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Assembling Paperwork and Material Infrastructures: A New Materialist Inquiry on Modern State Formation

Evraklar ve Maddi Altyapıların Öbekleşmesi: Modern Devlet Oluşumu Üzerine Yeni Materyalist Bir Sorgulama

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Abstract

This paper looks at nonhuman forms of state formation. The state is a socio-material assemblage of human and nonhuman materials, technologies, natural forces, and etc.. It is neither a rational human actor or an instrument, nor is it an ideologic reification that conceals real social domination and exploitation, nor is it a sociolinguistic construction that codifies multiple and dispersed governmental techniques. The fact that the state is constructed does not preclude it from being an actual entity with real effects. This paper considers paperwork and infrastructure as apparent materializations of state power. Paper production and its circulation within routine bureaucratic practices, as well as infrastructural technologies that drive natural forces, bring the state together while also allowing it to govern over people and land. Infrastructures are actants that form state-citizen interactions. There are competing political ambitions, economic interests, expertise, technology, and materials underlying their construction and maintenance. Modifications in their composition and function over time affect citizens' perceptions and their conduct toward the state. As opposed to the dualist ontology of social constructivism, which implies a contradiction between nature and culture, matter and meaning, origin and construction, this paper argues that state formation is an ongoing process in the continuity and entanglement of so-called dualities.

Keywords: State Formation, New Materialism, Assemblage, Paperwork, Infrastructures

Öz

Bu makale devlet oluşumunun insan olmayan biçimlerini ele almaktadır. Devlet insan ve insan olmayan materyallerin, teknolojilerin, doğal kuvvetlerin, vd. sosyo-materyal öbekleşmesidir. Ne insan-benzeri rasyonel bir aktör ya da şey-benzeri bir araç, ne gerçek toplumsal tahakküm ve sömürüyü gizleyen ideolojik bir şeyleştirme, ne de çoklu ve dağınık yönetim tekniklerini kodlayan sosyo-dilbilimsel bir inşadır. Devletin inşa olması, onun gerçek etkilere sahip aktüel bir varlık olmasını engellemez. Bu makale evrak işlerini ve altyapıyı devlet iktidarının en belirgin maddileşmeleri olarak değerlendirir. Rutin bürokratik pratikler içerisindeki kâğıt üretimi ve dolaşımı, doğal kuvvetleri harekete geçiren altyapı teknolojileri devleti bir araya getirirken aynı zamanda insanlar ve ülke üzerinde iktidar icra etmesini sağlar. Altyapılar devlet-yurttaş etkileşimlerini biçimlendiren eyleyicidirler. İnşaları ve sürdürülmelerinin ardında rakip siyasal hırslar, ekonomik çıkarlar, uzmanlıklar, teknolojiler ve materyaller vardır. Bunların bileşiminde ve işlevinde zaman içinde meydana gelen değişiklikler, yurttaşların devlete dair algılarını ve tutumlarını etkiler. Bu makale, sosyal inşacılığın doğa ve kültür, madde ve anlam, köken ve inşa arasında çelişki varsayan düalist ontolojisinin aksine devlet oluşumunun sözde ikiliklerin sürekliliği ve dolanıklığında devam eden bir süreç olduğunu savunmaktadır.

Anahtar kelimeler: Devlet oluşumu, Yeni materyalizm, Öbekleşme, Evraklar, Altyapılar

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Introduction

The growing power of supranational economic institutions, increased movement of capital, labor, goods, technology and information, global threats of terrorism, war, migration, environmental disasters, and epidemics are perceived as challenges to nation-states. The state is considered obsolete. The power of the state in the international system, economy, and social life are heavily contested, particularly in issues of globalization and neoliberalism. State phobia was common among Marxists and liberals at the dawn of the crisis of the European welfare state, as Foucault observed with remarkable clarity, long before neoliberal withdrawal discourse was popular. The concept of the state as an anthropomorphic being is concealed under the assumption that it strengthens and lessens over time, that it is born and it dies. Leviathan has always been the most powerful image of the state. Many philosophical claims, from Hobbes to Weber and further, have sought to clarify the state's ontological status and legitimacy, its right limits, and appropriate tasks, and how it is related to the people.

During the early Cold War, American political scientists saw the term "state" as a scientifically unfounded European myth and preferred to use "political system" (Almond, 1960; Easton, 1963). Scholars were entrusted with presenting an ostensibly stable American political system as a model of modernization for emerging nations (Mitchell, 1999, p. 78). The emancipation movements of the 1960s proved that the political system that pluralists claimed was in balance failed to establish social norms and persuade people of these compelling norms. Then, there was a revival of state theory with the instrumentalism-structuralism debate, to which Poulantzas and Milliband were protagonists. Milliband maintained the traditional Marxist opinion that the state was a bourgeois instrument, but Poulantzas, influenced by Gramsci and Althusser, recognized the state's relative autonomy in terms of its structural role in the reproduction of class society structure.[1] Weberian historical sociologists criticized Marxist and pluralist theories for being overly focused on society, calling for "bringing the state back in" (Evans, Rueschemeyer, & Skocpol, 1985). Accordingly, the state is an administrative and repressive organization that is potentially autonomous from socioeconomic structures and interests. It is organized to maintain control over its territory and population on the one hand, and to compete militarily with other states in the international system on the other (Skocpol, 2004, pp. 44, 59). This offers a historical sociological argument for modern state formation. The modern state is built on military-fiscal needs. The organization of coercion and the conduct of war resulted in political centralization, the modern tax system, internal security, and courts (Tilly, 1985). As a result, the state has a macrostructural reality that stands above and beyond society. The organizational realist perspective reifies the state as a rational and integrated actor with a human-like agency capable of acting in its own interests.

This paper is an attempt to consider the state in non-reified yet realistic terms. It echoes the reification critique leveled against Marxist and Weberian theories of the state (Abrams, 1988; Bourdieu, 1994; Trouillot, 2001). The state is not a distinct entity in the sense of an anthropomorphic sovereign or bourgeois instrument. It is not an authoritative power or bureaucratic field above and beyond society. It is a social construct since it is not an ontologically being-in-itself. However, unlike constructivist ideas, the state is neither a simple ideological edifice that conceals real dominance, nor is it a discursive achievement

that encodes concrete power relations and governmental processes. The fact that the state is a construct does not diminish its existence as a living assemblage with actual affects. The recent material turn in the social sciences offers a way to think about the state in realistic terms. This paper refers to assemblage thinking and actor-network theory, which enable an understanding of reality independently of the human mind and conception. The contribution of the two theoretical underpinnings confirm that the state is a construct and is looking for a more-than-human perspective on it. It is obvious that the insights of Foucault and the subsequent governmentality literature about routine and everyday operations, practices, and techniques that constitute the state have greatly contributed to our understanding. The Foucauldian nominalism, on the other hand, keeps a nature-culture dichotomy that sustains anthropocentrism, and treats matter as inert and distant in the face of the human world, whether through the lens of linguistic devices or so-called concrete power relations. Any genealogy of the state in concrete terms must look at not only governmental procedures and techniques, but also the mundane materiality of statehood. This paper focuses on the paperwork and physical infrastructures, where the state's materiality is most obvious. It offers an overview of dominant approaches in state theory, while building a critical discussion of governmentality literature as well as a theoretical reflection on how to use the material to rethink the state. Furthermore, it draws on current ethnographic studies on paperwork and material infrastructures, and it gives examples of state materialization processes in Turkey, which could guide future research.

