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ARTICLE

Burning Man at Google: a cultural infrastructure for new media production

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Abstract

Every August for more than a decade, thousands of information technologists and other knowledge workers have trekked out into a barren stretch of alkali desert and built a temporary city devoted to art, technology and communal living: Burning Man. Drawing on extensive archival research, participant observation and interviews, this article explores the ways in which Burning Man's bohemian ethos supports new forms of production emerging in Silicon Valley and especially at Google. It shows how elements of the Burning Man world – including the building of a sociotechnical commons, participation in project-based artistic labor and the fusion of social and professional interaction – help to shape and legitimate the collaborative manufacturing processes driving the growth of Google and other firms. The article develops the notion that Burning Man serves as a key cultural infrastructure for the Bay Area's new media industries.

Key words

art and technology • counterculture • culture • economy
• cultural infrastructure • free labor • peer production

To anyone accustomed to visiting the main offices of industrial-era information technology (IT) powerhouses such as IBM or AT&T, a stop in

the lobby of Building 43 at Google's Mountain View, CA headquarters, presents something of a shock. The cool blond wood and carefully recessed lighting which have marked the power of industrial firms for decades have disappeared. In their place, plain white walls are posted with some two dozen unframed photographs of giant sculptures set out in a flat, white desert and of fireworks exploding over the head of a giant neon stick figure. On the floor above, another 30 images line the hallways and overlook an in-house cafe and pool table. In these pictures, shirtless men in pantaloons spin fire-tipped batons in the dark. A tiny clapboard house with a bicycle out front stands alone on an empty plain, while a two story-tall chandelier lies crashed to the ground, baking under the sun.

To the thousands of San Francisco Bay area programmers, marketers and technical executives who spend a week there every August, these images are instantly recognizable. They depict Burning Man, an annual celebration of art and temporary community staged in the Black Rock Desert, Nevada. Begun some 20 years ago with the burning of a wooden effigy on a San Francisco beach and later moving inland, Burning Man now draws more than 35,000 participants each year (Burning Man Organization, 2005a). A great many come from the San Francisco Bay area and work in the region's high-technology industries (Burning Man Organization, 2005b; Gilmore, 2005; Kozinets, 2002). In the last week of August, they pile into everything from ancient Honda Civics to 32-foot RVs and drive out into an alkali desert, a dusty plain completely devoid of water, where daytime temperatures can reach 110 degrees and nights can near the freezing mark. They set up geodesic domes and tent cities, pirate radio stations, elaborate computer networks and huge, if temporary, dance clubs. They hold lectures, throw parties and traverse the desert in what passes for public transportation: some 500 art cars rigged to look like everything from furry mushrooms to fire-breathing dragons. On the penultimate night of the week, they burn a 40 foot-tall effigy of a man.

The question is: why? What does Burning Man offer to workers in computer-related industries that justifies their often extraordinary efforts to participate in it? Over the years, Burning Man has been depicted often in the popular media as a desert bacchanal, rife with public nudity and drug use. On the scholarly side, it has been studied largely as an example of a new social form, one which incorporates the syncretic religious impulses historically common to West Coast countercultures and the pro-art, anti-consumerist sentiments of contemporary do-it-yourself culture (Chen, 2004; Gilmore, 2005; Gilmore and Van Proyen, 2005; Kozinets, 2002; see also Hume and McPhillips, 2006; Turner, 2006). Both of these accounts are true enough, but neither explains Burning Man's appeal to technologists. Since statistics on the employment patterns of Burning Man attendees have never been kept, it is impossible to determine

precisely what proportion of them work in high-technology industries. Yet, both journalists and scholars have long pointed to a very high contingent of technical workers and information industry professionals among 'Burners' (Hua, 2000; Kozinets, 2002; Valleywag, 2007). Burning Man's links to Google (www.google.com) have been particularly visible. In 1999, for example, Google's founders, Larry Page and Sergey Brin, decorated Google's homepage with a Burning Man logo to alert users that they and most of their staff would be going to the festival; both have attended regularly since then. In 2001, they hired Eric Schmidt as Google's chief executive officer in part because he also attended Burning Man (Searls, 2002). In recent years, Google employees have attended company parties in Burning Man-derived costumes, maintained internal email lists devoted to the festival and in 2007, even produced a 37-minute online video on how to cook during the event (Cohen and Whelpley, 2007). But why? How is it that New Age religious inclinations, a celebration of amateur art and a rejection of consumerism should appeal so much to the computer programmers and software engineers of Google? What can that appeal tell us about the relationship between bohemian art worlds and new modes of digital manufacturing?

In recent years, a number of scholars have pointed to an entanglement of bohemian idealism and high-tech industry (Florida, 2002; Neff, 2005; Turner, 2005, 2006). Perhaps most visibly, Richard Florida has mapped the co-location of bohemian social worlds and knowledge-based manufacturing, suggesting that they emerged side-by-side in a joint celebration of 'creativity' (Florida, 2002). This article will draw on a mix of archival research, interviews and participant observation to explore the social mechanics of that emergence in the San Francisco area.¹ However, it will not take creativity as a property somehow native to both art worlds and high-technology manufacturing. Rather, it will analyze the social work that goes into defining new media labor as creative in an artistic sense. As a number of scholars have noted, a new mode of hyper-socialized manufacturing has grown up recently alongside digital media in both proprietary and non-proprietary settings (Benkler, 2006; Hardt and Negri, 2004; Jenkins, 2006; Neff, 2004, 2005; Ross, 2003; Terranova, 2000; Weber, 2004). The research presented here suggests that for those who work in this new mode, Burning Man models the social structures on which manufacturing now depends, and at the same time provides a place in which to work through the psychological and material constraints that it imposes. It also shows that, as with numerous online communities, Burning Man has become a site for commercial product development. In both a structural and an ideological sense, this article argues, Burning Man provides what I will call a *cultural infrastructure* for emerging forms of new media manufacturing. As once, 100 years ago, churches translated Max Weber's protestant ethic into a lived experience for congregations of industrial workers, so today Burning

Man transforms the ideals and social structures of bohemian art worlds, their very particular ways of being 'creative', into psychological, social and material resources for the workers of a new, supremely fluid world of post-industrial information work.

