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History, archeology, and espionage as improvised legibility

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Abstract

How do states develop the capacity to understand new geographic domains and issue areas? This article introduces a theory of "improvised legibility" to explain how states make sense of the new and unfamiliar, extending James Scott's concept of legibility to include clandestine intelligence collection of foreign areas. Improvised legibility occurs in two phases: first, improvised connections, involving ad hoc relationships with non-state experts, and second, improvised institutionalization, through experimental organizations fitted to the new domains. We emphasize the role played by emerging epistemic communities of professional experts in these new areas, which states leverage as "off-the-shelf" experts. This theory is illustrated by British efforts to make legible the Middle East from the 1840s to World War I, particularly highlighting the part played by the emerging field of archeology in British intelligence. Archeology gained prominence in the 19th century amid European status competition, producing experts with local knowledge, technical skills, and scientific cover. Britain's use of improvised legibility is shown through the development of ad hoc relationships with archeologists (improvised connections) and the later creation of the Arab Bureau in World War I (improvised institutionalization). In the process, we underscore the role that key archeologists played in British intelligence, including figures such as Austen Henry Layard, the Palestine Exploration Fund, D.G. Hogarth, Gertrude Bell, and T.E. Lawrence. This article denaturalizes the modern surveillance state and shows how experts like archeologists contributed to the emergence of the modern intelligence state, contributing to literatures on state formation and epistemic communities.

Keywords

Territorial state, intelligence, archeology, legibility, bureaucracy, epistemic community, Middle East, international history

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> "The importance of our archaeological material is that it throws light on the history of men very like ourselves, on a civilization which is bound up with that of to-day."
>
> ~Leonard Woolley, *Digging up the Past*, 13

By 1914, Gertrude Bell, the pioneering English archeologist and writer, had traveled the Middle East for 15 years. Few in Britain could match her knowledge of the terrain, peoples, and politics of the region. As biographer Georgina Howell wrote, "Gertrude's first-hand knowledge of the vast reaches of Arabia and its diverse peoples made her unique, not only because that knowledge was encyclopedic, but because her information was so recent" (Howell, 2008: 238). When World War I broke out, the British government urgently sought better information about the Middle East. They turned to figures like Bell. In addition to her local knowledge, her work in archeological digs had given her experience with technical skills like photography and cartography. This rare combination made her "skilled in surveillance" and "an obvious choice as one of these volunteer informers." As Howell recounts, before the war, Bell "photographed many archaeological sites and noted military installations," including the Crusader castle at Kerak where Ottoman soldiers were being trained by German officers in March 1900 (Howell, 2008: 238–239). By 1915, Bell would become a critical part of a new intelligence outfit in Cairo: the Arab Bureau.

This article analyzes the origins of foreign intelligence in modern states. We argue that archeologists like Gertrude Bell were a key resource tapped by European governments. Archeology was a growing epistemic community whose members often had a rare combination of regional knowledge and technical skill. They offered states a way to quickly improve the legibility of foreign areas like the "Near East." In the decade before World War I, countries like the United Kingdom, Germany, and France rushed to make foreign regions like the Middle East more legible. Their respective archeologists, who could move under the cover of scientific and religious discovery, proved a vital interim intelligence resource.

This article introduces the concept of "improvised legibility" to refer to this process by which states initially develop the capacity to acquire and interpret information about new geographic regions or policy domains. The concept of legibility, influentially introduced by James C. Scott, describes states' ability to "see" domestic activities so as to better control them (Lee and Zhang, 2017: 119; Scott, 1999). We adapt this concept to *seeing* foreign spaces, arguing that foreign intelligence activities are, at their root, an exercise in making those areas legible. In its initial development, such legibility is "improvised" and features ad hoc measures to learn about topography, social, and political dynamics. We highlight the importance of non-state epistemic communities in this process.

Our empirical analysis focuses on British efforts to build intelligence capacities regarding the Middle East in two phases. British archeologists were well-connected travelers with unique cultural, technical, and geographic knowledge. Their putative scientific purpose, moreover, provided a useful non-political reason for moving through contested spaces in ways military or diplomatic officials could not. In the first phase, the

British developed informal links—or “improvised connectedness”—with archeologists during the early imperial race for antiquities in Egypt, Mesopotamia, and Israel. Archeologists offered early insights about these regions. In the second phase, “improvised institutionalization,” British archeologists—including D.G. Hogarth, Gertrude Bell, T.E. Lawrence, and Leonard Woolley—were brought into official roles in a new British intelligence organization, the Arab Bureau. The Arab Bureau was an innovative and new intelligence institution that provided new levels of legibility with intelligence products widely praised and circulated. Its success, moreover, made it an influential reference when the British government created a permanent, civilian intelligence bureaucracy in the decades after.

Our findings contribute to scholarship on the historical origins of the modern state in historical sociology, historical IR, and comparative politics. Existing work on legibility focuses largely on internally oriented processes. We consider the origins of states’ outward looking capacities beyond their borders. Doing so highlights the unique challenges of operating in foreign spaces and makes visible distinctive mechanisms which can enable states to develop an administrative capacity beyond their borders. Moreover, our focus on intelligence and legibility builds on past scholarship regarding information and surveillance in modern sovereignty (Bauer, 2021; McCoy, 2009; Shirk, 2019). Our concept of “improvised legibility” extends Scott’s concept by emphasizing the foreign instantiation of legibility, opening lines for future research on how differently situated states generate knowledge about various regions and domains.

We also contribute to work on epistemic communities by identifying a new role for a well-established actor within IR scholarship (Haas, 1992). Rather than epistemic knowledge being used to facilitate international cooperation, we focus on how states can invite and co-opt epistemic communities to use their scientific status to obtain intelligence. This builds on recent work showing the deep interlinkage between state knowledge and state-supported scientific expert communities (Allan, 2017).

We join with other articles in this Special Issue exploring the history/theory intersection by theorizing the historical evolution of the modern state. Our contributions to this theme are threefold. First, we focus on a distinctive aspect of state formation—the emergence of intelligence and surveillance capabilities—that has received relatively less attention than other powers of modern states. We historicize it, showing the importance of unique knowledge and skills available from non-state epistemic communities.

Second, our analysis shows the promise in understanding the historical development of the modern state’s capacity to know and act *externally*, not just within its own borders. Beyond the goal of legibility, empires and great powers have long sought governance or governance-like activities in foreign spaces. In addition to imperial management itself, this might include development aid projects, training foreign militaries, or responding to natural disasters. Our findings suggest the value in extending efforts to historicize the modern state to these domains.

Third, our findings about archeology itself hold a lesson for how history and theory can be intertwined in distinctive ways. Archeology was, after all, a scholarly community narrating history; it was dedicated to interpreting ancient history through “modern” techniques of excavation, surveying, etc. We show that one byproduct of a history-centric epistemic enterprise was the creation of a cadre of upper class, well-connected experts with unique foreign knowledge and technical skills. This, in turn, coincided with the creation of foreign intelligence capabilities that are now a taken-for-granted feature of modern states. One lesson is that history-narrating actors can be important forces themselves. In this sense, there is value not just in historicizing theoretical constructs but also analyzing those doing "history" as agents of change.

