

**Public?
Participation?
Geographic?
Information?
Systems?**

a talk

by Denis Wood

at the URISA Conference on PPGIS

Cleveland State University

Cleveland, Ohio

July 31, 2005

The first time I heard the letters P P G I S said in such a way that I knew they had to mean something was four months ago in Denver at the annual meeting of the Association of American Geographers. It was in a session to which I'd gone merely to hook up with a colleague one of whose students was making a presentation, well, two of whose students were making presentations, actually, as it turned out.

At first I stayed out of politeness. I think it's insulting to walk out on someone who's speaking, even when the paper I *want* to hear is in a concurrent session somewhere else. Because I do this, I frequently end up hearing presentations I never intended to as in this case, one on "The Politics of Scale in Public Participation GIS." I was fascinated and I stayed to hear "Scale and Networks in Collaborative GIS Provision for Urban Grassroots Community Organizations," "Participatory GIS for Growth Management in the Cheat Lake Planning District of Monongalia County, West Virginia," and "Internet-Based Participatory GIS: The Delaware County, Ohio, Recreation Trails Project."¹

I was "fascinated" in the root sense of the word. I was bewitched, mesmerized, spellbound by the dizzying sense of having been there before, of having heard – years and years ago – identical sentences being delivered in the same earnest tones, a kind of spell by incredulity: *how could we be doing this again?*

I was knocked out by the way almost nothing had changed. The room we were in was decorated in the same louche pastiche of a hotel baroque, contradicted exactly the

way it always had been by the contemporaneity of the technology – then slides I smiled to remember, and PowerPoint today – but the same litter of cables duct-taped to the florid carpet, the same slightly darkened room, the same screen, the same spotty attendance. The subjects of the talks were the same too, university researchers reaching out to impale people – publics, communities, users, often poor, always marginalized – on the researchers’ latest ideas, these too the same except for the intrusion of the computer. Except for the latest acronyms, even the vocabulary was the same – *public, needs, collaborative, grassroots, community organizations, participation* – and just as denatured as I remembered it.

Or maybe it was even more denatured. Sitting there in Denver I had the feeling that “public” had never meant public so little, or “participation” meant participation less. On top of this was a kind of smugness that seemed to come from a theoretical sophistication vouchsafed by a familiarity with the content – if not with the spirit – of contemporary Continental philosophy, particularly its self-reflective, self-critical mode, as if being aware of their hegemonic potential inoculated the programs being described from being hegemonic in fact.

I guess “hegemony” might have been a new word. I don’t remember people in the ’60s and ’70s tossing it around like they do today.

I was *so* disheartened.

The Promised Democratization of Mapmaking

Not, let me say, because it was old hat. There’s nothing wrong with old hat. If your head’s cold and the hat fits, wear it. Nor was it the way this same-old same-old was being passed off as “urgent new problems” that were being “addressed” with “powerful new tools.” Inevitably each generation imagines its problems are new, and if they weren’t urgent, why would it be tackling them? Just as each generation imagines its tools are more powerful than those of its predecessors. No, all that I took for granted.

It *was* harder to accept that all the work on public participation had come to so little. Despite thirty or forty years of results it was still coming as a shock for these young researchers to discover that the new technologies mattered less than the old politics. Undoubtedly, though, we were just as naïve, and I consoled myself that these too were lessons each generation has to learn for itself.

Less easy to blow off, after twenty or thirty years of my writing about the social construction of maps, was the obliviousness about the social construction of GIS. Yet, I thought, isn’t that the way social construction works? If it were easy to see, it wouldn’t be so powerful.

No, as old and wasted as all that made me feel, it wasn’t any of this that sucked the energy out of me. What it was, was the realization that the wonderful democratization and invigoration of mapmaking that I’d convinced myself was taking place, was maybe

more chimerical than I had encouraged myself to believe. I had pinned *such* hopes on GIS.

As long as I've been interested in maps I've been enervated by the insistence on the part of cartographic professionals that they alone hold the key that unlocks the power of the map. *I* wanted to believe that the ability to make maps was like the ability to write, one that came with being human in a society that used maps to communicate, and I resented the posture of the profession that the ability to make maps was one that came exclusively with exhaustive training at the hands of professional cartographers.

I resented their rules for making maps the same way I resented the rules English teachers had for writing, *every sentence must have a subject and a verb, no sentence can begin with a conjunction, no sentence can end with a preposition*. Who were *they* to tell *me* how to write, me who could hardly fail to see the infinite violations of every one of their rules in the very examples they gave us to study? And who, when I began to pay attention to maps, could not fail to notice how rare it was to come across one that followed the cartographer's rules, *every map must have a legend, every map must have a title, every map must have a scale*, even when I confined my attention solely to maps produced by professional cartographers.

But once I became acquainted with the history of cartography it was easy to see that cartography was no more than a passing, and probably aberrant phase, in the larger history of mapmaking, part of the broad "professionalization," the general "enbourgeoisment," that during the nineteenth century had swept through what we might call the "white collar" trades. White collar apprenticeships dried up as their burden was off-loaded to an increasingly universal education. Trade and craft names were Latinized. Gravediggers turned into morticians. Newsmen became journalists. Teachers turned into educators. Mapmakers became cartographers. Ivan Illich refers to the twentieth century as The Age of Disabling Professions, "disabling" because the professionalization of so much life-work tended to disable non-professionals from imagining that *they* could bury a body, start a newspaper, teach, or make a map.

Illich thinks that professions are cults and he points to the way professions organize to prevent the practice of their mysteries by outsiders. Strong professions do this by conning legislators into passing licensure laws; less strong ones settle for certification programs; the least strong get along as they can. So it's against the law to practice law or medicine without a license; public school teachers and accountants need to be certified; but *anyone* can call him- or herself an interior decorator, or a cartographer.² But *all* professions repel threats to the integrity of their professionalism by denigrating nonprofessional work as at best incompetent if not literally dangerous or actually evil. Since the plain fact is that almost all maps have always been made by nonprofessionals, at least by nonprofessional cartographers, as a profession cartography has been comparatively quiet about the quality of nonprofessional work, contenting itself, like home decorating, with praising what it has seen as good. But when threatened, as

notoriously by the popularity of Arno Peters' map, it has responded with full professional hauteur.

The *complete failure* of the profession's remonstrances in the Peters' case *to have any effect at all* was the first sign I caught that the profession was dying. As I came to see it, cartography, incapable of comprehending, much less responding to the intellectual challenges of the past half century, was expiring from its own torpor when GIS came along to roll the corpse over the cliff. When I used this phrase two years ago in my *Cartographic Perspectives* editorial, "Cartography is Dead (Thank God!)," I hadn't done the post-mortem work I have since.³ Around the country, retiring cartographers are rarely being replaced. Mapmaking staff are increasingly being assigned to more general graphic design duties. Map labs are being converted to other uses. This isn't because map use is down. Map use is up, *way up*, and interest in maps is at an all time high. But the fact is, 15,000 people attended the ESRI User's Conference last week, and few of them had ever had a course in cartography.

So I've been thinking about GIS as taking the power of the map out of the hands of a cartographic elite and putting it into people's hands in much the same way that the spread of literacy took the power of reading and writing out of the hands of the priests and put it into the hands of an ever-growing number of people. PPGIS should be in the forefront of such an effort, but I didn't leave that session in Denver feeling that the democratization of mapmaking was taking place at all. In fact the feeling I got was that in the hands of PPGIS, GIS was replacing cartography, not liberating mapmaking.⁴ In the months since Denver I've immersed myself in the PPGIS literature, and the feeling has intensified.⁵ Were I asked for a thumbnail sketch of the field at the moment, I'd have to say, despite the high idealism and great goodwill of perhaps all its practitioners, that PPGIS is scarcely GIS, is intensely hegemonic, is hardly public, and is certainly not participatory.

