“Until Indian title shall be… fairly extinguished:” The Public Lands, Indigenous Erasure and Early Government Promotion of Infrastructure in the United States

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Abstract: This article uses archival and governmental records to demonstrate the recurrent and flexible presence of the public lands in supporting the United States’ early experiments with infrastructure promotion. Despite the fact that the broad swathes of land in the national domain in which title had not been transferred to private owners, or the “public lands,” were still encumbered with the costs of selling and surveying vast territories, pacification on the frontier, and even extinguishing legally recognized Native title, legislators acted as if the public lands were freely—or at least inevitably—available bundles of legal rights and asset streams that could be monetized, traded, pledged, or borrowed against to provide government support to infrastructure projects. This paper argues that by repeatedly calling upon the public lands in this way, legislators institutionalized processes of Indigenous dispossession and erasure in American political and economic development. In making this argument, this article illuminates fiscal negotiations as a site where the symbolic power of the state is enrolled to institutionalize power-laden cultural contexts in expanding states, sheds light on the origins of the governmental rationality of infrastructure-led development, and contributes towards the task of analyzing the United States as a case of settler colonial state formation.

Key words: State formation; fiscal sociology; settler colonialism; American political development; development

Throughout nineteenth century America, government support of infrastructure such as canals and railroads played a visible role in opening new frontiers for settlement, establishing a national market, and facilitating the transition from an agrarian to urban, industrial society (Bensel 2000; Cronon 1991; Taylor 1951). Accordingly, many scholars have examined the United States' history of infrastructure promotion (Goodrich 1960; Larson 2001), seeking to reconstruct the origins of its economic policy making (Dunlavy 1994; Dobbin 1994; Handlin and Handlin 1947), and, by extension, explain the nation's political and economic development. More recently, scholars have turned their attention to the early twentieth century to document how promoting large scale infrastructure projects became a significant part of the United States' international development arsenal, with agencies like the Bureau of Reclamation (Sneddon 2015) and projects such as the Tennessee Valley Authority (Ekbladh 2010) acting as sources of the personnel and templates for the practices the United States would later deploy abroad.

Despite this rich tradition of scholarship, the role of the public lands in early government experiments with infrastructure promotion has not been systematically examined.[1] This is surprising on two fronts. Empirically, as this paper demonstrates, the broad swathes of land in the national domain in which title had not been transferred to private owners, or the "public lands," were a recurrent and often substantial source of support over the course of these experiments.

[1] Studies of infrastructure promotion in American history have ranged from fine grained, state-based investigations (Handlin and Handlin 1947; Miller 1962; Scheiber 1969; Whitford 1906), to national surveys of trends and political dynamics (Balogh 2009; Goodrich 1960; Larson 2001; Shaw 1990), to studies placing the United States' early infrastructure promotion policy in international, comparative context (Dobbin 1994; Dunlavy 1991, 1994). Scholars of American political development have largely analyzed these early experiments as expressions of the complicated and evolving practice of economic liberalism in the United States. These works are complemented by case studies of specific infrastructural projects such as the Erie Canal, first transcontinental railroad, and Hoover Dam that have analyzed them as feats of technical and political engineering (Bernstein 2005; Davis 1894; Hiltzik 2011; Klein 2006; Shaw 1966), examined their broader social and cultural impacts (Sheriff 1996; Raitz 1996; Wyld 1962), and critiqued them as ambiguous beacons of American growth (Fogel 1960, White 2011; Worster 1992). While these studies regularly note that the public lands provided land grants, no studies examine the systematic role or significance of the public lands in supporting early government experiments in infrastructure promotion.

Theoretically, as the product of Indigenous dispossession, tracing the role of the public lands in supporting early government experiments with infrastructure promotion would offer scholars a direct means to investigate how settler colonial processes of Indigenous erasure affected American state formation. Given their empirical and theoretical significance, it is surprising that the public lands have remained so overlooked.[2]

This article addresses these twin empirical and theoretical gaps by drawing from a variety of primary and secondary sources to reconstruct the history of early government experiments in infrastructure promotion in the United States, focusing on the Erie Canal and the period leading up to its authorization, 1789-1817, as the pivotal period for establishing the idea and practice of infrastructure-led development. Throughout this narrative, this articles systematically documents the flexible and recurrent role of the public lands in supporting these early experiments.[3]

As the documents examined here demonstrate, legislators repeatedly called upon the public lands *as if* they were not still encumbered with the work of selling and surveying vast territories, pacification on the frontier, and even extinguishing legally recognized Native title. Instead, hundreds of millions of acres of Indigenous homelands were treated as freely—or at

[2] Recent work suggests the importance of theorizing the public lands as a resource in American political development. For example, Paul Frymer (2014, 2017) has demonstrated how the United States was able to circumvent the limits of its weak conventional state in the nineteenth century by using land policy to control its vast frontier. Sarah Quinn (2019) has highlighted how the United States' early role as a land agent selling western lands directly to settlers helped establish the United States in the creditor-debtor role Americans have become accustomed to occupying with their government while anticipating the central role controlling access to credit would play in American statecraft. And Elliott Brownlee (2016: 51, 2017: 17) has suggested that the United States should be characterized as an "asset state" in which "[the] ownership of massive assets [in the public lands] gave the federal government a great deal of political flexibility in developing social programs because the assets often relieved the central government of the onus of seeking tax increases." However, this work has not analyzed the public lands as a dimension of settler colonial state formation. This article builds on while extending this existing scholarship by theorizing the public lands as an expression of settler colonial state formation.

[3] In reconstructing this history, this article is guided by feminist and decolonial epistemological perspectives that are attentive to how the omissions of dominant narratives reflect power relations (Go 2020; Haraway 1988; Sweet 2018). The gap around the public lands in the existing literature both reflects the silences in the historical record that allowed the public lands to be so freely pledged in the first place, as well as speaks to the degree to which western expansion and Indigenous erasure have been naturalized in American history.

least inevitably—available bundles of legal rights and asset streams that could be monetized, traded, pledged, or borrowed against to facilitate early government experiments in infrastructure promotion. Stripped of the full costs of their mobilization, the public lands were able to reduce the *perceived* costs of government action by implicitly redistributing the costs of development—in this case, from the infrastructure projects under question to governmental agencies such as the War Department and General Land Office, and ultimately to Indigenous peoples. Repeatedly calling upon the public lands in this way institutionalized settler colonial processes of Indigenous erasure in the expanding American state.

In making this argument, this article makes a number of contributions. First, this article synthesizes insights from fiscal sociology (Tilly 1990; Martin, Mehrota, and Prasad 2009; Quinn 2019) and sociological theories of modern state formation (Bourdieu 1994, 2015; Loveman 2005) to develop the concept of "political lightness" beyond the case of credit (Quinn 2019) as a tool to help scholars identify how budgets can inscribe widely held beliefs in expanding states, thereby enrolling the symbolic power of the state in legitimizing, re-inforcing, and even amplifying existing power relations within society. Politically light resources reduce the perceived costs of government action by relying on taken for granted cultural contexts to implicitly redistribute the costs of public policy. Once the public lands are conceptualized as politically light—and made so because of widely held assumptions of Native disappearance—then government supported infrastructure projects are not just a means to bind a nation or stimulate economic development; they are also a public confirmation of the consigned position of Indigenous peoples in American society and a contributor towards patterns of thought and action that reinforce that position. The concept of political lightness allows scholars to identify a mechanism that ties these off-target effects to assumptions made during the legislative debates and financial planning behind proposed policies. It thereby arms scholars and practitioners with a tool to more critically attend to budget debates as a potent site of negotiation over the boundaries of the state and to examine the power relations historically embedded in current practices.

Second, this article offers, to the author's knowledge, the only systematic examination of the role of the public lands in early American infrastructure projects. This history reveals the pervasive role of the public lands in supporting early government experiments with infrastructure promotion that goes far beyond land grants. The vast public lands inspired infrastructure promoters to dream bigger and ask for more from their governments, allayed foreign creditors' fears to ease the flow of capital into American hands, and provided a store of land and natural resources that could be taxed, leased, sold, or otherwise profited from to help finance internal improvements. In the delicate, early stages of the Erie Canal's conceptualization, the public lands helped make a large and technically audacious project seem possible by minimizing the political challenges of raising revenues solely through taxation. Reconstructing this history has implications not only for revising scholars' understanding of American political and economic development (see also Carlos, Feir, and Redish 2022), but also for understanding the emergence of the governmental rationality of infrastructure-led development and modern development more generally.

Finally, this article demonstrates how settler colonial processes of Indigenous dispossession and erasure formed a constitutive cultural context of American state formation that was woven into the expanding American state via its fiscal practices. By settler colonialism, I refer to the form of colonialism that is organized around the simultaneous "dissolution of native societies" and the establishment of "a new colonial society on the expropriated land base" (Wolfe 2006: 388). Existing sociological work in settler colonial studies has examined the durable racial and gender formations that have resulted from Indigenous erasure (Glenn 2015; McKay, Vinyeta, Norgaard 2020; Norgaard 2019), ongoing processes of anti-Indigenous violence and cultural effacement (Rocha Beardall 2021, 2022; McKay 2019), and contemporary Native resistance (Steinman 2012, 2019, 2022). However, this work has not directly focused on how the lands acquired through Indigenous dispossession affected the formation of settler colonial states *qua* states. Simultaneously, although recent work in American political development has begun to analyze how territorial expansion (Ablavsky 2021; Frymer 2014, 2017; Onuf 2019) and Indigenous dispossession (Blackhawk 2019; Carpenter 2021) influenced American state formation, this work has been reluctant to characterize this context as settler colonial, largely reserving the concept for describing direct processes of Indigenous dispossession or erasure (e.g. Rao 2020: 116).[4] By putting land—what scholars have called settler colonialism's "specific, irreducible element" (Wolfe 2006: 388; see also Tuck and Yang 2012: 5-6)—at the center of American political development, this article contributes towards the task of theorizing the United States as a case of settler colonial state formation. Demonstrating the flexible and recurrent presence of the public lands in American public finance illustrates how the lands acquired through Indigenous dispossession were mobilized to support a wide range of governmental

[4] Scholars have critiqued the concept of settler colonialism for being overly totalizing (see, for example, Carpenter 2020: 90 fn. 2; Edling 2021: 446; Ostler and Shoemaker 2019; Saunt 2020), and as a result scholars in American political development have been conservative in their use of the term. In choosing to deploy settler colonialism here, this article is not arguing that settler colonial theory should be understood as a comprehensive theory that can account for all aspects of American state formation (e.g. Carpenter 2021; Dowd 2017), or that settler colonialism—as a process of Native elimination—was ever complete (e.g. Rocha Beardall 2021, 2022; Steinman 2012, 2019, 2022; Vizenor 1999). Despite these complexities, this article chooses to deploy the concept of settler colonialism as an ideal-typical construct to home in on one dimension of American state formation (its relationship to Indigenous peoples and reliance on land) that can be used to compare American political and economic development with that of other states.

activities, thereby illustrating how public lands were interwoven into institutions and patterns of development lasting beyond any individual moments of land acquisition or violence.