Analytics of Government: A Genealogy of Modern State

Foucault is an outspoken opponent of broad notions of the state. The idea of the state appears methodologically unproductive in the microphysics of power, which analyzes the complex and detailed nature of power relations. Power relations and their analysis are beyond the boundaries of the state (Foucault, 2005, pp. 72-73). The state issue, which was abandoned in the microphysics of power, was brought back in the sequel with the concept of governmentality. Foucault criticized the "overvaluation of state" in liberal and Marxist accounts. The state is nothing more than a "hybrid reality" and "mystified abstraction" that has never had the unity, individuality and functionality given to it (Foucault, 2007, p. 109). It is neither universal nor autonomous source of power. The state is a mobile shape of ongoing *statifications* of numerous governmental techniques and processes (Foucault, 2008, p. 77). So, analytics of government is a "genealogy of the modern state and its apparatuses that is not based on… a circular ontology of the state asserting itself and growing like a huge monster or automatic machine, but on the basis of a history of governmental reason" (Foucault, 2007, p. 354).

Following Foucault, his colleagues deconstructed the institutional reality given to the state, and studied power relations beyond it. Rose and Miller, two of Foucault's most well-known followers, proposed "taking the state back out" as opposed to the "bring the state back in" agenda of the historical sociology of state formation. Rather than "amounts of revenue, size of the court, expenditure on arms, miles marched by an army per day", a government analytics should focus on the discursive field in which such problematics of government are recognized (Rose & Miller, 1992, p. 177). State appears as a historically variable linguistic device. It is a specific way of discursively codifying governmental

problems, dividing the political sphere with its own ways of rule from other non-political spheres, or granting institutional durability to certain governmental technologies rather than being an essential or functional entity. Anglo-Saxon governmentality studies misrepresented Foucault as having no interest in the state (Curtis, 1995). Scholars who read the courses at the *College de France* discovered that Foucault, who previously suggested the king's beheading, did not simply dismiss the state when questioning the unity attributed to the state, but rather considered the state in the context of a more general history of power relations and governmentalities (Biebricher & Vogelmann, 2012; Jessop, 2007; Lemke, 2007).

This theoretical shift results in the emergence of new literature that addresses the empirical and everyday dimensions of state formation. In fact, understanding the state entails being preoccupied with the mundane processes (Painter, 2006). States are not simply functional bureaucratic apparatuses, but also strong sources of symbolic and cultural production, which are represented and understood in certain ways (Corrigan & Sayer, 1985; Steinmetz, 1999). Accordingly, the state becomes embodied in people's lives through routine bureaucratic procedures such as lining up for a monthly ration or sending a letter, obtaining a notarized document or answering enumerator's questions, paying taxes or going through an inspection, applying for a passport or attending a hearing (Aretxaga, 2003, p. 396; Comaroff & Comaroff, 2000, p. 328; Hansen & Stepputat, 2001, p. 8; Sharma & Gupta, 2006, p. 11).

Akhil Gupta, a well-known post-colonial state theorist, investigated how the state, as a trans-local structure in the discourse of corruption arising from villagers' daily encounters with lower-level officials and their routine bureaucratic practices, was established in people's imagination while also embedded in the fabric of daily life (Gupta, 1995). People experience the state as a concrete and all-encompassing reality with distinctive spatial characteristics. Routine bureaucratic practices foster the two pillars of the spatially reified state image, which are perceptions of the state being vertically above society and encompassing all localities from the body to household, neighborhood, urban, and regional (Ferguson & Gupta, 2002).

Contrary to the idea of a coherent and integrated actor-state as the source of power, *cultural turn* and governmentality argue that the state is a social construct that has the effect of interrelated political, economic, and social networks through diverse discourses and meanings. It is an effect of governmental technologies and practices or a discursive construct that manifests itself in people's minds through maps, textbooks, flags, ceremonies, and monumental buildings. However, that approach simply recognizes the representational power of material culture and overlooks the materiality of technology and apparatuses (Molnar, 2016).

The body, natural processes, the built environment, and technologies are discussed in the microphysics of power, biopolitics, security apparatuses, and governmentality. In the analytics of power, Foucault introduced *dispositif* as a system of relations between discursive and non-discursive practices (Foucault, 1980, p. 194). Similarly, "government is the right disposition of things arranged so as to lead to a suitable end". It is the "administration of things" that governs people, just as "to govern" a ship struggling with eventualities of winds, reefs, storms, and so on (Foucault, 2007, pp. 49, 96-97). Despite

all these references, does Foucault take the materiality of matter seriously enough?

Foucault technically discussed the development of disciplinary writing, but he failed to address the technological and material evolution of paper and writing tools as an actual agent able to affect political programs (Dittmer, 2017, p. 45). He mentioned the prison where individual bodies were disciplined but excluded the construction technology, engineering, and materials that made possible such a physical environment. Foucault and following governmentality studies looked at the subjection of a population's biological processes to governmental processes, that modern government operates by regulating the population and its environment, and that it is a process that extends beyond the state and encompasses a wide range of expertise. While governmentality studies recognized the relevance of science and technology in politics, they exclusively addressed mentalities (Carroll, 2006, p. 7) and ignored the materiality of vital infrastructure and the physical environment (Behrent, 2013, p. 82). Governmentality appears to be restricted to how people's conduct is conducted. But, the existence of materials, their performance, and the management of the effects they produce are at the heart of politics (Barry, 2013, p. 181). Nonhuman nature is simply not subject to governmental intervention (Anand, 2017, pp. 216-217). The built environment, objects, machines, and technologies are neither social constructs reflecting people's intent nor inert things serving to provide a foundation for social interactions, power relations, and human organizations (Barry, 2001, p. 11). It is difficult to understand the macro reality of the state from the microphysics of power or to discuss the *statification* of local, dispersed governmental tactics and practices without the intermediaries of materiality.

Assembling State: Material Turn in State Theory

The *material turn*, including science and technology studies (STS) on the social construction of scientific phenomena and large technical systems, as well as an actor-network theory (ANT) and assemblage thought on the agentic capacities of non-human materials and processes in political and social life, led to historical and ethnographic studies on the critical role of infrastructure, built environment, technology, science, engineering, and nature in the formation and daily functioning of modern states (Joyce & Bennett, 2010). New materialists criticize the social constructionism for maintaining the nature-culture dichotomy and anthropocentrism by putting human meanings and intentions at the center of the universe. (Braidotti, 2013; Connolly, 2013; Fox & Alldred, 2017; Rekret, 2018).

