Appendix S — Eastport articles by DR. Matthew Palus
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The Archaeology of Capitalism in Colonial Contexts

Postcolonial Historical Archaeologies
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This book is dedicated to our advisors, especially:

Eleanor Casella
Tim Insoll
&
Lynn Meskell

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Chapter 12
Infrastructure and the Conduct of Government: Annexation of the Eastport Community into the City of Annapolis During the Twentieth Century

Matthew Palus

Introduction

The historical archaeology of sanitation reform in the USA describes a continuum between households that are "off the grid" - infrastructurally self-contained and relatively independent in regards to the management of waste and water - and households that are integrated into the "networked infrastructure" (Graham and Marvin 2001: 8) of municipal sanitary systems. Many have realized that there is a crucial relationship between these variables and local governance; discussion of privy abandonment and sanitation reform often follows a sequence of public laws authorizing certain privy forms and means of disposing of night soil and other waste (Demer 1994; Ford 1994; Geismar 1993; Howson 1992/1993; Meyer 2004; Mrozowski et al. 1989; Parrington 1983; Stone 1979; Stottman 1995, 2000). Embedded in this narrative, wherein regulation and governance prompt an improvement in sanitation and public health, are many taken for granted regarding the nature of government and the relationships that governance implies: the action of power to bring about regulation, observation, and surveillance of households and populations, abstractions and epistemologies of government, and so forth. Taken together, these matters remind us that government itself has a history, that there are styles of government from region to region and period to period, and that archaeological features, like privies and sewers - which produced this visibility of government in the first place - might allow us to expose these styles of local/regional/state government and increase the scope of urban historical archaeology beyond the house lot or the city block. "Because much of contemporary urban life is precisely about the widening and intensifying use of networked infrastructures to extend social power, the study of the configuration, management and use of such networks needs to be at the centre, not the periphery, of our theories and analyses of the city and the metropolis" (Graham and Marvin 2001: 34).

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I propose that the extension of government through technologies of infrastructure in this North American context is homologous to the vision of capitalism in colonial contexts that gives this volume its theme. “Politics is also technics. The ‚art of government‘ is part and parcel with the ‚technologies of government‘” (Henman 2006: 206). Peter Pels extends this notion in his review of the anthropology of colonialism, drawing a strong connection between Western governmentality, read as “a set of universalistic technologies of domination – a Staatistik or “state-craft”” (Pels 1997: 165), and the contexts and processes of colonialism that the contributors to this volume address. While there are important differences, perhaps most notably the militarization and overt repression that is present in colonial contexts, aspects of governmentality and especially the technical basis for operationalizing knowledge represent a commonality across these contexts. For most of anthropology, the problematization of government begins with Foucault’s historical essay on the emergence of governmentality and liberalism (Foucault 1991) which is included in Sharma and Gupta’s more recent reader The Anthropology of the State (Sharma and Gupta 2006). The themes and concepts that have emerged from this literature can help historical archaeologists in North America to find new focus in questions of government and power; the resulting engagement between “Western” or “local” and “colonial” or “foreign” contexts would be more closely aligned with the very hybrid nature of colonialism itself. Technology has long been a focus of anthropological investigations into the histories of colonialism (Kaplan 1995; Mrázek 2002; Pemberton 1994; Scott 1998). What are the historical and cultural implications of similar techniques being applied both to Western and colonial contexts? Is the framework of internal colonization (e.g., Caprotti 2007, 2008; Pfaffenberger 1990) legitimately applied to the history of government and its techniques in Western settings? How are the outcomes of projects of modernization – really projects to promote economic development that produce a surplus of consequences (Ferguson 1994) – comparable across these contexts? Are these projects executed simultaneously or is one modeled after the successes of the other? To explore these questions, I present accounts of the development of sanitary infrastructure in Annapolis, Maryland, and also of a gradual transition in the way that the City of Annapolis was governed, which hinged upon new discursive and technical apparatuses of which sanitation was a part.

Annapolis is a medium-sized city on the Severn River, one of seven rivers flowing east that contribute to the vast estuary of the Chesapeake Bay. Annapolis was settled during the seventeenth century and became the capital for the Maryland colony in 1694; it was an economic power as well as a political center for the colony during the mid-eighteenth century, and is still the capital of Maryland and home to the state government. During the early nineteenth century, Annapolis was overshadowed economically by Baltimore to the north, which experienced greater industrial development and also had a far deeper port and greater shipping capacity (Leone 2005: 5–6). Annapolis faced considerable economic decline, which Matthews (2002) addresses very closely. Events in Annapolis during the nineteenth and early twentieth centuries, including its reconfiguration as a historic city and a showcase for Maryland’s colonial heritage, even its eventual gentrification, occur against a backdrop of deep economic fretfulness. Matthews relates the earliest efforts to modernize Annapolis as explicit attempts to tie the city more securely into the political economy for the region in terms of transit and shipping, but also in the provision of urban infrastructure that would attract industry. Elites in Annapolis invested in the industrialization of light and water, with the establishment of gas light and municipal water utilities during the mid-nineteenth century (Matthews 2002: 23–25, 99–113). An extensive infrastructural network developed in Annapolis over the second half of the nineteenth century and the first part of the twentieth, but on a much smaller scale than neighboring Baltimore or Washington D.C. (Fig. 12.1). The historical installation of broad municipal services in Annapolis, and arguably other places, constituted a new city that was built under, erected over, and extended throughout the old. Utilities traced out existing relationships between people and institutions, and just as importantly they fixed those relationships in new ways with material forms. But further, the infrastructural networks that penetrated homes and at some point inevitably articulated with bodies also established an entirely new relationship among persons, things, and wider society. As material culture, the apparatuses for moving sewage and clean drinking water around the city performed in ways that material culture never had before. These networks were predicated on and incorporated new forms of authority, and engaged people in distinctive ways (e.g., Hughes 1983; Marcuse 1982; Schivelbusch 1988). In short, networks of utilities give evidence to a new materiality that developed during the later nineteenth century and came to define governed urban life (Graham and Marvin 2001; Osborne 1996; Palus 2005). This materiality was not limited to urban places, but rather extended to include rural areas during the early twentieth century, for instance with rural electrification, telephone, or irrigation networks (Fitzgerald 2002; Kline 2000). As these technologies were introduced in rural or urban contexts, there was a meeting of different materialities or different “object worlds”
(Meskell 2004: 2) such that one order of things, one system for organizing people, their homes and material lives, and their communities and their government was displaced or hybridized with another (after Castree 2006).

In the State of Maryland, government is historically trim with few governmental units or jurisdictions outside of the state government and the municipalities, the latter including counties and cities to whom a generous degree of "home rule" is delegated by the state (Spencer 1965: 2–4). Governmental authority in the USA is structured by a federation in which the federated states share their sovereignty with the federal government under the U.S. Constitution. A state in this context has much the same meaning as a state or a province in many other countries. Under the 10th Amendment to the U.S. Constitution, powers not specifically delegated to the federal government and not prohibited to the states are reserved for state governments. Individual state constitutions establish the delegation of powers to increasingly local levels of government. Counties represent the basic administrative division within most states and enclose large territories of urban and rural development. County governments in Maryland, as in many of the states, developed primarily around juridical and administrative record-keeping functions, such as registering ownership of land. In contrast, cities incorporated as municipalities are historically service-oriented in ways that the counties are not and provided for "regulation of public conduct and public health, the construction and maintenance of public thoroughfares and buildings, and ... the provision of limited protective - fire and police - services" (Spencer 1965: 6).

Urban archaeology in other North American settings has already demonstrated that the regulation of public conduct and public health has an origin that can be located archaeologically as well as discursively. In the archaeological studies referenced earlier in this introduction, the historical discourses on what Martin Melosi (2000) calls the "sanitary idea" or Graham and Martin's related notion of a "modern infrastructural ideal" (2001: 43) are used to explain the abandonment of privies and vaults as a system for managing wastes, and the embrace of networked infrastructure as the underpinnings of urban political economy. Considered more broadly, the regulation of conduct, exemplified here in the project of promoting public health, could also connect the historical modernization of municipal government with the modernization of its infrastructure. Authority is translated into material networks, becoming both unavoidable and to the extent that it is buried and forgotten, invisible (Williams 2008). In this sense, the sources and expressions of local governmental authority changed during the early twentieth century in a way that can be located archaeologically.

The substance of this paper is an examination of public services, specifically networked water, and sanitation infrastructure as the material culture of a political annexation, just as infrastructural improvements frequently represent a constituent material component of colonization. In 1951, the City of Annapolis annexed a neighboring community called Eastport and several other neighboring communities that had grown up around it over the nineteenth and twentieth centuries (Evening Capital [EC] 1950a). I consider the legal annexation of the Eastport community as the culmination of a long-term process, and I locate its foundations in the provision of public utilities, viewing infrastructural improvements as the gradual extension of government into new territory and more importantly the enclosure of new populations.

In particular, I look at a large sanitation project that took place between 1933 and 1937, which included both Annapolis and its newly constituted "metropolitan area," under the authority of an entirely new level of government between county and city, designated in 1931 as the Annapolis Metropolitan Sewerage Commission. The Eastport community, as part of the suburban fringe, was effectively governed by the City of Annapolis before it was annexed politically not only by the services that Annapolis provided, but also by the administrative apparatus that accompanied services. In the early twentieth century, the Annapolis city government was transitioning from a system rooted in nineteenth-century patronage toward liberal government. Documentary and archaeological data on construction of sewer, water, and storm drain infrastructure during the early twentieth century make this transition especially visible and open up these styles of government to discussion.

In looking at Eastport, I propose a frame in which disparate services are taken together as the materiality of its annexation and ultimately suggest that governmentality has its own materiality, which is legible in public utilities during the later nineteenth and early twentieth centuries. In other words, I suggest an examination of these features as the material culture of governing a population, rather than placing them immediately into the cultural context of sanitation. This is to say that sewers are about sanitation, but they are also about governing and power. The archaeological literature on sanitation and public health bore this possibility already; this essay presents my attempt to apply it in order to reveal "how the outcomes of planned social interventions can end up coming together into powerful constellations of control that were never intended and in some cases never even recognized" (Ferguson 1994: 19).

