggests an active engagement not covered by the normal concept of the 'walk' or 'drift'. It suggests an embodied being within the environment actively interacting with people, objects and places. (Nold 2009, 67)

Nold's methodology served as a precedent for the reinterpretation of the *dérive* that will be subsequently described. Nold's method, however, acts solely as an analytical tool, rather than a basis for intervention.



Figure 2: Christian Nold, San Francisco Emotion Map and detail, 2007. Source: (Christian Nold)

### 3.0 DIGITAL DÉRIVE METHODOLOGY AND ASSESSMENT

#### 3.1. Digital Dérive Methodology

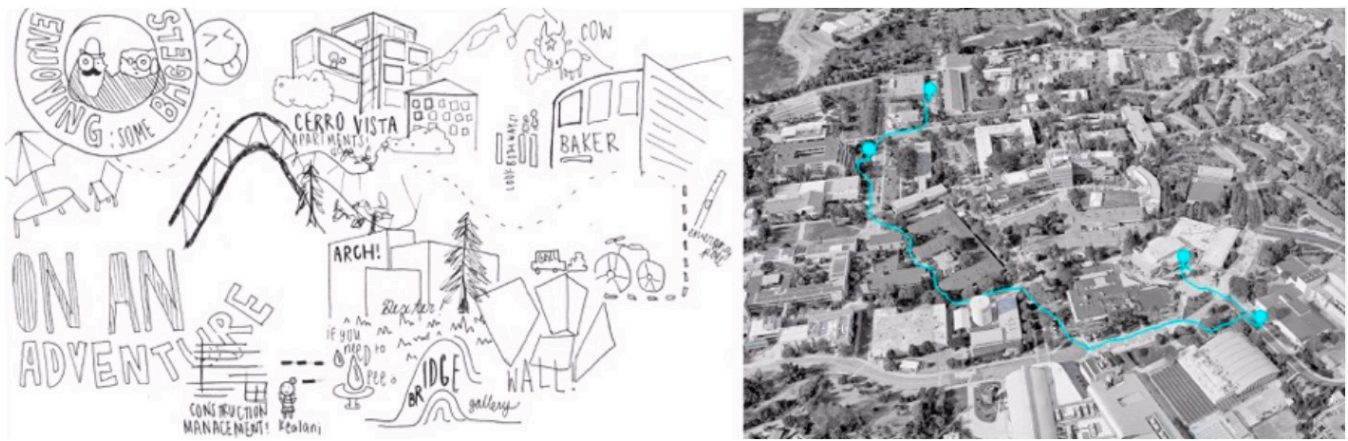
This reinterpretation of the *dérive* retains the subjectivity of Debord's concept but capitalizes on the strengths of contemporary mapping technology, namely the aggregation and filtering of many data points and sets. This new method serves as a strategy for crowdsourcing the location of a temporary intervention in an introductory environmental design course offered to 150 students including architecture, landscape architecture, and city planning majors. As a general education elective, learning objectives include understanding the physiological, psychological, and social influences on thinking and behavior, how the mind and body work in concert, the impact of history on the present and the future, and how the environment affects human behavior. Cal Poly's campus is an ideal setting to reflect on the relationship between people, the built environment, and nature. The campus is adjacent to downtown San Luis Obispo and occupies a unique and dynamic natural landscape, surrounded by rolling hills and distinctive geological features, the Nine Sisters, which are ancient volcanic plugs. One's experience of places on campus inevitably includes foreground, middle ground, and background perceptual stimuli, due to the rolling terrain and dramatic views.

This project, for which the digital *dérive* is phase one, suggests that in order to design for the built environment, we must be aware of the many complex elements and systems that compose it. One way to cultivate this awareness is to disrupt our expectations and make the perception and interpretation of the existing context a conscious process. The *dérive* serves as the first step in this process, laying the groundwork for the deployment and documentation of a portable camera obscura. A camera obscura, which projects the exterior environment onto the interior of a dark space, requires active participation and awareness as one context is superimposed on another. This two-phase exploration gives students the opportunity to reflect on their immediate and surrounding environment, and to develop skills in mapping, cataloguing, representing, and abstracting those conditions.

In order to prepare for the deployment of the camera obscura, students conduct a *dérive* to analyze the context (campus) from an experiential perspective. This *dérive* and mapping method was developed in collaboration with the university's GIS Specialist. We began with Debord's guidelines for a *dérive*:

- Number: several small groups of two or three people
- Duration: average of one day, but can be a few hours midday
- Area: "if one sticks to the direct exploration of a particular terrain, one is concentrating primarily on research for a psychogeographical urbanism." (Debord 1956)

Our methods of representation of the *dérive* include both analogue and digital components. Students were asked to create an analogue psychogeographic map in their sketchbook, as a way to provoke a subjective observation, experience, and recording (Fig. 3). Beginning with a blank page rather than a campus map, students had to rely on their observations, highlighting the difference between what they can experience and the omniscient view of the commercial map.