Materiality consists of more than simply "matter". It has an excess, force, vibrancy, and relationality that forces matter to be active, creative, productive, and unpredictable (Coole & Frost, 2010, p. 9). Material world is relational and in constant flux. There is a single plane of consistency and material continuity formed of matter-energy flows. The physical and social worlds are the material effects of a constantly changing world. Agency is not a uniquely human trait, but rather a capability that inorganic life and entities of all kinds may possess to varying degrees. All human or non-human bodies are heterogeneous, uneven, outwardly open, affective assemblages whose acting forces and capacities change depending on their interaction with other bodies and their environment (Barad, 2007; Bennett, 2010).

Assemblage is the English translation of the French term *agencement* used by Deleuze and Guattari. "It is a multiplicity which is made up of many heterogeneous terms and which establishes liaisons, relations between them, across ages, sexes and reigns - different natures" (Deleuze & Parnet, 2007, p. 69). Assemblage is not a hierarchically structured organic whole, but it exhibits a degree of consistency driven by co-functioning to produce specific effects. Similar to the ANT, it offers a broad view of the social, consisting of both non-human and humans, and recognizes the fact that the "world has to be built from utterly heterogeneous parts that will never make a whole, but at best a fragile, revisable, and diverse composite material" (Latour, 2010a, p. 474). Consider the feudal knight as a "man-horse-stirrup" assemblage (Deleuze & Guattari, 1987), or the early Mesopotamian empires as assemblages of "geology-hydrology-solar-biology-technology-politics" (Protevi, 2013).

Assemblage lets us reimagine the state in several ways. First, the idea of an organic state, which is hierarchically ordered with well-defined boundaries and functions, is replaced by a heterogenous, contingent, ongoing, fragile but with a variable degree of coherent formation. Second, it is no longer possible to postulate an ontological distinction between nature and culture, because a wide range of non-humans, both natural and artificial, perform agency in the ongoing formation of state. Third, the fact that an assemblage is an emergent whole generated through the interaction of its component pieces doesn't imply that it can be reduced into those parts. Assemblage has agency over its constituents once it is assembled (DeLanda, 2006, p. 34). Therefore, the assembling state is an actual entity with actual effects. Fourth, the assemblage's flat ontology displaces the reified spatial and scalar image of the state. It rejects centralizing essentialism in both the up-down vertical imaginary and the radiating (out from here) spatiality of horizontality (Marston, Jones III, & Woodward, 2005, p. 422).

State theory is built upon scalar thought, the traditional Euclidian, Cartesian, and Westphalian notions of a geographical scale as a fixed, bounded, self-enclosed, and pre-given container. However, scales are contingent effects of various networking practices rather than preexisting frames of action, or structural frameworks in which processes may operate. Discursive and material scalar apparatuses strive to transform scales into striped, stratified, hierarchical, ahistorical frames with defined relationships, functions, and limits (Isin, 2007; Legg, 2009). ANT's alternative notion of scale refers to bigger or smaller networks, not levels, spheres, or layers. Scalar thought presumes a top-down or bottom-up order, as if a society truly had a top or a bottom (Latour, 1996, pp. 371-372). Being wider or larger in level or size is not what separates the macro from the micro, the global from the national, or the national from the regional. Rather, it is to have a greater number of connections. The purpose of social theory is to explain how particular networks and interactions consolidate in the face of overwhelming opposition, create institutional patterns, and become macrosocial entities (Law, 1992). How do people act as though they are one person? How does a micro actor evolve to become a macro actor? It is a translation procedure that necessitates employing non-human agents. While building social networks, people cannot rely on symbolic relations. They need to use more "durable" materials (Callon & Latour, 1981, p. 284). Consider Benedict Anderson's concept of an "imagined community" for the nation. It is a social construction built on

imagined bonds through print-capitalism and print-languages that provide a unified field for communicative exchanges (Anderson, 1991, pp. 44-45). However, it is impossible to imagine the formation and survival of a nation or a nation-state without the hard work of "innumerable nonhuman agents such as print machines, newspapers, telephone and railroad lines, roads, coastal steamers, geological surveys, post offices, national museums, stamps, maps, trigonometric points, border fences, and custom points" (Olsen, 2010, pp. 140-141). There are two ways to understand the materiality of the state and its materialization process in this study: paperwork and infrastructures.

Paperwork

People complain about the red tape of bureaucracy, the vast amount of paperwork for the most basic tasks, and the time wasted running about between departments and civil servants. To begin, draft and sign a petition in the relevant form. It must be submitted with additional supporting documents. Locate the officer on-site and ensure that your petition is stamped and recorded. It is not uncommon for a petitioner to be refused due to misspellings or a lack of documentation. According to Weber, modern state offices rely on the performance of civil servants and the circulation of written documents (Weber, 1978, p. 219). He lowers the latter to a passive means of bureaucratic organization built around norms and regulations. Weber regards Bakunin's anarchism as naive for believing that by destroying archives, the obligations that subjugate people may be eliminated. Because it is the established rules and regulations, irrespective of written documents, that keep the bureaucracy running (Weber, 1978, p. 988). But a modern bureaucracy would be impossible without agentic roles using a wide range of materials. The primary one of them is paper, whose usage and circulation have grown in the everyday operations of the state (Latour, 1986, p. 28).

The "archive-conscious paper state" emerged in the early modern period. Absolute monarchies adopted ecclesiastical scriptural and archival technologies to keep track of their subjects' lives. There were monarchs who sat at a desk rather than riding a horse, surrounded by scribes rather than knights, who grappled with mounds of documents rather than adversaries, and who boasted of knowing everything that happened throughout their reign. Philip II, the King of Spain, was known as "the king of paper" among his subjects (Burke, 2008, p. 119). The state is more interested than ever in when, how, and with whom people do what. It results in an uninterrupted writing activity. The microphysics of power is at work in disciplinary writing. It comprises several smaller techniques such as taking notes, keeping records, fabricating files, and organizing facts into columns and tables (Foucault, 1995, pp. 189-190).

Bureaucratic writing is often seen as a tool of hierarchical mechanisms of authority and control. Written materials are just manifestations of formal organizations and interactions. However, there is a complex paper economy-politics. Increased file circulation and detailed documentation practices may not necessarily result in an enhancement of institutional control. Decisions made through a dossier may weaken managerial authority over staff by making it difficult to identify who is doing what (Hull, 2012, pp. 114-115). Furthermore, paperwork has a life of its own. It is not a simple job to draft and reproduce documents. Despite the printing revolution, modern office clerks, like medieval monks, remained to

craft and reproduce documents using feathers extracted from geese, inks derived from gall nuts, and surfaces made of dirty rags and animal skins. It required a long, laborious, and error-prone procedure to transform these basic materials into documents, archives, and power. Important reports and critical notifications could be ruined by broken quills and spilled ink. Many faults in the document fabrication were rectified, but not totally eradicated, with the invention of wood-based paper, synthetic inks, and metal nibs in the nineteenth century. Pen nibs break and ink smears. Handwriting is distorted. Even if the writing on the paper was clear, the document could arrive late or not at all. Despite the challenges, paperwork became a technology of political representation. The claimant must gather documents supporting his claim, submit it to the appropriate government agency with the letterhead and signed petition, and wait for a response. He cannot rely on personal ties with those in power. A universe of rights replaces the world of privileges (Kafka, 2012).