Surveillance, states, and epistemic communities

Work in Historical International Relations and historical sociology has shed light on the origins of many aspects of the modern state. Early work questioned its taken-for-granted form (Kratochwil, 1986; Onuf, 1991; Ruggie, 1993; Spruyt, 1994; Tilly, 1990); a later generation focused on additional features of modern states and mechanisms that contributed to its emergence (Branch, 2014; Nexon, 2009; Reus-Smit, 1999).

A subset of this work highlights the state's capacity to make visible, track, or collect information on the economic flows and human populations within its borders (D'Arcy and Nistotskaya, 2017; Lee and Zhang, 2017; Mann, 1984; Poggi, 1990; Scott, 1999). In a similar vein, historians of surveillance and "surveillance studies" specialists have argued that a distinctive feature of modern states is information collection and surveillance (Bauer, 2021; Boersma et al., 2014; Harris, 2010; Higgs, 2001; McCoy, 2009; Weller, 2012). This basic idea has roots in Foucault's analysis of the Panopticon prison form, in his concept of "governmentality" (Foucault, 1977; Hope, 2015), and in Scott's influential work on how states "see" (Scott, 1999).

We build on this work in three ways. First, most existing scholarship on visibility within states and the surveillance state focuses on *internal* information collection. We argue there has also been a vast expansion in foreign-directed intelligence capabilities in modern states (Andrew, 1979), and we build on a small subset of work in International Relations (IR) that has applied Scott's concept of legibility. This existing work on legibility includes studies of how anarchist political violence triggered the rise of domestic surveillance powers and the ways modern states do surveillance on individuals abroad (Keiber, 2015; Shirk, 2019). Our framework also builds on work that highlights the interrelationship between surveillance in overseas imperial spaces and domestic governance (McCoy, 2009).

Second, much of the work on the information state, "seeing like a state" and governmentality, focuses on well-established state capabilities. We therefore join with others in focusing on the origins of the surveillance state with an emphasis on the origins of foreign-orientated surveillance (Higgs, 2001; Shirk, 2019). This focus links legibility with a broader literature on the emergence of national security and foreign policy bureaucracies. This work has often used historical institutionalism and highlighted path dependency to show the lasting effects of the initial contexts in which such bureaucracies emerge (Long, 2016; Mabee, 2011; Zegart, 1999). Other scholarship on bureaucratic emergence in Comparative and American Politics also highlights these processes in the emergence of modern states (Carpenter, 2020; Skocpol, 1979). Our focus on the bureaucratization of intelligence—and the ad hoc, improvised nature of its initial sages—offers a distinctive focus that is distinct from the long-term explanations of institutional change of established bureaucracies. We further develop our understanding of the origins of modern intelligence bureaucracy by underscoring the role played by individuals far removed from the central state, joining other work highlighting the importance of non-state actors like missionaries, merchants, and explorers for state knowledge of foreign lands (Chen, 2017; Conroy-Krutz, 2024; Evers and Grynaviski, 2024; Harries and Maxwell, 2012; Medlicott, 2007).

Third, we bring this theoretical framework into dialogue with research on epistemic communities. Haas's original formulation broadly defined an epistemic community as a "network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area" (Haas, 1992: 3). Research on epistemic communities has largely focused on scientists as a legitimizing force which frames problems and endorses cooperative policy solutions. Subsequent work has expanded beyond the natural sciences, acknowledged diversity in experts' causal beliefs, and addressed new communities such as lawyers (Cross, 2013; Finnemore, 2004). We build on recent work that incorporates interstate rivalries and state investments in the work of epistemic communities (Allan, 2017). Yet our theory and empirics go beyond this research in two ways. First, we focus on epistemic communities as a source of unique knowledge about foreign territory, countries, and institutions rather than technical policy problems. Second, we underscore the way states can co-opt epistemic communities for competitive advantage. We show how epistemic communities are not just sources of scientific legitimacy or policy coordination but also a vehicle for geopolitical competition.

Theory: improvised legibility with epistemic communities

This article seeks to historicize the modern surveillance state and understand the historical processes that contributed to the widespread adoption of bureaucratized foreign intelligence. We do so by identifying the actors and processes which allowed states to initially obtain information about foreign areas, often well outside of its sovereign borders. In this sense, intelligence is one instance of a larger process by which some modern states developed a capacity to engage in governance beyond their borders. When and how did these state capacities, specifically foreign intelligence, emerge?

To theorize this process, we build on James Scott's concept of legibility. Legibility generally refers to the "breadth and depth of the state's knowledge of its citizens and their activities" (Lee and Zhang, 2017: 119; Scott, 1999). Scott's original use focused on dynamics within the state (Scott, 1999). An example is the cadastral map, where state-generated maps of domestic territory provided political authorities the detailed records of property ownership which could allow better tax collection (Rodríguez-Muñiz, 2017; Sharman, 2012). Other scholars have developed novel ways of measuring legibility (Lee and Zhang, 2017), assessed why states attempt improvements to legibility or not (Slater and Kim, 2015), and studied the evasion of legibility by its targets (Diamant, 2001; Loveman, 2007). We ask, what historical processes allowed states to develop the capacity to "see" beyond their territorial borders? We argue the answer involved a process of *improvised legibility*, in which states used off-the-shelf expertise provided by members of non-state epistemic communities to obtain knowledge about foreign populations and geography.

Intelligence as foreign legibility

Legibility involves two distinct activities: information *acquisition* and information *ordering*. As a first step, state must develop administrative procedures to generate data—often in quantitative formats—regarding activity in a domain. But raw data is not sufficient. States must also impose an interpretive scheme, such as standardized concepts and sorting ("ordering"), to make data useful for governance and control. Tax extraction thus involves acquiring a citizen's annual earnings and ordering those earnings into taxation brackets. Both activities in legibility can distort the underlying social reality as states flatten a complex world to make it visible and susceptible to control (Scott, 1999: 87).

Intelligence, specifically the clandestine collection and analysis of information on foreign areas and actors, features information acquisition and ordering that parallels the legibility projects previously analyzed in domestic contexts. Intelligence collection is akin to the "acquisition" in legibility; intelligence analysis is akin to the "ordering" of information in legibility. We thus build on previous work linking foreign intelligence and legibility: Mir analyzes surveillance as legibility in counterterrorism (Mir, 2018), Phillips uses legibility to understand counterterrorism in Yemen (Phillips, 2019), and Shirk emphasizes the illegibility of anarchists to states in the 1890s (Shirk, 2019).

The distinguishing feature of intelligence is the use of *clandestine* methods to obtain information and *secrecy* of the resulting interpretations. Clandestine methods can allow a state to "see" into spaces that are controlled by another sovereign state. The threat posed by foreign governments knowing sensitive internal information is often what makes clandestine methods of obtaining information and analyzing it so valuable. Other sources of information about foreign areas, such as diplomatic reporting (Gehring, 2022) and commercially developed data (Lin-Greenberg and Milonopoulos, 2021) supplement, but do not replace, intelligence.