THE SOCIALIZATION OF TECHNICAL PRODUCTION

Before we can explain the appeal of Burning Man to the workers of Silicon Valley, we need to acknowledge that in recent years, a dramatic socialization of technical labor has taken place. Two accounts of this process have emerged: one focused on the rise of the internet and online collaboration, and the other focused on the development of networked modes of doing business within and between firms. Although they are rarely linked, when told together they suggest that the manufacture of information and IT is becoming entwined increasingly with the making of social worlds inside, outside and inbetween the boundaries of firms.

Since the world wide web first went online in the early 1990s, scholars and pundits alike have suggested that networked ITs have been reworking social and economic relations in their own image. Most recently, analysts have begun to argue that online social networks constitute a new site for the production of cultural goods and perhaps of other kinds of goods (Hardt and Negri, 2004; Jenkins, 2006; Terranova, 2000; Weber, 2004). These scholars argue that in contrast with industrial-era factories, computer networks give rise to a new kind of collective workspace, a site for the making of information goods that exists only in the wires, so to speak. These sites in turn allow for what legal scholar Yochai Benkler has called 'commons-based peer production' (2006: 63).

Setting aside the question of whether this shift is largely a benevolent one, as many believe it is, we need to note that commons-based peer production depends on a particular structural and ideological scaffolding. Structurally, such work requires a commons, a shared space that in most internet-driven accounts consists of digital messages, but which could be located as easily in some single geographical space. In these arenas, members of diverse social worlds can gather and collaborate toward some end. The commons in turn affords them visibility. Being able to be seen by one another makes it possible for workers to find one another, select projects and build and maintain reputations. However, in order to participate, workers also require subsidy. Over the last decade, scholars and pundits alike have claimed that collaborative production communities form online primarily because the internet reduces barriers to communication. Yet, in order to take advantage of those reduced barriers, participants must have sufficient material, social and psychological resources already in hand to take the time to join such communities. If they do not have those resources, participation in the group must generate sufficient

material value to replace the work they otherwise would have to do to keep body and soul together.

Alongside a commons and sufficient subsidy, online commons-based peer production depends on the interaction of some sort of communal ethos and multiple, non-monetary forms of compensation (Weber, 2004). In the open-source software community, for example, programmers often think of themselves as warriors fighting the dark forces of Microsoft, a firm they imagine to be hierarchical and closed (Weber, 2004). In other settings, such as the Wikipedia project (www.wikipedia.org), collaborative news production ventures or even parts of eBay (www.ebay.com), a rhetoric of community often pervades production processes (Turner, 2005). To make information goods valuable is to give 'gifts' to the 'community'. This shift in rhetorical frame from factory and market to gift and community in turn legitimates the multiple systems of reward actually in play. Because they are explicitly removed from systems of market exchange, gifts can come back to participants not as money, but as reputation, artistic pleasure or friendship – or all three. At the same time, rhetorics of mission and community allow collaborators to imagine that all participants, regardless of their actual standing, are in fact social and ethical peers. In any online production community, some participants have greater intellectual, social, financial or reputational capital than others, and thus the wherewithal to monetize the group's work more easily in other settings. However, in terms of the ethical frameworks established by the rhetoric of community, or of the battle against the 'dark forces' of Microsoft, they can be imagined as peers devoted to a collective mission.

Although scholars generally have ascribed the rise of commons-based peer production primarily to the diffusion of the internet, it also represents the latest stage in an ongoing transformation of white-collar labor. The last 30 years have seen a dramatic shift in the landscape of manufacturing across a number of industries and numerous attempts to imbue the factory with features of the wider social world. Beginning in the early 1980s, as Walter Powell (2001) has shown, the sharp divisions of labor, job security and even geographic stability which characterized many mid-20th-century industrial firms began to erode. For many workers, and particularly for the workers of Silicon Valley, job turnover became so frequent that maintaining rich social networks became a key factor in sustaining one's employability (Neff, 2005; Saxenian, 1994). At virtually the same time, managers began to look to corporate cultures as sources of motivation and control for rapidly changing firms. In the early 1980s, many in the corporate world feared that Japanese firms had begun to outstrip their American competitors. This fear in turn led to a revival of the study of corporate culture (Trice and Beyer, 1993; Vecchio, 1995). Managers who turned to books such as *In Search of Excellence* (Peters and Waterman, 1982) and *Theory*

Z: How American Business Can Meet the Japanese Challenge (Ouchi, 1981) learned that culture was a key to corporate success. To many it began to seem that embedding labor within the norms and values of everyday life, as well as within the rule-managed sanctions and rewards of conventional bureaucracy, could increase profit, innovation and worker loyalty. A decade later, the managers of digital start-ups from San Francisco to Manhattan embraced this turn, sometimes to excess. For companies ranging from Cisco to Razorfish, the cultivation of the corporate workspace as a home-away-from-home, of the high-tech worker as a playful, emotionally integrated hipster and the corporate team as a cross between a family and a rock band became commonplace (Bronson, 1999; Indergaard, 2004; Neff, 2004; Ross, 2003).