The quantity, density, and speed with which paperwork circulates contribute to the internal consistency of heterogeneous state assemblage. Paper is more than just a substance that represents "outside" reality (Asdal, 2015). It is an actant in the production of facts, as well as in the processing and modification of reality. Localities may be recorded and conveyed to a distant center of power thanks to the material composition of paper and technologies that embody this composition in paper form. While traditional institutional histories emphasize human decisions and action, it's difficult to think of a laboratory, government office, judiciary, ministry, or parliament without the plethora of paperwork performed using papers and files. Many non-human agents have a part in the formation of a scientific discovery, administrative decision, litigation, policy, or legislation (Latour, 1987). Take a post office and the national postal system, which are vital to the flow of information in the modern state. The extensive postal network ensures the state's internal stability. Its operation, beginning with the mailbox, require the mediation of a plethora of things: staples, stamps, inks, envelopes, papers, forms, furniture, sorting and transport systems, maps, street names, and home numbers (Joyce, 2013).

Bruno Latour traced files through the halls of France's highest court, the Conseil d'Etat. How do you make a case file that is ready to use? Each case in France is wrapped in a cardboard file held together by elastic bands (Latour, 2010b, p. 71). Stamps, rubber, paper clips, and other office items are crucial in court. The complaint, which is accompanied by a fax or a petition, is converted into a file that grows with the evidence, expert reports, notes, and receipts before being presented to the judge. Papers and files circulate through departments, hierarchies, and floors. As a result, preparing the bulky file for court is a difficult and thorough procedure mediated by numerous types of materials. Similarly, Jason Dittmer analyzed the agency of paper, documentation, and archiving procedures in the long history of the British Foreign Office. For the first time, foreign affairs were understood as distinct from other aspects of statecraft. They should be performed by a specialized office. The formation of a foreign office as a specific apparatus within the general state assemblage would be unthinkable without material practices and materials. Paper as a diplomatic material affects the foreign policy choices and the daily functioning of diplomacy. Problems such as the location and physical characteristics of the building where foreign affairs are conducted, increased paperwork, paper usage, and archival

storage all play an important role in this process. It results in novel architectural solutions that improve efficiency (Dittmer, 2017).

A typewriter, keyboard, or photocopier can be used in place of handwriting. Records may be adapted to electronic media, and documents in dusty archives can be backed up on hard drives. The state machine in government offices may evolve with new components to perform more quickly and effectively. The frightening and disappointing atmosphere of government offices, such as in Turkey, can leave lasting impressions in the memory of citizens who experience it over time. It can be handled and escalated by neoliberal reformers' and new public managers' rhetoric, leading to dramatic administrative and technological adjustments. Turkey has made steps toward digitalizing public administration in a way that is uncommon worldwide. Most public services are now available through a single website called "e-devlet kapısı" (e-Government Gateway). It evokes the Sublime Porte, the historic Ottoman government complex that gained the title from its big and majestic gate that is still physically present today in Istanbul. Citizens who log in to the website via their usernames and passwords issued by PTT (state-owned Post and Telegraph Agency) can download barcoded samples of official papers, which they previously had to physically request from different agencies to their own personal computers in pdf format 24 hours a day/seven days a week (24/7). Of course, it comes with its own set of risks. The network may malfunction, and a citizens' personal information could be leaked. That is exactly what happened. People are nonetheless glad to be partially rid of grumpy personnel who said go now and return tomorrow, the gloomy atmosphere of government offices, the never-ending queues, and the money paid for each copy of official documents. However, paperwork remains, with transactions being physically printed on paper, filed, and archived. People will be obliged to visit government offices to get a sense of place. Larger and more gorgeous public buildings will continue to be built.

Material Infrastructures

When we leave government offices, we are still in a built environment. This physical setting, which surrounds daily living, is outfitted with a wide range of infrastructures. People are subjected to governmental effects in their daily lives through means other than discourse and ideology. The built environment and physical infrastructures facilitate the ongoing activities of daily life. However, unlike documents that display clear signs of the state, the relationship between these infrastructures and the state is far more oblique. The state has its most concrete and naturalized existence in the infrastructural form. Infrastructures are thought of as basic tools employed by the state to extend its jurisdiction. But these are "intermediators" who actively participate in the formation of states, not merely mediators who allow us to imagine the state.

Infrastructures are social-material assemblages that mobilize resources such as labor, capital, materials, science, and technology in their construction and maintenance. Modern infrastructures are defined by the fact that they are designed to be hidden behind other structures (Star & Ruhleder, 1996). It is a "black box" effect that conceals the underlying social, economic, political, and material relations. Infrastructures appear to be resilient, reliable, and uncontested technical systems of rational planning. Nonetheless, the idea of "infrastructural inversion" reveals hidden connections among people, things, institutions, development ideologies, authorities, and inequalities (Bowker & Star, 1999).

It is a modern phenomenon that brings together engineering, technology, political will, and economic ambition to build standardized infrastructures that integrate nation-states (Harvey & Knox, 2012). Chandra Mukerji's studies of seventeenth-century France give insight on the overlooked importance of material infrastructures and engineering practices in the rise of modern states. The impersonal, centralized, and territorial state, according to Mukerji, is neither the result of centralization in which the means of violence are monopolized in accordance with a rational-legal authority nor a necessary social development. It is more about the specific arrangement of things, the mobilization of nature, and the transformation of the landscape. The work of ordering things, however, is not a linguistic classification of the natural world in the Foucauldian sense, but rather a material achievement performed in the field via engineering practices (Mukerji, 1997, p. 324). France becomes a territorial state not only in people's minds or on a map, but physically in the landscape with fortifications that secure borders, roads and bridges that connect cities and villages and enable rapid deployment of troops, canals and waterways that allow the navy to navigate between the Atlantic and the Mediterranean without crossing the Strait of Gibraltar. It emerges as an "unintended state" from the improvisation techniques of ordinary actors (Mukerji, 2010b). The logistical power, which allows it to transform the landscape and mobilize nature, is responsible for its legitimacy and impersonal administration (Mukerji, 2003, 2010a).

The infrastructural state evolved in the nineteenth century. Infrastructures, with their physical forms, material compositions, and technological mechanisms, enabled the power to control and direct the circulation of vital substances, as well as people and manufactured goods. Land, people, and the built environment were materially incorporated into governmental processes through scientific-engineering practices (Carroll, 2006). New measuring, calculating, planning, mapping, and engineering practices emerged into infrastructure design, construction, and maintenance, as did a new style of administration founded on centralized knowledge and expertise (Guldi, 2012). State-planned and funded infrastructures have become a common aspect of daily life.