A rush to know: improvised legibility

The large, permanent, and sprawling intelligence bureaucracies of today should not be taken for granted. How do states develop the initial capacity for intelligence collection and analysis? We refer to such efforts as *improvised legibility.* Improvised legibility refers to states generating an understanding of both new foreign geographic areas (such as the Middle East) as well as foreign policy issue areas (such as cybersecurity). Improvised legibility is distinguished from well-entrenched processes of knowing and interpreting, highlighted in Scott's original statement in *Seeing Like a State* and subsequent literature (which we refer to as "consolidated" legibility).

We theorize that state efforts at improvised legibility proceed through distinct mechanisms and phases, which we divide into two stages: improvised *connectedness* and improvised *institutionalization*. The first refers to the state's earliest attempts to "see," which may rely on existing sources of knowledge and expertise. Below we highlight the role of private individuals and epistemic communities. This first stage may feature temporary, informal, and incomplete routines of information-sharing. This stage is defined by the absence of any institutionalized home. The second stage, "improvised institutionalization," involves a shift to creating more formal administrative capacities. This could include experimental, new organizations to manage information collection and espionage. States are therefore formalizing relationships with staff, generating standing procedures, and issuing more consistent analytic products. However, any organization created in this stage will be provisional and specific to the immediate task. Elements of it may also overlap with prior bureaucratic organizations. The legibility that Scott and others have analyzed, a more consolidated legibility, applies to the subsequent creation of a permanent institutional home.

How states improvise: epistemic communities and the power of deniable non-state expertise

State officials improvising legibility face a problem. By definition, existing in-house foreign policy or military expertise has been developed for other areas or issues. Resources for new tasks may be limited or non-existent. Repurposing personnel and administrative offices of the state can trade-off with tracking other priorities. Moreover, organizations are slow to adapt and mistake-prone. Old habits and interpretive frames may be misapplied to a new area (Zegart, 1999). Especially when facing a more pressing policy or regional need, developing a cadre of staff with intimate knowledge based on years of familiarity—often including travel, language acquisition; and technical knowledge—that can take years.

Individuals in epistemic communities outside the state are one possible solution to this problem. Broadly conceived, these groups are "professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge" (Haas, 1992: 3). Academic or other expert groups will tend to have deep experience and expertise "in the field" as well as proficiency in certain technical tasks. This can be a way for states to boost legibility quickly. Moreover, their work outside of the state makes the personal and professional networks of epistemic communities less redundant with those in-house state officials. They often have long-standing knowledge and connections to local populations, as in the case of archeology, anthropology, and other fields with significant fieldwork. In addition, outside experts can be usefully independent: their status and reputation is putatively separate from state interests (Carson and Conklin, 2022) and this can provide a plausibly deniable cover to operate in foreign, remote, or less inaccessible domains. Other types of non-state actors, such as a local religious leader, may have strong socio-cultural knowledge and credibility but may lack these technical skills. All of this makes select epistemic communities with a background in unfamiliar domains especially useful for espionage purposes.

Improvising legibility through recruitment or co-optation of non-state experts offers two advantages. First, these groups offer deep knowledge, experience, and technical skill "off the shelf" and in excess of available in-house personnel. Deeper socio-cultural knowledge takes time to develop and may be had much quicker through non-state groups and individuals with long-standing social ties with a region or issue area. A state building improvised legibility about transnational cybercrime, for example, may find non-state groups or individuals with cyber-related expertise especially valuable.

Second, these groups can use their arms-length relationship to the state to gain unique access. The "weak ties" of these individuals to a home government means epistemic community members can act differently in foreign spaces than government officials (Grynaviski, 2018). In the case of clandestine intelligence collection, individuals who develop strong ties to the state can benefit from the fact that such ties are *hidden*. Individuals with a plausible cover of personal travel or professional duties may move more freely to gather new information and offer fresh interpretations useful to the state. This function is similar to the claims of past work that non-state actors can serve as unique nodes in networks, as brokers for peace and cooperation (Carpenter, 2011; Goddard, 2009; Grynaviski, 2015, 2018), and as intermediaries for imperial conquest (MacDonald, 2014; Rittinger, 2017).

It is worth noting that members of an epistemic community must also play along. Offering sensitive intelligence to a government can enhance personal risk and may be viewed as ethically or morally problematic. Our empirical case shows that members of epistemic communities may be enthusiastic sources of intelligence when nationalist identities are activated, when it facilitates their career and funding opportunities, and during times of war. In the Conclusion, we discuss the Human Terrain System program developed by the United States in post-9/11 Afghanistan, where many anthropologists refused to participate.

When to improvise? Prestige, rivalry, and war

When will states undertake these costly initiatives to build foreign legibility? While our primary focus is conceptualization (improvised legibility) and identifying one key mechanism (tapping epistemic communities like archeology), our theoretical approach highlights two distinctive factors that can nudge states to initiate these processes.

One reason epistemic communities may arise in the first place is due to international rivalries over prestigious scientific domains or competitions to be first in exploration or other enterprises. Allan shows in the context of climate science that several disciplines were deeply shaped by international rivalry and state investments (Allan, 2017; Haas, 1992). Academic domains which become part of prestige competition, like engineers in the U.S. and Soviet space rivalry, will find lucrative state funding and significant incentives to push the boundaries of innovation (Musgrave and Nexon, 2018). Other scientific domains have been the basis of prestige rivalries, from chemistry to genetics. For example, we show below that imperial rivalries over antiquities in Europe bolstered state support for archeological missions, drove innovations in that discipline, and created a stock of archeologists with intimate knowledge of the "Near East" and unique skills.

When are states likely to tap this source of insight? Geopolitical rivalry and war are an important reason for states to devote finite resources to improving legibility. There is a large literature on the importance of war and geopolitical rivalry for state-building, of which the most influential is the "bellicist paradigm" (Cederman et al., 2023; Tilly, 1990). As Tilly and others argue, war explains a wide-ranging set of state innovations that are largely internally directed, such as revenue extraction, the movement of formal authority from the periphery to the center, and the creation of nation-scale infrastructure. We adapt this to argue that it also leads states to invest in foreign-oriented legibility. This

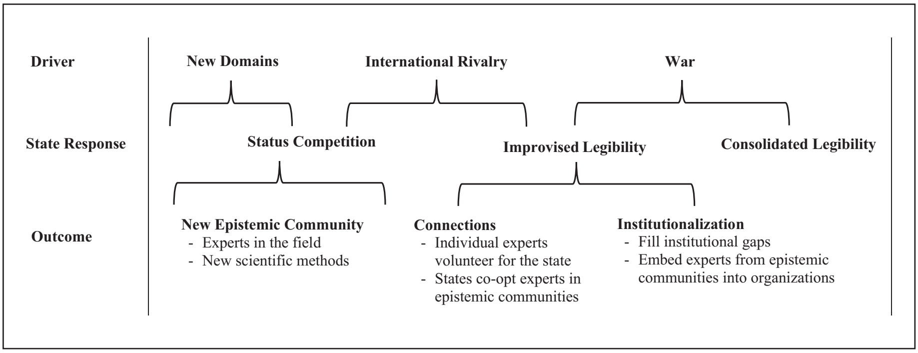

Figure 1. Theory of Improvised Legibility.

is even more plausible than the original Tilly logic. Moreover, past studies of intelligence generally highlight failures as an important impetus for intelligence creation and reform (Jervis, 2011).