Public Participation

Significantly, none of these issues is independent. Let me take the last first. "Participation" is not a complicated idea. It means "taking an active part in activities with others," where "active part" means ... *active part*. The roots make this really plain. The "part" part has to do with "portion," and its deep root with "grant" or "allotment"; the "cip" part – *ceps* – with grasping, with taking, capturing, catching. Linked together they're about *taking ones portion*, about *getting ones share*.

The sense is plain enough when we speak of participating as beneficiaries in a health plan, or of participating in a crime. In neither case is there any sense of looking on, of spectatorship. One can no more participate in GIS by looking something up than one can participate in baseball by reading the sports pages, or by sitting in the stands. Passive

participation is oxymoronic.⁶ Yet despite inspiring examples to the contrary, that's what most PPGIS seems to be about, providing web sites where people can ... look stuff up.⁷

Public is another simple idea. It means "of, concerning, or affecting the community or the people." In its noun form it explicitly refers to "the community or people *as a whole*." Its root too is worth recalling, "publicus," from "populus," meaning ... people. Other words derived from this root include "people," "populace," and "popular." It may be as articulated as can be, but in this sense there can be only *one* public, not multitudes of publics.⁸ Indeed it does not stretch the idea much to *contrast* "public" with "stakeholder"⁹ since stakeholder and public interests rarely coincide and are often antithetical.¹⁰ Yet in reading the PPGIS literature, how rarely one finds *public* participation. Instead there's the participation of stakeholders, however broadly defined.¹¹

I appreciate as much as any, perhaps more than many, why both "participation" and "public" have been twisted so far from their ancient but still most common forms. If I seem insanely reductionistic about these terms it's because I've labored long in the public participation trenches. As a newly minted geography PhD, with a specialization in mental maps, I joined North Carolina State University's School of Design faculty to put my social science to work in the "real" worlds of architecture, landscape architecture, and urban planning. The Environmental Design Research Association had but recently held its inaugural meeting at the school, and its faculty then included Randy Hester and Henry Sanoff, both of whom would go on to publish influential textbooks in user needs analysis and participatory planning, and later Basil Honikman, Robin Moore, and Graeme Hardie.¹²

But aside from the research-oriented work that went on in the school,¹³ I immediately found myself caught up in the effort to prevent a proposed highway from wiping out an adjacent neighborhood. The cost of our victory was the bridge that led into my own neighborhood, one of only two remaining Warren trusses in the state of North Carolina, which a new coalition proceeded to fight for and lose. When the university proposed to drive a highway serving its proposed campus extension through the city's finest public swimming pool and through yet another neighborhood, the fight was on again, and victory achieved through a broad coalition of neighborhood groups and other concerned people. The hardest battle was fought, for years, over the city's plan to drive a major highway through the campus of the state's premier mental hospital. I led the effort that forced the city to hold a referendum on the proposal. Fifty-two thousand people voted in this referendum – my idea of *public* participation – and though the road was approved (by a hair) the effort had completely transformed the project, from the most brutal kind of bulldozing and stream burial into one with comparatively sensitive siting, stream reconstruction, sound walls, and elaborate landscaping. (It tripled the cost of the road.) For the last six years I've been consumed by a fifteen-to-twenty million dollar project to reconstruct the street I live on, which runs from the state capitol past the university to the fairgrounds. As the board member representing merchant interests on the

lead non-profit, community-based intermediary, I've been involved in every aspect of the project, from decorating our float for the university's homecoming parade, through numberless hearings, design charettes, and small area planning sessions, to service on state DOT committees overseeing engineering feasibility studies and the Federal Highway Administration's approval process – my idea of public *participation*.

So I *know* how hard it is to get people to pay attention, affected stakeholders to say nothing of the public at large, how hard it is to get them to come to meetings, how hard it is to get them to speak out, especially how hard it is to get them to do this over and over down the long road that is invariably traveled; and I understand *fully* the necessity of checking the public participation boxes on the stacked forms that have to be submitted to every level of government for the prosecution of even the most trivial plan. Because I appreciate the reality that public officials respond more vigorously in hearing rooms packed with people, *even when the people don't speak*, I thoroughly respect the notion that such shows of concern be registered. I'm even committed to the idea of registering the number of hits a project web-site gets. Every show of interest has a value. But to conflate the opening of a browser window with helping to put up yard signs under the single rubric "participation" – much less with regular attendance at public hearings or active work in design charettes – is not only to denigrate actual participation but to promote notions of participation that could easily undermine the very idea. Just as conflating under the rubric "public" the property owners adjacent to a project with citizens who though less proximate nonetheless have compelling interests, is to completely evacuate "public" of every shred of its historic significance.¹⁴

My concern, however, arises less from considerations of justice – though these are compelling – than from consideration of how the indiscriminate use of "public" and "participation" promotes the hegemonic potential of PPGIS. It becomes harder and harder to object that the public has not been involved when for months all the plans have been available on the city's or state's web-site, access that has had the perverse effect of *reducing* public/official contact to the mandated "public hearing," with its preregistration requirement, its three-minute limit on speaking, and its content-analysis-style summary duly filed at the appropriate tab in the project's official three-ring binder. Shrinking the public to adjacent property owners and reducing participation to web-site hits so lowers the threshold for public participation as to render it meaningless, while at the same time permitting the public participation boxes to be checked off on the appropriate forms as the approval process hurtles through the Section 106 and 4(f) consultations on its way to an EA/FONSI.¹⁵

The goal here is plain: it's to build the project. And so the process is oriented toward the construction of consensus, not around the public's involvement in the construction of its manifold futures. In her paper at this conference Teresa Tang is explicit about this: "[Public participation]'s ultimate aim," she writes, "is to facilitate consensus building."¹⁶ John Gallo makes a similar point in his paper: "An underlying

normative goal of PPGIS,” he writes, “is to ... develop consensus for a better future.” Such views construe the public monolithically, as a people united about ends, if divided over means. But the public is almost never, if ever, united about ends.

John Krygier and I consider the issue of map design in this context in our new book, *Making Maps: A Visual Guide to Map Design for Geographical Information Systems*.¹⁷ In the first map we consider, a County Chamber of Commerce has selected the shortest and least costly route for a proposed connector road. The Chamber’s values are, at least ostensibly, classically instrumental, those of minimizing cost. In the next map we consider, a community group has responded by showing how the proposed connector devastates the African-American community by cutting it in half. Its values are humanistic, in support of human social bonds. A third group produces a map that shows how historical properties in an existing historical district will be adversely affected. Its values too are humanistic, but they’re more abstract, concerned with the contributions to a sense of place made by structures created in the past. A fourth group, the Oberlin Business Association, argues in its map that the proposed connector will siphon traffic and thus business from its members. Its values are primarily instrumental – maintaining income flow – but they also have humanistic components related to both a sense of community and a sense of place. An environmental group highlights the impact the connector will have on a floodplain. Its values are complex melange of the instrumental (flooding), the humanistic (human/environment relations), and the religious (eco-ideological).