Infrastructures, according to Foucault-inspired scholars, are governmental technologies utilized by liberal governance. They were material conditions of the liberal milieu that allow for the free movement of people and things, particularly in metropolitan areas. Sewers, water pipes, and electrical wires that pierced and connected their residences and were a daily component of their private affairs were far easier and more reliable to govern people's conduct than census takers, teachers, physicians, and military officers (Gandy, 1999; Joyce, 2003; Otter, 2002). Liberal forces were less sensitive at urban peripheries, rural and colonial frontiers. Infrastructures were the authoritative and disciplinary tools used on deprived bodies of urban workers, just as they were the technologies of dominance over land and people as exploitable resources in the colonial world (Prakash, 1999, p. 161). They instilled disgust for the "other," promoting stereotypes of colonial peoples' uncivilized and polluting bodies.

The uneven infrastructures inherited by colonial rulers constituted the material foundation of the post-colonial emergent nations, that furthered development understanding. Large technical systems were emblematic infrastructures of the Cold War-era transnational technopolitics.[2] Rival superpowers sought to expand their influence in

emergent nations by providing technical and financial assistance. The United States Bureau of Reclamation, for example, was a geopolitical agent within technopolitical networks, seeking to spread the Tennessee Valley Authority's multipurpose project of developing an entire river system as a universalized model of river basin development, including high dams, irrigation canals, flood control systems, and hydropower plants (Sneddon & Fox, 2011). These were outstanding in the scale in which they changed resource allocation over space and time, among entire populations, and ecosystems. They promised more than agricultural prosperity or technological improvement for postcolonial governments. It was the ability to engineer the natural and social environment that best represented a modern state's strength as a techno-economic power (Mitchell, 2002, p. 21).

Any modernization, whether in the West, the communist world, or the Third World, produced infrastructured rural landscapes, an engineered socio-natural environment. Increasingly complex and interconnected infrastructures actualized the networked physicality of the modern state, both domestically and in wider geopolitical relations. Ottoman-Turkish modernization was an early example of modern infrastructures utilized as a concrete way to civilization and development in a non-Western context. It was the contentious history of an emergent state concerned with the well-being of its population and the extension of its actuality in socio-natural localities. The Ottoman Empire integrated into the expanding techno-political networks of the nineteenth century. The imperial realm was physically reshaped, and not limited to the built environment of the capital and large port cities. Railways, *chaussee* roads, and telegraph lines crisscrossed the rural landscape. It was equipped with ports, coal depots, and quarantine stations. The reclaimed rivers and lakes became navigable. The drained swamps provided new agricultural fields. Irrigation canals transformed the plains into fertile agricultural basins (Akpınar, 2021; Barak, 2020; Bolaños, 2022; Gratien, 2022; Low, 2020; Petriat, 2014). It represented the "will to improve" conditions of the population deemed in need of improvement, typical of developmental state bureaucracies (Li, 2007). They were a key aspect of social and political engineering (Dalakoglou, 2017, p. 162) that made the social world legible to the state in a constant and coercive manner (Scott, 1998). However, it was not only imperial bureaucrats and experts, but also foreigners, local actors, the press, and the public that played a role in the infrastructural expansion. As a result, people were frequently engaged in actual political struggles that brought the infrastructural connection into existence. It embodied the people's desire for development if achieved; otherwise, it would lead them to believe they were ostracized (Harvey, 2018, p. 98).

This is exactly what happened when it came to building a well-connected transportation network throughout Turkiye. It was one of the major challenges of the modernizing state's expanding territorial integrity, and its changing relation to distant localities and the natural environment. The notion of roads as the "blood vessels" of a nation and an essential way to achieve political integrity and economic development in the country dates to the nineteenth century. The state gradually organized for roads. A Western-style organization was established, laws were issued, foreign experts were invited in, and schools were opened for training engineers and public officers. Road construction plans for the entire country were drafted, as were technical standards and maps. It was to construct roads appropriate for horse-drawn carriages (Tekeli & İlkin, 2004). Despite

the railways constructed by European capital, the state had to rely on road taxes and forced labor for road construction. Many plans remained incomplete owing to insufficient engineering, skilled work, and funding.

During the Great War, officers experienced the absence of well-paved roads that granted the circulation of troops and supplies (Aydemir, 1987). In the early Republic period, the single-party government prioritized the expansion of the railway network above highways. Most of the population was isolated in villages, lacking access to roads and markets. Following WWII and the multi-party system, the infrastructural development of the Anatolian rural landscape defined Turkish politics. The construction of highways connecting Anatolia's remote villages and towns to the rest of the nation and world markets was a political matter agreed upon by landowners, middle peasants, townspeople, politicians competing for power, foreign experts, and American geopolitical interests. America provided knowledge, expertise, methods, and technology (Adalet, 2018). The state was reorganized by founding a self-governing agency, the General Directorate of Highways specialized in road construction and maintenance, similar to the US Bureau of Public Roads. Scientific research methods, computer-based calculations, and mechanized earth-moving and construction machines transformed road building from labor-intensive to a technically and technologically complex operation. The few macadam roads were first replaced by more extensive stabilized roads. Asphalt was gradually utilized to pave road surfaces. This method was meant to connect as many places as possible to the road (Hilts, 1948). The roads were curvy, narrow, bumpy, and dirty. They were neither speedy nor safe. Nonetheless, the road to a village was unlike the state's authoritative and disciplinary face of gendarmes, census takers, tax collectors, physicians, and teachers. It was a promise of redemption for villages decimated by poverty and disease. It proclaimed and carried new opportunities, such as health, education, drinking water, electricity, radio, newspapers, food, coffee, household items, coats, shirts, and shoes (Tütengil, 1961). Villagers were now beneficiaries of public services in exchange for votes, rather than forced labor in road building far from their homes and fields, hungry and thirsty, and using rudimentary equipment such as pickaxes and shovels. Just as the state generated speed, movement, and connectivity on highways, it also created citizens as *desiring-subjects* for development and a more prosperous future. Today, the state and Turkish politics continues to materialize in the growth of material possibilities deemed as satisfying ordinary people's development desires through the construction of increasingly complex, growing, and costly infrastructure technologies free of the roughness of the socio-natural environment such as well-paved double and divided highways that traverse deep valleys and high mountains with viaducts and tunnels and are equipped with the highest and longest suspension bridges.

Infrastructures that once embodied the state's power and will to engineer individual and collective subjectivities may succumb to apathy and decay when modifications occur to the assembling constituents or introduction of new governmental rationalities, technologies, and materials. It affects both the way the state treats its citizens, and the way citizens conduct themselves and what they predict of the state. The state may disregard the internal disparity in infrastructure quality and uneven access. It reveals the state's leaky dominance (Anand, 2015). As an example, the neoliberal rationality employs new

specialties, which include calculating techniques, audit systems, and electronic devices to regulate public expenditure on infrastructures vital to citizens. Stephen Collier traces the Soviet social modernization and neoliberal reforms following the collapse of the Soviet Union in the small industrial city of Belaya Kalitva in southern Russia through mundane elements such as pipes, wires, apartment blocks, bureaucratic routines, and social norms assembling the city's collective life. The city, built around an industrial facility, was connected to the factory and to national networks not just by labor ties but also by vital infrastructures, particularly a central heating system. There were no valves and meters to measure individual consumption and "effective demand". This material setup ensured the city's vitality. It also constrained the drive for neoliberal restructuring and marketization. This restructuring led to a cut in the government funding that was necessary to maintain the central heating system which caused the city to decline (Collier, 2011).