**Figure 3:** Student, analogue psychogeographic map drawn in sketchbook during *dérive*, 2016. Source: (Author, 2016)

**Figure 4:** Student, digital *dérive* map: route and placemarks shown on Google Earth, 2016. Source: (Author, 2016)

The digital *dérive* method utilizes free geotracking applications in which students record their *dérive* route and add placemarks when they identify a place (Fig. 4). A discussion about place versus space, and the definition of place as the intersection of physical attributes, activities, and conceptions, preceded the *dérive* (Canter 1977). Students also take analytical photographs that are geotagged to their route map, cataloguing both physical and experiential characteristics of each place. After completing the *dérive*, students are asked to edit their placemarks to a maximum of four, after reflecting on the value of each place and its suitability for a camera obscura. The digital *dérive* maps with placemarks are then aggregated and made public through the ArcGIS website. This web interface allows the user to toggle between the 37 route maps, to see a single map with all 37 routes and placemarks, and to view the density of placemarks as a heat map (Figs. 5 and 6). Through this process of data collection, aggregation, and filtering, we are able to identify the most commonly marked *places*, and determine an ideal site for our camera obscura.



**Figure 5:** Class, aggregated digital *dérive* map with routes and placemarks, 2016. Source: (Author, 2016)

**Figure 6:** Class, aggregated digital *dérive* heat map showing density of placemarks, 2016. Source: (Author, 2016)

### 3.2. Digital *Dérive* Assessment

The digital *dérive* provides an opportunity to take many idiosyncratic and subjective data points and mine them for commonalities. While there is a diverse array of placemarks, several places on campus are foregrounded through the heat map visualization. After identifying the most-placemarked spots on campus, other filters are applied; for example, placemarks within a 1/8 mile radius of where the portable camera obscura is stored, for ease of transport. This paper

will not expound on phase two of the process, the deployment of the camera obscura: however, Figure 7 shows examples of the images experienced by the students inside the camera obscura. Once the general site is chosen, the portable camera obscura is brought to the site. It is then up to the students to fine-tune the siting, by determining the exact placement and orientation of the aperture relative to the immediate and distant context.

Based on the outcomes of this methodology, one critique is that a *dérive* as it was originally defined by Debord is conducted without an agenda. Here, the students are primed for their *dérive* by being informed that the data will be used to identify a site for a camera obscura. However, Debord's *dérive* was really a starting point for this method; as a tool for site analysis, priming (identifying qualities or characteristics to look for) is paramount.



**Figure 7:** Student, photographs from inside the camera obscura, 2016. As students sit in darkness, an image of the external environment is projected through an aperture upside-down and backwards on a screen inside the space. Source: (Author, 2016)

## CONCLUSION

This method, a psychogeographic survey, privileges experiential characteristics over objective, geometrically measurable ones. Debord, in his 1958 essay “Theory of the *Dérive*,” notes the instability of the urban environment from a perceptual standpoint. A sense of unity in a given area of the city and the threads that connect these areas are highly variable. Situationist scholar Thomas F. McDonough highlights the value of this variability, both in concept and in representation:

Debord's map...foregrounds its contingency by structuring itself as a narrative open to numerous readings. It openly acknowledges itself as the trace of practices of inhabiting rather than as an imaginary resolution of real contradictions. (McDonough 1994, 69)

As a narrative open to multiple readings, this type of cartography can be didactic – an end in and of itself – or part of a design methodology for intervention. In future iterations of this project, it could be useful to add a third media to the mapping method: following the analogue psychogeographic map and digital *dérive*, students could create their own *The Naked City* map using an existing map of Cal Poly's campus, cutting fragments and reassembling them to more closely approximate their experience. As this project continues to be refined and re-engaged, a strategy for comparing the results of the analogue and digital mappings must be developed.

In a broader context, information gathered through a digital *dérive* and the other components of the method could prove a useful tool for designers as they consider the relationship between intervention, user, and context. Participatory or crowd-sourced mapping continues to grow as a tool to harness the knowledge and experience of inhabitants of a city or neighborhood to build a knowledge base, allowing designers to make more informed design decisions. The power of the digital *dérive* as it might be utilized in practice is two-fold: the collective memory and experiences of the inhabitants are typically untapped resources, and the technology to capture, share, and aggregate the data is user-friendly and readily analyzed to provide a basis for design intervention that can more appropriately address the needs and preferences of future users.

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