A newspaper story about the connector’s significance for a Chamber-sponsored initiative to lure to a suburban office park a pharmaceutical firm most of whose employees would come from the suburbs south of town, changes the scale of the debate. The newspaper’s values too are a complicated melange, but they certainly contain, at least ostensibly, strong ethical components. Under multiple pressures, the planning department floats two new proposals, both substantially less efficient and more expensive. The fundamental values at play here are a mix of the political and the professional. Finally, the proposal with the fewest opponents is advanced to the next stage in the process. The map published in the weekly counter-culture giveaway that plots the pharmaceutical firm’s world-wide holdings, its history of chemical spills, and its questionable personnel practices plays no role, at least to this point, but it does point to the existence of ends-considerations other than those at play in the debate. The bicycling fanatics who believe no more roads should ever be built, period – they don’t even bother to speak up: no one listens.

The Reframing of Public Discourse

Promoting the illusion of public participation is not the only way the hegemonic potential of PPGIS is harnessed. More threatening, because far more insidious, is the shift

encouraged by PPGIS in the way attitudes and arguments are framed. Earlier I said something to the effect that most PPGIS seems to be about providing web sites where people can look stuff up. One of the things that has to be acknowledged is how little stuff this is. Frequently it amounts to little more than the city's cadastre, that official register which since Babylonian times (it's humanity's oldest geodatabase) has contained information on the value, extent, and ownership of land, usually for purposes of taxation.¹⁸ Even when the database is maintained by a non-profit, community-based intermediary, the database commonly contains little that has not been obtained from local government, that is, data originally collected to facilitate the control and authority of the municipality, county, or state.

The cadastral map, Roger Kain and Elizabeth Baigent remind us, "is an instrument of control which both reflects and consolidates the power of those who commission it."¹⁹ One way it does this is by circumscribing political discourse to terms of exclusively instrumental significance, to lot lines, that is, lot lines, lot sizes, zoning, value, ownership, condition. When PPGIS advocates such as David Sawicki and Patrick Burke speak of citizens being enabled by PPGIS "to speak in such a way that the message [can] be heard by those responsible for taking action," what they really mean is that the message has been reframed into the language of regulation.²⁰ This is a language that throughout America has reduced the idea of the home to that of an investment, and the neighborhood to that of a machine for the destruction, maintenance, or enhancement of value. Everywhere, discourse about home and community has become indistinguishable from discourse about stocks and bonds, these long since divorced from any consideration of what *good* the product or service might be, to what *profit* it might be induced to yield.²¹

When PPGIS advocates such as Cheryl Parker and Amelita Pascual say about people who have made use of PPGIS that "Rather than reacting emotionally, people could present intelligent and well-informed fact-based economic arguments" this is what they mean.²² When they contrast "fact-based" with "grounded in emotion," they make it sound as though emotion were something to be shunned in talking about things like home and community.²³ I can't imagine where emotion could be *more* relevant, and agree with Paul Goodman that:

Emotions do not necessarily hinder knowing. They may help it by brightening the figure against the background and by leading to relevant exploring ... [Emotions] say something about the environment in relation to the self: that it contains an obstacle, that it threatens physical safety or moral dignity, that it suits one's appetite, maybe that it has an empty spot and one will have to resign oneself to doing without ... Normally, feeling, knowing and action go together and reinforce one another, so that a language free to express and arouse feeling should indicate a people intelligent for their practical happiness, whereas an affectless language should indicate a stupid culture.²⁴

Isn't it exactly this "affectless language" that Liza Casey and Tom Pederson were complaining about when they wrote that the cadastre-based neighborhood maps produced by Philadelphia CDCs had no way "to convey the beautiful old stone buildings that are such a part of Philadelphia's Germantown neighborhood ... [or the] famous family-owned barbecued chicken place on the corner which is a social gathering place for the neighborhood"? Listen to the emotion-laden language they use: "Similarly, there is no ability to communicate the shocking degree of abandonment and dissipation in some of the neighborhoods. Crumbled buildings, burned out abandoned cars, trash strewn lots and streets, broken glass and graffiti are in evidence everywhere but not on the maps."²⁵

The question begged by so much of this is what makes a fact a fact? Without being pulled into the Marianas trench of epistemology – though perhaps that's where the *whole* GIS discussion needs to go – and without more than glancing at the parlous epistemological status of lot lines – on which all the rest of the cadastre depends – it's important to observe how much of the data on the typical cadastre is rooted in what can only be called feelings. Assessments of condition, for example, are opinions pure and simple, but so is zoning. Zoning's a feeling about what *should* be, and it exists in a constant state of reevaluation.²⁶ Yet unlike Casey and Pederson's "beautiful," "famous," and "shocking," R-20 and O/I somehow manage to pass ... as facts.

The Detroit Geographical Expedition and Institute

I'm reminded of Gwendolyn Warren's discovery that the environmental fact of being bitten by rats, which she had always understood to be a property of the part of Detroit she lived in – like the abandoned lots, burned out cars, and broken glass – became facts of child abuse or neglect in the registers of the hospitals where they were recorded.²⁷ "They're covering up what's actually happening," she wrote, "And so, what we are going to do is go down and pull all the information that they have on child abuse. We figure if we could get any of the files from Detroit General Hospital, we could map what happens to these children."

The notorious example was her and her colleagues' transformation of a map of Children's Pedestrian Deaths and Injuries by Automobiles into the inflammatory but infinitely more accurate and vastly more powerful map of Where Commuters Run Over Black Children on the Pointes-Downtown Track. "The way the city is situated," Warren wrote:

There is the central place downtown and then there are rings which go outside of that and the big ring right outside downtown Detroit is the Black community. All the area about a mile going out from downtown Detroit is one-way traffic and runs right through the heart of the Black community. And on one specific corner in six months there were six children killed by commuter traffic. But, naturally, these deaths of the children or the injuries or whatever it happened to be were

disguised as something else. They never said that a certain business man who was working for Burroughs downtown who was on his way to Southfield went through the Black community by way of this commuter traffic and killed my people – Black children. Even in the information which the police keep, we couldn't get that information. We had to use political people in order to use them as a means of getting information from the police department in order to find out exactly what time, where, and how, and who killed that child. The fact that it actually establishes a pattern proves it is not "accidental."²⁸

I raise this example here, first, because it illustrates how, led to relevant exploration by emotion, what had seemed to be one kind of fact, accidental traffic deaths, was revealed to be another, at the very least a structural kind of death, if not the murder of one class and race by another (which it also was).

But I also raise this example because it emerged in the context of an exemplary case of public participation, one in fact which was taken over by the public toward which it was initially directed. The story of the Bill Bunge-inspired Detroit Geographical Expedition and Institute is a longer one than I can tell this afternoon, but I have to read a couple of salient paragraphs from a report of the Association of American Geographers:

In 1968, under the guidance of Bill Bunge, a group of ghetto residents began to explore and map the geography of the city. They combined geographic concepts and methods with personal hypotheses and definitions of problems. The result was a series of innovative studies of health hazards, income flows, traffic flows, death rates, and other variables of concern to the students. Faculty from the University of Michigan geography department participated; college credit was arranged.

The initial efforts led to a need for cartographic instruction so that the maps from the first studies could be refined for publication. Hence, a second credit course was organized, in cartography, through Michigan State University ... The educational enterprise appears to have become a kind of experimental community college, in which geography is one component ...