Prepaid water meters which force people to pay in advance for a particular quantity of water in post-apartheid South Africa revealed technopolitical aspects of applied technology, such as disputes over citizenship, marketization of public services, and racial and class issues. Prepaid meters led to the emergence of a new sort of "calculated citizenship" in which access to basic public services were based on one's capacity to pay, reducing the state's responsibility to that of a technocratic service provider. It reinforced the patterns of inequality and exclusion by making it harder for low-income households to access reliable water sources (Von Schnitzler, 2016). Water leaks or the illegal use of electricity that was not calculated by the neoliberal audit systems might serve as the basis of an informal relation between the state and citizens. The leaky operation of an infrastructure that defies rational planning and assessment, or apathy and complicity of authorities for this malfunction can assure population governance without producing greater social problems. Alternatively, as mentioned above in Turkiye, costly turnpike highways constructed by public-private partnerships established the state-citizen relation as an all-powerful patron-state backed by market forces and desiring-customers, rather than the state's so-called neoliberal withdrawal.

Conclusion

People may oppose policies or wish to reduce government, but they all expect the government to get work done quickly or upkeep the infrastructures that makes their lives simpler. Even if they dislike what they perceive as the state system, they desire the benefits it delivers, feed it with fresh demands, and fight for them. This paper rethinks the state as an ever-changing assemblage of people and materials rather than a source of power or a totalizing system that, either mentally or physically, encloses all bodies, souls, minds, or positions in an insurmountable iron cage of rational bureaucratic organization. No questions are asked in this paper on what the state is, its origin, who controls it, whose interests it represents, the foundation of its legitimacy, its head, arms, and legs. That approach seems to disintegrate the reality of the state into a formless entity with no coherence. It is somewhat correct because it disregards any a priori existence or consistency attributed to the state. However, it shouldn't lead to a conclusion that negates the state's actuality and renders it into a discursive, ideological, or symbolic fiction. The state occurs not just in the socio-cultural domain, but also in the realms

of paperwork and material infrastructures, where nature and culture, human and non-human, discursive and non-discursive are entangled. Assemblage and ANT offer an ontologically and methodologically more-than-human perspective on state formation. The scale and boundary concerns that have long plagued state theory disappear when the state is considered as a heterogeneous, contingent, and emergent outcome of assembling discursive and non-discursive constituents.

The state is powerful because of its multi-sited, material, and technical assemblage. Its fragile networked assemblage can maintain a certain consistency and function if only the requisite prices for materials are paid. First, documents flowing between floors of a single government office or among agencies geographically dispersed across the whole country give the state the appearance of a tightly woven network just by virtue of their physical form and movement, regardless of the instructions and information they consist of. They might act as vectors for further modifications to the state in which they appear to offer durability, as in the situation of the Turkish government's distinctive digitalization. So, what happens to the apparently all-encompassing state image and the localities it frames as recognizable scales when all public services are digitized, and paperwork disappears? I think the application of the Presidency's Communication Center (CIMER) offers a partial answer. It might, however, be a subject of further study.

Second, statecraft, first and foremost, is to draw a striated space wherein material-energy flows might be caught, governed, and exploited. Infrastructures appear to be effective instruments for the state's extensive power in *enframing* the socio-natural environment. Infrastructures are more than just a conduit for state authority; they are actants in interactions between the state and citizens. Infrastructures that make daily life easier or more difficult have a huge influence on people's perceptions of the state. They may fail to deliver on their promises, causing more issues than they were intended to eliminate, even creating new inequalities. People remain affectively committed to infrastructures despite their uneven development, loss of function and meaning, and failures. As a result, understanding the reality of the state that surrounds us fails without the materiality of matter, whether in the form of paper or large-scale infrastructures. These things are abundant in our surroundings. They empower the state to encompass us and relate our bodies and desires to itself while our conscious is asleep.

1 Poulantzas abandons structuralism in favor of a relational concept of the state. He questions the idea of the state as both a tool and a subject. The state is a social relation. It is the materialization of power relations between classes and class fractions. Poulantzas makes several references to Foucault (Poulantzas, 2000, p. 128). Jessop introduces the "strategic-relational approach" (Jessop, 2008). See also for Marxist debates on the state (Barrow, 1993; Jessop, 1982).

2 Technopolitics is a way of organizing an assemblage of human and nonhumans, things, and ideas in such a manner that human intentions and plans appear to dominate, govern, and regulate the nonhuman world. It is, nevertheless, a technical body in which intentional and human are always vanquished by unforeseeable human and nonhuman interactions (Mitchell, 2002, pp. 42-43).