COMMONS-BASED PEER PRODUCTION AT GOOGLE

Today, few firms have taken more aggressive advantage of the integration of culture and labor than Google. Founded in 1998 by two Stanford graduate students, the company has developed not only its ubiquitous search engine, but a variety of search-related services in arenas ranging from news to mapping, to shopping to scholarship (Battelle, 2005; Vise and Malsee, 2005). Like Silicon Valley predecessors such as Apple and Hewlett-Packard, it has proven to be extremely nimble at building alliances, making acquisitions and developing new and very popular products. Although its rapid growth, lack of layoffs and enormous profits make Google atypical within its industry, its reliance on elements of commons-based peer production does not. At Google, as at other firms, managers have developed a set of both electronic and material commons within which to organize work and have created a culture in which multiple reward systems are in play. Unlike those of many other firms, Google's managers have subsidized the individual intellectual explorations of its engineers and administrators and have promulgated relentlessly an ethos of benevolent peer production among them.

In autumn 2005, Douglas Merrill, at that time a senior director of IT at Google, tried to explain to an audience of IT executives from around the country how the firm had grown so quickly (Farber, 2005). He noted that Google, like many other firms, maintained a relatively flat management structure. He also suggested that the firm maintained several types of commons. These included databases of ideas which could be accessed by anyone in the firm; similarly, email lists were very open, although not necessarily to the whole firm, and there were various spaces inside Google's Mountain View headquarters in which teams could meet and collaborate. In this setting, he argued, data could drive decision-making since it could be made visible to everyone, and individuals could pursue reputations on the basis of ideas which could be presented to and tested by all: 'Everything is a 360 [degree] public discussion,' he said (quoted in Farber, 2005).

In addition to building both electronic and material commons inside the firm, Google creates temporary commons via the web and email within which its customers can act as testers for beta versions of its products. As Marissa Mayer, Vice-President of Search Products and User Experience, told an audience at Stanford University in May 2006, ‘We expect everyone to have ideas. Some come from our engineers. Some come from our customers’ (Mayer, 2006). By releasing products early and updating them rapidly, Mayer pointed out that Google has been able to enlist its customers in its product-development process. Much like the programmers who develop open-source software, or the contributors to Wikipedia, the users of Google are its (unpaid) developers; so too of course are those who make the webpages the Google search engine crawls. Without their content, Google would have little to search and little for which to sell advertising.

Google also explicitly subsidizes the individual development efforts of its employees by asking that every engineer spend 20 percent of their working time on projects of their own choosing. Such projects can range very widely and, officially at least, need not contribute directly or indirectly to Google’s bottom line. Yet, according to Mayer, this subsidy has important material and ideological benefits for the firm. In an internal survey in early 2006, Mayer and her colleagues discovered that 50 percent of the products that Google launched in the second half of 2005 were created out of projects developed in ‘20% time’. The power of subsidy, she points out, is not so much in the time it frees up, but in the ways that it enlists the emotions of employees:

The key isn’t the 20% ... I think that our engineers and product developers see that and realize this is a company that really trusts them and that really wants them to be creative, that really wants them to explore whatever it is they want to explore. And it’s that license to do whatever they want the ultimately fuels a huge amount of creativity and a huge amount of innovation. (Mayer, 2006)

In this sense, subsidy does for Google’s engineers what it does for those who participate in online commons-based peer production: by granting them limited powers of choice over their activities, it simultaneously engages their individual creative interests and encourages them to reimagine their workspace as a congenial, high-trust environment. It also blurs the line between workers’ social and professional worlds in ways that are highly advantageous to the firm. Within their ‘20% time’ at least, the subsidy suggests that engineers should stop thinking of working for Google as just a job and reimagine it as a way to pursue individual growth.

As with the builders of Linux or contributors to Wikipedia, many Google engineers contribute to multiple projects over time, in ways that are performance-driven and highly visible to the production community as a whole and do so, at least in part, under conditions of subsidy. Although at the middle and upper levels they are well paid, many also accrue substantial

rewards in non-monetary terms. Moreover, since its earliest days, Google leaders have sought to infuse their company's work with an ideology of social benevolence. Under the banner 'Don't be evil', Brin, Page and Schmidt have encouraged their employees to aim to serve users first and to allow profits to grow from, rather than drive, that process. Some might question the firm's allegiance to that model in the wake of some of its corporate choices, but inside the firm, the argument that Google is changing the world and changing it for the better encourages employees to align their sense of personal mission with that of the company.

This fusion of the social and the professional, of personal growth and product development, has substantial manufacturing power, as a brief example should demonstrate. In the wake of the 9/11 attacks, a Google engineer named Krishna Bharat had been searching the web for news. Realizing that he could automate the process, Bharat wrote a script that visited his 15 favorite news sites, gathered the news they reported and clustered it in patterns according to his interests. As Marissa Mayer later told the story, Bharat 'mailed [his script] out to the company [on an internal email list] and said: 'Hey, I use this to read my news; maybe some of you would find it helpful.' A lot of us saw that and said, 'Hey, this isn't just a tool to help Krishna read his news better, this could help a lot of people read their news better' (Mayer, 2006). Within months, the company had formed a development team and launched a new product, Google News (Battelle, 2005; Vise and Malsee, 2005).