This article proceeds as follows. It begins by drawing from fiscal sociology and sociological theories of modern state formation to motivate this article's attention to fiscal negotiations as a window into expanding states. It develops the concept of political lightness as a way to understand how *the way* in which fiscal resources are called upon can reduce the perceived costs of government action, thereby implicitly institutionalizing certain power relations in the state. Although—as a review of the historical context surrounding Indigenous dispossession in this time period illustrates—access to the public lands was neither guaranteed nor costless, legislators spoke as if it was. After introducing the data and analytical method, this article then demonstrates the public lands' political lightness in action by chronologically tracing how the public lands were mobilized to support early government experiments in infrastructure promotion. As this paper demonstrates, legislators repeatedly called upon the public lands to minimize the complicated legislative battles, extra financing requirements, and potentially explosive taxation requirements for the projects under question that could have otherwise encumbered their efforts. The goal of this empirical section is not to establish whether the political lightness of the public lands was effective in contributing towards enabling the projects under question (a task beyond the scope of this paper), but rather to establish that the public lands were repeatedly called upon *as if* they would, thereby weaving settler colonial processes of Indigenous dispossession and erasure into the expanding American state and its political and economic development. Accordingly, this paper ends with a discussion of the implications of these findings for theorizing the broader role of land in the United States as a case of settler colonial state formation and rethinking present-day development practices from this historical perspective.

THEORIZING THE FLEXIBLE AND RECURRENT PRESENCE OF THE PUBLIC LANDS IN FISCAL DEBATES

Fiscal Sociology and State Formation: Budgets as Sites of Negotiation Over the Boundaries of the State

The nexus of taxation and public spending has long been identified as a significant driver in the formation of modern states and their economic and social structures (Martin and Prasad 2014; Tilly 1990; Schumpeter 1991 [1919]). As early modern states made extractive demands on their subject populations for the purposes of war-making, subjects began to bargain with their states over "the conditions under which states *could* extract or control," thereby stimulating the expansion of state action to include diverse activities of protection, social and economic promotion, adjudication, and redistribution (Tilly 1990: 96-99). Importantly, as the state's domains of governmental action expanded it also accrued symbolic power (Loveman 2006). Symbolic power is the power to "constitute the given" (Bourdieu 1991: 170). It is the "ability to make appear as natural, inevitable, and thus apolitical, that which is a product of historical struggle and human invention" (Loveman 2006: 1655). By claiming to be the neutral, ultimate arbiter of a collective "public" interest in diverse domains the state became a meta administrative field in which competing groups battled for recognition and valorization, thereby making the state a wielder of symbolic power *par excellence* (Bourdieu 1994; 2000: 126-7; 2015: 7-10, 20-22, 28).

This article focuses on the fiscal negotiations and legislative debates behind early government experiments in infrastructure promotion as a potent site of contestation over the boundaries of the state. Because successfully funding governmental action expands or reinforces the boundaries of legitimate state action, carefully examining negotiations over what the state should do and how it should be paid for becomes an opportunity for researchers to observe how societies formalize individuals' obligations to one another, collectively define themselves, and determine the proper relationship between governments and peoples—to observe, in other words, the "social contract" in formation (Martin, Mehrota, and Prasad 2009: 1, 18-22; Willmott 2022). Conceptualizing modern states as wielders of symbolic power illustrates how the decisions reflected in public budgets not only institutionalize a social contract, but also help legitimate and naturalize it. Once successfully institutionalized, the symbolic power of the state legitimizes the tradeoffs and power relations within public budgets as ultimately justified in the service of the public interest, eventually transforming decisions that were the result of political struggle into the apolitical, naturalized contours of routine state action.

Importantly, conceptualizing budgets in this way directs scholars to look beyond the content (e.g. Bourdieu 1991, 1994) or implementation (e.g. Loveman 2005; Santos 2022) of public policy to observe how the symbolic power of the state is exercised. While the classificatory schemes embedded in bureaucratic administration may be one exercise of a state's symbolic power, so too are its budgets and the power relations they encode.

Expanding scholars view of symbolic power beyond bureaucratic administration is particularly relevant in the American case, which scholars have argued lacked centralized, bureaucratic authority in the pre-Civil War period (Bensel 1990; Skocpol 1992; Skowronek 1982; see John 1997; Novak 2008; Rao 2020 for critiques). Although the antebellum United

States may have lacked robust bureaucratic administration, this does not mean that its contemporaries lacked an *idea* of the United States as a political entity (Reed 2019), or that the boundaries of this new polity were not being negotiated.[5] Institutionalizing these negotiations in public budgets allowed the symbolic power of the early United States to legitimize certain visions of American economy and society that, as this article demonstrates, excluded Indigenous peoples and naturalized processes of Indigenous dispossession and erasure in the nascent American state.

Political Lightness and the Power Relations Implicitly Inscribed in Budgets

Building on this focus on budget politics, this paper extends the concept of "political lightness" beyond the case of credit (Quinn 2019: 11-14) to conceptualize the public lands' flexible and recurrent presence in the legislative debates and fiscal planning behind early government experiments with infrastructure promotion. Here, I develop political lightness as a general concept for describing resources that rely on taken for granted cultural contexts to implicitly redistribute the costs of public policy, thereby reducing the *perceived* costs of government action.[6]

Like the public lands, credit is a recurrent and flexible presence in American public policy. Quinn (2019) attributes this to credit's "political lightness." According to Quinn, credit is

[5] Moreover, in contexts of "delegated" governance such as the United States (Morgan and Campbell 2011; Novak 2008: 762-764) the expansion of what is *perceived* as state action—the expansion of the "state effect" (Mitchell 1999)— may be just as significant for understanding the operation of state power as the study of centralized, bureaucratic agencies. As will become clear in the results section, what this article documents is not the wholesale co-optation of infrastructure promotion from private to public actors, but rather the expansion of what is perceived as state action to include infrastructure promotion, thereby allowing large scale infrastructure projects to be read as ultimately public works even when they significantly relied on private sources for their funding, construction, or operation.

[6] Quinn describes lightness as a "metaphor… [used] to convey the many levels of political flexibility credit entails" (2019: 11). Here, I am expanding on Quinn's loosely sketched, metaphorical mobilization of "political lightness" and building it into a full sociological concept by identifying its substitution meaning (Swedberg 2020: 243). In the remainder of this section, I elaborate on this mechanism and describe how to empirically test for it.

fiscally light insofar it can reduce the amount of new revenues that needed to be generated in the immediate term or produced new income streams through loan repayments; *budgetarily light* insofar creative accounting can strategically distribute full costs of policy over time; and *administratively* and *ideologically light* insofar credit can be extended to non-governmental actors to share the burdens of administration with private parties and lessen the specters of big government while reducing program costs. Given the political lightness of credit, "lawmakers… often used credit allocation to manage tough distributional issues and veto points… as a result, credit programs emerged as a key part of America's complex style of statecraft" (Quinn 2019: 14).

The flexible and recurrent presence of the public lands in the financing schemes of early American government suggests that, like credit, the public lands also enjoyed political lightness. However, while credit was able to be politically light because it could distribute the cost and risks of government policy over time and between public and private actors, the public lands were politically light because they distributed the costs of development first from the projects under question to other government domains, such as the War Department and Land Office, and ultimately from settlers to Indigenous peoples. As this article demonstrates, the public lands were *budgetarily light* to the extent legislators were able to displace the full costs of their acquisition from the financing schemes discussed here, *fiscally light* to the extent they reduced the need for increased taxation directly tied to these projects; and *ideologically light* to the extent that the political and moral costs of their acquisition could be minimized via the erasure of Indigenous presence.

Conceptualizing credit and the public lands as cases of political lightness illuminates a general mechanism underlying both: politically light resources reduce the *perceived* costs of government action by relying on taken for granted cultural contexts to implicitly redistribute the costs of public policy. Because they only *obscure* their full costs of mobilization, the success of politically light resources relies on their ability to go unacknowledged as such. Perceptions of deservingness and abjection or, in the case of Indigenous peoples, inevitable decline; assumptions of which national futures are desirable and worth sacrificing for and which can be discarded; and institutional incentives to protect certain groups' interests while disregarding others all constitute a diffuse cultural context that—to the extent it is naturalized as given, incontestable, or left off the agenda altogether as unrelated—determines the likelihood of a politically light resource garnering additional scrutiny.[7] While dissenting perspectives may exist, their successful exclusion from debates over public budgets powerfully communicates the boundaries of the state: who has power within it, whose interests it serves, and what the "common sense" that the state promotes is.[8]

Institutionalizing this cultural context in public budgets allows the symbolic power of the state to transform privately held patterns of thought into publicly legitimized ways of seeing, perceiving, and acting in the world. It is a way to institutionalize, in other words, what Lukes

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[7] A related concept from economics would be "externality." However, while externalities refers to the indirect costs or benefits of an activity that are externalized from how the costs and benefits of activity are calculated, political lightness refers to the *vehicles* that externalize the full costs of government action. Unlike externality, the concept of political lightness draws scholars' attention to the power relations behind how the costs of action are tallied.

[8] For another example of political lightness, consider the systematic discounting of the value of Black neighborhoods, businesses, and life during urban renewal. The Housing Act of 1954 authorized relocation payments of up to $2,500 to businesses and $300 to families, sums far below the actual costs necessary to successfully re-establish the displaced in new locales (Cebul 2020). Simultaneously, municipal bond financiers traded on visions of cities transformed for white middle class consumption to secure capital for redevelopment (Jenkins 2021). I thank Luis Flores for suggesting this example.