Meanwhile, Detroit Geographical Expedition and Institute members, with guidance from professional geographers, produced a study of the school redistricting problem in Detroit. The findings and recommendations of this study appear to have had intellectual and political impact, and it is an important geographic work for 1) its substance, 2) its method, and 3) its use as an instrument to train citizens to research their community problems and to use research findings to stimulate and guide community action.²⁹

This work then, almost forty years old, was a *public* one, was extraordinarily *participatory*, was genuinely *geographic* (that is, not just georeferenced), generated real *information*, and was thoroughly *systematic*. It was, in fact, a *true* PPGIS, if one that scarcely involved the computer at all.³⁰

One of the things that most strikes me about this example is that unlike so many I encounter in the PPGIS literature, it has nothing to do with the public participation model developed and deployed by professional planners. Bunge's model was that of geographic exploration, but instead of sending explorers to Africa to search for the sources of the Nile, Bunge took himself into the city he lived in to help its residents explore their own situations. Bunge's ideas about public participation weren't about building consensus. Instead they were about building the public's ability to construct its own facts, facts that Bunge was convinced would be more relevant to their situation than the city's facts could ever be.³¹

The Situationist International

As Bunge's Expedition rewrote its facts over those of Detroit's municipal agencies, the Expedition established itself as an early counter-mapping entity, that is, one that produces maps that counter or refute official maps.³² Yet as an expedition directed by a student of Arthur Robinson's, then the chief architect of official, status-quo cartography, the Expedition's ideas about how facts were constructed were ultimately not that different from those of the city. But the city of geographic facts is not the only city, and that other city – the city of the mind, the city of dreams – can also be mapped. Mappers of this other city have often thought about themselves as artists and we can think about the maps they make as map art. Map art is *art* made *as*, *with*, or *about* maps.

Map artists reject neither maps nor the world. Map artists reject the *authority* claimed by official maps to portray reality *as it really is*. That is, map art rejects official claims to map the world with objectivity and dispassion. Or map art rejects objectivity and dispassion as valid ways to know the world. Or map art rejects both. The history of Situationist mapmaking is exemplary.

Situationism was an art movement that emerged in Europe in the mid-1950s out of the collapse of Surrealism in the aftermath of World War II.³³ Situationism constituted itself as “a revolutionary program ... to confront the ideological totality of the Western world.”³⁴ Though this is doubtless true, in their efforts to intervene in the redevelopment of Paris, the Situationists more resembled a contemporary non-profit, community-based intermediary, one that was systematically attempting to map the *psycho*geography of the city. That is, Situationism amounted to a public participation *psycho*geographic information system.

Situationist *psycho*geography grew out of a reaction to official proposals for the redevelopment of Paris which at the time threatened to be far more extensive and devastating than any of those carried out under Haussmann during the Second Empire. *Psycho*geography was an effort to get the *individual* back into planning, an effort to embrace both subjective and objective ways of knowing the city. *Psycho*geography started from the assumption that it is the *self* that knows the city, but at the same time it

understood that this knowledge had to somehow transcend the individual if it was to be useful in the collective rethinking of the city.³⁵ The essential psychogeographic method was that of the *dérive* or drift, explained by Guy Debord – the Situationist International’s theorist *en chef* – as a “playful-constructive” movement through the city – a drift – by a small group of people alert to “the attractions of the terrain and the encounters they find there,” and who were able as a group to agree upon distinct, spontaneous preferences for routes through the city.³⁶

By letting themselves be drawn through the city *by the city*, the Situationists felt they could discover *unités d’ambiance* – unities of ambiance – parts of the city with an especially powerful urban atmosphere:

The unities of ambiance were constituted by many things, especially the “soft,” mutable elements of the city scene: the play of presence and absence, of light and sound, of human activity, even of time and the association of ideas. The “hard” elements, like the shape, size, and placement of masonry, gently articulated the softnesses in between.³⁷

Some unities of ambiance functioned as psychogeographic switching stations from which one could be pulled by the city in many different directions. The Situationists thought about these as *plaques tournantes*.³⁸ The old market at Les Halles was a plaque tournante. So was the old Plateau Beaubourg. Psychogeographic “slopes” – the natural psychogeographic forces that the city exerted on drifters – were called *pentés psychogéographiques* and were represented on psychogeographic maps by arrows. Only the *unités d’ambiance* and the *pentés psychogéographiques* appeared on psychogeographic maps. All the rest of the city was eliminated.

Debord and Asger Jorn made two maps of Paris, the Guide Psychogéographique de Paris: Discours sur les passion de l’amour and The Naked City.³⁹ These maps explicitly “originated in reaction against city-planning schemes for the modernization of Paris that threatened the old Bohemian areas on the Left bank.”⁴⁰ Abdelhafid Khatib’s psychogeographic maps of Les Halles were “meant in part as a riposte to redevelopment plans that had been hanging over the area for a number of years.”⁴¹ Debord referred to these maps as a “renovated cartography” and used them in generally futile efforts to intervene in the redevelopment.⁴² “To some extent,” Simon Sadler writes, “Debord and Jorn’s Situationist maps served as guides to areas of central Paris threatened by redevelopment, retaining those parts that were still worth visiting and disposing of all those bits that they felt had been spoiled by capitalism and bureaucracy,”⁴³ but in effect Situationist maps produced an alternative social geography, one that the Situationists held up *against* the maps produced by the Paris city planners with their *official* social geography of the city.

Debord’s maps countered official *maps* but they also countered official ideas about what counted as map *data*. It can be doubted that psychogeographic accounts of pedestrian circulation made any sense at all to the city planners whose efforts the

Situationists were attempting to combat, but Debord insisted – and I agree with him – that his maps charted social and cultural forces that were every bit as “real” as those charted by the planners. It is hard to assess the outcome of this battle of the maps. Certainly much that the Situationists loved was destroyed in the name of progress, but the Situationists did contribute to the changes that have allowed some of what they loved to be preserved; and if Debord was out-gunned at the time, lately his psychogeographic heirs have been increasingly active.⁴⁴

Today an annual psychogeography event “brings together visual and sound artists, writers, urban adventurers, and the public to explore the physical and psychological landscapes of the city,” as a flier had it for last year’s psy.geo.conflux in New York. The events included experimental walks with altered maps, high-tech drifts using wearable computing devices, and a walking presentation of an urban documentary commissioned by the New Museum of Contemporary Art. One of last year’s panels was entitled, “Can Psychogeography Change the World?”⁴⁵ This year a Provflux was sponsored in Providence by the Providence Initiative for Psychogeographic Studies, and psychogeographic events dominated this year’s Boston Cyberarts Festival.⁴⁶ As Cyberarts participant Teri Rueb put it:

Artists have turned to locative media to make people look and listen. There’s an increasing awareness of an invisible landscape – like Hertzian space, invisible layers of frequencies and wavelengths. It’s different than the visual construction of space. Hertzian space and sound bleed and blur those boundaries; an interior monologue becomes part of the art,

which is then performed in public, as Rueb’s *Itinerant* was. Her audience carried GPS devices on their walk through the Boston Commons where the devices triggered recordings in the headphones they wore, melding the experience of the outer space of the Commons with the inner space in their heads.⁴⁷

I raise Situationist psychogeography here not just because it’s a PPGIS – which it patently is – but because it’s a PPGIS that’s nonconformable with either the professional planning model *or* with that of the Detroit Expedition. Detroit planners and Expedition members might have disagreed over what data to collect, and argued about what it meant, but they would have had no difficulty recognizing each other’s data ... as data. Both would have had a hard time understanding exactly what unities of ambiance were, or how to deal with Teri Rueb’s invisible landscape. What this implies is that the public harbors a diversity of value *constructs* that is of a wholly different order than that contemplated by the practitioners of identity politics. Psychogeographers don’t say “pay attention to *my* needs” or “respect *my* values.” They say “pay attention to the values of *your own inner voices*,” voices *they* attempt to hear by wandering aimlessly around, drifting without destination, opening themselves to the city as a *terrain of passion*. Drifting is a way of alerting people to their “imprisonment by routine,” and so it helps them to discover the

hidden city, that city “supple and staccato enough to adapt to the lyrical stirrings of the soul, the undulations of dreams, and the sudden leaps of consciousness.”⁴⁸

Jake Barton’s City of Memory

While it was possible to drift alone, Debord felt that small groups of two or three were the most fruitful – in any event never more than ten or twelve – for the cross-checking needed to insure objectivity.⁴⁹ These were small numbers for an enterprise with pretensions of speaking objectively, even scientifically, about the collective city of dreams. Jake Barton, a New York-based designer, creates systems that build collective urban memories with the participation of a comparatively vast number of people, and his work provides another model for PPGIS, a web-based one that really is participatory, that is public, that is genuinely geographic, that generates information, and that has all kinds of systematic potential.