**Eastport’s Trajectory to Annexation**

The community of Eastport is located on the western shore of the Severn River, on the first peninsula south of Annapolis called Horn Point (Fig. 12.2). In 1868, it was platted with 256 home sites on just over 100 acres of land by the Mutual Building Association of Annapolis, a corporation of investors from Annapolis and the surrounding county. Over the latter nineteenth and early twentieth centuries, the neighborhood filled in with homes, churches, and businesses. Diverse classes settled there with emphasis on the maritime trades, such as boat building, oystering, and oyster shucking and packing. However, Eastport was also a pool of labor and domestic workers for neighboring Annapolis, and especially its major employer, the United States Naval Academy, a training center founded in Annapolis in 1845 as the naval equivalent to the U.S. military academy for the army at West Point. Thirty percent of Eastport households had at least one member employed at the Naval Academy at the time of the 1930 U.S. Census (Census 1930). Eastport existed as a distinct community in Anne Arundel County under the jurisdiction of the county government until it was annexed into the City of Annapolis in 1951 along with a number of other communities, making Annapolis the fourth largest city in the state of Maryland (Abdo et al. 1996: 4).
For instance, a meeting of Horn Point residents was held in May of 1887, in which local patriarch Charles J. Murphy stated his position on incorporating as an independent town:

You are well aware that our village is growing in size and importance every day ... The question will be submitted to you tonight as to whether this village shall at some future time become a part of the city of Annapolis, and I trust that before you vote upon this question that you will give it deep thought as it must have a lasting effect upon your prosperity in the future. And I would also state that in the future this little meeting, simple as it may appear to us now, will be referred to as the pioneer meeting of what, may, at some time, become a great commercial city ... In regard to the matter of annexation to the city of Annapolis, I oppose such an act, for we cannot possibly reap any advantages there from ... and should this village be annexed to the adjoining city our taxes would be nearly doubled without any equivalent return for the same. (EC 1887)

As indicated in Murphy’s comments (reminiscent of certain scenes in Paul Thomas Anderson’s 2007 film There Will Be Blood), the premier matter that was voted on at the meeting was “Shall the village of Horn Point become now, or at any future time, a part of the corporation of Annapolis city?” The vote went unanimously against (EC 1887). While the seeming democracy of this moment may argue against the comparison with colonial contexts, plain annexation was accomplished, and I argue here that infrastructure was the vehicle. Beyond the seeming importance of Eastport as a zone for capital to grow outside of Annapolis, the living space that was opened up in Horn Point by its subdivision in 1868 created a historically important opportunity for African Americans to obtain homes, land, and therein prosperity. Few African Americans participated in the speculative moment that saw all land in Eastport transferred from the Mutual Building Association to other ownership between 1868 and 1900.1 Yet census data reported between 1910 and 1930 show consistent increases in African American homeownership, until African Americans in Eastport match the rate of homeownership reported among families within the community that were enumerated as “white” (Palus forthcoming). By 1930, African American homeownership in Eastport far outstripped rates reported for African Americans in the City of Annapolis and also surrounding Anne Arundel County. Generally in Maryland, the rate of African American homeownership is higher in rural areas than in urban centers, such as Baltimore, perhaps revealing the degree to which suburban development created such opportunities. Slightly more than 60% of African American households in Eastport owned or mortgaged their homes in 1930, compared with 44% of African American households throughout the surrounding county and 22% of those

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1This assessment of African American land acquisition in Eastport before 1900 comes from examination of grantor records available in the land records office of Anne Arundel County, in Annapolis, Maryland. Data was compiled from deed instruments filed with the county between 1868 and 1900 to produce a list of grantees acquiring land from the Mutual Building Association. Grantees were then identified by race using relevant censuses and city directories for Annapolis and its vicinity. From a total of 90 deed instruments, only two appeared to document the transfer of land to African American ownership.
in the City of Annapolis (Census 1910, 1920, 1930; Rogers 1918: 466–501; Steuart 1922: 1,282–1,283; Steuart 1933: 573–589).

There is generally a pattern of metropolitan population growth in Maryland between 1930 and 1960. In the development of several heavily populated urbanized counties, including Baltimore County surrounding the City of Baltimore, Prince George’s County, and Montgomery County surrounding Washington, D.C., and Anne Arundel County surrounding Annapolis, population growth occurs outside of incorporated municipalities rather than within them (Spencer 1965: 8–11). This pattern accurately describes circumstances in the Annapolis area, where suburban expansion took place beyond its corporate limits within a series of neighboring unincorporated communities, like Eastport. Overall, in Maryland, the response to this pattern of metropolitan population growth was considerable transformation in the operation of government and the reallocation of authority:

...the reallocation of functional responsibilities, the creation of special districts, the establishment of new intergovernmental agencies and cooperative programs, and, of primary importance, the entrance of some county governments into what has previously been a traditional responsibility of municipal government. (Spencer 1965: 12)

By way of example, the State of Maryland approved an act allowing the creation of a Sanitary Commission in Anne Arundel County in 1922, granting the commission authority to lay out sanitation districts and to construct water and sewerage systems. That act specifically excluded the City of Annapolis from the authority of this commission, and the first county sanitary districts were set up further north in Anne Arundel County in communities closer to Baltimore (Maryland 1924). The creation of the Annapolis Metropolitan Sewerage District in 1931 would be another example of these coping strategies, allowing services to be provided to a population living largely outside of incorporated towns.

At the same time, it must be recognized that suburban populations, like those persons settling in the Eastport community, elected to take up residence outside of incorporated cities. The belt of development surrounding Annapolis, Baltimore, Washington D.C., and other urban centers in the region became semiautonomous zones, where African American wealth and political capital were concentrated (Johnson 2002). Such suburban communities, whatever their racial composition, are economically bound to adjacent urban markets, but they represent sovereign spaces as well. The absence of infrastructure is part of what makes them so. Households utilizing wells and privies have a tangible independence; they refuse the commodification of water resources and also elide the scriptural onus that accompanies networked infrastructure. These are households that leave a smaller historical footprint, a population that is less clearly visible to the apparatuses for governing because they are not so firmly engaged with the instrumentation that renders population visible. The expansion of service on a regional scale, as illustrated in Fig. 12.1 above, encloses and finally makes visible these spaces of suburban sovereignty, capturing population and wealth for the city to govern.

While special-purpose metropolitan districts assert a new level of government between the city and the county, the problem of providing services to suburban population can also be resolved through outright annexation of land. Annexation was the dominant mode of city growth during the nineteenth century, and other forms of city-county consolidation were influential in concept from ca. 1900 to 1945; however, the legislative maneuvers necessary to build these new entities were difficult to complete (Horan and Taylor 1977: xiii–xvi). Several annexations took place in Baltimore during the nineteenth and twentieth centuries. Population growth just outside of the corporate limits in Baltimore County resulted in a “Belt” of settlement around Baltimore with over 40,000 inhabitants by the mid-1880s. Efforts within the city to annex this territory began early in the second half of the nineteenth century. The State Constitution enacted in 1864 prohibited the transfer of territory from one county to another without the consent of the people in the territory, signified with a referendum vote on the annexation (Arnold 1978: 113–115). By this measure, Baltimore County and the City of Baltimore, which was treated like another county, campaigned for votes with the promise of services:

City leaders were almost always anxious to expand the municipal tax base and political power, but during most of the nineteenth and twentieth centuries had to secure the consent of those to be annexed. The city thus had to make its offer attractive enough to win suburban favor, but no so attractive as to endanger municipal finances. (Arnold 1978: 109)

A referendum on annexation of “The Belt” into the City of Baltimore failed in 1874, but passed by a popular vote in 1888 with the added conditions of partial tax amnesty and tax freezes for 12 years following annexation. In anticipation of the 1920 census and with an eye on its standing among other American cities, Baltimore worked toward another annexation that was accomplished in 1918. This second annexation was accomplished through an act of the State Legislature, the “Greater Baltimore Bill,” following a challenge to the constitutional requirement for a referendum on county-to-city as opposed to county-to-county transfers of territory (Arnold 1978). There are few constitutional controls on the Maryland state government, where legislating the local is concerned. Conversely, because the Maryland Constitution prohibits little in the way of local legislation, much is accomplished at the local level through proposals to the legislature of “general–local” laws, often submitted by a senator or delegate from the county who acts as a legislative chief within that jurisdiction (Spencer 1965: 16). In other words, localities act through the state’s power to legislate the local to accomplish desired programs at home, submitting legislative acts through their local delegates. This pattern was seen throughout the government records for the City of Annapolis during the later nineteenth and early twentieth centuries, where the legal councilor for the city drafts and submits state legislation addressing extraordinarily local concerns. The apparent relationship and interplay between municipal government in Annapolis and the state’s lawmakers do not owe especially to Annapolis’ role as state capital and home to the legislature, but rather describe the relationship of state power to local government throughout Maryland.

The intervention of the state government during the 1920s and 1930s was crucial in the conception and creation of the Annapolis Metropolitan Sewerage District and arguably in the reform and transformation of local government that accompanied this new governmental entity. Federal dollars fed into the project as well, though the district was established on paper and underway well before the organization of the Works Projects Administration (WPA), a federal agency created to promote economic recovery during
the Great Depression by putting the unemployed to work largely on public projects. Federally funded public work projects during the Great Depression enabled many small- and medium-sized cities in the USA to install sanitation infrastructure and provide for treatment of sewage (Melosi 2000: 162–163, 210–211), but it is not clear to what degree federal intervention enabled the construction of new sanitation infrastructure in Annapolis during this period. Overall federal involvement in sanitation projects in Annapolis increased after 1934, beginning with some investment from the Civil Works Administration (CWA), precursor to the WPA (Annapolis 1935, 01/08/1934; McWilliams 2009).

Eastport, thus, developed as part of the suburban fringe of Annapolis, and the context for the annexation of Eastport is the “metropolitanization” of Annapolis. Metropolitanization is a trend in municipal government that began in the USA during the early twentieth century. It is a movement to improve the efficiency of government by reorganizing jurisdiction and authority and mapping a new governmental entity onto a complicated historical topography (Miller 2002; Sancton 2000; Stephens and Wikstrom 2000). I argue that constructions like sewer and water infrastructure at once materialize governmental power as it was extended into Eastport, and moreover that they lend themselves toward a certain kind of government. This discussion, therefore, draws together a complex formed from three things: first, a move from Annapolis seen as a small town with tight boundaries on its jurisdiction and authority toward Annapolis seen as a metropolis; second, the modernization of Annapolis’ government such that it came to resemble the form of rule that Foucault termed “governmentality” (1991); and third, the physical infrastructure that was put into the ground, as an archaeological trace and an apparatus that is central to both of these. I am composing a reply to a question posed by Mitchell Dean in his 1999 text on governmentality: “by what means, mechanisms, procedures, instruments, tactics, techniques, technologies and vocabularies is authority constituted and rule accomplished?” (1999: 31) Here, Dean is specifically addressing the style of government, its instrumentation, and, arguably, its materializations.

**Governmentality, Techni, and Liberalism**

Starting in the second half of the nineteenth century, there was an intensification and elaboration of government in Annapolis, an increase in the number and variety of governmental mechanisms aimed at providing for the health, safety, and security of the city’s population. Especially relevant to Eastport is the documentary and archaeological data on two of these mechanisms and their infrastructural expressions: municipal water and sewer systems, which developed in Annapolis during the late 1860s and were extended into Eastport during the 1920s and 1930s. These systems each manifested concerns for cleanliness and public health, and they reflected the growing influence of the “sanitary idea” (Melosi 2000) in Annapolis during the later nineteenth century. However, this essay is not centered on changing ideologies of health and sanitation or even the idea of “improvement” as Tarlow has recently described it (2007), but rather takes these municipal services as a way to explore changing ideas about American government and their resulting implicitly racialized materialities.

This account of governmentality is drawn closely from Foucault’s 1991 essay designating liberal government as a problematic and Colin Gordon’s (1991) introduction to the volume in which it appears (Burchell et al. 1991), as well as other works published alongside these. I also rely on Mitchell Dean’s text *Governmentality: Power and Rule in Modern Society* (Dean 1999), which is an extremely useful primer and reference. Matthew Hannah’s *Governmentality and the Mastery of Territory in Nineteenth-Century America* (2000) influenced my approach as a historical study of the emergence of the U.S. Census as a tool of rational government in the second half of the nineteenth century, and this paper borrows from his framework as well. David Kazanjian’s *The Colonizing Trick* (Kazanjian 2003) also exemplifies the contradictions inherent in nineteenth-century American governmentality—particularly in racialized notions of citizenship—and provides important context for my analysis of the material politics between Annapolis and Eastport.