We adapt these insights to argue, first, that states are most likely to begin the first phase of improvised legibility (what we call "improvised connectedness") in reaction to a sharpening of geopolitical rivalries short of war. We argue states are most likely to push forward to the second phase of improvised legibility ("improvised institutionalization") when a realistic threat of war emerges, or war is underway. Prior to this, prestige competitions over scientific or related enterprises will tend to build up epistemic communities that can then be tapped by states when the need for legibility intensifies. These factors in the theory are illustrated in Figure 1.

Empirical analysis

We illustrate our theoretical claims through a case study of early British intelligence in the Middle East. This case study provides insight into the historical emergence and evolution of one state's capacity to "see" territory, local politics, and foreign rivals in a foreign region. Our empirical analysis shows the value of the concept of improvised legibility and provides rich evidence of the theoretical mechanism—tapping an extant epistemic community in archeology.

The British case is a valuable place to assess our claims for three reasons. First, it offers several distinct stages that allow us to analyze the theoretical framework at multiple points in time. Second, the British documentary record is robust and sheds important light on specific individuals involved in intelligence activities, the qualities which made them attractive, and their long-term career arc. This documentary record allows us to trace the emergence of archaeology as a field, and the informal and later formal integration of archeologists in early British intelligence. Third, the British experience influenced later events. The Arab Bureau, on which we focus in the latter part of the case study, became a model for other intelligence institutions run by civilians. An overview of the British case is summarized in Table 1. We address the generalizability of the British case in the Conclusion, discussing its similarity to other European empires like Germany and its resonance with postwar American improvised legibility.

Table 1. British case study overview.

	New Domain	International Rivalry	Rivalry to War	War
	1764–1902		1902–1914	1914–1919
Driver	Emergence of Archeology New Region: Middle East		Growing Tensions	World War I
State Response	**Status Competition** Imperial Race for Antiquities		**Improvised Legibility** Connectedness + Institutionalization	
Outcome	**New Epistemic Community** Archeological Discipline		**Improvised** Connectedness ~1840-1914	**Improvised** Institutionalization ~1916-1920
	Individual initiative	State co-opts experts		Institutionalization
	Austen Henry Layard volunteering intelligence to the state while excavating, Nimrud, Nineveh, and Babylon (1842-1853)	The War Office and Royal Engineers work with the Palestine Exploration Fund (PEF) to map Jerusalem, Palestine, and Sinai (1865-1914)	War Office recruits PEF, with T.E. Lawrence and Leonard Woolley, as cover to survey Negev (1913)	Arab Bureau established in Cairo in 1916 - D.G. Hogarth - Gertrude Bell - Leonard Woolley - T.E. Lawrence

In this case, the epistemic community that played a unique role in facilitating the rapid development of surveillance powers were in-the-field archeologists—coming from a historically focused and nascent academic discipline in this period. We show how archeologists became prized intelligence sources because of their unique skills and expert local knowledge. Yet archeology's primary epistemic purpose was and remains historical discovery and historical narration. This case therefore shows how a set of non-state actors with a history-centric mission were used to develop a novel state capacity in the shadow of geopolitical rivalry. Put differently, our case study shows those responsible for writing history played an important role in the emergence of a state capacity, intelligence, that would play a powerful role in military and foreign policy. We see this as a distinctive and important way in which combining history and theory can yield novel insights about issues of broad interest to scholars of IR.

The emergence of archeology

The imperial race for antiquities

Archeology's origins lay in the rediscovery of the buried cities of Pompeii and Herculaneum in Italy around 1740. The following 19th century featured some of the most iconic archeological findings. Napoleon's invasion of Egypt prompted renewed interest in ancient Egypt and new access to sites of biblical and classical history. This included discoveries of ancient Assyrian sites at Khorsabad, Nimrud, and Nineveh by

French archeologist Paul Émile Botta and British archeologist Austin Henry Layard, the latter of whose account, *Nineveh and its Remains* (1849), became a best seller in Britain (Bahn, 2014; Ceram, 1986; Fagan, 1979; Fagan and Durrani, 2016).

Archeological digs became part of imperial rivalries. French, British, and German archeologists raced to fill their national museums with antiquities, becoming symbolic capital in a status competition akin to the Cold War space race (Barnhart, 2016; Musgrave and Nexon, 2018; Nexon and Neumann, 2018). As James Goode observes, "For the French, this competition, first with the British and then with the Germans, was the driving force for the advancement of excavations"(Goode, 2007: 26–27). The British view of imperial competition over antiquities is well represented by Stratford Canning, British Ambassador in Istanbul, writing to the Prime Minister about Layard's archeological digs at Nimrud:

> M. Botta's success at Nineveh [sic] has induced me to venture in the same lottery, and my ticket has turned up a prize . . . there is much reason to believe that Montague House [the British Museum] will beat the Louvre hollow (Lane-Poole, 1888: 149).[1]

Henry Rawlinson, famous for translating cuneiform, similarly wrote, "It pains me grievously to see the French monopolize the field, for the fruits of Botta's labors. . . are not things to pass away in a day but will constitute a nation's glory in future ages."[2]

The imperial rivalry was fueled, in part, by mass public interest. This mass, popular appeal was again illustrated with German archeologist Henrich Schliemann's discovery of Troy in 1871, with accounts published in *Troy and Its Remains* (1875) and later work in *Mycenae* (1878) (Silberman, 1989: 42). The stakes were enhanced by the link between antiquities and Christian history. Archeology was seen as potentially reconciling "modern" science and Christian faith by providing historical evidence for Old Testament histories (Ceram, 1986: 241; Silberman, 1989, 3).

A scientific discipline and emerging epistemic community

Along with its rising popularity and prestige, archeology also experienced increased professionalization and scientization in this period involving a variety of more rigorous tools and techniques. Scientific methods of surveying, mapmaking, recording detailed sketches and measurements, discerning different strata layers ("stratigraphy"), and later photography (both handheld and aerial) were developed in this period (Fagan, 2005). These techniques and technologies transformed what had been the work of leisure gentlemen, antiquarians, and adventurers into a more rigorous academic discipline. Key figures in this development included Auguste Mariette of France and William Matthew Flinders Petrie, who advanced the stratigraphic excavation methods and new techniques for dating cites and artifacts based upon pottery fragments (Ceram, 1986: 146–172; Moscrop, 2000: 154).

The rise of scientific approaches in archeology is captured in Leonard Woolley's description of the field:

> In its essence Field Archaeology is the application of scientific method to the excavation of ancient objects, and it is based on the theory that the historical value of an object depends not so much on the nature of the object itself as on its associations, which only scientific excavation can detect. (Woolley, 1930: 17)

Archeological training, centered around individuals passing on these techniques, further led to the creation of socially connected networks of area experts. These networks had nodes in national museums, such as the British Museum in London, and universities, like the Ashmolean Museum in Oxford. Other nodes were individuals and those they trained, including Petrie in Egypt and D.G. Hogarth again out of Oxford.