Set against contemporary accounts of online peer production, the story of Google News serves as a reminder that commons-based production, overlaid with an ethos of sociability and peer relations, can very much be a form of for-profit, proprietary manufacturing. Although he was employed by Google, Bharat in fact wrote his script on his 'own' time – that is, on time made free by his salary, including its 20 percent subsidy for exploration. He gave it to his colleagues as a gift, in the spirit of community, with an eye toward performing a social service. He did so using an electronic commons (the internal email list) and when he entered that commons, so to speak, he and his product were observed, evaluated and ultimately, celebrated. Through his efforts, Bharat enhanced both his own reputation and Google's product line.

BURNING MAN AND THE THEATER OF PEER PRODUCTION

If the workers of the industrial factory found themselves laboring in an iron cage, the workers of many of today's post-industrial information firms often find themselves inhabiting a velvet goldmine: a workplace in which the pursuit of self-fulfillment, reputation and community identity, of interpersonal relationships and intellectual pleasure, help to drive the production of new media goods. At Google, the fusion of the social and the productive has been both profitable for the firm and appealing to potential workers. In 2006, the

firm received more than 1 million applications for the more than 2000 jobs it added that year (*Fortune*, 2007). However, outside firms displaying Google's extraordinary growth, commons-based production has done little to reduce the transience of employment, the mobility of workers, or the importance of social networks to employment. As workers from Manhattan's Silicon Alley to San Francisco discovered in the wake of the dot com boom, even the coolest jobs can vanish in an instant. Even when jobs remain, frequent job-hopping has been a constant in the technology sector for more than 20 years. In Silicon Valley, for example, recent survey data suggest that approximately 2.5 percent of college-educated males working in the computer industry change jobs in any given month – substantially more often than workers in other industries and somewhat more often than computer workers in other regions (Fallick et al., 2006). Moreover, as they have become more common, neither the practices nor the ideology of peer production have lessened the actual power of managers to hire and fire, nor that of customers to make demands for particular products. For all the rhetoric of equality, empowerment and voluntarism that surrounds commons-based production and new media labor more generally, technical workers remain *workers*.

With this in mind, we can begin to appreciate the appeal of Burning Man for the developers of computer hardware and software. Over the last two decades, the founders of Burning Man and its participants have transformed the explicitly artistic, bohemian traditions of festal gathering and the co-creation of art and theater into the organizing principles of a temporary town they call Black Rock City. The city in turn has spawned social networks, mailing lists, party circuits and building projects that extend across the year and around the globe. Following the lead of its founders and participants, scholars generally have depicted Black Rock City as a sacred place for the celebration of art and creativity and the enacting of New Age religious rituals (Gilmore, 2005; Gilmore and Van Proyen, 2005). Yet, for the thousands of engineers who attend, Black Rock City also serves as a massive example of the fusion of the social and the productive around which so much of their everyday employment is now organized. For one week each year, Black Rock City becomes a commons. It is inhabited by individuals and teams devoted to launching small technical projects for artistic purposes and to organizing community-building and individual identity work around those projects. It is a place where engineers can celebrate the ideals of collaborative peer-production and work through the contradictions that it entails and obscures, especially in corporate settings. After the week-long gathering dissolves, it becomes a symbolic touchstone and a source of social connections which can help to sustain participants throughout the year.

Although it has since developed a substantial organizational infrastructure, Burning Man began as an off-hand artistic gesture. In the summer of 1986,

Larry Harvey, a landscaper, and his friend Jerry James, a homebuilder, took an eight-foot-tall wooden statue of a man to San Francisco's Baker Beach and burned it. As the man burned, a small group of spectators gathered around. Harvey later recalled, 'We were inspired by the sudden society of strangers we had created' and over the following three years, Harvey and James returned to the beach each summer, burning a man and drawing ever-larger crowds (Baron, 1999). In 1990, after the crowds had grown into the hundreds, the San Francisco police asked them to leave before they could burn the man. Harvey and his fellow burners joined up with San Francisco-based members of the Cacophony Society – a network of artists and activists devoted to staging random, Dada-esque pranks and performances – and at their instigation, Harvey and somewhere between 60 and 80 friends drove out into the Black Rock Desert for the burn itself. From 1991 on, the entire event has been held in Nevada.

For the first few years in the desert, Burning Man remained an anarchic, unregulated get-together with a heavy emphasis on performance art and pyrotechnics. Each year attendance more or less doubled, growing from 250 in 1991 to 4000 in 1995 (Gilmore, 2005). Campers were individually responsible for bringing everything with them that they needed to survive in the desert, but when they arrived, they grouped themselves in a circle around the then 40 foot-tall man. As one visitor in 1995 described the scene:

There are all sorts here, a living, breathing encyclopedia of subcultures: Desert survivalists, urban primitives, artists, rocketeers, hippies, Deadheads, queers, pyromaniacs, cybernauts, musicians, ranters, eco-freaks, acidheads, breeders, punks, gun lovers, dancers, S/M and bondage enthusiasts, nudists, refugees from the men's movement, anarchists, ravers, transgender types and New Age spiritualists. (Wray, 1995 quoted in Kozinets, 2002)

That same year, some participants organized themselves into 'theme camps'. With names such as Tiki Camp, Algonquin Roundtable Camp and Croquet Camp, these were clusters of tents, vehicles and people who worked together to put on a performance, create a work of art or provide some service to the city as a whole. Finally, in the wide-open expanse of the desert itself, individual artists and various groups built several very large artworks.