The concept of governmentality is one that Foucault develops in his later scholarship, as an extension of his research into personal discipline (1977) and biopower (1990: 140–144) as complementary techniques of power that are crucial to the development of capitalism. Governmentality is the natural extension and eventual conclusion of Foucault’s interest in this subject. Following Foucault (1991: 102–104), Mitchell Dean writes that:

... ‘governmentality’ marks the emergence of a distinctly new form of thinking about and exercising power in certain societies ... This form of power is bound up with the discovery of a new reality, the economy, and concerned with a new object, the population. Governmentality emerges in Western European societies in the ‘early modern period’ when the art of government of the state becomes a distinct activity, and when the forms of knowledge and techniques of the human and social sciences become integral to it. (Dean 1999: 19)

Thus, the core elements marking the historical emergence of governmentality are: first, the invention and institution of political economy, which resitutes the source of wealth from land to production and duplicates at a societal scale what had here-tofore been conceptualized as the wealth of families governed by a patriarch; second, the discovery through social science of population and the functioning of political economy as a natural fact with measurable parameters, combined with the emergence of social statistics as the “science of the state” (Foucault 1991: 96; also see Pels 1997: 165); and third, the expansion of the apparatus of security which incorporates the institutions implicated in Foucault’s theories of discipline and biopower, but also includes the apparatus of economic regulation and fields of policy (Dean 1999: 9–9; Foucault 1991; Gordon 1991; Hannah 2000: 17–25). The “governmentalization of government” is the historical process at work; population is the object of governmental rule (Dean 1999: 19), but people are not governmentized, governments are.

Geographer Matthew Hannah (2000) has used Foucault’s theory of governmentality to explore the connections between the U.S. Census, western territorial expansion, and American government during the second half of the nineteenth century. Hannah’s work chronicles the efforts of Francis A. Walker (1840–1897), who was
superintendent over the U.S. Census in 1870 and 1880 and who, according to Hannah, “was probably the single most important early American proponent of what we would now call governmentality” (2000: 3). Walker’s work to mold the census into an instrument for scientific governance reveals the state of government in nineteenth-century America vis-à-vis Foucault’s theories. Hannah describes the tension between waning paternalism and emerging government by experts over the period of his study, ca. 1850–1900. In effect, he describes the emergence of a governmentized federal state at the end of the nineteenth century, highlighting the census as a premier tool for envisioning the nation as a territory with a population and an economy to be administered.

Hannah’s research inspires this question: If the federal state is not markedly governmentized before the end of the nineteenth century — Hannah’s thesis is that the national census was transformed into an instrument for liberal government through Francis A. Walker’s vision — what of state and municipal governments? When do they begin to conceive of their citizenry as a population to be administered? When do they develop the instrumentation and the tactics to carry out this project? Sewer and water infrastructure, their representations, and the discourses that surround them promise to help us to detect similar transformations at these local levels. Like the census, they are a part of the instrumentation of the state, a part of what Foucault calls the apparatus of security. This observation suggests the value of a governmentality framework for interpreting the traces of public services and utilities infrastructure that archaeologists so frequently encounter in contexts from the later nineteenth century to the middle of the twentieth century (cf. Barry 1996; Osborne 1996).

Governmentality has clear relevance for histories of colonialism and its importance extends into recent contexts as well, as further consequences of liberalization continue to erupt. Governmentality is one of the themes that emerges from James Ferguson’s influential study of development and its many meanings, as it was applied during one project in Lesotho in southern Africa during the 1970s and 1980s (Ferguson 1994). In that context, he concluded:

... the ‘development’ apparatus in Lesotho is not a machine for eliminating poverty that is incidentally involved with the state bureaucracy; it is a machine for reinforcing and expanding the exercise of bureaucratic state power, which incidentally takes ‘poverty’ as its point of entry — launching an intervention that may have no effect on the poverty but does in fact have other concrete effects. Such a result may be no part of the planners’ intentions — indeed, it almost never is — but resultant systems have an intelligibility of their own. (Ferguson 1994: 255–256)

The present study holds to a very similar conception of the relationship between elaboration in networked public services and the expansion and intensification of government as an outcome.

Other scholars have been drawn to networked infrastructure as a rich point for analyzing neoliberal policies in postcolonial settings (Harris 2009; Harvey 2005; Iorris 2007; Larner and Laurie 2010; McCarthy and Prudham 2004; Sangameswaran 2009; Walker et al. 2008). In his account of the development and more recent privatization of water for drinking, irrigation, and hydroelectric power in Brazil, Antonio

Iorris proposes that “Utility privatization is one of the main ordeals neoliberal globalization policies impose on countries in the global South” (Iorris 2007: 39). The present study, which registers a transformation in government in Annapolis as a shift toward classical economic liberalism, is largely anterior to the discourses of development that are the focus of anthropological research on neoliberalism. The resources and infrastructural capital being privatized under neoliberal economic policies (e.g., Harris 2009; Iorris 2007; Sangameswaran 2009) were first assembled under a somewhat different ethos, as part and parcel of liberal governance earlier in the twentieth century. What draws these instances together — programs of development, privatization, and direct colonial applications of technical apparatuses — are the techniques applied in the production of knowledge and the specific mode of statecraft that takes political economy for the object of governmental projects.

Caprotti (2007, 2008) uses the expression “internal colonialism” to describe the modernization projects of fascist Italy, specifically the creation of a series of New Towns and the frequently coerced relocation of Italian citizens to “colonize” a region of reclaimed marshland south of Rome called the Pontine Marshes, beginning in 1928 and continuing throughout the 1930s (2007: 85, 116). He writes,

The Pontine Marshes project was a deeply modern enterprise imbued with all the defining characteristics of a modern meta-project: reliance on technology and technical-scientific knowledge, a progress-based conceptualization of the project, the fetishism of technology, and the use of statistics and the ‘objective’ sciences to justify what were in reality social projects. (Caprotti 2007: 183)

The projects Caprotti describes are linked with those fascist projects that González-Ruibal approaches in Ethiopia (2008), and elsewhere designates as the failures of modernity (2006), and yet the reclamation and resettlement of the Pontine Marshes, which mobilized technologies of infrastructure, statistical knowledge, and specifically fascist discourses of planning and modernity, produced viable communities rather than ruin, albeit representing an engagement with modernity that was at times “uneasy” (Caprotti 2007: 98). Both of these perspectives remind us that social and material expressions of modernity are at all times imperfect, and these studies promote this focus as a point of entry for historical archaeological inquiry: modernity, in success and failure, is never without its surpluses of consequence and meaning and never seamless. In the Pontine Marshes project, Caprotti finds this seam large enough to climb inside; in the context of U.S. history, racial ideology and the ongoing formation of racial meanings promote the same availability to critical analysis.

While Caprotti does not follow this line of analysis, it could be said that the project to reclaim and settle the Pontine Marshes promoted or performed the governmentalization of the fascist Italian state through the exercise of techniques of government similar to those described in this chapter, especially the application of social and demographic statistics in service to authoritarian projects to manage population (Caprotti 2007: 122–126). Thus, “the regime’s planning institutions constructed urban, rural, and agricultural realities embodied in the colonists who, willing or not, came to populate this vast socio-technological experiment” (Caprotti 2007: 167).
It is difficult to parse the understanding of liberalism that is promoted by the notion of governmentality from discussions of neoliberal policies in the contemporary global economy. For Foucault, liberalism signifies a pervading governmental apparatus of knowledge and control. Neoliberalism, in contrast, references privatization of erstwhile public assets. How can these liberalisms be reconciled? For Foucault, the apparatus of security works with some subtlety, despite its tendency to broaden its every operation. It safeguards, but does not interfere in the flows of capital, in concept if not in execution. Foucault, therefore, challenges us to consider neoliberalism in historical terms, as one moment in a broader genealogy of capital and its organization.

Public Works, Patronage, and Liberal Government in Annapolis

Governmentalization in Annapolis is a long-term process and it is expressed more clearly in some areas of the city government than in others. For instance, the operation of the city’s water utility, established in 1865 (Annapolis Water Company 1867), followed Foucault’s model of liberal government very closely while over the same term of years, municipal sewers were frequently installed through the intercession of city council members as favors to their constituency, rather than being applied to improving sanitation in a systematic way. The archaeological data also show that wells and privies were still in use in Annapolis at the turn of the twentieth century, indicating redundancy with and perhaps class- and race-based access to networked sanitary systems developing since the 1860s (Palus 2009: 191–200, Appendix D).

Wells, privies, and cisterns were maintained for use in Eastport well into the twentieth century. Where only a few public wells remained in Annapolis after 1900, water was still being pumped from Eastport wells until the late 1920s and perhaps in some cases as recently as the 1960s (Palus 2009). House-to-house plans of the sewer system installed in Eastport between 1934 and 1937 show exactly how each dwelling was connected with municipal water and sewer infrastructure, and the plans also show which houses were not connected to the sanitary system at all (Fig. 12.3). Quantitative analysis of these plans clearly reveals that service broke down along lines of race and to a lesser degree along lines of class. This has bearing on the question of how Eastport was governed and eventually annexed by Annapolis. Does uneven service imply uneven governance or perhaps resistance to governance and annexation?

Hannah (2000) posits patronage as the historical antecedent and ongoing countertrend to governmentality. The operation of patronage as a style of government in Annapolis can be illustrated from the minutes of the meetings of the Mayor and City Council, as in the following excerpted passages from three different meetings in 1927 and 1928:

Alderman Tucker brought before the Council request of Mr. Mayer for extension of sewer in Spa View Heights to connect the new house now under construction. After some discussion Alderman Phipps made a motion which was adopted that this be referred to the Street Committee with power to act and if favorable that it advertise for bids (Annapolis 1927: 200).

Alderman Fisher stated that people living on Wagner Street could get water only after midnight and it would be impossible for a man desiring to do so, to install a heating plant on account of the water supply, the street having a supply pipe of only 1 ½, and requested that

Mr. Keith Worthington of Monroe Court addressed the Board and stated he was speaking not only for himself but for others living in Monroe Court saying that when it rained the water would back up in their cellars and requested that the street be paved and in his opinion this would remedy the nuisance of having water in their cellars every time it rained. This was also referred to the Street Committee. (Annapolis 1928: 196)
These passages address the state of Annapolis’ infrastructure, but more important here is the structure of these and similar requests. In contrast to this style of government, where citizens go to the City Council and ask for things often with support from one council member or another, the installation of sanitary infrastructure in Annapolis and its wider metropolitan area during the 1930s begins to reveal an entirely different epistemology of government.

There was a perceivable change in the conduct of government in the city of Annapolis as the municipal infrastructure serving the city and its suburban fringe was enlarged and elaborated. The conduct of government was by degrees disarticulated from established social networks that gave shape to the power of the city council throughout the nineteenth century. Rather than meeting face-to-face with their representatives in city council chambers, people in Annapolis contacted the city government more and more through the mediation of municipal services as, for instance, municipal water and sewers introduced new routines and embedded people within new relationships of surveillance, administration, and power. Policy, regulation, and the more impersonal operation of bureaucracy began to replace patronage as the guiding principle of government. And, there is a material trace of the ongoing “governmentalization of government” in Annapolis in the public services that were set in place during the later nineteenth and early twentieth centuries.