Archeologists as intelligence sources

The features of this epistemic community of archeologists would come to be seen as valuable for another reason: as sources of early forms of intelligence. Tobias Richter's review of the nexus of espionage and Near Eastern archeology particularly outlines three features possessed by archeologists that made them particularly well-suited for intelligence. First, archeologists often had extensive experience with the local geography, culture, language, and politics in the region in which they worked: "Archaeologists were also considered experts in cultural questions, this made for a unique combination of multiple forms of expertise." Second, archeology and intelligence had a shared technical skill set, including "surveying, languages, photography, making detailed descriptions or sketches, report writing, personal contacts, and an intimate and usually personal knowledge of geography." Third, archeologists-as-scientists could enter and move through locations in ways government officials could not. Unlike diplomats or military officials, archeologists had an ostensibly non-political justification for visiting existing or new sites. In the period we analyze below, many sites of archeological and intelligence interest were under the Ottoman Empire's territorial control—requiring an official *firman* from Ottoman authorities to travel, excavate, and export antiquities. Academic work thus provided critical *cover* for individuals to make detailed observations of potential intelligence value (Richter, 2008: 235).

British improvised legibility in the "Near East"

We now turn to a detailed analysis of the historical origins of British legibility in the "Near East." We divide its historical development into two primary periods, corresponding to the phases of improvised legibility noted above: an initial, informal phase of *improvised connectedness* and a later, formalized phase of *improvised institutionalization.*

British improvised connectedness

As Georgina Howell writes, before 1908 the Near East was to the British government a daunting region to know: "the hazards of travel demanded linguistic ability and a knowledge of desert etiquette, where much of the wilderness was unmapped and where there were no roads and no recourse if things went wrong." As a result, the "Foreign Office routinely used unpaid amateurs and adventurers to report on their expeditions" (Howell, 2008: 238). In this section, we describe how archeologists volunteered their insights and British officials actively cultivated their activities for valuable, early information.

"Volunteering for the state." Many pioneering British archeologists volunteered their insights to British officials. We illustrate this relationship through the singular case of Austen Henry Layard, who gained fame for excavations at the Assyrian site of Nimrud in modern-day Iraq starting in 1845. As Shawn Malley wrote, "[a] careful inspection of the Layard archive reveals that archaeology was an important tool for gathering intelligence and establishing and defending English interests in the eastern Ottoman Empire" (Malley, 2008: 628).

Early on, Layard volunteered insights to the British government based on his travels. In the spring of 1841, Layard volunteered a report to the Foreign Office and Royal Geographical Society on the geography and local tribal movements in the area of ancient Persia he had traveled (Malley, 2008: 631). In 1842, Layard met the British Ambassador in Constantinople, Sir Stratford Canning, who took an interest in Layard given he had "taken so much trouble to map his routes, to learn Persian and Arabic and to discover the main centres of grazing and the movements of tribes, which were very numerous in Mesopotamia and Persia" (Waterfield, 1963: 91). Layard himself wrote to his uncle that in Canning's employment offer:

> I see in the East a vast field for the display of energy and abilities and certainty of there being ere long a great political movement. . . Political interests and contentions appear to be daily moving from the West to the East and all things are ripe for a great outbreak in which there will be, altho' accompanied with great risk, great prizes.[3]

Later, Canning would send Layard to survey the Ottoman-Persian border area. There, Layard went out of his way to essentially negotiate trade agreements with local Arab settlements (Malley, 2008: 632–633). Here, Layard showed the value of political cover: his "very identity as a private traveler and stranger to the Foreign Office," writes Malley, "was the perfect cover for Canning's covert intelligence operations" (Malley, 2008: 631–632). Layard's later excavations near Mosul yielded artifacts and valuable proto-intelligence even as he was told by Canning "to bear in mind that his supposed character will be that of a traveler."[4] Canning himself described Layard's work in a letter to his wife, Lady Canning, in January 1846, tying together the themes of archeology, imperial competition, and Christian history:

> Layard is making very important discoveries in Mesopotamia. . . Perhaps you think me crazy for caring about such trifles but they are trifles for which colleges, universities and nations would take each other by the ears, and, as Major Rawlinson tells me, the inscriptions are likely to throw much light upon Scripture history.[5]

Layard continued to volunteer detailed information to British officials, combining the work of archeological excavation with what we would now call intelligence collection. He would eventually offer a plan to map and excavate all of Mesopotamia, assembling a "map of information" for use of Arab subjugation as well as archeological service. An 1848 memo from Layard, titled "Memorandum on the Government of the Arab Tribes of the Desert," reflects how archeological efforts had evolved into early intelligence reports on regional politics (Malley, 2008: 637–640).

The state co-opting archeological expeditions. The historical origins of British legibility were not just a product of volunteers. The British government also funded archeology-related initiatives which would build its knowledge of the region. This state-led co-optation is best illustrated through the work of the British Palestine Exploration Fund (PEF).

The PEF, founded in 1865, was a volunteer society for uncovering historical sites of significance to Christianity. As John James Moscrop's history of the organization summarizes, the PEF "doubled up as a research body and learned society, a tool for extending British imperial influence and as a cover for obtaining strategic information to support British military interests" (Moscrop, 2000: 3). The PEF's mission was in essence "the scientific exploration of the Holy Land, its reduction to maps and photographs, its exploration and archaeological excavation, and the identification of its sacred sites" (Moscrop, 2000: 3–4). The mission also had a nationalistic, imperial, and missionary tone. William Thomson, first president of the PEF, stated plainly that "[t]his country of Palestine belongs to *you* and to *me*, it is essentially ours. . . It is the land from which comes news of our redemption."[6]

By 1871, geopolitical shifts—and the opening of the Suez Canal in 1869—raised the strategic importance of the region and made completing a comprehensive survey of Palestine a top priority for the British state. The perceived decline of the Ottoman Empire also infused the initiative with a sense of urgency. Charles Wilson, from the Ordinance Survey topographical department within the War Office, reached out to the PEF to complete a "A Great Survey of Palestine," a project Wilson had attempted years earlier but failed to complete (Silberman, 1982: 114–115). The project received approval from the PEF's board, and the PEF president promised that it would "provide the most definite and solid aid obtainable for the elucidation of the most prominent of the material features of the Bible."[7]

The new survey, titled the Survey of Western Palestine and conducted between 1871 and 1877, resulted in facts and analysis of value for both archeological and military-strategic purposes. The final report "included, in addition to the huge, detailed map of Palestine and twenty-six volumes of memoirs. . . a huge collection of architectural photographs, and a large number of carefully drawn plans of archeological remains" (Silberman, 1982: 123). One of the leaders of the PEF and among the coauthors of several volumes of the survey was a young Horatio Herbert Kitchener, who would go on to lead the British Army in Egypt and Sudan and serve as Secretary of State for War in World War I (Moscrop, 2000: 107–125). The Survey of Western Palestine would eventually serve as the foundation for future maps completed by the Survey of Egypt and those used in World War I (Gavish, 2005: 10). Silberman summarizes the double fruits of the PEF mission in the Holy Lands: "Both the army and science had benefited from the cooperation; Palestine's general geographical and archeological outlines were now clearly drawn, and the maps of the survey of Palestine, printed at the expense of the British government, would be of crucial value some thirty years later, at the time of the final British campaign in the Holy Land" (Silberman, 1982: 127).