Barton’s first effort in this vein was as low-tech as those of Bunge and Debord, and as rich in outcomes. Memory Maps was mounted on the Washington Mall where every June as many as a million visitors gather across a two week period to participate in the Smithsonian’s annual Folklife Festival. Each year the festival highlights the cultures of three different places, and in 2001 one of these was New York. Given the richness of New York’s stew of different cultures this was a serious challenge. Barton’s solution was ingenious.⁵⁰ Inside a structure intended to recall a subway car Barton mounted a system of enormous maps of the city. Here visitors were invited to share their stories of the city by writing them on slips of vellum which they then pinned to the map where they occurred. Visitors reading the stories had their own memories stimulated and so were prodded to produce further stories. During the festival’s two-week run, more than 2000 people festooned the map with their memories, creating rich portraits of the city’s neighborhoods. This wasn’t really a PPGIS because there wasn’t much you could do with the stories once they’d been pinned to the maps except read them, but its geographically located stories generated by an involved public had the public, participation, geographic, and information elements locked down.

Barton added the system piece the next year when he began work on City of Memory which more or less put Memory Maps on-line.⁵¹ City of Memory is a narrative map that encourages visitors to create a collective memory of New York by submitting stories to a dynamic web-based map of the city where their stories are electronically “pinned.” In addition to submitting stories, visitors can “tour” the city’s memory by moving a cursor over the map which glows wherever there’s a story to be heard. Visitors can also link stories together by themes, creating novel “neighborhoods” of narrative that can be emailed and electronically “walked” by others. Barton says:

City of Memory reflects the old saying, ‘There are a million stories in the naked city.’ But there are actually millions of cities, each one created inside an

individual New Yorker. By sharing these stories, we can find out more about how similar and different we are. City of Memory tries to collapse the distance between us by encouraging exploration in other than physical space.

What this means is that City of Memory gets people to talk to and hear each other within an affective narrative space which they create and which is tied to and accessed through a map of New York, that is, through a physical space that happens to be “vibrating with the world’s energies” and haunted – Barton’s word – by people’s collective experience. It’s this idea of space as a living memory that gives Barton’s maps, which otherwise look more or less like maps you could buy at a newsstand, their remarkable inner life. Touch them and they come alive, which is what Barton insists the space of the city actually is: alive.

What’s interesting here is the way Barton has combined a psychogeographic sensibility toward the city with a map of the city’s physical space in a publicly accessible GIS. To keep this public as broad as possible Barton has designed City of Memory to be accessible from street kiosks and museum installations as well as from personal computers. In Barton’s words, the project “utilizes ‘top-down’ and ‘bottom-up’ resources to create an emergent curated experience.”

These are interesting words, “top-down,” “bottom-up,” “curated” and “emergent” – key I think to rethinking PPGIS into the place it has wanted to be from the beginning. “Top-down,” of course, refers to the design of the system from the top (by the agency, the community-based intermediary). “Bottom-up” says public participation, but within a different framework than that used by the planning profession. “Curated” implies that “bottom-up” is not independent of the “top-down resource provider’s” goals, but “emergent” makes it clear that the outcome has *not* been foreseen, which is exactly the outcome intended, but is so rarely achieved in public participation planning efforts. The range of access to City of Memory – personal computer, kiosk, museum installation – multiplies the likelihood that the *public* will participate, and this magnifies the emergent quality of the outcome. It all results in a map which has not been exactly *made* by the public but which without it has no content at all and deflates into a frame around nothing.

What marks the PPGISes I’ve been discussing from those you’ll be talking about during this conference are the organizing assumptions standing behind them. The Detroit Expedition and Institute was modeled on geography as an exploratory and educational enterprise. Situationist psychogeography was modeled on the revolutionary art practice created by the Surrealists in the period between the wars. City of Memory is modeled on the idea of the museum and its curatorial practices. When I say that these PPGISes are modeled on these structures I don’t mean to say that a GIS has been introduced into such structures, or that these structures exploit a GIS as a tool. I mean that the function and structure of the GIS has been shaped by them. “Geographic” for Bunge meant infinitely more than knowing where things were. “Information” for Debord arose from subjects and

their actions in an objective world. “Systems” for Barton are dynamic ways of relating curators and the public from which a new collective city can emerge. There’s a wonderful freedom from instrumental thinking – about people, about the uses of the city, and about their interaction – in all of these, and each points a way to the liberation of the map in the revisioning of the future of the spaces we mutually inhabit.

Bunge, Debord, and Barton suggest to me that PPGIS need not remain locked in the professional planning model that has dominated developments so far. Bunge, Debord, and Barton suggest to me that PPGIS need not limit its vocabulary that of the First Age of Participatory Planning. Bunge, Debord, and Barton suggest to me that PPGIS need not think of the public either as a test to be passed or as body to be served, but as an actual partner, if not the principal, in the task of imagining – and mapping – a genuinely human tomorrow.

¹ The session, organized by Timothy Lee Hawthorne, was called Participatory Geographic Information Systems. Rina Ghose gave “Politics of Scale,” Wen Lin, “Scale and Networks,” Hawthorne “Participatory GIS for Growth Management,” and Hrishi Patel “Internet-Based Participatory GIS,” despite the fact that the program said this last was being presented by John Krygier. Laxmi Ramasubramanian, also listed as presenting, did not.

² Despite efforts to pass licensure laws for both these practices.

³ “Cartography is Dead (Thank God!)” appeared as an opinion column in *Cartographic Perspectives No. 45*, Spring 2003, pp. 4-7. Tom Koch’s supportive, “Response to ‘Cartography is Dead (Thank God!),’” appeared in *Cartographic Perspectives No. 48*, Spring 2004, pp. 4-6, while James R. Carter’s riposte, “Cartography is Alive (Thank God!)” appeared in *Cartographic Perspectives No. 49*, Fall 2003, pp. 4-9.

⁴ The existence of URISA’s GIS Certification Institute – GISCI – makes it clear exactly how far things have gone. The institute certifies GIS Professionals – GISPs – and anticipates the day when certification will be a requirement for employment.

⁵ The field is fortunate to have the wonderful collection edited by William J. Craig, Trevor M. Harris, and Daniel Weiner, *Community Participation and Geographic Information Systems* (Taylor and Francis, London, 2002), twenty-eight uniformly revealing papers, which I have taken as my mentor texts. In light of what follows I think it revealing that the editors used the phrase “Community Participation” and not “Public Participation” in their title. (For their reasons see Trevor Harris and Daniel Weiner, “Implementing a Community Integrated GIS: Perspectives from South African Fieldwork,” pp. 246-258). Mark Salling provided me with a valuable sampling of yet further literature, including the useful review by Marc Schlossberg and Elliot Shuford, “Delineating ‘Public’ and ‘Participation’ in PPGIS” (*Journal of the Urban and Regional Information Systems Association* 16(2), 2005, pp. 15-26).