(2004: 28) calls the third dimension of power: the power to shape peoples' "perceptions, cognitions, and preferences in such a way that they accept their role in the existing order of things, either because they can see or imagine no alternative to it, or because they see it as natural and unchangeable." Significantly, because political lightness institutionalizes broader cultural contexts in budgets, the concept of political lightness helps scholars identify how the financing of public policy can be used to enroll the state in reproducing and even amplifying power relations that already exist in the wider cultural context but are not, or cannot, be explicitly expressed in public policy. In the case of credit, the political lightness of credit institutionalized widely held preferences for limited government and the tendency to discount the future in present policy making. In the case of the public lands, the political lightness of the public lands institutionalized widely held assumptions of Indigenous erasure.

Given that the concept of political lightness draws scholars' attention to what is left unsaid during budget negotiation processes, diagnosing political light resources does not mean identifying moments of coordination between policy makers colluding to reduce perceived costs. Instead of looking for these explicit signals, seeing the same resource flexibly and recurrently called upon in fiscal debates indicates a resource may be politically light. Confirming it as such requires reconstructing the implications of its mobilization to demonstrate how it is implicitly redistributing the costs of governmental action.

Taking the Full Costs of the Public Lands for Granted: Widely Held Assumptions of Western Expansion and Indigenous Erasure

Although early American state builders spoke *as if* the public lands were already available for settler use, the reality was that American control was not guaranteed.[9] When the United States secured pre-emption rights over what was then referred to as the "western lands," this was not the same as acquiring land outright. Instead, what the United States gained was the "exclusive authority to obtain Indian title by conquest or contract" vis a vis other imperial powers (Lee 2017: 921). At the time of transferral, these lands were still occupied by Indigenous peoples who were recognized as holding legal title over those lands (Blackhawk 2019; Prucha 1997). Indeed, the Northwest Ordinance required public lands to be surveyed and Indian title "fairly extinguished" before sale (Horsman 1989; Onuf 2019),[10] and similar references to extinguishing Indian title appear throughout subsequent legislation.[11]

The full costs of acquiring Indigenous lands were high. Surveying and selling the public lands was time intensive and costly (Emigh, Riley, and Ahmed 2019; Linklater 2003; Rohrbough 1968). Frequent Indian conflicts on the frontier were a financial drain on the War Department and a significant impediment to white settlement (Calloway 2015; Edling 2014). Petitions from Native peoples resisting dispossession required significant administrative engagement and, to the extent that Indigenous peoples successfully enrolled white allies to their causes, raised the

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[9] Although a full discussion of colonial land acquisition practices and their legacies on ongoing Indigenous dispossession after independence does not fit the scope of this paper, it is understood as the the constitutive backdrop against which federal control over the public lands was made possible. For more complete discussions, see Banner 2005; Carlos, Feir, and Redish 2022; Greer 2017; Park 2016; and Saunt 2020.

[10] Section 14, Article 3 of the Northwest Ordinance of 1787 stipulates, "The utmost good faith shall always be observed towards the Indians; their lands and property shall never be taken from them without their consent; and, in their property, rights, and liberty, they shall never be invaded or disturbed, unless in just and lawful wars authorized by Congress."

[11] For example, the Pope-Porter bill of 1811, which proposed 9.9 million acres of public land grants to fund a national system of internal improvements, stipulated "neither shall any settlement be made thereon until the Indian title shall be regularly and fairly extinguished" (New York State [hereafter "NYS"] 1825: 99). Section 2 of the 1862 Pacific Railway Act, which authorized the first transcontinental railroad, similarly specified, "The United States shall extinguish as rapidly as may be the Indian titles to all lands falling under the operation of this act." Neither of these acts contain further discussion of Indian title or lay out contingencies in the event of Native refusal to relinquish lands.

political costs of dispossession (Carpenter 2021: 117-163; McKinley 2016). Finally, actually acquiring Indian title meant an initial payment, annuities, and other "gifts," not to mention the subsequent costs of settling claims and litigation over contested lands (Lee 2017; Prucha 1997). Lee (2017), for example, puts the total cost of the Louisiana Purchase at $2.6 billion in 2012 dollars, almost nine times the commonly cited figure of $300 million which only paid for the purchase of French pre-emption rights.

In addition to taking these costs of acquisition for granted, as this article demonstrates, legislators took advantage of how invoking public lands stripped of Indigenous presence allowed legislators to sidestep difficult political battles over who should pay for development. Instead of having to devise detailed taxation schemes to fund their projects and resolve thorny, politically-sensitive questions of exactly who should pay for internal improvements and on what terms, infrastructure promoters could defer or avoid entirely debates over financing by calling upon the public lands. And while American taxpayers loomed large in the minds of early infrastructure promoters, federal recognition of tribal sovereignty and the exclusion of Native nations from electoral representation freed legislators from incentives to consider Indigenous interests.[12]

Conveniently, this recognition of tribal sovereignty did not extend to envisioning a future in which the United States perpetually shared North America with Native neighbors. Infrastructure projects such as canals and railroads that would funnel settlers westward were not seen as problematically infringing on the possibility of coexistence between settlers and Natives. Analogous to Beckert's (2016) "imagined futures," settler imaginaries of inevitable western

[12] This is not to say that suffrage and the assimilation of Native peoples as ethnoracial minorities into settler states should be understood as the legal solution to the problem of protecting Native communities. Assimilation facilitates its own form of cultural erasure and subordinates Native rights to self-determination under the colonial state (Coulthard 2014). Although colonial recognition of Native sovereignty has a complicated and ambiguous relationship with Indigenous dispossession (Dowd 2017), asserting Native sovereignty is now seen as a key mechanism for protecting Indigenous communities and re-imagining the relationship between colonial states and Native nations (Coulthard 2014; Steinman 2012).

expansion and Indigenous erasure helped early American state builders and settlers alike implicitly coordinate action around a shared, imagined future, thereby further lowering the transaction costs of their deliberations. When Native people did appear in legislators' fiscal planning, their presence was invoked in a curiously doubled form: strong enough to use as justification for building internal improvements in the name of defense or national unity, but not strong enough to warrant building contingencies into specific development plans in the face of Native resistance or to accommodate ongoing Native inhabitance.[13]

Considering the costly and potentially conflict-ridden processes behind mobilizing the public lands, it is possible to imagine a counterfactual world in which legislators would try to include the full costs of the public lands' acquisition in their cost-benefit analyses, make accommodations for Native nations in their deliberations, or write in meaningful contingency clauses in the face of ongoing Indigenous resistance. Instead, as this article illustrates, both proponents and opponents of the projects discussed here spoke and acted as if the acquisition of Indigenous lands and westward expansion was a *fait accompli*, a rhetorical erasure of Indigenous presence which served to prefigure their erasure in practice.

DATA AND ANALYTICAL APPROACH

To demonstrate the flexible and recurrent presence of the public lands in supporting early government experiments with infrastructure promotion and testify to legislators' silences around the full costs of their mobilization, I draw from a variety of secondary and primary historical sources. I consulted a broad array of government records, historical newspapers and pamphlets, and the administrative records relevant to the Erie Canal held at the New York State Library and

[13] Rocha Beardall (2021: 1052) has identified this ability of "settler double-vision" to simultaneously identify Indigenous presence as a threat while also ignoring the needs of Indigenous communities as a strategy for dehumanizing Native peoples that continues to the present day.

Archives in Albany, New York. I conducted comprehensive reviews of the legislative debates leading up to the Erie Canal and its precursors, the National Road, and the Western and Northern Inland Lock Navigation Companies. In addition to these projects, I also briefly present data on the role of the public lands in supporting government promotion of infrastructure after the Erie Canal from railroads to the establishment of the Bureau of Reclamation. I present my data as a chronological, historical narrative that illustrates how assumptions of Indigenous erasure undergirded the political lightness of the public lands and demonstrates the varied ways in which the public lands were called upon to define, support, and enable governmental action. This chronological narrative best communicates the evolving role of the public lands in enabling government experiments with infrastructure promotion and the gradual normalization of infrastructure provision as a taken for granted part of state action.

The decision to focus on the Erie Canal as a key event in this analysis was both conceptually and methodologically informed. The Erie Canal is significant for being the first large scale, technically ambitious project undertaken wholly by public means. Its success inspired a wave of canal building efforts nationwide and helped normalize direct promotion of infrastructure as something expected within the realm of governmental action. While prior to the Erie Canal, government promotion of infrastructure occurred largely via delegation to private enterprises, the Erie Canal decisively demonstrated that government could have a role directly engineering, operating, and financially supporting infrastructure projects.

In addition to examining the Erie Canal as a consequential moment in this account of sociotechnical formation (Hirschman and Reed 2014), I use a negative case design logic (Emigh 1997) to leverage the case of the Erie Canal as a way to extend scholars' understanding of *why* the public lands were so valuable to early legislators. The Erie Canal initially represents a negative case for my claim that the public lands were a flexible and recurrent source of support for government experiments in infrastructure promotion. Revenue from public land sales were not directly used to support the Erie Canal's construction. However, close examination of its proponents' early financing schemes—when this wildly ambitious canal was at its most vulnerable—reveals proposals for financing the canal almost wholly through public lands sales. Although the public lands did not ultimately provide direct funding through land sales, they did so indirectly via taxes targeting western salt manufactures and as assurances to European creditors betting on New York state's growth on account of its untapped western lands. These observations suggest that it was the *flexibility* the public lands afforded early American state builders—just as much as the actual revenues derived from their sale—that made the public lands such a useful and therefore recurrent presence in early government financing schemes. Incorporating the Erie Canal as an anomalous finding in this way allows this article to distinguish between important and nonessential features of how political lightened resources function to implicitly redistribute the costs of public policy (Emigh 1997: 658). In addition, the presence of the public lands in a case where they were not initially expected to be suggests the robustness of my findings.