By 1995, then, Black Rock City had begun to develop several of the key features of commons-based peer production. Its citizens had established a commons; they had created temporary project teams for the building of art and theme camps; they had used the desert plane to make themselves extraordinarily visible to one another; and they had subsidized this entire system with earnings from other parts of their lives. There was a strong technological bent to many of the artworks they created – particularly those dealing with fire – but the event's principles were not aimed at the emerging corporate world of the dot com boom. On the contrary, in 1996, when

Burning Man organizers assigned the event its first theme, they chose 'The Inferno (aka, HelCo)'. In this elaborate collective fantasy, acted out in various ad hoc settings across the city, a multinational conglomerate attempted to take over Burning Man and was rebuffed. Anti-corporate themes have persisted in the years since then. In 2000, for example, a group of artists built a perfect replica of a corporate cubicle, complete with desk, chair, filing cabinet, sticky notes and 'Success' poster on the desert's open plain (Kozinets and Sherry, 2005). Another artist wore a three-piece suit and carried a briefcase as he dodged from person to person, saying 'Excuse me gentlemen!' and rushing on his way (Kozinets, 2002).

Yet even as Burning Man's artists began to mock corporate America, Bay area technologists began to join the event in force. Many had heard about the festival on the nascent world wide web; others had heard about it from friends or colleagues. When they arrived in the desert, they found a world that organizers and visitors alike described as a mirror of the internet itself. As Larry Harvey told an interviewer in 1999:

I gradually realized that this environment that we've created is a physical analog of the Internet. It's radically democratic. It allows people to conjure up entire worlds – like websites – voila! out of nothing. The Internet is a populist medium which has a unique way of empowering every individual. And it's an interactive medium – unlike TV – which allows people to connect with other people and out of that precipitate new forms of community. And that's what we are. (Baron, 1999)

The notion that Burning Man was both visible on the internet and somehow like the internet drew technologists in droves. In 1996, science fiction writer Bruce Sterling visited Black Rock City for *Wired* magazine. Very soon, Burning Man was playing host to computer industry luminaries such as Jeff Bezos, founder of Amazon (www.amazon.com), John Gilmore, a co-founder of the Electronic Frontier Foundation, Brian Behlendorf, a key figure in the open-source movement and Sergey Brin and Larry Page of Google (Gilmore, 2005; Hua, 2000). By 2000, when overall attendance reached 23,400, Burning Man had become a highly visible ritual in Bay area tech culture. 'So embedded, so accepted has Burning Man become in parts of tech culture,' wrote reporter Vanessa Hua at the time, 'that the event alters work rhythms, shows up on resumes, is even a sanctioned form of professional development' (Hua, 2000).

Today, Burning Man is, if anything, larger and more thoroughly integrated into Bay area technical culture. Black Rock City has become a well-organized, horseshoe-shaped town, nine blocks deep all along its length in 2006 whose two ends, about a mile and a half apart, open on to an art-filled expanse of *playa* and the statue of the man himself. The original group of friends who founded Burning Man has spawned a limited liability corporation (Black Rock City LLC), which in turn manages a small paid staff and hundreds of

volunteers. Together, paid staffers and volunteers lay out the city each year, manage its department of public works, medical services and toilets. Although solid statistics are very hard to come by, the vast majority of Burners seem to be white adults, heavily but not exclusively concentrated in their late twenties to their late forties. Few lack financial or social resources: each has paid between \$175 and \$250 for their entrance tickets alone, as well as hundreds and often thousands of dollars in travel expenses (Burning Man Organization, 2004; Gilmore, 2005). The ticket fees in turn help to defray the excess of \$5 million in annual expenses accrued by the organizers for everything from environmental protection to art grants, from payroll to printing, insurance and medical supplies (Fulbright, 2005).

As Burning Man's organizational infrastructure has grown, its ethos has become increasingly codified. A quick visit to the Burning Man website (www.burningman.com) acquaints new participants not only with the long list of things that they will need to bring with them to survive in the desert, but the organization's mission statement and its '10 Principles' (Burning Man Organization, 2007a). For many participants the 10 Principles serve as an informal social contract: at the top of the list is 'radical inclusion' – which is to say, that anyone can join the event; the second and third are 'gifting' and 'decommodification'. Despite the extensive consumption required to get there, Black Rock City aims to be an anti-consumerist world, one in which individuals retreat from the money economy toward interaction, participation and giving performances, objects and goods which help to sustain communal bonds. 'Radical self-reliance' and 'Radical self-expression' in turn suggest the libertarian undertone of the communal work: it is through the sustenance and display of the individual self that the community as a whole will be born. Subsequent principles stress the need for all to participate and to celebrate immediate experience, for each individual to be responsible to a civic whole and for the citizens of Black Rock City to 'leave no trace' on the desert floor when they leave.