From rivalry to war: intensifying connectedness in the prelude to World War I

The historical process leading to British legibility in this area was also influenced by larger developments in geopolitics. Intensifying imperial rivalries in the early 20th century accelerated these improvised connections on the eve of World War I. While early state interest in advancing archeology may have begun as a competition for prestige goods, the emphasis leading up to 1914 was more explicitly focused on intelligence. With the Ottoman Empire drawing closer to Germany, the local geography in the Near East and Ottoman military capabilities became a top priority in London (Hamm, 2014: 894–895; McKale, 1998: 3–16). Germany was also increasing its influence in the region with the construction of a Baghdad-Berlin Railway. The importance of detailed operational maps from this area was also heighted following Britain's disastrous performance in the 1899-1902 Boer War in South Africa (Hamm, 2014: 881–883).

This urgent use of improvised connections is best illustrated through Britain's attempts to make legible the Negev desert on the eve of World War I. Five years before the war broke out, British officials realized this triangular strip of land—a strategic approach to the Suez Canal—remained largely unmapped and left out of the previous Survey of Western Palestine (Moscrop, 2000: 199). In 1913, the War Office reached out to the Palestine Exploration Fund (PEF) to complete the survey of the region. The PEF came to mind due to its mapping experience and shared network of elite individuals dating back to Charles Wilson and Kitchener, the latter now being the British Agent in Egypt. The PEF had by then "established itself as a serious force in the field of archaeology" with individuals such as Sir Arthur Evans and D.G. Hogarth serving on its executive committee (Moscrop, 2000: 188, 195). The War Office also believed the PEF could have its survey approved by the Ottomans for a *firman* given its putative archeological cover, an argument made explicit in a November 1913 meeting between the War Office, Foreign Office, and the PEF (Moscrop, 2000: 201–202).[8]

Captain Newcombe of the Royal Engineers led the survey and was joined by two young archeologists for the PEF: T.E. Lawrence and Leonard Woolley (Silberman, 1982: 190–192). Lawrence and Woolley were recommended by D.G. Hogarth at Oxford and Sir Fredric Keynon of the British Museum and chosen in part because they were already in the region working on Hittite ruins at Carchemish in northern Syria (Moscrop, 2000: 202–205). Lawrence himself later acknowledged the military connection in a letter back home, "we are obviously only meant as red herrings to give an archaeological colour to a political job" (Lawrence et al., 1954: 280). Despite the obvious cover, Lawrence used the opportunity to sharpen his mapmaking skills, noting that from "living with [Newcombe] we got clear insight into his methods" (Woolley and Lawrence, 1915: xv). Lawrence's official biographer noted that on this trip he "acquired a grasp of surveying techniques which he would later put to good use" (Wilson, 1989: 140). The final report was published as the *Wilderness of Zin* survey in 1915.

In the aftermath of the Negev survey, we again see how archeological projects focused on historical inquiry were also an opportunity to generate new state knowledge of foreign areas. With his work complete, Newcombe rejoined Lawrence and Woolley at Carchemish after they highlighted the dig site's proximity to a strategic bridge crossing of the Berlin-Baghdad Railway (Winstone, 1990: 50–54). Later, at Newcombe's request, they followed the line further to gather more information (Wilson, 1989: 146–147). Winstone notes that from their dig house at Carchemish, "Woolley and Lawrence were able to use the house to observe the comings and goings of the Germans through their Zeiss binoculars. They were also able to photograph them with the aid of a telephoto lens attached to their camera, something of a rarity in those days" (Winstone, 1990: 41). These ties characterized much of British intelligence collection efforts in the Middle East leading up to

World War I, consisting of improvised connections that were largely ad hoc, sporadic, and relying upon personal connections with a network of skilled individuals to provide intelligence and cover for military surveys.

Improvised institutionalization and the Arab Bureau

World War I accelerated improvised legibility, propelling the British to formalize informal relationships and practices. Archeologists were now recruited into experimental and ad hoc state institutions. The result was a new entity: the Arab Bureau. This period shows how geopolitical developments, especially the outbreak of war, often propel the historical evolution of state capacities beyond territorial borders, including legibility.

Britain had a rudimentary intelligence bureaucracy in 1914 with little focused attention on the Middle East (Adelson, 1995: 4). Its most developed components were the British Admiralty and War Office (Fergusson, 1984; Hamm, 2014). As Geoffrey Hamm describes the situation, “No single organization or governmental body existed to direct intelligence-gathering efforts. No permanent intelligence bureaucracy would emerge in Britain until 1909, and even then its attention was principally devoted to the German naval threat” (Hamm, 2014: 880). Bruce Westrate similarly writes, “for the British, the Middle East was an administrative morass that saddled officials with enormous but nebulously defined spheres of authority” (Westrate, 1992: 22).

Early setbacks in the Near East in the first two years of the war triggered a new approach (Thomas, 2008: 49). The solution was a clear case of improvised institutionalization: the establishment of a new Arab Bureau in October 1916. Among the Bureau’s early advocates was the prominent diplomat Sir Mark Sykes, who pushed for a new institution for coordinating British intelligence collection, dissemination, and propaganda in the region (Westrate, 1992: 26–31). The Bureau was housed in the Savoy Hotel in Cairo, headed by Gilbert Clayton, and placed under the formal direction of Sir Reginal Wingate, governor-general of the Sudan.

The Arab Bureau’s novelty was twofold. First, it was an independent civilian organization. Second, it was located in region rather than in London which was an approach that was “highly innovative” at the time (Mohs, 2008: 159). Clayton, the Arab Bureau’s head, wrote that reporting from Egypt was the only way to be “able to get a really clear grasp of the whole situation” (Westrate, 1992: 27).[9]

Yet the new bureau needed staff. The expertise and skills of archeologists again drew the attention of state officials seeking foreign legibility. Archeologist and professor D.G. Hogarth was an early and critical addition in setting it up (Wilson, 1989: 279). As Westrate observes, Hogarth “exercised profound influence” over the new Bureau’s development as he was considered “the preeminent savant on the Middle East. . . British intelligence had long used academia as a recruiting ground, and in Hogarth they acquired a gem” (Westrate, 1992: 43). Hogarth had been the Keeper of the Ashmolean Museum in Oxford and was an expert in Near Eastern archeology. Sir Reginal Wingate came to regard Hogarth in the highest possible terms, writing that “I cannot speak too highly of Hogarth’s work in the Arab Bureau. His detailed knowledge of Arabic, sound judgement and general scholarship, have been of the greatest assistance to us” (Westrate, 1992: 45).[10]

Beyond Hogarth, recruits came from Clayton’s staff or Hogarth’s connections (Satia, 2008: 40). This included Leonard Woolley, T.E. Lawrence, and later Gertrude Bell. This archeology-heavy group fashioned themselves as "the intrusives" and they "set upon myriad tasks: gathering intelligence, interrogating prisoners, concocting propaganda, monitoring internal security in Egypt, and infiltrating enemy territory with agents" (Westrate, 1992: 34–35). In April 1915, Woolley was tasked to lead the Port Said intelligence office which focused on running spy planes and reconnaissance vessels in the eastern Mediterranean (Richter, 2008: 224; Winstone, 1990: 66).