Although the Erie Canal was ultimately solely a venture of New York state and not the federal government, this article treats federal and state-level debates as theoretically analogous. Because New York retained such vast, largely-unsettled western lands and because New York state was willing to circumvent federal restrictions to directly negotiate "treaties" with Native nations without federal commissioners present (Hauptman 1999, 2003), the relationship between infrastructure promotion, Indigenous dispossession, and the public lands could play out in New York legislative debates according to very similar dynamics as would occur at a federal level.[14]

Therefore, by focusing on the case of the Erie Canal this article works in the style of "data-driven theorizing" in historical sociology which uses puzzles that emerge out of a limited set of empirical cases as springboards for broader theoretical interventions (Mayrl and Wilson 2020: 1376) to make what Pacewicsz (2020) has described as a "constitutive" argument. Characteristic of other studies that use a data-driven theorizing analytical architecture, this article is primarily concerned with constructive theory-building as a way to make an intervention into a broader conceptual terrain (Mayrl and Wilson 2020: 1375-1376). This article's approach to evidence combines data-driven theorizing articles' reliance on secondary materials with extensive primary source analysis (ibid). My goal here is not causal explanation but rather the construction of a "context-independent [claim] about the makeup and correct categorization of social phenomena" that existing theory suggests is of wider significance and can be mobilized elsewhere (Pacewicz 2020: 9, 23-24; see also Hirschman and Reed 2014). Namely, this article seeks to establish the public lands as a case of political lightness that demonstrates how settler colonial processes of Indigenous erasure formed a constitutive context of American political and economic development.

This article approaches the history of early government experiments in infrastructure promotion from the perspective of state builders, by which I mean the lawmakers, public administrators, and infrastructure promoters who chose to use government as their means for

[14] However, as this article will illustrate, one major difference between state and federal-level processes that would prove decisive in the course of the Erie Canal's approval would be the ability of New York state legislators to avoid navigating the competing place-based interests and sectional jealousies that would stymie national-level internal improvements plans.

furthering what they understood as national development. This is because this article is focused on demonstrating the political lightness of the public lands in the debates behind early experiments with government promotion of infrastructure and not reconstructing the conflicts leading up to any particular project or examining how these schemes played out in practice.[15] As the documents examined for this study corroborate, even when writing still unceded Indian lands into their various plans for national debt repayment or infrastructural promotion, the realities of Indigenous dispossession rarely appeared in either the idealistic rhetoric or fiscal calculus of early American state builders. Partisans on all sides were united by their assumptions of settler expansion via infrastructure promotion; what was up for debate was which fraction of settler society would most benefit, not whether settler society would expand. This invisibilizing "non-encounter" allowed settler colonialism to "cover its tracks" and work towards its own end in the establishment of a "settled" society where any trace of Indigenous presence was extinguished (Veracini 2011).

With the pervasive role of the public lands hidden in plain sight and by heavily relying on legislative debates and government reports, this article offers not so much an archival contribution to American political development but rather a perspectival one (Immerwahr 2019: 16; see also Park 2016). This article uses largely the same body of evidence the existing literature draws upon but reads this old evidence in a new way, with different questions in mind that can surface new observations and insights. Grounded in decolonial and feminist epistemologies, this article does not assume that these documents of "high law and policy" (Ablavsky 2020: 10-11) speak from an impartial or universal perspective. It seeks not to reproduce the elisions of these

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[15] See Bernstein 2005; Murphy 2015; and Shaw 1966 for such studies in the case of the Erie Canal.

documents but instead point to the effects of their silences. Therefore, this article remains attentive to what was excluded or had to remain unsaid to maintain the imperial "fantasies of sovereignty" and growth that undergirded American state formation (Gaudry 2016; Stoler 2008).

This article now turns to historical narrative. To establish the political lightness of the public lands, this historical narrative (1) demonstrates the public lands' recurrent presence through the fiscal negotiations and legislative debates behind early government experiments with infrastructure promotion; (2) illustrates how they were flexibly mobilized in reduce the perceived costs of government action in diverse ways, and (3) establishes how these mobilizations relied on assumptions of Indigenous erasure that allowed the full costs of invoking the public lands to be taken for granted.rr

THE ROLE OF POLITICALLY LIGHT PUBLIC LANDS IN SUPPORTING EARLY GOVERNMENT EXPERIMENTS IN INFRASTRUCTURE PROMOTION

Early Precedents: Public Lands for Federal Revenue and Legitimation

Between the Declaration of Independence in 1776 and the Louisiana Purchase in 1803, the United States federal government acquired the right of pre-emption over 750 million acres in the trans-Appalachian west (Figure 1). Approximately one-third of this land consisted of cessions from the seven original states holding claims to western land at the time of independence (although many states, including most relevantly for this article, New York, retained significant western holdings); the final two-thirds were part of the Louisiana Purchase.

[INSERT FIGURE 1 ABOUT HERE]

Despite not having extinguished Indian title for the majority of these lands (Figure 2), legislators immediately began creatively calling upon this new territory, the "public lands," to support their nascent nation. Presaging the future role of the public lands in supporting government experiments with infrastructure promotion, these early years show both how readily legislators evoked imaginaries of inevitable western expansion and how central the public lands were to defining and supporting governmental activity.

[INSERT FIGURE 2 ABOUT HERE]

As a federated union in which the purpose of a central government was hotly debated, state cessions of western lands gave the federal government a concrete role in managing the public domain. This role was laid out in the Northwest Ordinance of 1787, which assigned the federal government the task of selling the public lands and laid out provisions for the admission of new states to the union, first as territories under the control of the federal government, and then as independent, self-governed states (Horsman 1989; Onuf 2019).

In addition to defining a clear domain of governmental activity, the public lands also served as an important fiscal resource. Elsewhere scholars have documented how the public lands were used to help pay for the United States' bid for independence as veterans' bounties (Frymer 2014; Gates 1968: ch. 11). What is less recognized is how the public lands were also called upon to shore up the nation's floundering public credit.

To help finance its revolutionary war, the United States had borrowed a little over ten million dollars from foreign creditors. By 1790, the federal government owed more than three million dollars in unpaid interest and overdue principal (Hamilton 1837 [1790]: 31-32). To restructure this debt, Treasury Secretary Alexander Hamilton proposed a scheme of taxation, loans, and appropriations which allowed the United States to take advantage of more favorable lending terms in Europe while generating a steady stream of revenue to service debts and fund government activities at home. While existing scholarship has focused on other elements of Hamilton's fiscal plan (Brownlee 2016; Edling and Kaplanoff 2004; Wright 2008), examination of Hamilton's early Treasury reports demonstrates the central but unremarked upon role that the public lands played in Hamilton's proposal: it was the promise of development in the western lands that made Hamilton confident such a scheme would be possible and even attractive to European creditors:

> "It is presumable that no country will be able to borrow of foreigners upon better terms than the United States […] our progress in resources from the early state of the country, and the immense tracts of unsettled territory, must necessarily exceed that of any other. The advantages of this situation have already engaged the attention of the European money-lenders. […] Hence, as large a proportion of the cash of Europe as may be wanted, will be… in our market for the use of Government" (1837 [1790]): 16).

Beyond these rhetorical appeals, Hamilton also directly pledged the public lands as a fiscal resource. In his initial proposal for the federal assumption of state debts, Hamilton proposed that creditors holding state debts could have the option to redeem their certificates for either an equivalent value of newly issued federal bonds or have two-thirds of their value redeemed in bonds and one-third in public lands (1837 [1790]: 17-18). Ultimately, instead of directly granting public lands to creditors, proceeds from public land sales were earmarked for general debt service (1837 [1795]: 161-163).

In a country that had gone to war over taxation, the public lands' ability to offset higher tax burdens through military bounties, cheaper credit, and direct revenues was a boon that should not be understated. However, it was in these early years that American control of western lands should have been most uncertain, a reality belied by Hamilton's cursory references to the public lands in his 1790 proposal. Although laid out in the other executive communications and legislative debates of the time, absent from Hamilton's proposal are discussions of the fact that the Northwest and Southwest territories were teeming with squatters and the contested, overlapping titles of settlers and indigene alike (U.S. Congress 1834: 5-20; Ablavsky 2021); that the cost of surveying those lands was feared to potentially exceed the revenues from their sale (*Annals of Congress* 1789: 428); or that U.S. title in the Northwest Territory was being actively challenged by Native nations united as the Northwest Confederacy. In fact, in the following winter, this Confederacy would deliver the most decisive defeat in U.S. military history to General St. Clair (Calloway 2015, 2018).[16]

Speaking to how legislators invoked the public lands as if they were already freely available for use, while Hamilton spent approximately eight percent of his fifty-page 1790 report justifying the feasibility of collecting additional import duties and specifying which particular luxury goods would be taxed and at what rates, he felt his references to selling public lands warranted no additional elaboration. If tax-resistant Americans loomed large in Hamilton's imagination, the same could not be said of the Native inhabitants of western lands or the challenges of securing western title.

The stripped down way in which Hamilton called upon the public lands in these early schemes set a precedent of legislators evoking settler imaginaries of inevitable western growth and freely available public lands without also discussing the full costs of their acquisition. Instead of considering western development and Indigenous conflict and dispossession as interdependent, contingent processes, Hamilton and the legislators that would follow chose to

[16] In Hamilton's subsequent 1795 report on the public credit, these frontier conflicts garnered a passing acknowledgement but did not force Hamilton to alter his visions of inevitable western growth: "And though war may interrupt, the temporary interruption being removed by the restoration of peace, [the large tracts of unsettled land's] increasing productiveness, suspended for a time, must resume its vigor and growth" (1837 [1795]: 186; see also 171-172).

evoke a politically light image of the public lands that could minimize the costs of implementing their proposed schemes.

Internal improvements played an important role in this projected future of western expansion. From the nation's earliest years, the large and varied geography of the United States was understood as representing a latent threat of sectional conflict and geographic splintering that needed to be contained. Settling the trans-Appalachian west and establishing a national market to bind the nation in common economic interest was considered of highest priority. Internal improvements such as turnpikes, canals, and railroads promised to both stimulate commerce as well as unite the far-flung corners of the country into, as George Washington (1796) put it in his farewell address, "an indissoluble community of interest as one nation." From the perspective of these new American state builders, the necessity of internal improvements was obvious. The only question was what role the government would play in promoting them.

Early Experiments with Internal Improvements: The Public Lands as Means and Justification for More Direct Government Involvement in Infrastructure Promotion

In the run up to the Erie Canal's authorization in 1817, internal improvements promoters would discover both the technical and political challenges of constructing an integrated system of internal improvements in a country as geographically large and politically fragmented as the United States. It would be these challenges that would push New York State to build the Erie Canal without federal support as a publicly designed, constructed, owned and operated project, eclipsing the precedent of government promotion of internal improvements occurring through delegation to private enterprises and thereby expanding the nascent American state's administrative scope into the domain of direct infrastructure promotion. Throughout this learning process, the public lands acted as both a justification and a means for governmental experimentation.