⁶ This is fundamentally a rejection of the idea that there’s a continuum – the so-called “public participation ladder” – that moves from “right to know” to “public participation

in final decision” (P. M. Wiedermann and S. Femers, “Public Participation in Waste Management Decision-Making: Analysis and Management of Conflicts,” *Journal of Hazardous Materials* 33(3), 1993, pp. 355-368; Daniel Weiner, Trevor Harris, and William Craig, “Community Participation and Geographic Information Systems,” in Craig, Harris and Weiner, op. cit., pp. 3-16; and Schlossberg and Shuford, op. cit.). Knowing and acting *are* related, but the right to know is no form of participation, and their linkage is a disservice to both sets of ideas, one indeed that fatally blurs the distinction between Arnstein’s conceptions of tokenism and power (S. R. Arnstein, “A Ladder of Citizen Participation,” *Journal of the American Institute of Planners* 35(4), 1969, pp. 216-224). I don’t doubt there are different degrees of participation but calling the right to know, or even mere financial support, participation is feel-good politics of the lowest order.

⁷ Liza Casey and Tom Pederson distinguish this as Public Records GIS – “the Internet distribution of data through GIS that a city or government body collects as part of their administration of policy and laws, and distribution of services,” in their “Mapping Philadelphia’s Neighborhoods,” in Craig, Harris, and Weiner, op. cit., pp. 65-76, with Public Records GIS discussed on pp. 70-74 (the quoted passage is on p. 70). For an inspiring example that’s not a Public Record GIS, see the Harris and Weiner paper cited earlier, where among other things the authors collected “mental maps” during workshops set up to compile local community information, which was then added to the database on an internet-based GIS.

⁸ I mean, how many publics *are* there? Five? Five thousand? Or does each of us constitute a public? It’s undoubtedly easy to hypostatize the idea of the public as a whole, but *many times easier* to hypostatize the metastasizing publics. In saying this I have no interest in denying that the public *is* constituted of any number of vertically and horizontally structured overlapping groups operating at any number of scales through a bewildering range of processes over time. I *am* insisting that calling these groups “publics” does a terrible disservice to our already impoverished ability to make sense of any kind. At the very least I want “public” to convey *some* idea of large numbers of people from many kinds of groups (and of large numbers of people *each of whom* claims membership in *many* different groups), and to stand for an interest beyond that of any group. The danger that has led to the multiplication of publics is that of any group claiming to be *the* public, but this is harder to do when the number of groups is large. I’m struggling here (but so was Habermas), but I don’t believe identity politics is any kind of answer for anybody. For further reflection on what, of course, is *not* a simple idea, see Stuart C. Aitken, “Public Participation, Technological Discourses, and the Scale of GIS,” Craig, Harris, and Weiner, op. cit., pp. 357-366; Nancy Fraser, *Justice Interruptus: Critical Reflections on the ‘Postsocialist’ Condition*, Routledge, New York, 1997; and of course Jürgen Habermas, *The Structural Transformation of the Public Sphere*, MIT Press, Cambridge, 1989 [1962]; but also see the less fashionable work of Paul Goodman (especially *Growing Up Absurd* and *Communitas*), Wendell Berry, even Walt Whitman.

⁹ This is fundamentally a rejection of the “domains of public” continuum which at least in Schlossberg and Shuford’s rendition ends up excluding most of the public by including only those most affected by a decision (which typically reduces to adjacent property owners); those who can bring important knowledge to a decision (that is, experts,

typically consultants and academics); and those who have the power to affect implementation (which, though Schlossberg and Shuford don't say so, typically comes to lobbyists) (Schlossberg and Shuford, op. cit., pp. 18-21). The central paragraph on their p. 18 elides stakeholder into public in a way that has to be read to be believed.

¹⁰ A classic example that has heated up lately is that of public access to beaches, where the public interest may be at odds not only with that of adjacent property owners, but with entire towns dominated by property interests. Access provides a useful lens on "public": when access is universal it's public; when it's restricted it's not. Giveaways do the same thing. When Ben and Jerry's offers free ice cream to anybody, that's a public offering. When Papa Johns offers free pizza slices to students with valid IDs, that's not a public offering, it's one made to students. The distinction is pretty straight-forward and almost unexceptionally made.

¹¹ Casey and Pederson refer to this as Neighborhood Planning GIS, though presumably there could also be an Environmental or Green GIS, a Development or Native Peoples GIS, and so on. See their paper, op. cit., pp. 74-75.

¹² Randolph T. Hester, Jr., published *Neighborhood Space: User Needs and Design Responsibility*, Dowden, Hutchinson, and Ross, Stroudsburg, Pennsylvania, 1975 (republished by Reinhold Van Nostrand as *Planning Neighborhood Space with People*). Henry Sanoff published, among others, *Designing with Community Participation*, McGraw-Hill, New York, 1978; *Participatory Design, Theory and Techniques*, Bookmasters, Raleigh, 1990; and *Visual Research Methods in Design*, Van Nostrand Reinhold, New York, 1991. Basil Honikman edited the sixth volume of the Environmental Design Research Association's proceedings, *Responding to Social Change*, Dowden, Hutchinson, and Ross, Stroudsburg, Pennsylvania, 1975. Robin Moore, a principal proponent for involving children in environmental design, wrote *Childhood's Domain: Play and Place in Child Development*, Croom Helm, London, 1986. As the School's Associate Dean for Research, Graeme Hardie worked extensively with the School's Center for Universal Design.

¹³ I spent a year writing an ultimately unpublished text, *In Search of Form*, for the Dowden, Hutchinson, and Ross Community Development Series, on the interpretation of the *formal* content of user-generated maps and sketches. Two of its chapters later appeared as Denis Wood and Robert Beck, "Janine Eber Maps London: Individual Dimensions of Cognitive Imagery," *Journal of Environmental Psychology* 9(1), March, 1989, pp. 1-26; and Denis Wood and Robert Beck: "Tour Personality: The Interdependence of Environmental Orientation and Interpersonal Behavior," *Journal of Environmental Psychology* 10(4), December, 1990, pp. 177-207; among other work Beck and I published about mental maps in this context. Other environmental design work included an innovative application of personal construct theory to the public evaluation of North Carolina's courthouses (Greg Centeno, Basil Honikman, Bob Klute, William Lundin, John Tector, and Denis Wood, *Ten Courthouses in North Carolina*, North Carolina Administrative Offices of the Courts, Raleigh, North Carolina, 1976); work on playground design (Denis Wood, "Design Despite Information: The Case of Playgrounds," *Industrialization Forum* 8(1), 1977, pp. 37-40, and Denis Wood, "Free the Children! Down With Playgrounds!" *McGill Journal of Education* 7(2), Fall, 1977, pp. 227-242); an attack on Oscar Newman's ideas about defensible space in public housing

(Denis Wood, "In Defense of Indefensible Space," in Paul and Patricia Brantingham, eds., *Urban Crime and Environmental Criminology*, Sage, Beverly Hills, 1981, pp. 77-95); and work on neighborhood theory (including Denis Wood, "A Neighborhood Is To Hang Around," *Children's Environments Quarterly*, 1(4), Winter 1984, pp. 29-35).

¹⁴ Which, again, is that there *is* an interest which exceeds that of every special interest. And, okay, maybe it is bullshit, but the sense was clear in this morning's paper where, in an article on the impact of overloaded trucks on the state's highway infrastructure, business interests were contrasted with public interests.