For many Burners, these principles have taken on a spiritual cast. However, in order to see how Burning Man's culture intersects with Bay area technoculture and how its particular spiritual orientation helps to sustain technical production, it is important to remember that the festival grew up alongside the fading of the social contract that once governed manufacturing together with the increased socialization of technical work. In the late 1990s, the dot com set may have come to Burning Man in part because they believed it resembled the internet. Yet, the principles they encountered there resembled those of their professional worlds. At Burning Man, 'Radical self-reliance' meant remembering to bring sufficient food, water and shelter for yourself and your friends. In the start-up frenzy of the late 1990s, as in the broader context of an industrial world from which job security had begun to vanish, radical

self-reliance also neatly described the mindset proper to every technical worker. Similarly, gift-giving spoke to the increasing importance of social networks to employment and production. Although at Burning Man, gift-giving was proposed explicitly as a benevolent alternative to market exchange and a way to push back against the encroachment of capitalism on everyday life, as early as the late 1980s, gift-giving had come to be a key principle behind emerging forms of commercial manufacturing. In a professional world that depended on social networks both as sites and engines of production, as the Bay area's did from the mid-1980s onwards, gift-giving provided an important way to cement the social ties that bound individuals and firms to one another (Turner, 2005).

SILICON PENTECOSTALISM, OR THE PURSUIT OF VOCATIONAL ECSTASY

On the *playa* in August it is the fusion of Burning Man's self-centered spiritualism, the collaborative habits of the art world and the material conditions of contemporary technical production that sustain Black Rock City. Burning Man's founders and evangelists tout the week in the desert as a personally transformative experience of non-commercial community and as an encounter with radically public art. They also tend to downplay the moral diversity of the community and its willingness to embrace sexual fetishists, Ecstasy eaters, motorcycle crazies and alcoholics. Given the vast range of potentially self-destructive behavior at Burning Man and the desert conditions in which it takes place, it seems likely that Black Rock City should have disintegrated by now rather than grown. Yet at Burning Man, the collaborative creation of artworks and the individual performance of self become for many participants one and the same: the basis for the organization of the commons that is Black Rock City and for the feeling of community that permeates it.

The work of building that community begins for most participants well before August. While some participants simply hear about Burning Man, buy a ticket and go, most seem to learn about the festival and attend it with members of social or socio-professional networks. However, for many participants, 'attend' is the wrong verb: the ethic of participation that permeates Burning Man (and is its ninth principle) means that many come to the *playa* as part of a social unit devoted to doing work or creating a project in the desert. They may be attached to a theme camp, or part of a group devoted to constructing a particular artwork, or they may have volunteered for one of the groups responsible for managing the event's infrastructure, such as the Black Rock Rangers (something like a gentle police force) or the Lamplighters (who light the lamps that lead to the man each evening).

For example, Tim Black is an embedded computing systems engineer in Silicon Valley and leader of a group called the 'Mad Scientists'. Black has been

coming to Burning Man since 1998 and has built (or helped to build) a number of major art installations on the *playa*, many of them with the Mad Scientists (for examples, see Black's personal webpage: www.quantalink.com/artindex.html). During the year, the Mad Scientists include what Black calls a 'core' of 10 to 12 people, almost all engineers, and a 'cloud' of around 100 who come and go. Black's house becomes a factory, particularly in the spring and summer months, as together he and the Mad Scientists meet and build. As Black puts it, the group is 'mostly pretty hardcore geeks' (personal interview with Tim Black, 21 September 2006). The Mad Scientists themselves are a 'collective' and a 'meritocracy', he says. They are open to new members and when a potential member exhibits a skill, they are quick to exploit it. They are also a first-rate technical production team. In 2006 they received a grant from Burning Man organizers to build the L3K light system, a ring of plastic-encased LED lights running through the sand around the man. Although the process involved sophisticated wiring, plastics molding and the transport of hundreds of pounds of gear, Black and the Mad Scientists managed to carry out virtually all of the manufacturing at his suburban home. When the project ran almost \$20,000 over budget, members of the team made up the difference, just as they would have if they had been a Silicon Valley engineering firm working for a commercial client.

Yet, for all its resemblance to the stages of commons-based manufacturing in other settings, the work of participants such as the Mad Scientists is aimed explicitly at the production of art: within the official ethos of the festival at least, the antithesis of a consumer good. It is done not for profit, but with an eye to helping build a non-commercial community – ostensibly, though as we have seen in the case of Google, not always actually – the antithesis of the corporation. This rearticulation of the practices that increasingly define project-based commercial labor in the high-tech world within an anti-corporate ideological register in turn transforms the work of engineering into a spiritual task, and for some on the *playa* at least, the pursuit of a kind of vocational ecstasy.

Larry Harvey explained that the world outside Black Rock City was 'based on separating people in order to market to them'. At Burning Man, he argued, participants would encounter the 'immediacy' of art and through it, ecstatic feelings of community (personal interview with Larry Harvey, 30 August 2006). In that sense, he implied that Burning Man would offer its participants the feeling of 'effervescence' that Durkheim long ago argued formed the basis of religious feeling. In Durkheim's account, the wandering tribesmen of the Australian outback came together for corroborees and when they did, felt an almost electric current running between them, a feeling that ultimately marked the gathering as sacred. They attributed the power of this feeling to the clan totems they carried, and the totems in turn became both

emblems and agents of social solidarity (Durkheim, 1995). In Harvey's account, Burning Man and its art play similar roles. Gathered in the desert, participants in the festival can feel an electric sense of personal and collective transformation (Burning Man Organization, 2007b). The central emblem of that transformation is the man: a single, neon figure, apparently genderless, set at the center of Black Rock City.