Sparsely Settled Western Lands and the Limits of Government through Delegation: The Western and Northern Inland Lock Navigation Companies

Before the Erie Canal, government promotion of transportation infrastructure occurred almost exclusively through delegation to private enterprises. In the early years of the republic, local roads were hacked through the brush in the agricultural off-season by area residents. These narrow and minimally serviceable tracks were used as feeders to the nearest improved road. Private turnpike companies built and maintained such improved “common roads,” charging tolls for their use (Larkin 1988: ch. 5; Shaw 1990; Taylor 1951: ch. 2-3). In order to capitalize themselves, these companies petitioned their state legislatures for special acts of incorporation. Much of the daily activity of state legislatures was taken up by the hearing and granting of these petitions, as well as similar petitions from river improvement, banking, and manufacturing concerns (Hilt 2017; Ireland 2004). Therefore, when the Erie Canal’s promoters began dreaming of an inland waterway that could link the waters of the Great Lakes to the tidewaters of the Hudson River, it was both natural and necessary that they should turn to their state government for support. However, previous practical experience with canal navigation through the Western and Northern Inland Lock Navigation Companies (WNILNC) had convinced New York legislators that private industry alone was insufficient to realize projects as technically and financially ambitious as the Erie Canal.

In 1792, Revolutionary War hero turned state senator, Philip Schuyler, helped usher an act through the New York State legislature incorporating the WNILNC and granting those

Companies exclusive rights to build and collect tolls on river improvements in the then sparsely settled western and northern reaches of the state (Whitford 1906). State legislators, many of whom had sizable landholdings in those areas (Fox 1965 [1919]; Hauptman 1999), took an active interest in both Companies from the start, liberally granting them unlimited power to appropriate land and construct improvements wherever they saw fit.[17] Schuyler became a major investor in both Companies and, despite his scant prior engineering experience, would serve as President and Chief Engineer to each (Whitford 1906).

The WNILNC were part of a period of nationwide, largely unsuccessful, experimentation in internal improvements from the "monied gentry" of the new republic (Larson 2001: 9-38). In the case of the WNILNC, engineering complications exacerbated by Schuyler's lack of technical experience combined with insufficient tolls from the canal's remote location to require repeated injections of additional aid from New York State in the form of new stock subscriptions and grants. By 1807, not including the $12,500 the state had granted as free aid, the State of New York held forty percent ($92,000 of $232,000) of the total stock of the Western Inland Lock Navigation Company.[18] This was not a trivial sum for a state that, for example, in 1792 boasted a total revenue of only $559,497. Notably, just over half ($316,322) of this revenue consisted of proceeds from the sale of "waste" lands of western New York (NYS 1793: 113).[19] Indeed, when

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[17] As evidence of how liberally legislators supported these corporations, it should be noted that the legislature actually overturned a veto from the state's Council of Revision with a two thirds majority after the Council objected to the Companies' ability to appropriate land and build improvements on privately owned land without due process or requiring damage assessments (NYS 1793: 79).

[18] The Northern Inland Lock Navigation Company never attempted construction after an initial survey costing approximately $100,000 which was written off as a total loss (Gallatin 1808: 46; Whitford 1906: ch. 1).

[19] Similarly, the total revenue of 1793 was $395,047, of which $224,170 came from the sale of "waste" lands (NYS 1794: 65-66). These figures were reported in New York pounds, to which the conversation rate of 1 dollar equalling 8 shillings was applied (Hamilton 1837 [1790]: 35).

Governor George Clinton urged state legislators to support the WNILNC in his 1792 annual address, he prefaced his remarks by invoking the budget surplus the prior year's sale of "the waste and unappropriated lands" had generated and enjoined legislators to apply it such that “the settlement of the country [would be] advanced,” before noting that said surplus would allow the state to support the WNILNC “without the aid of taxes.” Here, as in the case of Hamilton’s Treasury report, the public lands again served as a means to minimize taxation.

While state legislators were busy debating the WNILNC’s eminent domain privileges (NYS 1793: 79), what was not mentioned in the course of their proceedings was the backdrop of active Indigenous dispossession against which these projects were being pursued. Although Indigenous dispossession and western development were concurrent processes, state legislators let neither the contingent status of their claims to western lands nor legal restrictions against direct negotiations with Native nations slow their scheming. In 1784, less than ten years before the establishment of these Companies and a little over thirty years before the authorization of the Erie Canal, the Oneida nation still controlled over five million acres of land in central New York in precisely the area the Western Inland Lock Navigation Company intended to develop (Hauptman 1999: 27-28). Despite having this land federally recognized in the 1784 Treaty of Fort Stanwix, and despite the Trade and Intercourse Acts of 1790 and 1793 expressly prohibiting any trade with Indian nations without the authorization of the federal government, between 1785 and 1795—concurrently with the authorization of the WNILNC—New York State independently signed a series of “treaties” to acquire these lands almost in their entirety. In return, the Oneida received $16,952 in cash, $4,000 in goods, annual payments of $600, and the privilege of not having the remainder of their lands seized. Throughout this period, Schuyler served as one of New York State's chief negotiators (Hauptman 1999: 58-81).

By the time of its dissolution in 1820, the Western Inland Lock Navigation Company had spent an estimated $480,000, failed to pay a dividend to its stockholders in 21 of its 27 years of existence, and had only managed to build three small locks in central New York which neither meaningfully stimulated settlement nor commerce (Whitford 1906). Accordingly, when state legislators began seriously contemplating a continuous canalway between Lake Erie and the Hudson river, private enterprises such as the WNILNC were written off as inadequate instruments. Experience had shown private enterprise alone could not provide sufficient capital or engineering expertise to sustain a scheme as geographically isolated and technically ambitious as the Erie Canal.

The Necessity and Political Challenges of Establishing an Integrated System of Internal Improvements: The National Road and Gallatin's Plan

Federal sentiment echoed local that direct government intervention was called for when it came to internal improvements. In his second inaugural address, normally anti-improvement Thomas Jefferson (1805) called for using the surplus revenue from customs duties to support "rivers, canals, roads, arts, manufactures, education, and other great objects within each state." These remarks reflected growing bipartisan agreement in the early 1800s that centralized government involvement in internal improvements would be necessary if national integration was to be achieved (Larson 2001: 20-69; Balogh 2009: 53-78, 122-139). This federal support then raises the question of why the Erie Canal was ultimately a state and not federal enterprise. Examining the political difficulties faced by the National Road and Albert Gallatin's unsuccessful 1808 proposal for a national system of internal improvements is instructive for addressing this puzzle. These cases were also key for establishing the precedent that public lands, even before the complete acquisition of title, would play a major part in financing government support of infrastructure projects more generally beyond the Erie Canal.

The National (also known as Cumberland) Road was the United States's first federally administered transportation infrastructure project. Ohio's 1803 statehood bill, which established Ohio as the first state carved out of the Northwest Territory, laid out a plan for a road connecting the Ohio river to the Atlantic seaboard. That bill stipulated that three percent of proceeds from public lands sales in said state be allocated towards building such a throughway. When three years later Congress passed a bill empowering the President to appoint road commissioners, it was with an initial appropriation of $30,000 drawn first from these earmarked proceeds from public lands sales and then from the general treasury, with no provisions for additional taxation. The appropriations bill that was ultimately passed set early precedent for internal improvements to proceed with direct government action as opposed to through delegation to private corporations, for such activity to fall under the authority of the executive branch, and for improvements to be funded primarily through the public lands.[20] As a precursor to the intractability of place-based interests behind internal improvement projects, the debate between the passage of these two bills was focused not on how the road would be paid for but rather which path the road would take. Congressmen creatively called into question everything from the road's constitutionality to the grammar of the annexation bill itself in their bids to secure the

[20] An important earlier precedent placing control over transportation works in the executive branch were the debates surrounding the postal service throughout the 1790s. See Larson 2001: 46-48, and John 1995.

road's benefits for their constituents (U.S. Congress 1852a: 272-273; 1852b: 21-25, 41, 43, 197-199, 305-314, 322-324, 516-518, 833-848, 1139-114).

On the heels of the National Road's authorization, the Senate directed Treasury Secretary Albert Gallatin to author a report on public roads and canals. The public lands would provide both justification and means for the ambitious national scheme of internal improvements Gallatin proposed therein. Previous experiments such as the WNILNC (one of many examples cited unfavorably in Gallatin's report) with isolated and locally-oriented private improvement schemes had convinced Gallatin that the profitability of any individual project rested on its integration into a broader transportation network. In a nation as geographically large and politically fragmented as the United States, Gallatin argued that only the federal government could provide capital in sufficient quantity and speed to ensure that the whole system could be efficiently constructed. Moreover, the vast territorial extent of the United States made it all the more imperative for the federal government to link its various parts in the interests of better military defense, increased commercial and personal communication, and national unity (Gallatin 1808: 6-8, 70-71).

To fund his nationally coordinated plan of internal improvements, Gallatin made no mention of new taxation. Instead, Gallatin proposed appropriating proceeds from the sale of public lands and surplus tax revenues to seed a dedicated internal improvements fund:

> "Exclusively of Louisiana, the general government possesses, in trust for the people of the United States, about one hundred millions of acres fit for cultivation, north of the river Ohio, and near fifty millions south of the state of Tennessee […] the application of the proceeds of the sales of the public lands, might perhaps be made permanent until [the internal improvements fund] had amounted to a certain sum" (Gallatin 1808: 71-72).

It is not clear where Gallatin derived these figures on the amount of public lands held “in trust” by the general government. Notwithstanding the lands south of the state of Tennessee, a 1791 official estimate of "the quantity and situation of the lands not claimed by the Indians, nor granted to, nor claimed by, any of the citizens of the United States” in the lands north of the river Ohio put the figure “available for disposal… upwards of 21 millions of acres” (U.S. Congress 1834: 20).[21] Subsequent communications between 1791 and 1807 from local Indian commissioners, territorial governors, and land offices reported delayed surveys (U.S. Congress 1834: 72-74, 245), unclear boundaries and inconsistent land granting practices (U.S. Congress 1834: 231; 245-246), and updates on the progress of confirming hundreds of existing claims and resolving disputed titles (*passim*); no updated estimate on the total lands available was made in these communications.[22]

As Secretary of the Treasury, Gallatin not only received many of these communications but reported them himself to Congress. Given these reports, it is surprising that his own estimate of the public lands available in the Northwest Territory would have *increased* from the 1791 report. In this context, Gallatin’s reference to “about one hundred millions of acres” must be understood not as borne of ignorance but convenience. For Gallatin, it was expedient to invoke the public lands in such simplified, exaggerated, and politically light form. These vast public lands both provided justification and means for his scheme of internal improvements.