Archeologists played a critical role in daily operations, including being leading contributors to the most influential intelligence product of the Bureau: the *Arab Bulletin.* The *Bulletin* included written summaries, reports, and some raw intelligence, with its pages being read in "the highest political circles" (Westrate, 1992: 103). Archeologists' names appear throughout the publication. Lawrence edited the first issue on June 6, 1916. Hogarth edited fourteen of the next sixteen issues. Hogarth, Lawrence, and Bell also contributed many entries in subsequent issues. The British regional governor of the Sudan heaped praise on the publication, praising "the excellence of the bulletins and the clear and concise way in which the matter is recorded" (Clayton, 1969: 66).[11] Sykes found it so useful he began to circulate copies in London. Soon it was circulated in other British bureaus and read by their French and Italians allies (Westrate, 1992: 103–106).

The unique abilities and contributions of Gertrude Bell and T.E. Lawrence are particularly worth highlighting. Bell, as noted in the introduction, was an especially prolific contributor. In line with our theory of improvised legibility, she came to the Bureau with pre-war improvised connections to British intelligence: volunteering information on German influence in the Ottoman Empire. Her technical skills, expert local knowledge, and embeddedness within elite archeological networks were valued by the Bureau's leadership. Howell summarizes her value as her "ever-growing directory of contacts, her skill in direction-finding and cartography, and the meticulous methodology of her records now brought her an official title" (Howell, 2008: 238–239).

Bell often wrote entries to the *Arab Bulletin* analyzing the politics of Arabia and Mesopotamia; one of her first tasks from Hogarth being to "fill in the intelligence files with information as to tribes and sheikhs" (GB/1/1/1/1/24/22).[12] Westrate's account best encapsulates her tireless contributions:

> She was a font of energy and scholarship. Her familiarity with the local vernacular provided a new dimension to political intelligence there. The eloquent reports and memoranda that flowed from her hand were scrupulously to the point and seldom ventured into the realm of political polemic. (Westrate, 1992: 85–86)

To provide one example, her report on the "The Basis of Government in Turkish Arabia," from October 1916 captures the fiction and "appearance of established rule" of the Ottomans in Arabia:

> on paper, every co-efficient of sovereignty, every process of administration could be found in its proper place . . . On paper—but for the meticulous inquisitor who could carry his researches further than the written pages, parade the shadowy personnel, count out the money bags. . . disillusion was at hand. (Arab Bureau (Cairo E), 1986: 318)[13]

She would later play a significant role operating out of Basra, Iraq, providing intelligence and managing Arab relations as the British drove toward Baghdad, with her writings also serving as part of an instruction manual for British officers (Howell, 2008, 256–257, 270; Wilson, 1989: 276).

T.E. Lawrence's role in the Arab Revolt would bring him fame for decades after the war. Less well-known is his role at the Arab Bureau and his archeological past. In his official biography of Lawrence, Wilson underscores his "achievements as an archaeologist at Carchemish" (Wilson, 1989: 5). Hogarth noted Lawrence's archeological aptitude at Carchemish when writing to the Director of the British Museum that he was a "far better *archaeologist* properly speaking than Thompson [first head of the dig]" (Wilson, 1989: 80).[14] Hogarth would write a year later that Lawrence had "now quite mastered the local Arabic" and came to "know all the villagers intimately" (Wilson, 1989: 103–104).[15] Hogarth further sent Lawerence to learn more advanced technical skills under the then esteemed Petrie in Egypt, who was similarly impressed with his work and abilities (Wilson, 1989: 99–100).

At the start of World War I, Lawrence was given a civilian post in the Geographic Section of the General Staff before being shifted to work with Clayton's Intelligence Department in Egypt (Wilson, 1989: 152–154). There, Lawrence took the lead writing a daily Intelligence Bulletin that was the early precursor to the *Arab Bulletin*. Lawrence's familiarity with photography—having photographed hundreds of artifacts on archeological digs—led to him supporting the Survey of Egypt's initial experimentation using aerial photography (Wilson, 1989: 189). Lawrence's skill in photography was noted after the war by the Surveyor-General of Egypt, E. M. Dowson, who noted the "unfailing co-operation and unfailing faith in the future of aeroplane mapping displayed throughout by Colonel S. F. Newcombe, R.E., D.S.O., and Mr. T. E. Lawrence" (Dowson, 1921: 370).

In fact, Lawrence's role at the Arab Burau led to his first intelligence trips into the Hejaz that would deeply involve him in the Arab Revolt. His background in archeology well prepared him for this role. "No other reports from British officers in the Hejaz compare with Lawrence's," his biographer Wilson observes:

> His talent for description had been refined by the discipline of making notes about architecture and archeological finds, and he now had a remarkable ability to portray what he saw. Work on maps had taught him to record the shape of the landscape through which he traveled. (Wilson, 1989: 315–316)

Ultimately, as Thomas Fergusson summarizes, operatives like "Oxford archaeologist, David Hogarth, and his young protégé, T.E. Lawrence, helped make British intelligence superior to all other intelligence services in this strategically vital area" (Fergusson, 1984: 235).

Britain after the War: the limitations of improvised legibility

Given its performance, the Arab Breau was put forward by some of its proponents as a model to be continued after the war. Wingate himself argued that "We have the nucleus. . . of a satisfactory control organization in the Arab Bureau, which I sincerely trust will be maintained and even enlarged after the war" (Westrate, 1992: 198).[16] The continuation of the Bureau in some form was supported by Hogarth, with more ambitious plans laid out for a consolidated Near Eastern intelligence effort made by Lieutenant Colonel Pirie-Gordon and Captain Mackintosh (Westrate, 1992: 191–195).

Despite such advocates, the Arab Bureau would not long survive the war's end. With the unifying purpose of winning the war over, the collapse of the Ottoman Empire, and the later establishment of a British Mandate with formalized colonial administrative features, the Arab Bureau was cut as a wartime expense—with help from its more established rival in the India Office (Westrate, 1992: 200–201).

Even with the Arab Bureau dismantled, the lingering effects of this form of improvised legibility continued as a precedent after the war. In some respects, the early social networks continued in more established forms, even as part of an altered colonial administration. As Thomas Martin observed, "the Bureau was a signal precedent in the creation of Britain's imperial security agency network after World War I" (Thomas, 2008: 51). After wrestling Palestine from the Ottomans in 1917, Moscrop specifically notes that the subsequent British rule in the area was

> ruthlessly efficient and produced its own archaeological survey teams and its own archaeological department. No longer did the War Office need to rely upon the good offices of a voluntary society such as the Palestine Exploration Fund to provide them the cover to map or look at the area (Moscrop, 2000: 2010).

Regardless, in times of war, Britain continued to seek out archeologists for their unique skill sets. In World War II, as Downing writes, the British again recruited archeologists for their excellent ability in interpreting aerial reconnaissance photography, and along with other academics, notes that "[b]y the middle of the war the entire Archaeology Department at Cambridge had been recruited" (Downing, 2011: 99–100).