For Durkheim and Harvey alike, this sort of ritual gathering should lead to feelings of broadly religious sympathy. Yet, for many of the participants, the ecstasies of making and encountering art also represented idealized forms of the intense focus and camaraderie of professional project engineering. In that sense, their desert rituals blurred the line between the sacred and profane which was so central to Durkheim's work. Greg MacNicol, for example, is a 55-year-old computer animator who has attended Burning Man for nearly a decade. In 2006, he joined a team to develop a pyrotechnic event for that year's Black Rock City. Part of the project's appeal, he later recalled, came simply from designing and building the pyrotechnics: 'Part of the fun is having a dream about something, building it, seeing it work. Seeing it work is just a real high.' So too was the work itself. The pyrotechnic team, he explained,

were people like me ... very focused, very few words, open to anything ... no egos. We worked very tightly as a team [and we were] open to very intense focused energy in the whole team. (Personal interview with Greg MacNicol, 6 October 2006)

MacNicol loved the 'feeling of flow' on the team, which he described as an extended, ecstatic feeling of interpersonal unity and timelessness during the project's construction. At the same time, he acknowledged that working on pyrotechnics at Black Rock City felt a lot like working as a computer animator on a Hollywood film crew. It was 'obsessive ... exciting ... [and you were] not taking care of your physical needs' (personal interview with Greg MacNicol, 6 October 2006). What was different about Burning Man, he said, was that he was in charge.

Such autonomy has long been one of the promises of the socialized workplace, as has the notion that team-based labor leads to the building of community. At Burning Man, those promises come true. As they engage in making art, individuals begin to see and feel the manufacturing potential of collective, commons-based labor. Tom Gruber, for example, is a long-time Burner, photographer and chief technology officer at RealTravel, an online start-up headquartered in Silicon Valley. Alongside the pleasures of flow, he explains that the art at Burning Man demonstrated that

collaboration is power ... Nobody could build a temple in a week by themselves with the same fidelity and beauty you'd have in a Hollywood film. It destroys the myth that you need Microsoft's money to make stuff happen. (Personal interview with Tom Gruber, 24 August 2006)

As Gruber implies, it is partly because this work is not being done for money but is being subsidized by Burners themselves that participants can re-read it as a species of collaborative social action. Yet, even as they specifically place such work outside the money economy, Burners enjoy many of the rewards of proprietary forms of commons-based peer production. Not unlike the meeting rooms or email lists of Google, the desert floor of Burning Man renders participants highly visible. This, in turn, allows them to transform their projects into temporary celebrity. Waldemar Horwat, a senior programmer at Google who has become an accomplished firespinner, explains that:

programming things tends to be very subtle and hard to see. When you prove a mathematical theorem it can be very beautiful but only for a few mathematicians. At Burning Man just about everybody can see what you're doing. (Personal interview with Waldemar Horwat, 23 August 2006)

Moreover, he argues that Burning Man is 'very much a meritocracy. If you do something cool you'll be known for that. It will open a lot of doors' (personal interview with Waldemar Horwat, 23 August 2006).

With its emphasis on teamwork, flow, peer production, meritocracy and reputation building, Burning Man's culture clearly celebrates the values and practices common to high-tech production. At the same time, it transforms them from a means of pursuing profit into tools for individual and collective change. Computer and software engineers in the San Francisco region and elsewhere work in an industry whose products are steadily marketed as tools with which to free the individual worker, interlink the world in a web of communication and ultimately, change life as we know it. Yet the daily experience of producing information goods can be far less inspiring. Greg MacNicol, for example, recalls that working at Disney was:

Really grim ... They're in control. You're not allowed to have an opinion. You're not allowed to do anything creative. You're told to follow directions, period. (Personal interview with Greg MacNicol, 6 October 2006)

Eric Payoul, a software engineer, reports that

my regular work has no meaning to me. I mean, writing a piece of software is useless, it's not going to change anything ... My work at Burning Man has more meaning than my work in the real world. (Quoted in Chen, 2005: 116–17)

By reframing technological work as a species of artistic creativity, by restating its goals as those of community building rather than profit-seeking, the citizens of Black Rock City can reimagine themselves collectively as autonomous creators and restore to their labor, if only for a while, the sense of social value that is so often falsely claimed for it by corporate marketers. That is, at Burning Man, they can engage in many of the same practices that drive software engineering, they can acknowledge the failure of those

practices to live up to marketers' and managers' claims in the day-to-day factory, and at the same time they can replace that failure with a lived experience of the ideal itself: the making of multimedia products which, on the *playa* at least, can be shown to be changing the world.

THE FESTIVAL BECOMES THE FACTORY

At the end of the week, of course, it all comes down. On the Saturday night of the event's last weekend, the citizens of Black Rock City gather around the man and watch as it becomes a giant bonfire. Thousands shout and dance around the blaze. The next night, the last of the event, a quieter crowd gathers around the temple, a place where many have written messages on the walls across the week, especially to friends and family members who have died, and watch it burn as well. During the final day, Burners gradually take down their tents, pack up their performance gear, dismantle (or burn) their statues and drive off. Six weeks later, thanks to the effort of a stay-behind clean-up crew, the desert is empty again; no sign of the city, not even tiny scraps of litter, remains.