In 1925, the city council had begun to discuss improvements to the existing water reservoir for Annapolis and its distribution network, asking “Is Annapolis ever going to be called on to furnish water to the U.S. Naval Academy, Eastport, West Annapolis, and all suburban sections? If so, when and on what terms?” (Smith 1925: 17) Plans for improvements were drawn up by 1927; later in that same year, the city council met with a representative of the State Health Department who laid out the possibilities for a metropolitan sewer and water district (Annapolis 1927: 66–67). From 1927 onward, the two efforts grew into one project, with improvements to existing water and sewer infrastructure and the extension of service to neighboring communities outside of the corporate limits of the city. The Maryland State Board of Health was instrumental in this, for instance calling together a conference that included representatives of the Annapolis city council, commissioners of the surrounding county, and members of the Annapolis Water Board to discuss the future metropolitanization of Annapolis and the relationship that these various agencies would have (Annapolis 1926: 3–4).

A plan for the Annapolis Metropolitan Sewerage District printed in 1931 depicts the territory that the new sewerage commission would oversee (Burwell 1931; Wolman 1926) and encloses all of the communities that were annexed by the City of Annapolis in 1951 (Fig. 12.4). Scale plans of the sewer, water, and storm drain networks were also made, with deed references, customer numbers, and the locations of individual house connections depicted for every structure that received service (Fig. 12.3 above). In addition to this, there is a photographic record of this sewer building project (Commission 1932–1937; Doyel 2008: 184) which largely seems directed at protecting sanitation authorities from liability for damage to property resulting from installation work, but also closely documented the construction of the first sewage treatment plant for the sewerage district and a pumping station located in Eastport. This extensive documentation is itself an important component of liberal government in that it produced a new visibility for this population and fixed Eastport within an administrative apparatus; when we consider the “discovery of population” in Eastport and the instrumentation of the state, this is precisely what we are talking about.

The role of the Maryland State Board of Health in this project is central to an understanding of the “governmentalization of government” in Annapolis. In essence, this transition away from the patronage system, where sewer lines were asked for and sometimes received, was promoted by the state government. Similarly, some of the elements of liberal government were absent in Annapolis, but were present at the state level. For instance, the state health board promulgated regulations, and more
importantly it conducted surveys of sanitary conditions across the state, creating a new and different visibility for sewerage as a factor in public health.

"As-built" plans of Eastport's sewer, water, and storm drain infrastructure were produced by the Annapolis Metropolitan Sewerage Commission between 1932 and 1937 (Annapolis Metropolitan Sewerage Commission 1932–1937), though Sanborn Company insurance maps (1930) and the above mentioned photographic record for the project indicate that municipal water was introduced to Eastport starting in 1927 and sewer lines were installed starting in 1934. These plans detail house connections to sewer and water infrastructure and show a variety of ways in which houses accommodated these new services. For instance, in many cases, sewer and water connections extend from the street, past the house, and into a small addition depicted at the rear of the structure. Other structures introduce these services directly into the front of the residence, suggestive of a different accommodation for plumbing as a new component of dwelling. Interestingly, at 11 households, the plans show sewer and water lines extending to a privy or small outbuilding at the rear of the lot, sometimes with no connections made to the dwelling at all. There are 132 homes without service, around 16% of the homes depicted on the as-built plans.

The 1930 U.S. Census introduces demographic information to this data (Census 1930). In all, 594 households were enumerated in Eastport during the 1930 census, and many households were identified by their street address. A proportion of these, equaling 244 households, could be linked across these two records. Cross-tabulating data from the sewer and water plans with the race variable in the 1930 census draws out some relevant patterns in how these services, and the populations that they serviced, may have been racialized. Population is being discovered in these representations, which then become tools for governing; the services are racialized, but the population being administered is also racialized by these instruments in new ways. In this sense, networked infrastructure and its sustaining discourses are techniques of government that make manifest racial differences in the population under governance. The 244 enumerated households in the sample include 66 African–American families and 177 households coded as "white," including a small number of European immigrants. One-third of these African–American households were not connected to municipal sewer or water. A much smaller proportion of white households were without service; eight and a half percent were not connected to city sewer, and a little more than 12% were without running water (15 and 22 households, respectively). Several plumbed privies occurred at both African–American and white-identified households.

Because infrastructure, like municipal water and sewers, define the color line so clearly, we can consider these technologies as racial materialities, as race-in-process, by looking at how municipal services were apportioned and how these services identified people more clearly to their racial types. The sanitary system as an apparatus of security becomes a part of the ongoing construction of race, even as the sanitary system emerges from the changes in how Annapolis was governed at the end of the nineteenth century and early in the twentieth. Furthermore, if services like municipal sewers can be described as the material culture of government, what does the relative rate of connection and disconnection signal about how communities of different races in Eastport were governed? How is the relationship between each household and the municipal infrastructure the work of agency? (cf. Ford 1994).

This last consideration becomes a central interpretive concern. If a far greater proportion of African–American households were not accessing municipal services from Annapolis, does this mark them as victims of systematic disinvestment, victims of the economic violence that constrained opportunities for African Americans after their emancipation from slavery, and promote their continuing poverty? Or can it also – not instead of – mark them as resistors to their own incorporation as a governable population, resistors to the commodification of water as a natural resource, resistors to the terms of their governance being suddenly changed, and ultimately as resistors to their annexation into the City of Annapolis?

Conclusion

In a recent commentary, Noel Castree writes, "neoliberal practices always … exist in a more-than-neoliberal context," resulting in "unevenness in terms of process and outcome: neoliberalisations in the plural" (Castree 2006: 3). Each case in this plurality can be read as "a qualitatively distinct phenomenon in its own right: namely, an articulation between certain neoliberal policies and a raft of other social and natural phenomenon" (2006: 4). Legal implementation of racial ideology in the USA during the early twentieth century exemplifies the sorts of concerns articulating with, in this instance, the implementation of progressive reform in government that is designated by the notions of liberalism and governmentality. When the metropolitan-wide sanitation project described above is compared with earlier styles of service, real contrast reveals the advancing yet incomplete "governmentalization of the state" (Foucault 1991: 103) in this local context. This case exposes the hierarchical relationship between the city government of Annapolis and the Maryland state government emergent during the early twentieth century, in that this Depression-era sewer building program was largely prompted by action at the level of the state. Just as the City of Annapolis extended its political power to neighboring Eastport, it was itself subject to new and profuse state powers over the same period of time.

Many would anticipate that access to services will be racialized and that the extent of services provided to Eastport will be incomplete, exposing class and color lines. In the context of this research – which sees a convergence of government and
public services infrastructure – lack of coverage in public services may suggest a curious gap in the governance of this community and the in-fact racialization of government. Importantly, the rate of homeownership among African Americans in Eastport is approximately equal to that of white households in the community at the time of the 1930 census, around 60%, far above what is seen historically in Annapolis and across the state (Palus 2009: 300-320; Schweninger 1990: 180). This helps us to interpret the disparity in service. African Americans in Eastport wielded substantial economic power. Rather than representing a neglected population, the void may just as well indicate an exit from the multifaceted tactics of governance that are implied by service. Interpretation of the racialization of utilities and the partiality of the program of governing become some of the most crucial elements of this history. This creates the opportunity to take apart the elements of rational government as Foucault and others have portrayed it and reimagine aspects of Eastport’s social history according to that model.

This new materiality, inextricably linked with government, is predicated on social control through exhaustive knowledge of population, which is produced by the wider infrastructure that becomes a sort of machine for rendering population visible and regularizing behaviors. However, this apparatus is in places blind, which is partly a consequence of race. In that there are racial differences, utility lines retrace the color line and intensify the meaning of racial identifications. I propose that racial differences embedded in certain public services in Eastport can yield an account of African–American agency, resistance, and ultimately the achievement of a measure of autonomy and self-determination, rather than yielding only an account of structural, race-based disenfranchisement. Disconnection suggests the agentic capacity to push away from governance and defend the limited sovereignty that suburban settlement presented to African Americans prior to this intensification of government, this deployment of new and elaborate apparatuses, and this burgeoning imperative to govern.

The emergence of that imperative is marked here most conspicuously by the new instrumentation providing for economic security. Infrastructure for water and sanitary sewers were only a portion of the overall networked infrastructure put in place in Annapolis during the later nineteenth and early twentieth centuries, as in other contexts for urban modernization. The locus for technical modernization is not only where archaeologists find it with the abandonment of much of the infrastructure for the earlier nineteenth century, exemplified here in the archaeological features comprising filled wells and privies. It manifests as well in the discourses of government, in the representations of population that guided development, and in the very corpus of historical records that make historical archaeology distinctly compelling but also challenging. That base of knowledge is enabled by an apparatus that is contiguous with the physical infrastructure and also more distantly contiguous with the techniques and discourses of colonial administration.

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Building an Architecture of Power: Electricity in Annapolis, Maryland in the 19th and 20th Centuries

Matthew M. Palus

The human body is a reservoir of force constantly escaping, constantly being renewed from the one center of force – the sun. A perfectly healthy man has a large amount of nerve force in reserve, and this reserve is not often exhausted... The neurasthenic is a dam with a small reservoir behind it, that often runs dry or nearly so through the torrent of the sluiceway... a battery with small cells and little potential force... an electric light attached to a small dynamo and feeble storage apparatus, that often flickers and speedily weakens when the dynamo ceases to move.

George Beard, Sexual Neurasthenia (Nervous Exhaustion) (1972[1898]:58–61)

Introduction: The Current Approach

During the later half of the 19th century, electricity was willfully materialized to allow telecommunications, via the telegraph and telephone, and later to provide illumination at a municipal scale, first outdoors on city streets, then inside stores and businesses, government offices, and
Electricity in Annapolis, Maryland

finally homes. The functioning of these apparatuses can illuminate the project of this volume, in that they make material what we would otherwise consider to be categorically immaterial, things such as light, warmth, magnetism, and vital forces that seem to motivate machines as well as animal life, effectively blurring the borderline between these two conditions, matter made tangible, and unformed, invisible, immaterial things. The archaeology of electricity begs to become the archaeology of the immaterial and its place in modern life, and yet electricity is difficult to locate outside of these various materializations. Even the parapsychological effects connected to electricity, such as mesmerism, derive from power that is supremely material, believed to originate from the vital force and personal, animal magnetism of people’s bodics, and bearing a close relationship to their will and being (de la Peña 2003:4, 92–98; Simon 2004:171–175). From the mid-18th century experimenters with electricity conceived of its relationship to the organic energies that imbued animal life, and this perception formed the basis for the medicinal application of electricity into the present day (Schiffer 2003:133–160). Galvanism linked electricity to biological life. “The galvanic and electric fluids were not regarded as being different in themselves but were treated separately because they were produced through the use of different items of apparatus.” Animation of frog’s legs gave way to the animation of “the heads of oxen and on several occasions the bodies of executed criminals” (Morus 1998:126–127). What then might be immaterial about electricity, a force that seemed common if not constitutive to many different phenomena? So long as each apparatus functioned tolerably, electricity was very much materialized.

Perhaps then, electricity fails to be materialized as the apparatus fails: fails to function according to the desires of its operators, or fails to fulfill the promise that legitimated its initial and ongoing construction. Errant arcs, tics, shorts, spasms, shocks, and outages betray this failure. The strange ethereal substance again becomes what is only imperfectly grasped—really fetishized—by engineers, philosophers, and experimental scientists, and every single consumer of electrical products, major and minor. What seems to be applied systematically becomes confounded, irregular, unpredictable, and nervous in every sense of the word (Taussig 1992). So is it nervous, or is it a system, and why do we say that it is one or the other?