Conclusion

This article identifies a novel historical process that made possible the emergence of an important state capacity—foreign legibility—in the early 20th century. The evidence we review shows how an epistemic community of archeologists combined with geopolitics to fuel innovation in how a major colonial power "saw" beyond its territorial borders. Most broadly, this article suggests the importance of attending to surveillance and intelligence as features of modern states and historicizing those capabilities. Moreover, our findings highlight a distinct way history and theory, the subject of this Special Issue, are intertwined. Archeologists were and remain a history-narrating community. Their role in furthering early British intelligence capabilities is a powerful example of how actors producing "history" in any given period can themselves be important factors in theoretical questions of broad interest to IR.

The British case on which we focus was not *sui generis*. Other European empires followed a similar path in this period. Goode's history, for example, notes how, just as British archeologists played an important role in their Arab Bureau, "their French and German counterparts found similar employment. Archaeologists proved a great resource in peace and an even greater one in wartime" (Goode, 2007: 27). Germany's endeavors are particularly notable. Goode notes Kaiser Wilhelm II was a "firm advocate" of archeological excavations and that the German archeologists viewed it as "a national duty to compete with the Americans, the British, and the French" (Goode, 2007: 27). The most prominent of these was Baron Max von Oppenheim who excavated the ancient Hittite city of Tell Halaf (McKale, 1997). In the pre-war years, Oppenheim worked opposite his British adversaries to sow anti-British sentiment and Pan-Islamic sentiment, using his archeological credentials to provide a justification for moving throughout the region (McKale, 1997: 202). During World War I, Oppenheim was called back to Germany to head an Islamic section of the German foreign office because he was "the only person in Germany highly familiar with the Orient who also possessed extensive and formal diplomatic experience in the region" (McKale, 1997: 199).

Archeologists also played a role in rendering legible foreign areas beyond the Middle East. For example, Sylvanus Morley, an American archeologist and Mayan scholar known for his work at Chichén-Itzá in Mexico, spied on Germans in Mexico and Central America in World War I, using his archeological credentials as cover while he worked with the American Office of Naval Intelligence (Harris et al., 2003). Even the lost explorer Percy Fawcett, famed for hunting for the Lost City of Z, was engaged in collecting intelligence in Morocco in 1901 for the British government before departing to map the border areas between Bolivia and Brazil (Grann, 2010). Later in World War II, archeologists again would be prominently employed to collect intelligence by another prominent improvised institution, the United States' Office of Strategic Services (OSS), to collect intelligence in Greece (Allen, 2011).

Beyond our contribution to work on state formation and improvised legibility, this article's focus on archeologists in the Near East highlights the novel use of epistemic communities by the state and adds to a growing literature on the importance of individuals at the peripheries of the state—ship captains, merchants, missionaries, and adventurers—for international diplomacy, empire, and military affairs (Evers and Grynaviski, 2024; Grynaviski, 2018; Szarejko, 2021). Archeologists are another important example of this kind of actor and the development of intelligence capabilities for states is another kind of state function they can advance. Moreover, we join with others in drawing on novel sources of archival material—often found in collections outside of national archives—to shed light on these overlooked subjects of IR. An example of this is Gertrude Bell's excellent archive hosted by Newcastle University and part of UNESCO's International Memory of the World Program.

By way of conclusion, we address the relevance of our findings for today and identify opportunities for new research and insights. Is this process of "improvised legibility" relevant to contemporary states or a relic of the past? Do today's governments make foreign areas or new policy issues legible in similar or novel ways? Is the sequence we identify—improvising connectedness followed by institutionalization—generalizable?

At a broad level, we believe states continuously confront novel "problems" and improvise methods of legibility when those problems are sufficiently urgent. New policy areas—such as outer space, cyberspace, and nuclear weapons—may emerge and confront states with new legibility needs. Geographic areas can become newly important to major powers due to the eruption of civil war, in reaction to a natural disaster, or as part of an initiative to provide a surge in development aid. This can prompt states to seek ways to build legibility. A first step may be to reach for non-state expert communities with unique knowledge and skills. Those non-state sources of knowledge may also benefit from prestige and geopolitical competition. The Cold War space race led the Soviet Union and the United States to leverage their scientific communities (Musgrave and Nexon, 2018) while the arms race led to a surge in resources for the geophysical sciences that ultimately made the global climate a more defined object of global governance (Allan, 2017).

Other recent examples show that improvised legibility continues to involve epistemic communities but may involve significant downsides. The Human Terrain System (HTS), developed by the U.S. military to improve knowledge of Iraq and Afghanistan in the years after 9/11 shows how modern states try to leverage epistemic communities and how it can go wrong (Sims, 2015). The program's goal was to obtain "competitive advantage" by generating "enhanced 'population-centric' knowledge flows" in Iraq and Afghanistan (Schaner, 2008). The U.S. military attempted to recruit social scientists and anthropologists to survey and inform on the local culture, politics, and geography. However, in the case of the Human Terrain System, the fierce pushback among anthropologist to the program—and the broader war—underscores the necessity of these epistemic communities being willing to cooperate. A promising line of future research would build on this example to assess whether the *willingness* of non-state actors, or conditions under which non-state actors would be willing, to help further states' legibility efforts is less reliable in the contemporary era than it was in the era of British imperialism.

Cyberspace and its militarization is another ongoing example that highlights a promising area for future research. Cyberspace itself is a relatively new and unfamiliar domain that has similarly been subject to geopolitical competition and state rivalries, following the initial steps of our theoretical approach. The cyber capabilities of militaries often depend on luring non-government cyber expertise into military positions. Many early U.S. Army cyber teams, for example, drew on those recruited "on the basis of the tech jobs they held as civilians" (White, 2019: 104). A recent RAND report on the Air Force's shortcomings in this area ("a large shortage of field grade cyberspace operations officers") notes an added complication: "[r]ecruiting candidates with cyber potential could prove difficult under current labor market conditions" (Hardison et al., 2019: 65). The institutionalization of this legibility-producing expertise is apparent in the designation of cyberspace as a military "domain," the creation of a "Cyber Command," and the labeling of cyber experts in the military as "warfighters" (Branch, 2021; Slayton, 2020).

However, the struggle to compete with private sector opportunities suggests states chasing legibility today—especially regarding new technologies with lucrative commercial sectors—may face more challenges than in an earlier era. This offers another promising line for future research, specifically the state's ability to gather intelligence from different domains and geographic regions along with the professions involved, whether they be in science, business, or religious missions. Moreover, a further line of research could inquire into when and how improvised, ad hoc institutions formed around new domains and geographic areas are consolidated into more long-standing institutions.

Archeologists played a signature role in the 19th and early 20th century story of state intelligence efforts as states improvised to make hard-to-reach places legible. We see promise in more research on the improvised legibility projects of other states, in other regions of the world, via epistemic communities beyond archeology—as well as research that investigates the consequences that can result when this legibility is enforced.

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Notes

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10. Wingate to Hardinge, 16 June 1917, SAD, W. P. 145/8, cited in Westrate, 1992: 45.
11. Wingate to Clayton, December 1916, Clayton Papers, cited by Robert O. Collins in intro. to Clayton, *Arabian Diary*, 66. Also quoted in (Westrate, 1992: 103).
12. Letter from Gertrude Bell to her stepmother, Dame Florence Bell, 30 November, 1915, GB/1/1/1/1/24/22 (Gertrude Bell Archive).
13. Arab Bulletin, no 24, October 5, 1916, 318.
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