¹⁵ Anyone reading this is sure to know this already, but Section 106 of the National Historic Preservation Act requires federal agencies to consider the effects of their actions on historic properties; while Section 4(f) of the Department of Transportation Act allows federal approval of a transportation project *despite* its impact on the environment if there is no prudent and feasible alternative, and all harm is minimized. An EA/FONSI is an Environmental Assessment/Finding of No Significant Impact, which means you can go ahead and build without concerning yourself with avoidance and mitigation efforts.

¹⁶ In the abstract for her presentation at this conference, "Design of a GIS-enabled Online Discussion Forum for Participatory Planning," with Jiangfeng Zhao. Another conference presenter, John Gallo, writes that, "An underlying normative goal of PPGIS is to improve the ways in which communities are able to build awareness of their surroundings and develop consensus for a better future," in "Mapping Uncertainty to ease the Tension Between PPGIS and Conservation Planning."

¹⁷ John Krygier and Denis Wood, *Making Maps: A Visual Guide to Map Design for Geographical Information Systems*, Guilford, New York, 2005, pp. 29-32.

¹⁸ For a general history of the cadastral map, see Roger J. P. Kain and Elizabeth Baigent, *The Cadastral Map in the Service of the State*, University of Chicago Press, Chicago, 1992. For a few pictures of cuneiform tablets scored with property lines, see A. R. Millard, "Cartography in the Ancient Near East," in J. B. Harley and David Woodward, eds., *The History of Cartography*; vol. 1, *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, University of Chicago Press, Chicago, 1987, pp. 107-116; but Karen Rhea Nemet-Nejat describes seventy Babylonian field plans in *Late Babylonian Field Plans in the British Museum*, Studia Pohl: Series Maior 11, Biblical Institute Press, Rome, 1982. In the beginning cadastres were pretty much invoked only to settle property disputes, but "by the close of the Roman Empire cadastral maps were widely used to underpin state property rights and revenues" (Kain and Baigent, *op. cit.*, p. 3), a function revived in the Netherlands in the sixteenth and seventeenth centuries, and increasingly widely adopted ever since.

¹⁹ Kain and Baigent, *op. cit.*, p. 344.

²⁰ Indeed in the specific case, neighbors had been recruited to act as code enforcement deputies! The spirit of the event relates to that scene in the Western when the sheriff deputizes those who would otherwise be vigilantes to ride after the bad guys. See David S. Sawicki and Patrick Burke, "The Atlanta Project: Reflections on PPGIS Practice," in Craig, Harris, and Weiner, *op. cit.*, pp. 89-100. The quotation appears on p. 95. See also Sarah Elwood's "The Impacts of GIS Use for Neighborhood Revitalization in Minneapolis," in Craig, Harris, and Weiner, *op. cit.*, pp. 77-88, especially the section "Negative Impacts of GIS Use in Powderhorn Park," pp. 84-86, where residents complain

about the more bureaucratic tone in which discussions are framed thanks to the use of GIS and digital databases. Aitken, *op. cit.*, picks up on these remarks as well, p. 361-362.

²¹ In saying this I echo the sentiment of architect and planner Frederick L. Akerman who in 1919 attacked planners for becoming too concerned with “the right of the individual to use the community as a machine for procuring individual profit and benefits, without regard to what happens to the community,” in “Where Goes the City-Planning Movement?”, *Journal of the American Institute of Architects* 7, December 1919, pp. 519-20.

²² Cheryl Parker and Amelita Pascual, “A Voice That Could Not Be Ignored: Community GIS and Gentrification in San Francisco,” in Craig, Harris and Weiner, *op. cit.*, pp. 55-64. The quotation is on p. 62. The context is Parker and Pascual’s claim that “Some people did not understand the complexities of a local economy. They just understood that they did not want to be displaced,” *but what’s wrong with not wanting to be displaced?* What Parker and Pascual are saying is that we live in a market economy and we better get used to it. The reality, however, is that we *make* the market economy through our acquiescence to it, and saying “that’s just the way things are” is literally ... *selling out*.

²³ What Parker and Pascual, *op. cit.*, said was “Community arguments were now fact-based rather than grounded in emotion” (p. 63).

²⁴ Paul Goodman, *Speaking and Language: In Defense of Poetry*, Random House, New York, 1971, 146-47.

²⁵ L. Casey and T. W. Pederson, “Urbanizing GIS: Philadelphia’s Strategy to bring GIS to Neighborhood Planning,” 1995, *Proceedings of the Environmental Systems Research Institute User Conference*, <http://www.esri.com/library/userconf/proc95/to150/p107.html>. But also see their updated conclusions in Casey and Pederson, “Mapping Philadelphia’s Neighborhoods,” *op. cit.*, where, noting that the things that make places unique “are not collected in the normal course of a city’s record keeping,” they stress the importance of local control of the GIS so that such material may be included.

²⁶ There’s a tendency today to hypostatize “information,” but information is not end-use neutral and one man’s information is another’s man’s noise. In discussing Dervin’s sense-making approach, John Krygier has drawn attention to the way information is “... made, confirmed, supported, challenged, resisted, and destroyed.” See John Krygier, “A Praxis of Public Participation GIS and Visualization,” in Craig, Harris, and Weiner, *op. cit.*, pp. 330-345.

²⁷ Gwendolyn Warren, “About the Work in Detroit,” *Field Notes: Discussion Paper No. 3, The Geography of the Children of Detroit*, The Detroit Geographical Expedition and Institute, Detroit, 1971, pp. 10-16. “The whole thing about the rat region of Detroit” is on pp. 11-12.

²⁸ *Ibid.*, p. 12.

²⁹ The Ad Hoc Committee on Relations with the Detroit Geographical Expedition and Institute, “Report to the Council of the Association of American Geographers,” *Field Notes: Discussion Paper No. 3*, *op. cit.*, pp. 1-3. The ad hoc committee recommended giving the Expedition the maximum possible grant without restraints. The school redistricting study was published as *Field Notes: Discussion Paper No. 2: School Decentralization*, The Detroit Geographical Expedition and Institute, Detroit, 1970. Geographers assisting in the redistricting study included John Shepherd, Ronald Horvath,

John Nystuen, Donald Deskins, Richard Morrill, and others. I want to draw attention to the way the Detroit Expedition addressed the “educational component” Krygier identified “as central to the development of PPGIS applications,” and indeed made it central to the Expedition’s praxis (Krygier, op. cit., p. 331).

³⁰ The computer was used to calculate the effects of alternative school redistricting plans, and here the Expedition’s use of the computer was innovative.

³¹ See the flier signed by Bunge (not to my knowledge otherwise published) advertising the Society for Human Exploration. On a no less important note, it concludes: “If geography is not fun, it is wrong.”

³² Counter-mapping embraces a variety of practices, otherwise known as community mapping, green mapping, First Nation’s mapping, and so on, all of which at the very least are concerned with a reallocation of resources. See, for example, Nancy Peluso, “Whose Woods Are these? Counter-Mapping Forest Territories in Kalimantan, Indonesia,” *Antipode* 27(4), 1995, pp. 383-406, or Dorothy L. Hodgson and Richard A. Schroeder, “Dilemmas of Counter-Mapping Community Resources in Tanzania,” *Development and Change* 33, 2002, pp. 79-100. An important foundational text was Doug Aberley, *Boundaries of Home: Mapping for Local Empowerment*, New Society, Philadelphia, 1993. Related, but on another tack, is Common Ground’s Parish Map Project. See David Crouch and David Matless, “Refiguring Geography: Parish Maps of Common Ground,” *Transactions of the Institute of British Geographers* 21, 1996, pp. 236-255.