In Burning Man's list of principles, to leave no trace is depicted as an ecological ideal. It also hints at an almost Buddhist understanding of the temporariness of experience and with it, the importance of paying attention to the immediate present. However, in the context of new forms of information manufacturing, the dismantling of Black Rock City neatly echoes the completion of the product development cycle. It is as if the whole city has consisted of a collection of product-development teams, each of which has gathered to engineer some new artifact, some new experience, and to display it to their peers in pursuit of reputation, only to dissolve back into the corporate world. Moreover, as in the worlds of proprietary and online commons-based peer production, the end of particular projects does not mean the end of the community. On the contrary: the social networks formed before and during Burning Man linger throughout the year. For some in Silicon Valley, they provide sources of employment. For others, they provide a shared language for gathering in online social networks, meeting in parties and increasingly, forming Burning Man-related events in an ever-widening array of cities in the United States and abroad (Burning Man Organization, 2007c; personal interview with Andie Grace, 30 August 2006).

However, even as it extends its social and symbolic reach, like various online game worlds, the Linux project or even Wikipedia, Black Rock City is becoming a setting for commercial product development. In 2006, a team of city designers and programmers who had long been core members of the Burning Man community began to collaborate with Google on the creation of Burning Man Earth. Since about 2000, a Scottish-born painter named Andy Johnstone had been building what he called the 'Virtual Playa'. Using a

Microsoft flight simulator, he had created a virtual model of the city through which visitors could fly. In 2006, Rod Garrett, the person responsible for laying out the city on the *playa* every summer, began playing with Google Earth maps. He approached both Johnstone and Google to see if the projects could be fused. In summer 2006, Google sent an airplane and a photographer out over the Black Rock Desert; today, the images he created are part of Google Earth (Burning Man Organization, 2007d). Since then, Garrett, Johnstone and programmers Michael Favor and Zhahai Stewart have worked with the Google Earth team to develop what they hope will be both a digital portal to Black Rock City and a beta space for developing new tools for Google earth. So far, no money has changed hands, As Rod Garrett explained:

We're working in the spirit of cooperation and comradeship and good faith and I don't see any reason to change that. That's the spirit of Burning Man and much of Google also. It's not being handled with lawyers and accountants. (Personal interview with Rod Garrett, 6 October 2006)

Michael Favor agreed:

The power of Google is that they don't do all the work. People posting content do. The same is true here at Burning Man. Citizens create the vast majority of things. (Personal interview with Michael Favor, 31 August 2006)

Over time, Favor and other long-time Burners hope that Burning Man Earth will allow virtual visitors to fly into a model of the actual Black Rock City, learn about its artworks and, via avatars, meet their creators and neighbors. They also hope to transform Black Rock City's citizens into a development team for Google. As Andy Johnstone explained, they expect Google to 'use our piece of desert as a Petri dish'. Once Burning Man participants 'start hacking [Burning Man Earth],' he said, Google will 'get content they'd never dream up in a thousand sushi power breakfasts' (Personal interview with Andy Johnstone, 27 September 2006).

CONCLUSION

In the 19th century, the commanders of emerging industries turned to the arts to legitimate their positions. They built museums, commissioned paintings and took themselves to concerts and balls (DiMaggio, 1986). For the brahmins of Boston and other industrial-era elites, the factory existed in order to provide the material basis to support the higher arts. Contemporary scholarship on the 'creative class' has observed a similar distinction: for these workers, as Richard Florida (2002) has suggested, the arts are important evidence of social standing and the values on behalf of which they labor.

However, Burning Man suggests that artistic and new media production may be becoming entangled in new and important ways. After all, the Burning Man festival not only legitimates emerging high-tech forms of wealth

creation; it actively helps to drive them. It does so in two ways: ideological and structural. For seven days in the desert, Burning Man provides a living model of commons-based peer production carried out for non-monetary purposes. Black Rock City presents an idealized commons, one in which project-based labor is subsidized, made visible and transformed into the basis of individual reputations and communal intimacy. For one week at least, its citizens build a utopian world driven by the pursuit of self-realization, project engineering and communication. This world in turn both models the many claims made by IT marketers and, by explicitly disowning the marketplace, allows participants to redeem its failures. It provides a ritual space in which the same sorts of engineering projects that organize participants' work lives in the everyday, secular world induce feelings of effervescent, even sacred, community. In the process, it suggests to its participants that engineering can remake the world for the better.

For contemporary information workers, that belief alone has substantial value. As Lilly Irani, an interface designer at Google, put it:

We need to hang on to the idea that we are here to make the world a better place. If we don't keep that in mind, then we don't have anything but the bottom line to come to work for. (Personal interview with Lilly Irani, 27 July 2006)

However, at the same time, as the Burning Man Earth project suggests, the festival is not only a ritual space but a potential factory. As with multiplayer online role-playing games or open-source projects in various fields, Burning Man is becoming a site at which the traditional features of artistic bohemia – collaborative commons, visibility, subsidy, project labor and the fused pursuit of self-improvement, craft and reputation – help to structure the manufacture of new information goods. In the 19th century, at the height of the industrial era, the celebration of art provided an occasion for the display of wealth. In the 21st century, under conditions of commons-based peer production, it has become an occasion for its creation.

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Note

- 1 Over the last year, I have done extensive research in the Burning Man Organization's online archives and in individual participants' collections. I have conducted formal interviews with 25 long-time participants, including leaders of the Burning Man Organization, participants in three Burning Man groups with strong links to Silicon Valley (the Mad Scientists, Burning Silicon and Fast Furnishings) and participants who worked for Google, IDEO and other Silicon Valley information and design firms.

Finally, I attended Burning Man for four days each in 2006 and 2007 and had perhaps twice as many informal conversations with participants there.

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