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[21] The lands “south of the state of Tennessee” refers to Georgia's 1802 cession to the federal government, much of which were encompassed by the notorious Yazoo land scandal and active disputes over Creek title. The cession agreement did not attempt to make an estimate of the amount of lands available for sale in that territory (U.S. Congress 1834: 113-114; Hobson 2016).

[22] Although Gallatin’s report made reference to a plan to “secure indisputable titles to the [public lands] purchasers,” this plan was only mentioned in passing and spoken of as an inevitability instead of an outcome contingent on negotiations with Native peoples (1808: 71).

Seeing this federal-level enthusiasm for internal improvements, representatives of New York State repeatedly petitioned the individual states and Congress for federal support for the Erie Canal between 1810—when New York had approved initial surveys by state commissioners —and 1816, requesting aid in the form of direct aid, stock subscriptions, and land grants. They were not successful. Omnibus appropriations bills lumping together the Erie Canal with similar improvement projects throughout the country, such as the Pope-Porter bill discussed below, were repeatedly whittled away and voted down in the face of parochial interests (Hosack 1839; 357-374; Larson 2001: 52-69; NYS 1816; NYS 1825: 71-75, 91-94, 269, 294-301). Despite widespread belief that an integrated system of internal improvements would benefit the nation, geographically splintered, place-based interests prevented the successful passage of any bill in the pre-War of 1812 period. As state commissioners appointed to lobby Washington reported:

> "The population and resources of the state of New-York… [imbue mens'] minds with state jealousy… it was obvious that an opinion of [the canal's] superior benefit to this state was sedulously inculcated. […] Your committee… had learned… that unless something was done for many of the states, the consent of a majority of the House of Representatives could not be obtained" (NYS 1825: 92-93).

Ultimately, New York State would be the canal's engineer, financier, constructor, owner, and operator, pioneering a new, more activist role for government in shaping the economy and society via infrastructure promotion. In these antecedents to the Erie Canal——the WNILNC, the National Road, and Gallatin's plan— politically light public lands were a constant presence, serving as both justification for a more vigorous role for government in the development of transportation infrastructure while helping provide the fiscal resources to do so. In the case of the Erie Canal, the public lands would also play a role in making what seemed at first an impossible project seem within reach.

Making an Impossible Project Possible: Public Lands in Support of the Erie Canal

Supporting the Erie Canal represented an extremely large risk for the State of New York as the canal was a pioneering proposition on all fronts: administrative, technical, and political.

From an engineering standpoint, the Erie Canal was out of scale with any understanding of American capabilities. At the time Britain, not the United States, was considered the center of canal engineering. Early American canals were built with the imported expertise and tools of visiting English engineers but, like the case of the WNILNC, ultimately relied on the liberal arts educations of resident gentlemen to muddle through any design and construction challenges that would arise (Hawley 1839 [1807]: 310-319; Shaw 1990: ch. 1).[23] The Canal du Midi, the longest canal in the Western world at the time, measured 150 miles long (Mukerji 2009). When completed, the Erie Canal would span 363 miles and use eighty-three locks and eighteen aqueducts to navigate a combined ascent and descent of 675 feet. Contemporary observers acclaimed it the eighth wonder of the world (Nye 1994; Shaw 1966: 87; Wyld 1962: 16).

The Erie Canal was as unprecedented a public enterprise as it was an engineering one. Government through delegation meant that the turnpikes, toll bridges, and river improvements dotting the United States in the early nineteenth century were almost entirely privately held enterprises.[24] Moreover, while toll bridges were often profitable, the same could not be said for canals and turnpikes which were plagued with high maintenance costs and, in the case of turnpikes, rampant toll-evasion (Taylor 1951). Canal construction cost, on average, at least twice

[23] For example, in search of a general manager for his Potomac Canal Company in 1785, George Washington asked for a man of "genius… integrity, abilities… [and] indefatigable industry" instead of a man with actual technical experience (Washington quoted in Calhoun 1960: 11).

[24] Although Congress had approved the National Road in 1806 and begun construction on it by 1811, its modest initial capital outlay ($30,000), shorter distance (130 miles), lower cost of construction, and lack of technological innovation did not render the National Road as transformative a project in Americans' understanding of their government's role in constructing internal improvements.

that of turnpike, although depending on the terrain and engineering specifications it could cost much less or more. Early estimates put the price tag of the Erie Canal at six million dollars. Compare this with the several hundred thousands of dollars used to capitalize only the most ambitious turnpike corporations, with the great majority requiring $100,000 or less (Taylor 1951: 25).

To meet this massive price tag New York State considered many different financing schemes, all of which relied heavily on the revenues, growth, and resources legislators saw promised in first the nation's and then the state's public lands. The omnibus Pope-Porter bill of 1811 proposed to finance the Erie Canal through a grant of four million acres of public lands in the former Northwest Territory. Similar land grants totaling 5.9 million acres were attached to fifteen other improvements in the same bill which roughly corresponded to the projects outlined in Gallatin's 1808 plan (NYS 1825: 95-100). In its only reference to Indian title, the bill stipulated, "That none of the said land shall be sold or disposed of for a price less than $2 per acre; neither shall any settlement be made thereon until the Indian title shall be regularly and fairly extinguished" (NYS 1825: 99). Although the bill stipulated that the public lands could not be settled until Indian title was fairly extinguished, the bill's language was not similarly clear about their eligibility to secure loans, instead only clarifying "said several tracts may be severally and respectively pledged as security for loans" (ibid). To justify their reliance on the public lands for funding internal improvements and speaking to the lower perceived costs of pledging the public lands compared to other revenue sources, canal promoters reasoned that even though a looming war with Great Britain rendered direct Treasury appropriations unwise, this objection did not apply to granting the public lands (NYS 1825: 94). Legislative wrangling transformed this request for direct land grants into a plea for stock subscriptions from the federal government funded by the sale of those same lands before ultimately killing the bill (Larson 2001: 62).

After the failure of the Pope-Porter bill, canal commissioners looked to the state's own resources to fund the canal. Although New York State had ceded an area roughly two times its present day extent to the federal government during the Confederation period, New York still retained jurisdiction over considerable amounts of western lands, the majority of which had Indian title extinguished in the late 1700s in conjunction with western development schemes such as the WNILNC. Pointing to these lands and working off of an estimated total cost of six million dollars, in their 1812 report state canal commissioners argued that although large in comparison to the state's current revenues and expenditures, "it is almost a contradiction in terms to suppose that an expenditure [of this sum]… can be a serious consideration to a million men, enjoying one of the richest soils and finest climates under heaven" (NYS 1825: 84).[25] They argued that, not factoring in any of the expected increases in population, to raise an annual revenue of $500,000 to service a loan the state would only have to tax New Yorkers an average of $2.50 per household, an amount comparable to current federal taxation rates, which legislators argued had not proven burdensome. Legislators predicted that as the canal neared completion and began to stimulate commerce and increase land values in the western portions of the state, excise and property taxes would rise thereby putting the canal on even firmer ground financially. Combined with estimated toll revenues, these revenues could support a loan for five to six million dollars at the rate of six percent then being offered to the State of New York by European lenders (NYS 1825: 71-87).

[25] For context, in 1816, the year prior to canal construction beginning, the state's operating budget was approximately two million dollars (NYS 1817: 201-206).

Financing the canal entirely through public land sales, as the Pope-Porter bill proposed, or via low taxes for which increasing revenues were assumed to be guaranteed with western population growth allowed canal promoters to project frictionless development with minimal (or rather, minimized) fiscal and political costs. These early, roughly sketched financing proposals allowed New Yorkers to become more comfortable with the prospect of the wildly ambitious canal without wading into the particulars of how it would be paid for.

The War of 1812 put the canal on hold as canal commissioners reported difficulties securing European loans (NYS 1825: 104, 116).[26] Almost immediately after the war, the 1816 New York state legislative session opened with a coordinated petitioning campaign for the canal, with petitions streaming into Albany from throughout western New York. This deluge was crowned by a memorial from "the citizens of New York" penned by DeWitt Clinton (Carpenter 2021: 100-103; NYS 1825: 119-141).[27] With debate over the canal jumpstarted and popular support for the canal so publicly demonstrated, state legislators passed a bill authorizing $20,000 to conduct a detailed survey of the potential route (NYS 1825: 184-186).

Upon finding this survey satisfactory a specially appointed joint committee recommended the state begin construction at once, warning state legislators that if the canal were not built the commerce and people of northern New York would inevitably drift towards Canada and result in political disunion and economic decline. This joint committee urged the legislature to act in haste given that the state's western population was rapidly increasing and the cost of securing a right of

[26] Curiously, but in line with legislators' practice of minimizing frontier conflicts to maximize the lightness of the public lands, the War of 1812 was not mentioned as an impediment to the Erie Canal from a military conflict, Indigenous relations, or territorial control perspective. This is all the more striking considering that intense fighting occurred near Buffalo, NY the future western terminus of the canal (Taylor 2011: 182-199, 228-232).

[27] In this memorial Clinton also calls upon the state's western lands to assure readers, "In all human probability, the augmented revenue proceeding from the public salt works, and the increased price of the state lands, in consequence of this undertaking, will more than extinguish the interest of the debt" (NYS 1825: 139).

way was similarly rising (NYS 1825: 273-280). Simultaneously, and echoing the joint committee's rationale, canal commissioners wrote another letter to Washington appealing for federal aid arguing that the canal would be necessary for diverting economic activity from Canada while adding that a canal would reduce the "great influence exercised over the western Indians… by the subjects of a foreign government" and thereby strengthen the bonds of "common interest" (NYS 1825: 294-295).[28]

To fund the canal, the joint committee opposed the canal commissioners' 1812 proposal to levy a direct tax, arguing:

> "In a free government… it is chimerical to contemplate the execution of a stupendous plan… without the adoption of a wise and economical system… To attempt to raise by taxation, the whole sum… will impose a burthen on the people which would be destructive to the project."