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References

Abrams, P. (1988). Notes on the Difficulty of Studying the State. *Journal of Historical Sociology, 1*(1), 58-89.
Adalet, B. (2018). *Hotels and Highways: The Construction of Modernization Theory in Cold War Turkey*. Stanford: Stanford University Press.
Akpınar, Ö. (2021). Making Property of a Marsh: Environment, Property, and Politics in Nineteenth-Century Ottoman Ioannina. *Middle Eastern Studies, 58*(4), 487-503.
Almond, G. A. (1960). Introduction: A Functional Approach to Comparative Politics. In G. A. Almond & J. S. Coleman (Eds.), *The Politics of the Developing Areas* (pp. 3-64). New Jersey: Princeton University Press.
Anand, N. (2015). Leaky states: Water audits, ignorance, and the politics of infrastructure. *Public Culture, 27*(2), 305–330.
Anand, N. (2017). *Hydraulic city: Water and the infrastructures of citizenship in Mumbai*. Durham, UK: Duke University Press.
Anderson, B. (1991). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
Aretxaga, B. (2003). Maddening States. *Annual Review of Anthropology, 32*, 393–410.
Asdal, K. (2015). What is the Issue? The Transformative Capacity of Documents. *Distinktion: Scandinavian Journal of Social Theory, 16*(1), 74-90.
Aydemir, Ş. S. (1987). *Suyu Arayan Adam*. İstanbul: Remzi Kitabevi.
Barad, K. (2007). *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham: Duke University Press.
Barak, O. (2020). *Powering Empire: How Coal Made the Middle East and Sparked Global Carbonization*. California: University of Colifornia Press.
Barrow, C. W. (1993). *Critical Theories of the State: Marxist, Neo-Marxist, Post-Marxist*. Wisconsin: The University of Wisconsin Press.
Barry, A. (2001). *Political Machines: Governing a Technological Society*. London: Athlone Press.
Barry, A. (2013). *Material Politics: Disputes Along the Pipeline*. Malden: Wiley Blackwell.
Behrent, M. C. (2013). Foucault and Technology. *History and Technology, 29*(1), 54–104.
Bennett, J. (2010). *Vibrant Matter: A Political Ecology of Things*. Durham and London: Duke University Press.
Biebricher, T., & Vogelmann, F. (2012). Governmentality and State Theory: Reinventing the Reinvented Wheel? *Theory & Event, 15*(3).
Bolaños, I. A. (2022). Water, Engineers, and French Environmental Imaginaries of Ottoman Iraq, 1868–1908. *27*(4), 772–798.
Bourdieu, P. (1994). Rethinking the State: Genesis and Structure of the Bureaucratic Field. *Sociological Theory, 12*(1), 1-18.
Bowker, G. C., & Star, S. L. (1999). *Sorting Things Out: Classification and Its Consequences*. Cambridge: MIT Press.
Braidotti, R. (2013). *The Posthuman*. Cambridge: Polity Press.
Burke, P. (2008). *A Social History of Knowledge From Gutenberg to Diderot*. Cambridge: Polity Press.
Callon, M., & Latour, B. (1981). Unscrewing the Big Levithan: How actors macrostructure reality and how sociologists help them do so. In K. Knorr-Cetina & A. Cicourel (Eds.), *Advances in Social Theory and Methodology* (pp. 277–303). London: Routledge and Kegan Paul.
Carroll, P. (2006). *Science, Culture and Modern State Formation*. Berkeley: University of California Press.
Collier, S. J. (2011). *Post-Soviet Social: Neoliberalism, Social Modernity, Biopolitics*.
Comaroff, J., & Comaroff, J. L. (2000). Millennial Capitalism: First Thoughts on a Second Coming. *Public Culture, 12*(2), 291–343.
Connolly, W. E. (2013). The 'New Materialism' and the Fragility of Things. *Millennium, 41*(3), 399-412.
Coole, D., & Frost, S. (2010). Introducing the New Materialisms. In D. Coole & S. Frost (Eds.), *New Materialisms: Ontology, Agency, and Politics* (pp. 1–43). London: Duke University Press.
Corrigan, P., & Sayer, D. (1985). *The Great Arch: English State Formation as Cultural Revolution*. Oxford: Blackwell.
Curtis, B. (1995). Taking the State Back Out: Rose and Miller on Political Power. *British journal of sociology, 46*(4), 575–589.
Dalakoglou, D. (2017). *The Road: An Ethnography of (Im)mobility, Space, and Cross-Border Infrastructure in the Balkans*. Manchester: Manchester University Press.
DeLanda, M. (2006). *A New Philosophy of Society: Assemblage Theory and Social Complexity*. London:

Continuum.
Deleuze, G., & Guattari, F. (1987). *A Thousand Plateaus: Capitalism and Schizophrenia* (B. Massumi, Trans.). Minneapolis: University of Minnesota Press.
Deleuze, G., & Parnet, C. (2007). *Dialogues II* (H. Tomlinson & B. Habberjam, Trans.). Columbia University Press: New York.
Dittmer, J. (2017). *Diplomatic Material: Affect, Assemblage, and Foreign Policy*. Durham: Duke University Press.
Easton, D. (1963). *The Political System: An Inquiry into the State of Political Science*. New York: Alfred A. Knopf.
Evans, P. B., Rueschemeyer, D., & Skocpol, T. (1985). *Bringing the State Back In* (P. B. Evans, D. Rueschemeyer, & T. Skocpol Eds.). Cambridge University Press: Cambridge.
Ferguson, J., & Gupta, A. (2002). Spatializing States: Toward an Ethnography of Neoliberal Governmentality. *American ethnologist, 29*(4), 981-1002.
Foucault, M. (1980). The Confession of the Flesh. In C. Gordon (Ed.), *Power/Knowledge: Selected Interviews and Other Writings 1972-1977* (pp. 194-228). New York: Pantheon Books.
Foucault, M. (1995). *Discipline and Punish: The Birth of the Prison* (A. Sheridan, Trans.). New York: Vintage Books.
Foucault, M. (2005). Hakikat ve İktidar (I. Ergüden, O. Akınhay, & F. Keskin, Trans.). In *Entelektüel Siyasi İşlevi: Seçme Yazılar 1* (pp. 59-85). İstanbul: Ayrıntı.
Foucault, M. (2007). *Security, Territory, Population: Lectures at the College de France, 1977-78* (G. Burchell, Trans.). New York: Palgrave Macmillan.
Foucault, M. (2008). *The Birth of Biopolitics: Lectures at the College de France, 1978-79* (G. Burchell, Trans.). New York: Palgrave Macmillan.
Fox, N. J., & Alldred, P. (2017). *Sociology and the New Materialism: Theory, Research, Action*. Los Angeles: Sage.
Gandy, M. (1999). The Paris Sewers and the Rationalization of Urban Space. *Transactions of the Institute of British Geographers, 24*(1), 23–44.
Gratien, C. (2022). *The Unsettled Plain: An Environmental History of the Late Ottoman Frontier*. Stanford: Stanford University Press.
Guldi, J. (2012). *Roads to Power: Britain Invents the Infrastructure State*. Cambridge: Harvard University Press.
Gupta, A. (1995). Blurred boundaries: The discourse of corruption, the culture of politics, and the imagined state. *American ethnologist, 22*(2), 375–402.
Hansen, T. B., & Stepputat, F. (2001). Introduction: States of Imagination. In T. B. Hansen & F. Stepputat (Eds.), *States of Imagination: Ethnographic Explorations of the Postcolonial State* (pp. 1-38). Durham: Duke University Press.
Harvey, P. (2018). Infrastructures in and out of Time: The Promise of Roads in Contemporary Peru. In N. Anand, A. Gupta, & H. Appel (Eds.), *The Promise of Infrastructure* (pp. 80-101). Durham, UK: Duke University Press.
Harvey, P., & Knox, H. (2012). The Enchantments of Infrastructure. *Mobilities, 7*(4), 521-536.
Hilts, H. (1948). *Türkiye'nin Yol Durumu*. Ankara.
Hull, M. S. (2012). *Government of Paper: The Materiality of Bureaucracy in Urban Pakistan*. Berkeley: University of California Press.
Isin, E. F. (2007). City.State: Critique of Scalar Thought. *Citizenship Studies, 11*(2), 211-228.
Jessop, B. (1982). *The Capitalist State: Marxist Theories and Methods*. Oxford: Martin Robertson.
Jessop, B. (2007). From Micro-powers to Governmentality: Foucault's Work on Statehood, State Formation, Statecraft and State Power. *Political Geography, 26*, 34-40.
Jessop, B. (2008). *Devlet Teorisi: Kapitalist Devleti Yerine Oturtmak* (A. Özcan, Trans.). Ankara: Epos.
Joyce, P. (2003). *The Rule of Freedom: Liberalism and the Modern City*. London: Verso.
Joyce, P. (2013). *The State of Freedom: A Social History of the British State since 1800*. Cambridge: Cambridge University Press.
Joyce, P., & Bennett, T. (2010). Material Powers: Introduction. In T. Bennett & P. Joyce (Eds.), *Material Powers: Cultural Studies, History and the Material Turn* (pp. 21-64). London: Routledge.
Kafka, B. (2012). *The Demon of Writing: Powers and Failures of Paperwork*. New York: Zone Books.
Latour, B. (1986). Visualization and Cognition: Thinking with Eyes and Hands. In H. Kuklick (Ed.), *Knowledge and Society: Studies in the Sociology of Culture Past and Present Vol. 6* (pp. 1-40): Jai Press.
Latour, B. (1987). *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge: Harvard University Press.
Latour, B. (1996). On Actor-Network Theory: A Few Clarifications. *Soziale Welt, 47*(4), 369-381.
Latour, B. (2010a). An Attempt at a "Compositionist Manifesto". *New Literary History, 41*(3), 471-490.
Latour, B. (2010b). *The Making of Law: An Ethnography of the Conseil d'Etat* (M. Brilman & A. Pottage, Trans.). Cambridge: Polity Press.
Law, J. (1992). Notes on the Theory of the Actor-Network: Ordering, Strategy, and Heterogeneity. *Systems Practice, 5*(4), 379-393.
Legg, S. (2009). Of Scales, Networks and Assemblages: The League of Nations Apparatus and the Scalar Sovereignty of the Government of India. *Transactions of the Institute of British Geographers, 34*(2), 234-253.
Lemke, T. (2007). An Indigestible Meal? Foucault, Governmentality and State Theory. *Distinktion: Scandinavian Journal of Social Theory, 15*, 43–64.