³³ The Situationists were a group of artist-intellectual-activists (who no doubt would angrily reject this label), and existed in various countries between 1957 and 1972. Its immediate predecessor was the First World Congress of Free Artists, which included members of both the Letterist International based in Paris, and the International Movement for an Imaginist Bauhaus based in Abisola and Alba. The Imaginist Bauhaus had evolved out of the COBRA group operating in Copenhagen, Brussels, and Amsterdam, as the Letterist International had evolved out of the Parisian Letterist group. Ultimately both the Letterists and COBRA arose from the collapse of the Surrealist movement in the aftermath of World War II. The best known Letterists – Letterism was never well-known in the States – were Isidore Isou and Maurice Lemaître. In COBRA were the well-known Karel Appel, Pierre Alechinsky, George Constant, and Asger Jorn, among others. COBRA-member Jorn founded the Imaginist Bauhaus, as break-away Letterist Guy-Ernest Debord founded the Letterist International. Jorn and Debord came together – with Constant and others – to found the Situationist International. For a perspective from the period, see Aldo Pellegrini, *New Tendencies in Art*, Crown, New York, 1966. In hindsight, especially after May ’68, Guy Debord has emerged as the principal figure, thanks especially to his *The Society of the Spectacle* (Zone, New York, 1995 [1967]). The literature on the Situationist International is immense and growing.

³⁴ As, of course, did Surrealism. I’ve quoted from Simon Sadler, *The Situationist City*, MIT, Cambridge, 1998, p. 3.

³⁵ This is mostly a paraphrase of Sadler, op. cit., p. 77. In 1967 psychogeography was independently invented at Clark University when David Stea accepted a joint appointment in the psychology and geography departments. This was a development in “perception studies” in geography, and in environmental psychology in psychology. Among other things Clark psychogeography was strongly influenced by Kevin Lynch’s

work on mental maps published in *Image of the City* (MIT Press, Cambridge, 1960). In all three cases, Situationist psychogeography, Clark psychogeography, and Lynch's mental maps, this tension between the subjective and objective was in play. For more on psychogeography at Clark see the "Special Clark University Issue" of the *Journal of Environmental Psychology* 7(4), December 1987, the entire issue.

³⁶ Sadler, op. cit., p. 78. Debord describes the *dérive* in "Théorie de la *dérive*," *Les lèvres nues*, 9, Brussels, November 1956. This has been translated as "Theory of the *dérive*," in Ken Knabb, ed. and trans., *Situationist International Anthology*, Bureau of Public Secretes, Berkeley, 1981, pp. 50-54. Debord got the idea of the *dérive* from the Letterists.

³⁷ Sadler, op. cit., p. 70.

³⁸ Literally a railway turn-table, or hinge.

³⁹ Guide Psychogéographique de Paris: Discours sur les passion de l'amour, par. G.-E. Debord, Édité par le Bauhaus Imaginiste, printed in Denmark by Permild & Rosengreen, 1956. In addition to the title it says, "pentes psychogéographiques de la *dérive* et localisation d'unites d'ambiance," or, "psychogéographic slopes of the drift and the location of unities of ambiance," the *pentes* or slopes being the natural psychogeographic pull the city exerted on drifters. The best readily available reproduction is that in Robert Storr, *Mapping*, Museum of Modern Art, New York, 1994, p. 33, which is large enough to make out, sharp and in color (although misdated to 1957). The recent reproduction in Denis Cosgrove, "Maps, Mapping, Modernity: Art and Cartography in the Twentieth Century" (*Imago Mundi* 57(1), 2005, pp. 35-54), p. 40, is larger, but black and white (more accurately, grey), and fuzzy. The best readily available reproduction of *The Naked City: Illustration de l'hypothèse [sic] des plaques tournantes en psychogéographique [sic]*, 1957, is in Sadler, op. cit., p. 60. This was a screen-print signed by G.-E. Debord, but it and the Guide were made with Asger Jorn. At one time Debord promised three other psychogeographic maps: *Paris sous la neige*, *The most dangerous game*, and *Axe d'exploration et échec dans la recherche d'un Grand Passage situationiste*, but if he made them no one's ever seen them (see Sadler, footnote 48, p. 182, and David Pinder, personal communication).

⁴⁰ Peter Wollen, "Mappings: Situationists and/or Conceptualists," in Michael Newman and Jon Bird, eds., *Rewriting Conceptual Art*, Reaktion, London, 1999, pp. 27-46, with the quotation on pp. 30-31. Wollen also wrote the important piece, "The Situationist International: On the Passage of a Few People Through a Rather Brief Period of Time," collected in his *Raiding the Icebox: Reflections on Twentieth-Century Culture*, Indiana University Press, Bloomington, 1993, pp. 120-157.

⁴¹ David Pinder, "'Old Paris Is No More,': Geographies of Spectacle and Anti-spectacle," *Antipode* 32(4), 2000, pp. 357-386 (the quotation is from p. 372), where Pinder reproduces two of Khatib's maps.

⁴² Guy Debord, "Introduction to a critique of urban geography," in K. Knabb, ed., *Situationist International Anthology*, Bureau of Public Secretes, Berkeley, 1981 [1955], pp. 17-25 (the quotation is from p. 17), which I learned about in Pinder, "Subverting Cartography," op. cit.

⁴³ Sadler, op. cit., p. 61.

⁴⁴ See for example, David Pinder's "Ghostly Footsteps: Voices, Memories and Walks in the City," *Ecumeme* 8(1), 2001, pp. 1-19. Debord is not even mentioned in this treatment

of three walking-artists – Janet Cardiff, Rachel Lichtenstein, and Iain Sinclair – but his spirit is everywhere implied, especially since Pinder opens and closes his paper with quotations from André Breton’s *Nadja*, the 1928 Surrealist masterpiece that stands behind so much of Debord. (Richard Howard translated *Nadja* for Grove Press, New York, in 1960.)

⁴⁵ For more, visit www.psygeocon.org. The 2004 psy.geo.conflux was produced by Glowlab in conjunction with PARTICIPANT INC and made possible with much non-profit support. Even the *Utne Reader* covered it (July-August 2004, pp. 40-43).

⁴⁶ Learn more about this year’s Psy-Geo Provflux at www.pipsworks.com.

⁴⁷ The Rueb quotation is from Cate McQuaid, “All over the map,” *The Boston Globe*, April 15, 2005, pp. C13 and C16, the quote on C16. There’s more on Rueb at her gallery’s website, www.judirotenberg.com. Thanks to the many people who sent me this clipping, especially Arthur Krim.

⁴⁸ This is actually Walter Benjamin writing about prose (in *Charles Baudelaire: A Lyric Poet in the Era of High Capitalism*, Verso, London, 1983, p. 69), though Benjamin insists that this obsession is “above all a child of the experiences of the giant cities, of the intersecting of their myriad relations.” Following the Situationist’s spoor, Sadler uncovers not only Thomas De Quincey’s drifting, but the inspiration the Situationists found in *flânerie*, Baudelaire, Rimbaud, Benjamin (especially his Arcades project), Surrealism generally, *Nadja*, and maybe just as critically Louis Aragon’s *Le paysan de Paris* (translated into English as *Paris Peasant*, Pan Books, London, 1978). See Sadler, pp. 91-103.

⁴⁹ Debord, “Théorie de la dérive,” op. cit., p. 51.

⁵⁰ Memory Maps was created by Jake Barton and Nancy Nowacek for CityLore and the Smithsonian Folklife Festival. For more on this and other projects of Barton’s check out www.localprojects.net.

⁵¹ City of Memory was created by Jake Barton for Local Projects and the Museum of the City of New York with CityLore. In 2003 it won a \$100,000 NEA Technology Leaders Grant. City of Memory is being launched at the museum later this year.