To put faith into electricity, and perhaps much 19th-century technology, seems to require that one forget this nervousness and see it as a rationally
applied and governed system. Wolfgang Schivelbusch addresses this possibility concerning early railroad transportation. One could not enjoy train travel unless one continually forgot the possibility of disaster from derailment or collision. He quotes a 1940 letter from Theodor Adorno to Walter Benjamin: “All reification is forgetting: objects become mere things at the moment they are fixed without being actually present in all their parts – the moment when some part of them has been forgotten” (Schivelbusch 1986:163). Another member of the Frankfurt School, Herbert Marcuse, articulated a critical theory of technology premised on a new form of fetish developing in modern, authoritarian states at the end of the 19th century, in which the fetishization of technique or efficiency replaced commodity fetishism (Arato and Gebhardt 1982:138). Marcuse refers to this new ideological form as technological rationality (Marcuse 1982). This specific form of thought, also considered carefully by Horkheimer and Adorno in Dialectic of Enlightenment (2000[1972]) is not necessarily the result of living with technology, making use of it daily or purchasing mass-manufactured goods, rather it is the emergent ideology through which that materiality was produced, in which machinery and mass manufacturing predominate in the material conditions of life. The fetishism of technique lends a morality to efficiency; “machine truths” widen and solidify at the expense of other values and other truths.

In this chapter I wish to explore these tensions, including the tension drawn between electricity’s materiality and its nervousness in application, drawing on the installation of electric lights in Annapolis, Maryland during the late 19th century. In July of 1889 the small southern community of Annapolis first experienced light that was produced with electricity on a citywide scale. As such, Annapolis, then as now the capital of Maryland, seat of the State Legislature and home to the United States Naval Academy, began the transition from gas to electric light in step with similarly-sized cities in Maryland, not far behind the initial conception of central supply electricity in the United States. While individual arc lights powered by single generators had been in use since the mid-19th century, central supply was an American innovation that involved wiring a series of lights together in a circuit, creating a mass of light, subdivided almost endlessly in Edison’s phrascology and powered by a central plant (Jones 2003:58). The Brush Arc Lighting Company based in Cleveland, Ohio installed 23 arc lights in New York City in 1880 at its own expense, in order to demonstrate their effectiveness.
Thomas Edison conducted the first demonstration of his direct current electrical generation and transmission systems in 1879, and completed his first permanent central power station in New York in 1882 (see Hughes 1983; Nye 1997; Schivelbusch 1988). These systems spread throughout North America rapidly, and by the later 1880s many small towns were adopting electricity to light their streets. The Annapolis Electric Light Company was incorporated in 1888, “for the generation and transmission of Electricity over or through wires for lighting or for motive power” (Anne Arundel County Circuit Court 1888). While the utility was owned and developed privately, with an apparatus purchased on a new and growing national market in such machines, the decision to use electricity to light city streets was made by the Mayor and Aldermen for the community, who since 1859 had contracted with a local company to light the streets with gas produced from coal. It took a matter of weeks for a combination of arc and incandescent lights to be mounted on poles throughout the city, and the first contract to light the streets with electricity commenced in July of 1889. Until 1912 electricity continued to be generated in Annapolis and its use was adopted in homes and businesses, though not universally and never in any industrial applications. One means of lighting replaced another, in all of these contexts, but the city would always be the single biggest consumer of local electricity. As such this was “administered light,” the product of a political apparatus as much as a technological one (Asendorf 1993:162). One premise of this chapter is that the two arc indivisible. Technological and political apparatuses retrace one another in Annapolis, creating a historical geography of power.

A few months before the lights were turned on in Annapolis, in May of 1889, the newly-incorporated electrical utility ran an advertisement in the local newspaper, informing readers that

An opportunity is now offered to our people, in the way of lighting, not only their places of business, but their private dwellings, places of worship, public halls, &c., at a wonderful low cost, besides being entirely free from a very serious objection – heat – as also from danger as has been charged. While they say danger attends the Electric Light without explanation, they lose sight of thousands who have been sacrificed by the improvident use of gas, kerosene and other oils. Satisfactory reasons will be given why the Electric Light is even less dangerous than any other light heretofore known, upon application at the office. (Evening Capital (EC) 1889h)
The concern with heat stems from a phenomenon that accompanies gaslight, and which electrical lights do not produce in appreciable amounts. The number of gas burners required to light a large space not only produced enormous amounts of heat, they consumed oxygen such that conduits had to be installed in some large auditoriums that fed the combustion of gas with air from outside the building, in order to prevent the depletion of oxygen within the enclosure that could cause dizziness, headaches, and fainting (Schivelbusch 1988:45–47). What is still curious is the avoidance of actually calling electricity safe. Electric light is “even less dangerous” than any other source of illumination; “Satisfactory” reasons can be provided why electricity should be considered so, upon inquiry with the agent of the electrical utility. A survey of Annapolis’ major newspaper from 1889 to 1891 shows that no death or injury resulted from the introduction of electricity in Annapolis, at least not for several years after electricity began to be produced locally. Still, this reticence seems to contrast with the materialization or constitution of electricity as a public utility, safely domesticated and pressed into the service of Annapolis residents.

**Machine Truths and The Body**

In a recent history of 19th century electricity and its anxieties, Linda Simon observed that while the American public was slow to accept electrification into their homes for domestic heating, lighting, and power, the application of electricity in medicine as “electrization,” “galvanization,” “faradization,” or even “Franklinization” was commonplace. Americans entered the Electric Age with bodies that – for all intents and purposes – already ran on electricity (Simon 2004). In spite of this fact, the consumer market for electricity grew very slowly. Nineteenth-century inventor-entrepreneurs like Edison and Brush courted the top echelon of urban industrialists with electricity in order to secure support for their workshops and manufactories during the 1870s, in the years before electric light was at all marketable (Davis 2003; Jonnes 2003). Historian David Nye reports that by 1910 just one in every ten American homes had been electrified, some thirty years after municipal lighting systems using electricity became competitive with gas. Private utility companies, many conglomerated from small local electric utilities established during the 19th century, marketed their products and services aggressively.
throughout the early 20th century. In part, the task was to domesticate electricity that was produced artificially, and make it appear safe in proximity to people’s bodies (de la Peña 2003). In 1920 many urban homes and apartments had been electrified, but many more areas waited for the large rural electrification projects of the 1930s (Nye 1997:239).

Certainly the distribution of electric light and home service broke down geographically and within cities upon lines of race and class, reinforcing these by selective development, investment, and disinvestment. But Simon proposes that the apparent contradiction between the general/popular acceptance of therapeutic electricity or electrotherapy, which to a degree transcended one’s social class, and resistance to its more utilitarian application stems from the widespread belief in the oneness of artificial electricity and nervous animal energy. “Vitalism, which held that electricity was the source of life itself, justified the conviction that applying electricity to the human body could strengthen and energize” and simultaneously implied a threat from surrounding our bodies with apparatuses of artificial electricity, perhaps subsuming ourselves to the newer, larger apparatus for the production and distribution of power (Simon 2004:7). Vitalism preceded notions of electricity-as-utility, and “urged people, even those who had never used a telegraph, to examine their beliefs about the relationship between artificial and animal electricity; it aroused superstitions” (2004:46).

Electrotherapy was not parascience or superstition, nor did it resemble the convulsive electroshock treatments of modern psychiatry, or least of all the lethal application of electricity in capital punishment (Davis 2003:264–267; Essig 2003; Jonnes 2003). Since the mid-18th century physicians and experimental scientists had applied gentle currents and “baths” of electricity seldom attaining sufficient strength to “shock” the recipient, initially to treat headaches, paralysis, muscular spasms, and persistent pain (Morus 1998; Schiffer 2003). Later in the 19th century, neurologist George Beard described a new disease particular to white Americans called neurasthenia. “American nervousness” was literally a weakness in the nerves, and writing with colleague A. D. Rockwell he promoted the use of various forms of electricity—for instance static, faradic, galvanic, alternating or direct—in different strengths to rejuvenate depleted nerves and bring patients back from their nervousness. “Neurasthenia is a chronic, functional disease of the nervous system, the basis of which is impoverishment of nervous force; deficiency of reserve, with liability to quick exhaustion, and a necessity for frequent supplies of
force . . . ‘Nervousness’ is really nervelessness” (Beard 1972[1898]:36). As a catch-all for symptoms ranging from depression to constipation, dyspepsia, stomach and mouth ulcers, lack of appetite, back pain, hysteria, and trouble with the reproductive organs in both men and women, including poor sexual performance and impotence in men, neurasthenia captured the attention of the medical community, finding supporters among neurologists, gynecologists and other physicians, not to mention their patients (Beard 1972[1898]; de la Peña 1999; 2001; 2003; Schivelbusch 1988:70–73).

Electrical energy and magnetism was for the vitalist or the electrotherapist in the 19th century what psychotherapy was for Freud in the 20th century (Gosling 1987). The most powerful materializations of Freud’s theory lie in the experience of uncanniness; in contrast, the basis for the treatment of neurasthenics and a virtual diagram of the disease was being erected in towns and cities across the United States and Europe, seeming in fact to follow the disease. There was a “popular conflation of artificial and animal electricity,” such that telegraphs were likened to nerves transmitting electrical impulses, and the enervation of the muscles and the brain, personal magnetism and energy, and the current flowing through wires to power electric lights and machinery shared a basic sameness (Simon 2004:46–47). The immensity of this technological feat threatened to sublimate individual bodies of feeble spark, mere conductors or conduits for energies vastly more powerful.

The wickerwork of nerves finds its counterpart in the transmission cables threatening to connect to the subject from all sites and annihilate him. The invisible electrical currents are the metaphor of the life of the nerves: the body becomes a force field, a contingent intersection of events determined elsewhere . . . electro-hysteria unfolds before the background of the quickly changing anonymous social relationships in the big city, in which objects, things as well as people, are experienced as nothing more than nerve stimuli. (Asendorf 1993:177)

Electric power and the growing electrical infrastructure was not merely a metaphor for the vital animal forces described and experimented on by physicians and philosophers. It represented a competing materiality; like artificial electricity, animal electricity or magnetism was also material. This fact expresses the inseparability of subject and object, animation that is sometimes artifice and automatic. Beard’s theory of neurasthenia
had a place within contemporary, scientific debates between materialist and spiritualist notions of the soul, arguably an interrogation of the place of mind between subject and object states. Was it a chemical entity activated within the brain, or was it spiritual activation of the nervous tissues from outside? Beard’s theory was purposefully a compromise between these two positions (Simon 2004:188). He proposed that neurasthenia, the “impoverishment of nervous force” (Beard 1972[1898]:36), resulted from “specific features of the young American society – in particular the telegraph, the railroads, the periodical press, the sciences, and the atmosphere of political and religious liberty – [which] had increased mental demands on Americans, especially on the urban professionals who labored with their heads rather than their hands” (Gosling 1987:11). In other words, American nervousness was a secondary consequence of these new technologies and the nerve-draining pressures that they created, not simply the presence of these new materialities. It was also exclusive to the sensitive bodies of those who were white and native born; just as Nietzsche wrote that black-skinned people did not feel pain to the same degree as whites (1989:68), Beard used Native Americans to exemplify the limitless reservoir of energy in the prehistoric condition.