Li, T. M. (2007). *Will to Improve: Governmentality, Development, and the Practice of Politics*. Durham: Duke University Press.
Low, M. C. (2020). *Imperial Mecca: Ottoman Arabia and the Indian Ocean Hajj*. New York: Columbia University Press.
Marston, S. A., Jones III, J. P., & Woodward, K. (2005). Human Geography without Scale. *Transactions of the Institute of British Geographers, 30*(4), 416-432.
Mitchell, T. (1999). Society, Economy and the State Effect. In G. Steinmetz (Ed.), *State/Culture: State-Formation after the Cultural Turn* (pp. 76-97). İthaca: Cornell University Press.
Mitchell, T. (2002). *Rule of Experts: Egypt, Techno-Politics, Modernity*. California: University of California Press.
Molnar, V. (2016). The Power of Things: Material Culture as Political Resource. *Qualitative Sociology, 39*(2), 205-210.
Mukerji, C. (1997). *Territorial Ambitions and the Gardens of Versailles*. Cambridge: Cambridge University Press.
Mukerji, C. (2003). Intelligent Uses of Engineering and the Legitimacy of State Power. *Technology and Culture, 44*(4), 655-676.
Mukerji, C. (2010a). The Territorial State as a Figured World of Power: Strategics, Logistics, and Impersonal Rule. *Sociological Theory, 28*(4), 402-424.
Mukerji, C. (2010b). The Unintended State. In T. Bennett & P. Joyce (Eds.), *Material Powers: Cultural Studies, History and the Material Turn* (pp. 178-220). London: Routledge.
Olsen, B. (2010). *In Defense of Things: Archaeology and the Ontology of Objects*. Lanham: AltaMira Press.
Otter, C. (2002). Making Liberalism Durable: Vision and Civility in the Late Victorian City. *Social History, 27*(1), 1-15.
Painter, J. (2006). Prosaic Geographies of Stateness. *Political Geography, 25*(7), 752-774.
Petriat, P. (2014). For Pilgrims and for Trade: Merchants and Public Works in Ottoman Jeddah. *Turkish Historical Review, 5*, 200-220.
Poulantzas, N. (2000). *State, Power, Socialism*. London: Verso.
Prakash, G. (1999). *Another Reason: Science and the Imagination of Modern India*. Princeton: Princeton University Press.
Protevi, J. (2013). *Life, War, Earth: Deleuze and the Sciences*. Minneapolis: University of Minnesota Press.
Rekret, P. (2018). The Head, the Hand, and Matter: New Materialism and the Politics of Knowledge. *Theory, Culture & Society, 35*(7-8), 49–72.
Rose, N., & Miller, P. (1992). Political Power Beyond the State: Problematics of Government. *British journal of sociology*, 173-205.
Scott, J. C. (1998). *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*. New Haven: Yale University Press.
Sharma, A., & Gupta, A. (2006). Introduction: Rethinking Theories of the State in an Age of Globalization. In A. Sharma & A. Gupta (Eds.), *The Anthropology of the State: A Reader* (pp. 1-41). Malden: Blackwell Publishing.
Skocpol, T. (2004). *Devletler ve Toplumsal Devrimler: Fransa, Rusya ve Çin'in Karşılaştırmalı Bir Çözümlemesi* (S. E. Türközü, Trans.). Ankara: İmge Kitabevi.
Sneddon, C., & Fox, C. (2011). The Cold War, the US Bureau of Reclamation, and the Technopolitics of River Basin Development, 1950–1970. *Political Geography, 30*(8), 450-460.
Star, S. L., & Ruhleder, K. (1996). Steps Toward an Ecology of Infrastructure: Design and Access for Large Information Spaces. *Information Systems Research, 7*(1), 111-134.
Steinmetz, G. (1999). *State/Culture: State-Formaton after the Cultural Turn*. London: Cornell University Press.
Tekeli, İ., & İlkin, S. (2004). Osmanlı İmparatorluğu'nda 19. Yüzyılda Araba Teknolojisi ve Karayolu Yapımındaki Gelişmeler. In *Cumhuriyetin Harcı 3: Modernitenin Altyapısı Oluşurken* (pp. 63-122). İstanbul: İstanbul Bilgi Üniversitesi Yayınları.
Tilly, C. (1985). War Making and State Making as Organized Crime. In P. B. Evans, D. Rueschemeyer, & T. Skocpol (Eds.), *Bringing the State Back In* (pp. 169–186). Cambridge: Cambridge University Press.
Trouillot, M. R. (2001). The Anthropology of the State in the Age of Globalization: Close Encounters of the Deceptive Kind. *Current Anthropology, 42*(1), 125-138.
Tütengil, C. O. (1961). *İçtimai ve İktisadi Bakımdan Türkiye'nin Karayolları*. İstanbul: Elif Kitabevi.
Von Schnitzler, A. (2016). *Democracy's Infrastructure: Techno-politics & Protest after Apartheid*. Princeton: Princeton University Press.
Weber, M. (1978). *Economy and Society: An Outline of Interpretive Sociology* (E. Fischoff, H. Gerth, A. M. Henderson, F. Kolegar, C. W. Mills, T. Parsons, M. Rheinstein, G. Roth, E. Shils, & C. Wittich, Trans.). Berkeley: University of California Press.