Instead, the joint committee proposed a new property tax paid by persons residing in counties directly benefitting from the canal and appropriating funds "arising from auction duties, of the duties arising from salt… and the whole of the monies, which the state may derive from the sale of unappropriated lands" (NYS 1825: 282-283).

The canal commissioners agreed with the joint committee's recommendation, opening their own proposal with a reassurance that "these important communications can be opened without any direct tax" (NYSL 1825: 323, 326). The commissioners, however, were more enthusiastic about drawing from the proceeds of public land sales than the joint committee, recommending that *the whole* of the state's unappropriated lands be sold:

> "The whole of the unappropriated lands of the state, considering the value of several villages, *and of the Indian reservations,* and the quantity on hand, may be safely estimated at two millions of dollars. If the

[28] This reference to "western Indians" is ironic given that New York lawmakers knew that their own activities negotiating land cessions from Oneida in the western portions of their state had incited division and conflict, as reported to them by a series of petitions from Oneida factions in 1810 and 1814 (Carpenter 2021: 134-135).

> whole were sold on the usual credit, the annual interest would bring 120,000 dollars" (NYS 1825: 326, emphasis added).

In addition to selling these lands, the commissioners also proposed a new sales tax on steamboat passages. Lands along the canal route—largely owned by the land speculation company, the Holland Land Co.—either donated or appropriated by the commissioners, would constitute another source of support. The remaining costs would be covered with loans from European creditors borrowed on the credit of the state. Subsequent legislative debate on the merits of both the commissioners' and joint committee's recommendations concentrated the burden of new property taxes from the residents living in the general vicinity of the canal to only those residing within twenty-five miles of the canal itself (NYS 1825: 334-364). Most drastically and in a sharp departure from precedent, during this same debate the Senate removed proceeds from public land sales from the proposed bill entirely.

From the National Road in 1806, to Gallatin's report in 1808, to the Pope-Porter bill of 1811, public lands had featured heavily in the financing schemes of internal improvements as a direct source of revenue. Canal commissioners saw a similarly central role of the public lands in their financing proposal for the Erie Canal; sales of public lands constituted a full third of the canal fund (Table 1). By the time the bill passed the Assembly, this proposal had been watered down to stipulate only approximately thirty percent of the unappropriated public lands be sold. The Senate removed this directive completely (NYS 1825: 350-351). Although the legislative proceedings do not detail how this funding source was removed, it is easy to imagine why state legislators would balk at the canal commissioners' original proposal. Considering how important proceeds from public land sales had been in funding the state government, no wonder they felt reluctant to sign away the remainder on a gamble as large as the Erie Canal.

[INSERT TABLE 1 ABOUT HERE]

President Madison's veto of the 1817 Bonus Bill, which would have earmarked revenue from the newly re-established federal bank towards building roads and canals, showed New York State once and for all that they could not rely on federal government to support their canal. A little less than a month and a half later state legislators passed an act authorizing state canal commissioners to begin collecting funds to construct their grand canal (Larson 2001: 63-69; NYS 1825: 358-365).

Ultimately, comparing the canal commissioners' proposed revenue streams for the canal fund with its actual revenues from 1817 to 1820 (the last year before toll revenues entered the picture) demonstrates that it was possible to finance large scale infrastructural works without directly relying on public land grants or sales (Table 1). However, while the public lands appropriations may have been removed, the great natural resource wealth of those same lands and the rapid population growth they sustained—as demonstrated by the revenues from salt duties and the greater-than-expected proceeds from auctions—still helped finance the canal, indirectly implicating the public lands in the canal's construction in a pattern that would be repeated with western reclamation.

Just as significantly as these material resources, the public lands removed one item from the list of concerns canal skeptics could use to critique the wildly ambitious and complex project. As these records demonstrate, appeals to the state's public lands allowed canal promoters to avoid the specter of direct taxes and were invoked to substantiate canal promoters' assurances of inevitable population growth. In this way, the public lands minimized the complex legislative battles that could have killed the Erie Canal. And, as these documents demonstrate, although

New York taxpayers were a constant presence on legislators' minds, canal promoters' visions of development in western New York did not include any Indigenous presence, even on—as the commissioners' 1817 calculus of the state's unappropriated lands reveals—mutually recognized Indian reservations.

While these legislative debates demonstrate how freely state lawmakers mobilized the public lands in their various funding calculations, a significant portion of New York's western lands were still very much encumbered by Indian title. The largest impediment to western development was the Buffalo Creek Indian Reservation lying just east of the western terminus of the Erie Canal. Situated on Seneca homelands, the 84,000 acre reservation had become a refuge for displaced Haudenosaunee from throughout the state, including Oneida, Cayuga, and Onandaga. Philip Schuyler had helped dispossess many of these communities in central New York mere decades before as part of his WNILNC development schemes, and ironically it would be salt-rich western lands ceded by the latter two communities which would prove essential to funding the Erie Canal.[29] Additionally, in western New York the Seneca also had substantial, legally recognized claims to lands in the Niagara River Islands and along the Genesee River valley. By midcentury, with the aid of prominent Erie Canal promoters such as Joseph Ellicott and Peter Buell Porter (of the Pope-Porter bill) and under duress from encroaching white settlement, almost all these lands would be sold (Hauptman 1999: 76-77, 107-120, 149-161). Despite many of the same figures featuring in the story of Iroquois dispossession and New York canal development, discussions of exactly how the public lands would be acquired or the costs of

[29] Schuyler had negotiated unlawful "treaties" with Cayuga and Onandaga to acquire these salt lands in 1795. These negotiations occurred under duress and without federal commissioners present. Schuyler aggressively pursued these lands because he knew acquiring them would stimulate traffic on the Western Inland Lock Navigation Company canal. The remainder of these salt-rich lands would be ceded by Cayuga leadership in 1807 (Hauptman 1999: 76-77).

western development on Indigenous communities are notably absent from state legislators' debates.

By drawing upon shared cultural assumptions of inevitable Indigenous dispossession, internal improvements promoters were able to contain the perceived costs of their schemes thereby allowing development to proceed apace. As these records demonstrate, sanitized of the full costs of their acquisition, politically light public lands were called upon again and again to support governmental activities as a "free" resource. Whether directly through land grants and appropriated land sales revenues or indirectly through taxation, this practice of the public lands to help finance infrastructure development would only become more common after the Erie Canal.

Continued Subsidies from the Public Lands: Internal Improvements After the Erie Canal

For the state of New York, their gamble proved a success. The Erie Canal stimulated economic growth all along its route by linking emerging grain producers in the midwest with a global market, making New York City the primary commercial center of the eastern seaboard. Population boomed as settlers flooded west along the canal, fueling the growth of cities like Syracuse, Rochester, and Buffalo and catalyzing a threefold increase in population beyond the canal's western terminus between 1825 and 1850 (Bernstein 2005: ch. 19-20; Johnson 1978). In 1825, its first year of full operation, tolls collected on the Erie Canal's freight proved to be five times greater than what was necessary to cover the interest on the canal's outstanding debt. By 1837, the entire loan on the canal was repaid (Bernstein 2005: ch. 19-20; Miller 1962).

Far beyond uniting the state in "an indissoluble community of interest," the success of the Erie Canal demonstrated the power of infrastructure to spur population growth and new economic activity. The canal turned on its head the then-dominant European assumption that internal improvements should follow dense settlement (Murphy 2015: 173-174, 205), and inaugurated the first generation of American professional civil engineers; men who had cut their teeth on the canal were soon in high demand for similar projects throughout the nation (Calhoun 1960: 34-37).

Capital was free flowing as other states and private ventures tried to replicate New York's success. In 1816, the United States had less than one hundred miles of canals. By 1840, there were 3,326. Across the United States state bonds increased almost tenfold between the early 1820s and the mid 1850s, totaling $108 million in the 1835-1837 period with over half of this debt incurred for canal construction costs. Pennsylvania, Ohio, and Indiana joined New York in launching extensive systems of state owned and operated canalways (Taylor 1951: 48-52). By 1860 the federal government had granted approximately four million acres of public lands to canal projects in Ohio, Michigan, Indiana, Illinois, and Wisconsin alone and had subscribed another three million dollars in canal company stock.

However, subsequent canal projects rarely proved as profitable as the Erie Canal. Construction budget overruns were more common than not and toll revenues reliably fell short of public expectations. While enthusiasts touted the ability of canals to act as sources of revenue that would allow states to provide more extensive services or reduce taxation, canals were actually more often threats to the public credit that raised taxes and ultimately drove three states to bankruptcy (Taylor 1951: 52-53).

While canals did not prove to be a fiscal boon for states, that did not turn Americans off the promise of infrastructure-led development. By the 1840s, the fervor for canal building had been replaced by a mania for railroads. Total railroad mileage exploded from 73 miles in 1830 to 30,636 in 1860 (Taylor 1951: 79). However, states which had invested heavily in canals were in no financial position to do the same for railroads and did not want to undercut their own investments in canal infrastructure. Furthermore, because railroads, unlike canals, could be built almost anywhere regardless of geographical features, place-based conflict over the location of railroads was more intense than over canals thereby stymying state or federal-level support (Scheiber 1975). Therefore, unlike with canals, early railroads were largely privately owned and operated with local and municipal governments leading the way in providing financial aid through the 1840s. Nonetheless, state and federal support soon followed and with it again came substantial subsidies from the public lands (Dunlavy 1991; Taylor 1951: 90-94). By 1862, Congress had promised land grants totaling almost 28 million acres to fifty railroad companies for 8,647 miles of track. With the 1862 and 1864 Pacific Railway Acts authorizing federal support for the first transcontinental railroad—and before Indian title along the entire route had been extinguished—Congress granted another 34,560,000 acres of land to the Central Pacific and newly chartered Union Pacific Railroad (Carlos *et al.* 2022: 24; Gates 1968: 362-367).