Nervousness produced an uncanny correspondence between the sufferer and the system, as though the sufferer became a conduit or transmitter of signals. Medicine was dominated by a somatic theory of illness during the later 19th century, in that all disease was believed to be caused by lesion or irritation that was localized. In other words, every disease had a local cause. In contrast, neurasthenia had no visible cause and rather resembled a suite of related symptoms, and as a diagnosis it enclosed and made respectable numerous individuals who suffered from no legitimate malady and were consequently dismissed as hysterics, hypochondriacs, or malingerers. In part it gave way to psychotherapy – though it did prepare the ground for it – because no specific organic cause for neurasthenia was ever discovered (Gosling 1987:17–18). Beard suggested first, that neurasthenia did have a discrete cause but that no method for detecting it had been developed, and second that irritation was transmitted freely inside the body of a neurasthenic, as the depleted nerves had little resistance and allowed the stimuli to move from one part of the body to another. The irritations causing neurasthenia “may arise from any part of the body and may be transmitted to any other part” via the sympathetic nerves, and this impeded the discovery of a local cause for the disease (Beard 1972[1898]:36).
Matthew M. Palus

Of this very phenomenon, Christopher Asendorf writes, “The nervous body is noncorporeal, immaterial, arbitrarily subject to being charged with tensions. Nervous conditions assume... the form of an electro-hysteria: objects transform themselves into electrified machines that render the subject a victim of currents” (Asendorf 1993:176). Just as irritations can be transmitted from any point in the body to any other, displacing the irritation and concealing its origins, so goes the city networked sublimely into numerous circuits and subsystems. And yet, in the body perfect intercommunication, conductivity, and ease of transmission was a disease state. The neurasthenic body becomes a transmitter; it embodies the transmission system above the streets. Every irritation is perforce shared throughout the body because the nerves are so highly attuned and excitable, and resistance so low that communication of unnecessary signals is irresistible. This capacity of the body was only understood once the metaphor of electrocommunications was available. It is possible that Beard reversed the facts of the matter. Nervousness was brought about by these improvements. They compelled the body to transmit and be more conductive, to be less resistant, to conjure currents and set them moving. In this way people’s bodies came to resemble the regnant apparatus and conform to what Herbert Marcuse called “machine truths” (1982).

The Shape of Electricity in Annapolis from 1889–1912

Writing about the 19th-century modernization of Annapolis, Christopher Matthews (2002) argues that railroad connections to the industrial and commercial centers of Baltimore and Washington, D.C. that reached the city in 1840 allowed it to be perceived as part of the technologically and politically modern state. However, Annapolis was completely overshadowed economically by Baltimore during the early 19th century and seemed to exhibit nervousness regarding its own commercial development. Wrote one editor for the Evening Capital,

Shake off your sleepiness, and go to work!... Welcome a wide-awake, progressive man whenever one comes along. Don’t be eternally discussing why your town is so slow. Better take off your coat and do a little something towards making it otherwise... If you are a man of means and

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Electricity in Annapolis, Maryland

In some ways the U.S. Naval Academy at Annapolis, patterned after the military academy at West Point, was an alternative to industry. Towards the end of the 19th century Annapolis produced two things: oysters, and officers. Maintaining Annapolis as a suitable home for the Naval Academy and the state government provided the city with an impetus to develop a modern infrastructure, sufficient to sustain these institutions and their facilities. In December of 1888, the Evening Capital ran a local item stating that

A bill is pending before the House naval committee providing for lightning [sic] the grounds surrounding the Naval Academy, at Annapolis, with electricity. To carry out the provisions of the bill an electric plant will have to be established at the Academy. An electric light company has been established in Annapolis, and it is proposed to have the bill amended so that the company may . . . supply the electric light for the Academy grounds.

(EC 1888b)

The city entertained bids to install a network of electric street lights several years earlier, and after receiving bids from a gas light company in Pennsylvania, and reviewing conditions for receiving a franchise from Edison’s incandescent light company, the city offered its contract for street lighting to a local group that had recently incorporated. Articles of incorporation for the Annapolis Electric Light Company of Anne Arundel County were delivered to the Anne Arundel County Court clerk in March of 1888.

Since 1859 the city had been lit by gas, provided by the generating plant of the Annapolis Gas Light Company. In the late 1880s the city paid approximately $2,000 annually out of a $20,000 to $25,000 budget to have its streets lighted with gas, maintaining its own reflector lamps as needed. Maryland towns of comparable size were changing over to electrical lights, which were found preferable or wanting depending on the source consulted. Elihu S. Riley, who served as the clerk for the corporation of aldermen who led the town and later as their legal counselor, was also a founding partner in the new electrical utility as well as the chief editor of the Evening Capital. He incorporated news items strategically, or at least it seems that way:
Frederick City and Hagerstown are at this time agitating the question of lighting their cities with electric light. Many towns and cities in this and adjoining States have already adopted the system and wherever introduced it has been found a paying investment. The enterprising town of Easton, just across the bay, has adopted the electric light, and find [sic] it superior to the old system of lighting the town. It gives to the place a business like cosmopolitan air, and shows enterprise on the part of its citizens . . . (EC 1888a)

Poles of chestnut were erected and prepared for wires and lamps in May; an agent for the company named William Watts solicited customers for electric light beginning on May 15, two months before the wires carried a current. However, one staff writer for the newspaper noted in May of 1889 that “Many persons are waiting to see their neighbors use electric lights before they take hold themselves” (EC 1889a; EC 1889h). “Business has taken a rest and will not be revived until the electric current is turned on,” was the editorial one day (EC 1889a). In another column it was printed, in a single line and without embellishment or substantiation, “Electric lights will give Annapolis a boom” (EC 1889a).

Much anticipated, the generation of power was mentioned almost daily in the Evening Capital in the weeks preceding the first night that was lighted with electricity. Then, on July 1, 1889, The Annapolis Electric Light Company initiated a two year contract to light the city streets, and the contract formerly held by the gas light company was terminated. Wrote an anonymous staff writer for the Evening Capital, “For the first time in the history of our city, it was lighted last night by Electric lights. . . . It was another step in the city’s progress in the march of improvement, and shows that Annapolis is keeping pace with her sister cities in all the improvements of the times . . .” (EC 1889f). The newly constructed plant (Figure 7.1), which had been completed in the previous Spring, was supervised for the first month by a representative from Westinghouse, who trained the first crew of electricians in Annapolis and the first plant superintendent (EC 1889c). The rationale for adopting electricity is clear from these passages; more than mere boosterism, these notes reflect the anticipation that progress will follow behind electricity, with the re-vitalization of an economically depressed community.

The electric lights initially installed were a combination of arc lights and incandescent ones, hung on 35- to 40-foot poles along the streets.
of Annapolis. These lights are based on different conductive materials and each offers a different quality of light. The arc lighting system initially installed in Annapolis was purchased from a local franchise of the Brush Electric Light Company in Baltimore. One newspaper article indicates that workmen erecting poles and installing the system had come from Baltimore to do the work, as well as train local workmen to maintain the system. Arc lights give off a harsh light that nearly matches daylight in glare and brightness. Further, people tended to stare directly into arc lights when first introduced to a city, and those marketing electric lights worked to educate the public against such unsafe practices (Simon 2004:75). Arc light is generated by combustion of a pair of conductive carbon rods that allow a spark to arc across a narrow gap between the rods, the reaction consuming the carbon and producing an extremely bright and penetrating light. The intensity of arc light is measured in thousands of candle-powers, while gaslight can be estimated...
in a few dozens. Additionally, arc light cannot be modulated, but shines at full brightness while the current is applied; the light it gives off is utterly, strikingly steady, in contrast with the softness of wavering gas-light. In cases of failure, due to atmospheric conditions or other difficulties, arc lights produce dazzling affects, lowering and raising their light suddenly if not explosively. In the more familiar incandescent bulb light is produced by a heated filament, and much more resembles light produced by gas lamps, only the filament replaces the gas-jet. Incandescent light is softer, but like arc lighting the filament is consumed and lamps themselves must be replaced. The successful incandescent lamps that Edison developed used a carbon filament prepared from a bamboo fiber. A variety of metal filaments were introduced in the 1890s, but the practical tungsten-filament lamp was not introduced until before the First World War (Schivelbusch 1988:55–64).

The relatively early introduction of electricity in Annapolis, “keeping pace with her sister cities” so to speak, seems to address Simon’s thesis that there was popular resistance to electrification rooted in anxiety about the relationship between artificial electricity and the enervation of people’s bodies. What seems to be the case is that electricity was cultivated and fostered in Annapolis by the city government, and only later did a market develop. In fact, the local electrical utility in Annapolis actually failed by 1912 and was absorbed into a larger electrical conglomerate, and eventually became an extension of the enormous Baltimore gas and electric utility (King 1950). There are several sources available that allow us to draw out specific information regarding the demand (need? desire?) for electricity, and the growth of the network in Annapolis. First, the mayor of Annapolis published a report on the state of the city’s finances and other projects annually, and as such we can define what part the city played in the development of electricity from its introduction. The city was the first large consumer of electric power when this utility was established, and though there were hopes that the local utility would receive a government contract to provide lighting to the United States Naval Academy, this was never the case. In fact, there was never a large consumption of electric power in Annapolis for manufacturing, no high voltage consumers supported this utility in same way as they did in other American cities. Beyond this, what the mayor’s reports show is that the city as a consumer of electrical power did not expand its consumption to a great degree while power was produced locally (see Table 7.1 below).
<table>
<thead>
<tr>
<th>Year</th>
<th>Fiscal year</th>
<th>Total city spending for period$ (in $)</th>
<th>Annapolis Gas Light Co.</th>
<th>Annapolis Water Co.</th>
<th>Annapolis Gas and Electric Light Co.</th>
<th>Annapoli: Public Utilities Co.</th>
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<tr>
<td>1884</td>
<td>Jan 1 to Dec 31</td>
<td>20,789.15</td>
<td>2,565.12</td>
<td>600.00</td>
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<td>Jan 1 to Dec 31</td>
<td>28,865.28</td>
<td>2,133.92</td>
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<td>–</td>
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<tr>
<td>1886</td>
<td>Jan 1 to Dec 31</td>
<td>24,371.42</td>
<td>2,548.52</td>
<td>700.00</td>
<td>–</td>
<td>–</td>
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<tr>
<td>1887</td>
<td>Jan 1 to Dec 31</td>
<td>27,761.22</td>
<td>1,961.73</td>
<td>1,031.28</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>1888</td>
<td>Jan 1 to Dec 31</td>
<td>25,764.10</td>
<td>2,134.64</td>
<td>1,316.68</td>
<td>–</td>
<td>–</td>
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<tr>
<td>1889</td>
<td>Jan 1 to Dec 31</td>
<td>28,917.89</td>
<td>2,264.65</td>
<td>584.37</td>
<td>–</td>
<td>–</td>
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<tr>
<td>1890</td>
<td>Jan 1 to Dec 31</td>
<td>28,703.87</td>
<td>–</td>
<td>812.47</td>
<td>–</td>
<td>–</td>
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<tr>
<td>1891</td>
<td>Jan 1 to Dec 31</td>
<td>36,216.81</td>
<td>174.00</td>
<td>1,016.68</td>
<td>3,493.59$^4$</td>
<td>–</td>
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<tr>
<td>1892</td>
<td>Jan 1 to Dec 31</td>
<td>34,480.31</td>
<td>–</td>
<td>1,115.47</td>
<td>4,525.30</td>
<td>–</td>
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<td>1893</td>
<td>Jan 1 to Dec 31</td>
<td>29,569.91</td>
<td>–</td>
<td>765.47</td>
<td>4,785.87</td>
<td>–</td>
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<tr>
<td>1894</td>
<td>Jan 1 to Dec 31</td>
<td>36,236.61</td>
<td>–</td>
<td>1,450.47</td>
<td>4,996.34</td>
<td>–</td>
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<tr>
<td>1895</td>
<td>Jan 1 to Dec 31</td>
<td>42,818.60</td>
<td>–</td>
<td>655.00</td>
<td>3,519.35</td>
<td>–</td>
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<td>1896</td>
<td>Jan 1 to Dec 31</td>
<td>37,408.58</td>
<td>–</td>
<td>1,794.34</td>
<td>4,337.09</td>
<td>–</td>
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<td>1897</td>
<td>Jan 1 to Dec 31</td>
<td>35,402.46</td>
<td>–</td>
<td>1,322.48</td>
<td>4,702.52</td>
<td>–</td>
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<td>1898</td>
<td>Jan 1 to Dec 31</td>
<td>72,951.14</td>
<td>–</td>
<td>1,322.48</td>
<td>5,668.58</td>
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<td>1899</td>
<td>Jan 1 to Dec 31</td>
<td>44,866.04</td>
<td>–</td>
<td>591.86</td>
<td>4,446.15</td>
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<td>1900</td>
<td>Jan 1 to Dec 31</td>
<td>73,881.65</td>
<td>–</td>
<td>1,572.48</td>
<td>5,209.75</td>
<td>–</td>
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<tr>
<td>Year</td>
<td>Fiscal year</td>
<td>Total city spending for period(^a) (in $)</td>
<td>Annapolis Gas Light Co.</td>
<td>Annapolis Water Co.</td>
<td>Annapolis Gas and Electric Light Co.</td>
<td>Annapolis Public Utilities Co.</td>
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<tr>
<td>1902-03</td>
<td>July 1 to June 30</td>
<td>51,917.49</td>
<td>–</td>
<td>573.75</td>
<td>4,873.67</td>
<td>–</td>
</tr>
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<td>1904</td>
<td>Aug 1 to Dec 31</td>
<td>29,445.77</td>
<td>–</td>
<td>482.50</td>
<td>3,479.60</td>
<td>–</td>
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<tr>
<td>1905-06</td>
<td>Aug 15 to June 30</td>
<td>53,794.40</td>
<td>–</td>
<td>682.50</td>
<td>7,071.99</td>
<td>–</td>
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<td>1906-07</td>
<td>July 1 to June 30</td>
<td>49,519.74</td>
<td>–</td>
<td>850.00</td>
<td>5,795.49</td>
<td>–</td>
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<tr>
<td>1909-10</td>
<td>June 30 to June 30</td>
<td>57,101.52</td>
<td>–</td>
<td>600.00</td>
<td>6,287.58</td>
<td>–</td>
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<tr>
<td>1910-11</td>
<td>July 1 to June 30</td>
<td>59,927.66</td>
<td>–</td>
<td>750.00</td>
<td>5,795.49</td>
<td>–</td>
</tr>
<tr>
<td>1911-12</td>
<td>July 1 to June 30</td>
<td>61,687.73</td>
<td>–</td>
<td>600.00(^b)</td>
<td>5,790.17</td>
<td>–</td>
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<tr>
<td>1913-14</td>
<td>July 1 to June 30</td>
<td>77,675.37</td>
<td>–</td>
<td>600.00</td>
<td>–</td>
<td>5,634.70</td>
</tr>
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</table>

**Notes:**

\(^a\) Taken from Mayors Reports to the City Council of Annapolis, printed between 1885 and 1914, inclusive. Marylandia Collection, University of Maryland Libraries Special Collections, College Park, Maryland.

\(^b\) Figures refer to simple expenditures and do not take into consideration debts, bonds, dividends, sinking fund, etc.

\(^c\) The city terminates its contract with the Annapolis Gas Co., and initiates a two-year contract with the Annapolis Electric Light Co. on July 1, 1889. In 1890 these companies merge forming the Annapolis Gas and Electric Light Co., which appears to receive the first payments from the city.

\(^d\) It is worth noting that this sum does not seem to include expenditures by the city for infrastructure, indicating that the newly formed corporation owned the physical plant, poles, wires, and other equipment.

\(^e\) In 1911 the City of Annapolis issued $100,000.00 in bonds to purchase all stock held by the State of Maryland and private stockholders in the Annapolis Water Company, becoming owner of its own water supply and making water a public utility.
Electricity in Annapolis, Maryland

Comparison of city expenditures on public utilities also shows the municipality to be fairly conservative in terms of growth, and this is reflected by a relatively flat trajectory for total spending and little increase in spending on municipal lighting in the later 19th and early 20th century. From 1884 to 1889, payments to the Annapolis Gas Light Company comprised approximately 8.9 percent of the annual spending for the city, on average. However, between 1891 and 1911, payments made to the Electric Light Company average 11.1 percent of city spending, in some years rising above 16 percent of the total expenditures of the city (in 1893 and 1894). Geographically, the city does not increase in size over this period, but rather is ringed with small communities that are administer within surrounding Anne Arundel County. Consequently there is little demand for additional lights once the infrastructure was more-or-less established. City expenditures on electricity to light the streets and some public buildings, including city hall, some fire houses and the market space at the waterfront are relatively flat during the period from 1891 to 1912, averaging around $5,000 annually and exceeding this amount by less than a thousand dollars most years. The lowest expenditure during this time is just $3,400 in 1904. Meanwhile, overall city spending was doubled during this period, from $29,000 in 1889 to $61,000 in 1912, probably reflecting the increasing services that the city supported.

Another valuable source of data regarding the local electrical utility in Annapolis are reports made to the Maryland Public Service Commission organized by an act of the General Assembly of Maryland to regulate public service industries in the state (King 1950:181). The Maryland Public Service Commission had the authority to set rates for utilities across the state, and as such it collected information in the form of standardized reports completed by every company in operation, starting in 1910. These reports document the end of electrical production in Annapolis, and suggest the shape of the utility at the turn of the century. Concerning the city’s consumption, again the evidence suggests a lack of expansion. From 1911 through 1913 the city was charged – by the lamp – for 47 arc lights and 79 incandescents; surrounding Anne Arundel County paid the utility to maintain 24 arc lights outside of the city, probably lighting incipient suburbs that grew up around Annapolis but fell outside of its corporate boundaries. By 1920 the city had added 20 additional arc lights and reduced the number of incandescents by ten, which probably reflects simple maintenance with some reorganization and additional illumination. Reports to the Public
Service Commission also include revenue from commercial lighting, which is approximately double the revenue from street lighting. The local utility reported a meager 290 consumers for electricity in Annapolis in 1911, including commercial and residential service, and a total of 320 meters in operation throughout its range in Annapolis and its fringes. There were no consumers for commercial power in the city or in adjacent areas, and locally-produced electricity found no real manufacturing applications until the market was expanded to adjacent towns in later years.

Electricity in Annapolis did not draw industry to the town as might have been expected, if this can be argued from the fact that there were no significant consumers of electricity for these purposes while electricity was being produced in Annapolis. It did not contribute toward industrialization and commercial growth as many had hoped or promised, however it did allow working hours to be extended. This was seen almost immediately:

Painting by Electric Light – One of the great advantages of electric light[,] its glare is almost equal to that of the noon day’s sun and turns night almost into day wherever its rays fall. Last night a gentleman was observed on East street [sic] painting his house by the rays of the electric light which fell with such effu... on his residence as to enable him to apply his vocation with as much perfectness as in the day time. On another street, where the light was favorably situated, a lady was observed sewing at her window. Persons have been seen frequently reading their evening paper by the rays of the electric light. (EC 1889g)

This tour of a lighted Annapolis creates the impression of a neurotic attempt to make work, simply because light was available. Further, electric light played a role in promoting nightlife and especially shopping in Annapolis, as it did in many American cities. By 1891 some businesses were making use of electrical light, as indicated by one report of a blackout caused by a burst pipe at the plant: “The drug stores and a few other places of business, such as the confectionary and cigar stores, which use the current, were left in a provoking and embarrassing situation” (EC 1891). I take blackouts as a pivotal matter, between the organization and disorganization of electricity, may materiality in Annapolis, a rich point through which to define these technics along their limits and boundaries.
“Some Disarrangement in the Machinery Which was Soon Remedied”

If work is required to enact materializations and maintain a technological system in any context, I position the immaterial here not necessarily as raw unformed material, which is perceived as what Heidegger might call “standing stock” or otherwise enveloped by a technics (Heidegger 1977), but as something without form that literally defies technics. Especially in an industrializing society, technics seem to be about eliminating the immaterial, disciplining forms in nature, harnessing energies and, following Foucault, controlling bodies. But emergent materiality implies puddle immateriality, wherein processes constitutive of human material life are seen as only partially or temporarily effective. The immaterial is lifeless to a materializing society; alternately, it is precociously alive where societies work to fix substances as a regular aspect of technologized experience. In its failure to take form, the immaterial fails to signify. It cannot be accounted for on the planner’s page; it is indeterminate to accounting and escapes enclosure. It is intractable. It is soft; it is like culture (de Certeau 1997). For all this, what is immaterial is not uninterpretable. On the contrary, programs of interpretation must at some point include it, not as a priori to materiality but as part of the dialectic that produces and sustains materiality, and as such the empirical experiences, desires, and memories of subjects.

The frequent occurrence of black-outs suggests a clear symptom of immateriality and the nervousness of Annapolis’ electrical utility. As the city was deciding to grant its contract for street lighting to the new electric utility, a fairly negative report was published from nearby Hagerstown, Maryland. “The electric lights go suddenly out and leave parts of the city in darkness for the greater part of the night. Whether this is from bad management or imperfect machinery, we are not informed” (EC 1888c). While few if any deaths resulted from unintended contact with electricity in Annapolis in the years following its adoption—likely, few had reason to come into contact with it aside from engineers, workmen, and business owners—blackouts were frequent and rarely explained (or even, it might be argued, understood):

About half past seven o’clock the current was turned on, and the light came up in its usual brilliancy, but for some reason it soon went out. . . . This open and shut light business continued for some time until it was finally
shut off altogether. Everybody was asking the question: “What is the matter with the electric light to-night?” but none could answer. (EC 1889c)

Last night between six and seven o’clock the incandescent lights went out on the merchants and businessmen who have introduced this light to their places of business. Fortunately the darkness was only temporary, as they soon came up again in all their effulgence, but for the time being it put many to inconvenience and they had to resort to the coal oil or tallow dip. We were not able to learn the exact cause, but presume it was from some disarrangement in the machinery which was soon remedied. (EC 1889d)

A portion of the city was left in Egyptian darkness last night, and those who were out on the street had to feel their way as best they could. . . . Several of the lamps were made to come up after a severe kicking of the poles. (EC 1889c)

The citizens of Eastport would like to know why it is that the electric lights in their thriving village are out half of the time and the village left in darkness. (EC 1890)

The system was “nervous,” in that it sometimes played at being a system or at being more systematic than it actually was: “first nervous, then a system; first system, then nervous – nerve-center and hierarchy of control, escalating to the topmost echelon, the very nerve-center we might say . . . Even while it inspires confidence . . . and as such bespeaks control, hierarchy, intelligence – it is also (and this is the damnedest thing) somewhat unsettling to be centered on something so fragile, so determinedly other, so nervous” (Taussig 1992:1–2). This represents the failure of practice to correspond to well-established truths, even machine truths, as evidenced in the always-present failures and ruptures in an otherwise seamless construction, a perfectly organized apparatus (Figure 7.2). Reality could not match the elegant plans and diagrams meant to model it, such that the nearly diagrammed systems for the distribution of electricity became a frail and sagging mass of poles and wires.

What is On the Line? Power and Marcuse’s Critical Theory of Technology

What is at stake, regarding the markets for electricity that failed to materialize, and the apparent nervousness in the system that mirrored
Figure 7.2 The neatly diagrammed system: multiple-series circuits for municipal lighting, from George D. Shepardson’s Electrical Catechism (1901)

the nervousness in Americans confronted with a suite of social and cultural changes owing to electrification? In *The Question of Technology* Martin Heidegger (1977) concludes that the essence of modern technology is not its utility, which is merely a sliver of its fuller significance. Rather, technology has become a way of knowing in the modern world, an epistemology that produces representations amenable to various plans and projects. This notion corresponds to what Herbert Marcuse called “machine truths,” specific rationalities that developed around techincs and in fact fetishized technology and came to color social expressions like an irresistible ideology. While Heidegger’s analysis originates in phenomenology, Marcuse embraced Marxism and found support among the critical theorists of the Frankfurt School.

Marcuse, who like Hannah Arendt split with Heidegger as he expressed greater and greater political and cultural conservatism, retained many of the concepts core to Heidegger’s philosophy such as Dasein (being-in-the-world) and a sensitivity toward technology that gravely affected his early and late work (Held 1980:224–228; Jay 1996:28, 72). The basis
for Marcuse’s departure from Heidegger’s phenomenology is instructive here because Heidegger has been so influential in recent social theory around technology (for instance, see Conley 1993; Dobres 2000; Dobres and Hoffman 1999; Pfäffenberger 1992). First and foremost, Marcuse found phenomenology unsatisfying in its inability to incorporate history rather than historicity as an abstraction, pursuing natural facts and truths about being, conditions that exist as a part of historicity but are not themselves contingent upon histories and historical conditions per se (Jay 1996:71). Marcuse wrote in 1928 that “...‘a phenomenology of human existence falls short of the necessary clarity and completeness’ as it ‘bypasses the material condition of historical existence’” (quoted in Held 1980:224). In contrast, a materialist dialectics freed analysis from one-sided (or one-dimensional) philosophical approaches by introducing lived experiences and something grounded and historical, actual events and actual conditions. This dialectics is about understanding the materiality and history that is a part of the phenomenon; materiality is tantamount to history in this formulation (Held 1980:228).

According to Martin Jay, in *Being and Time* Heidegger’s philosophy arrived at the relationship between being-in-the-world, historicity, and praxis. What was disatisfying to Marcuse and others was the failure to recognize class and its concreteness. Marcuse wanted to approach not just praxis, but a radical praxis and the possibility for radical action. “Only because of its key role in the production process does the proletariat have the potential to perform radical acts” (Jay 1996:72). At the same time, Marcuse ejected the determinism characteristic of vulgar Marxism, introducing the possibility for a more nuanced relationship between the material conditions of life and the social forms that were premised in them, including thought and ideology. Jay (1996:76) writes that at the Frankfurt School Marcuse “ceased to use Marxism as a positive philosophy answering Heidegger’s question about ‘authentic being’ and began employing it more as a critical, dialectical methodology useful in explaining history, not historicity.” This departure from Heideggerian philosophy and phenomenology is also a departure from existential philosophy, the “state of affairs that through its very existence and presence is *exempt* from all justification... an ‘existential,’ ‘onto logical’ state of affairs – justification by mere existence” (Jay 1996:122–123). The opposition of Marxism to existentialism originates in a denial of transhistorical existence, and the failure of existentialism to imagine a different future, radical praxis, and revolution.
Marcuse derived a critical approach to technology from these philosophies, presented briefly in an essay entitled “Some Social Implications of Modern Technology” (1982) and expanded in his book One-Dimensional Man (1991). None of the Frankfurt School philosophers supposed that technology led inexorably toward domination, however they described new forms of domination arising from within narrowly-defined rationalities. Such was Marcuse’s formulation of “technological rationality.” Technological rationality is the erosion of critical rationality through compliance with principles of efficiency, acceptance of a radical coordination of efforts and in various other ways accommodating the apparatus that is established as the regime of production. The example that Marcuse draws out is the journey in an automobile, which appears to cultivate compliance and an accommodation of technological truths:

A man who travels by automobile to a distant place chooses his route from the highway maps. Towns, lakes and mountains appear as obstacles to be bypassed. The countryside is shaped and organized by the highway. . . . Others have done the thinking for him, and perhaps for the better. Convenient parking spaces have been constructed where the broadest and most surprising view is open. Gigantic advertisements tell him when to stop and find the pause that refreshes. And all this is indeed for his benefit, safety and comfort; he receives what he wants. Business, technics, human needs and nature are welded together into one rational expedient mechanism. He will fare best who follows its directions [and] this attitude – which dissolves all actions into a sequence of semi-spontaneous reactions to prescribed mechanical norms – is not only perfectly rational but perfectly reasonable. . . . It is a rational apparatus, combining utmost expediency with utmost convenience, saving time and energy, removing waste, adapting all means to the end, anticipating consequences, sustaining calculability and security. (Marcuse 1982:143)

Just as the iron rails or track are as much a part of the railroad as the engine and the train, the degree to which automobile transportation is arranged by an anonymous agency separate from the driver and passengers renders the landscape into one apparatus providing for efficient transportation. The extension of this idea would be that people become a part of the apparatus, a familiar argument. However, Marcuse models the relationship between the phenomenon and the kind of consciousness it manifests: compliant acceptance of these technologies and the acceptance of a role within them:
The idea of compliant efficiency perfectly illustrates the structure of technological rationality. Rationality is being transformed from a critical force into one of adjustment and compliance. Autonomy of reason loses its meaning in the same measure as the thoughts, feelings and actions of men are shaped by the technical requirements of the apparatus which they have themselves created. . . .” (Marcuse 1982:147)

Further, this form of thought achieves a kind of transcendence, being placed beyond question similarly to ideology. “As the laws and mechanisms of technological rationality spread over the whole society, they develop a set of truth values of their own which hold good for the functioning of the apparatus – and for that alone” (Marcuse 1982:147). Widely adopted, technological systems become a shared frame of reference or fluency in much the same way that newspapers do for Benedict Anderson’s imagined community (Anderson 1983:26–46). The political form defined by a specifically technological rationality is a technocracy, a word familiar from de Certeau (1984) and defined by Marcuse as a regime in which technical considerations of efficiency and rationality supercede welfare concerns, resulting in continued oppression and scarcity despite society proceeding along lines that capture and conserve greater energies than had previously been possible. And yet, all rational action perpetuates existing relationships and materialities. Like habitus, this regime is self sustaining.

Initially the city was the sole consumer of electricity in Annapolis, as stated above, and by the early 1900s the city still comprised around 20 percent of the revenue generated by the utility. This interrupted the relationship between the utility as a producer and the residents of Annapolis as consumers: lighting of public ways was paid for by the corporation of the city, with tax dollars as a part of the legitimate administration of the municipality, that legitimacy being derived from providing such services in a fair and rational manner. So on the one hand, electricity was produced and sold as a commodity in an exchange between the utility and individual consumers, who paid to be connected to the network and to maintain that connection; on the other, electricity materialized as light was brought to bear on the city within the rational execution of governance in which the municipality provided this service as part of its legitimate operation.

Considering again Marcuse’s characterization of the spread of technological rationality and the development of subjection that is premised
in technology, we see here a relationship between what the municipal government provides for the city and what individuals in the city provide for themselves, their homes and businesses, their private affairs:

Today the apparatus to which the individual must adjust and adopt himself is so rational that individual protest and liberation appear not only as hopeless but as utterly irrational. The system of life created by modern industry is one of the highest expediency, convenience and efficiency. Reason, once defined in these terms, becomes equivalent to an activity which perpetuates this world (Marcuse 1982:145)

i.e. the reproduction of existing relations and materialities and the resignation to get along within them.

**Conclusion: The Context for “Modern” Utilities in Archaeology**

With few exceptions and perhaps because of its closeness, contemporary technology seems to be transparent to contemporary archaeologists (Schiffer is an important exception, see his publications from 1991, 1993, 1996, 2000, as well as others mentioned in this text). Archaeological approaches to 19th century modernization are rare, and perspectives on electricity are virtually non-existent, perhaps because archaeologically electricity is non-existent. It is at best difficult to trace using contemporary methodologies employed by archaeologists. However, electricity complements the current volume because it has no a priori materiality, but rather one that derives from specific productive applications and practices, enacted daily in ordinary uses and misuses.

A series of buildings illuminated by electric light occur along a circuit. What would truly be the architectural form in such a case, the buildings or the larger network into which they are wired? Such networks undermine perceptions of the city as a series of disconnected structures, each bearing an autonomous existence. Form comes to be less a matter of bricks and mortar and must begin with larger scale constructions that resemble a diagram or a plan, though they need not be abstracted as such. The circuit is planned before the actual network is drawn out in space, but plans are subject to all sorts of appropriations and misreadings. When did planning end and execution begin? What was left unplanned,
to be solved by the practical logic of engineers and workmen who carried out the actual electrification of the city? We can go further to consider this new “form” as less the circuitry materially extant, the poles, the wires, and so on, and consider instead the actual current that these constructions convey, understanding electricity metaphorically as engineers do, as a substance that flows or as a crowd of particles moving along its conduit in one direction or the other. At such point, the form described is not fixed but rather “at any given moment is a function of those who are operating within it. . . . This raises the question of whether a place is defined by a floor, roof, walls or by the point at which one enters the electrocommunication system . . .” (Bertomen 1991:15). One holds a place along a circuit, accessing current in varying amounts and from time to time along rhythms that are organic in some ways, mechanistic in others. Demand is a question of how the crowd behaves, and would to an extent determine “form.” The mechanical workings of modern life, the utilities of our industrialized present, take on a palimpsest-like quality as the route is retraced and improved technologically and organizationally, leaving a relict network alongside the existing live one.

The fetishization of commodities extends from the truths that predominate in other areas. Thus, the best of metaphors for modern technology and modern life presents itself: not the myriad commodities, which are deceptive in their unitary existence, their individuality, interchangeability, and their invisible process of distribution, but rather, the light switch, the water tap, the gas jet that leads back to a source. One might argue that, even more than the system of objects, the network of services provided in modern life is particularly available as a graphic illustration of the connectedness implicit in technology. The connections that have existed in the past, as likely as not, persist in a form apprehensible to archaeology.

Notes

1 Mayors Reports to the City Council of Annapolis are available in the Marylandia Collection, University of Maryland Libraries Special Collections, College Park, Maryland.

2 Annual reports made by to the Maryland Public Service Commission starting in 1910 are held at the Maryland State Archives and were reviewed by the author in January of 2002.
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— 1889b How a Town is Made to Progress. In Evening Capital, July 11: 3. Annapolis.
— 1889c Left in Darkness. In Evening Capital, September 2: 3. Annapolis.
— 1889d Left in Darkness. In Evening Capital, October 14: 3. Annapolis.
— 1889e Left in Temporary Darkness. In Evening Capital, August 8: 3. Annapolis.
— 1889g Painting by Electric Light. In Evening Capital, July 6: 3. Annapolis.

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