With a government subsidized transportation infrastructure stretching from sea to sea, the new frontier was not westward expansion but reclamation. Arid lands in the American west required massive amounts of capital to be irrigated and made fit for settler use. Once again, it would be up to government and the public lands to accomplish the task. The Newlands Act of 1902 created the Bureau of Reclamation and its Reclamation Fund, public agencies which together would provide financial, technical, and operational support for irrigation and hydroelectric works throughout the American west. Combining publicly-owned infrastructural works and federal engineering expertise with private contractors, the Bureau was the result of over a century of experimentation with government promotion of infrastructure. And, like the railroads and canals before it, the Bureau would rely on the public lands. All but five percent of proceeds from public land sales in the sixteen arid western states were diverted into its Reclamation Fund. Subsequent legislation similarly diverted proceeds from leased mining rights and the revenues from the sale of hydropower at Reclamation dams.[30]

[INSERT TABLE 2 ABOUT HERE]

Although the Bureau was meant to be self-liquidating, this was never quite achieved. Substantial appropriations had to be made first in 1933 from the New Deal Public Works Administration to complete, among other Reclamation projects, the Hoover Dam. and then from the U.S. Treasury's general fund from 1936 onwards (Table 2) (Gates 1968: 28-30; 654-691; Short and Stanley-Brown 1939). By the mid-twentieth century, and despite complex and increasingly visible struggles with Native nations over land grants, water rights, and self-determination (Curley 2021; Espeland 1995), regularized subsidies for Reclamation and the rise of notions such as "public goods" and "development" normalized the expectation that infrastructure projects such as the Erie Canal, the first transcontinental railroad, or Hoover Dam could be unprofitable yet still merit support through the public purse because their diffuse benefits would ultimately compensate their costs (Ekbladh 2010; e.g. Goodrich 1960; Pickhardt 2006). Infrastructure promotion had become part of the taken for granted domain of governmental action. Undergirding this new common sense lay more than a century of

[30] For the purposes of this article, it is enough to demonstrate that the practice of using public lands to support government promotion of infrastructure continued after the canal era into railroads and reclamation. However, it must also be said that the nature of Indian dispossession changed rapidly throughout the nineteenth century from isolated treaty making in the eighteenth and early nineteenth century to coordinated initiatives for Indian removal, containment, and assimilation in the nineteenth (Prucha 1997, Saunt 2020).

government experiments with infrastructure promotion supported by public lands made politically light through assumptions of Indigenous erasure.

BROADER IMPLICATIONS AND CONCLUSION: THE UNITED STATES AS A CASE OF SETTLER COLONIAL STATE FORMATION

This article demonstrated how processes of Indigenous dispossession and erasure were woven into American state formation via the public lands and the government experiments with infrastructure promotion those lands were called upon to support. Once institutionalized in public budgets, privately held assumptions of Indigenous erasure could become publicly legitimized ways of seeing the world capable of operating beyond the scope of individual action. Acting as what Curley (2021) has termed "colonial beachheads," the internal improvement projects legislators envisioned were used to break up Indian title and further Indigenous dispossession (Karuka 2019) while also creating the material conditions for settler economy and society (Dillon 2021). In constructing their large-scale transportation, communications, and irrigation projects, early American state builders were also constructing what Mukerji (2010) has termed a "figured world of power" in which settler society could be expressed, normalized, and further legitimated. Moreover, as mute reflections of impersonal power and as symbols of technological progress (Larkin 2013; Mukerji 2010; Nye 1994), large scale physical infrastructure projects helped construct a "settler normativity" in which Indigenous erasure was rendered as part of the inevitable succession from "inferior and primitive" Indigenous lifeways to "superior and modern" settler society (Steinman 2016: 221; 2022).

With these broader consequences in mind, the history of infrastructure promotion this article traces can therefore be understood as reflecting both settler colonialism's "negative" and "positive" dimensions (Wolfe 2006: 388): its "logic of elimination," as reflected in assumptions of Indigenous disappearance undergirding the political lightness of the public lands, and the establishment of "a new colonial society on the expropriated land base" via the infrastructure projects those lands were mobilized to support. From this perspective, this article suggests the centrality of land as both a *means* and an *end* of expanding setter colonial states. As such, in carefully tracing the role of the public lands in early government experiments with infrastructure promotion, this article points to some of the ways in which the centrality of land to settler colonial state formation may influence the course of settler colonial states' political and economic development more generally.

Implications for Understanding the Role of Land in American State Formation

Existing research suggests that it is significant that the public lands gave Americans a source of financial support with few external strings attached. As this article illustrates, unlike many other postcolonial states in the twentieth century (Babb and Carruthers 2008; Centeno 2002), by calling upon the potential of its untapped western lands Americans were able to secure loans from foreign creditors without burdensome conditionality requirements or ceding control of their domestic businesses.[31] Therefore recognizing the public lands as one of the under appreciated inputs of American state formation has implications for understanding the United States' developmental path vis a vis other nations. Further research would be required to

[31] One early scholar of international development speculated this leniency may have been precisely *because* European creditors felt assured "that because the people in these places [such as the United States, Canada, Australia, New Zealand South Africa, Argentina and Uruguay], having come from Europe themselves, knew what to do with capital and how to handle it" (Nurske 1954: 747-748). This quote both points to how the public lands are obscured in our 20th and 21st century understanding of developmental paths, as well as the *racialized* logic according to which settler colonies may have received preferential treatment.

determine how the United States mobilized its public lands compared to other states and how this affected its long term economic development.

Beyond influencing the United States' economic development, the vast expanse of the public lands may have also influenced the United States' political development. This article suggests how the United States was able to call upon its public lands to generously and liberally experiment with aid to private actors in many different forms, thereby enabling the emergence of a particularly delegated form of state power (see also Frymer 2014). The ability to externalize the full costs of mobilizing the public lands from its developmental schemes only further facilitated this process.[32]

From this perspective, the decision for New York State to step in when it did to build the Erie Canal becomes an illustrative example of the limits of delegated forms of governance and suggests an alternative mechanism through which state authority began to centralize in the United States that puts land and the political dynamics of territorial governance at the center of American state formation. Instead of administrative centralization catalyzed by the demands of war making and extraction (Tilly 1990), it may have been the complexities of establishing settler administration and technical control over large geographical scales that induced the rationalization and centralization of bureaucratic authority in the United States. After all, Albert Gallatin might have never called for a federally administered national system of internal

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[32] Consider, for example, Colleen Dunlavy's (1991, 1994) comparative analysis of mid-nineteenth century railway policy in the United States and Prussia. From the perspective of this article, Prussia represents a counterfactual case where, unlike the United States, Prussia had no vast store of lands to draw revenues from, grant, or borrow against to support its governmental activities. If, as Dunlavey suggests (1991: 22), the primary reason Prussian officials had chosen to not intensively involve themselves in railroads was a lack of fiscal capacity, then the existence of an asset like the public lands in the Prussian case would have likely enabled more directly interventionist policies in line with Prussian ideals of centralized administration. This article suggests it was precisely by allowing U.S. state builders to either delay or avoid entirely the kinds of difficult trade-offs that Prussian officials faced that the public lands enabled more vigorous experimentation with governmental activity in the United States than would have otherwise been possible.

improvements and the Erie Canal may have never been a state enterprise if it had not been for the failure of the WNILNC and other similar local, private enterprises that could not meet the challenges of building such large-scale and remote infrastructure projects. Simultaneously, the United States's federal structure combined with parochial conflicts—such as in the case of Gallatin's ultimately unrealized plan, or New York State's failure to get federal funding for the Erie Canal—may have helped reinforce the territorially fragmented structure of American government (Dunlavy 1991; Scheiber 1975), and prevented complete administrative consolidation. Further research is required to illuminate these dynamics and situate the United States developmental path in broader comparative context as a case of settler colonial state formation that puts land, and the resources and challenges attached to governing land, at the center of its analysis.

Resisting Erasure and Accounting for the Full Costs of Development

By examining how the public lands were called upon to help finance large-scale infrastructural projects before it was taken for granted that transportation infrastructures could stimulate economic development and before the international organizations that now help fund development, this article illustrates how the United States negotiated its early experiments with infrastructure promotion. Given the instrumental role the United States played in creating the transnational networks of professionals, norms, and institutions that constitute development today (Babb 2009; Rist 2002; Sneddon 2015), probing the United States' history of infrastructure promotion sheds light on the conditions upon which present day arrangements were built and suggests the limits and peculiarities of the American experience.

Demonstrating how the political lightness of the public lands helped subsidize early government experiments with infrastructure promotion suggests that the calculus of development appears differently when Indigenous presence is factored in. Further research, such as Lee's (2017) accounting of the true cost of the Louisiana Purchase, could produce updated cost-benefit analyses. However, it should not be surprising that the infrastructure promoters documented here were not interested in doing this accounting themselves. After all, they wanted to see their projects built. As such, this article is significant not for demonstrating extraordinarily unscrupulous legislators but rather the process by which a widespread cultural context could be implicitly called upon to help redistribute the costs of governmental action, thereby inscribing and reinforcing certain power relations via state action. The article develops the concept of political lightness as a tool that can scholars identify and resist these dynamics in diverse contexts beyond infrastructure promotion.

In the case of infrastructure promotion, these findings raise broader questions about the sustainability and equity of infrastructure-led development. As Marxist feminists and geographers have argued (e.g. Federici 2004; Fraser 2016; Harvey 2003; Moore 2011), there are contradictions in our economic system that are not confined to the labor process; capitalism is not a closed machine operating independently after an initial moment of violent dispossession, but rather an unbalanced system requiring new enclosures of commons and unaccounted for inputs of labor and natural resources to sustain itself. As this article demonstrates, lands acquired through processes of Indigenous dispossession may constitute another of these unaccounted for inputs. And, just as importantly, assumptions of Indigenous erasure and the exclusion of Indigenous interests from the legislative debates behind early government experiments in infrastructure promotion speaks to how the political feasibility of massively transformative development projects has historically relied on the exclusion and exploitation of certain groups. It suggests a pattern of development born in settler colonial contexts of dispossession and erasure that has not yet been fully examined.

Therefore, when collective action by Indigenous peoples—such as in the case of the Standing Rock Sioux and the Dakota Access Pipeline (Steinman 2019)—successfully disrupts infrastructure development, these movements are significant for not only asserting Indigenous presence, but also for demonstrating how fragile the calculus of development can be. These movements teach us that simply demanding meaningful recognition of tribal rights and insisting on alternative ways of relating to land, people, and economy can be enough to unsettle settler assumptions of what the acceptable costs of growth should be and teaches us all—Native and non-Native alike—to critically consider the full costs of development. As a result, we can not only better evaluate visions for a just collective future, but also better ask what a politics of repair would look like that can adequately acknowledge the extent to which contemporary social and economic relations were built on Indigenous dispossession.

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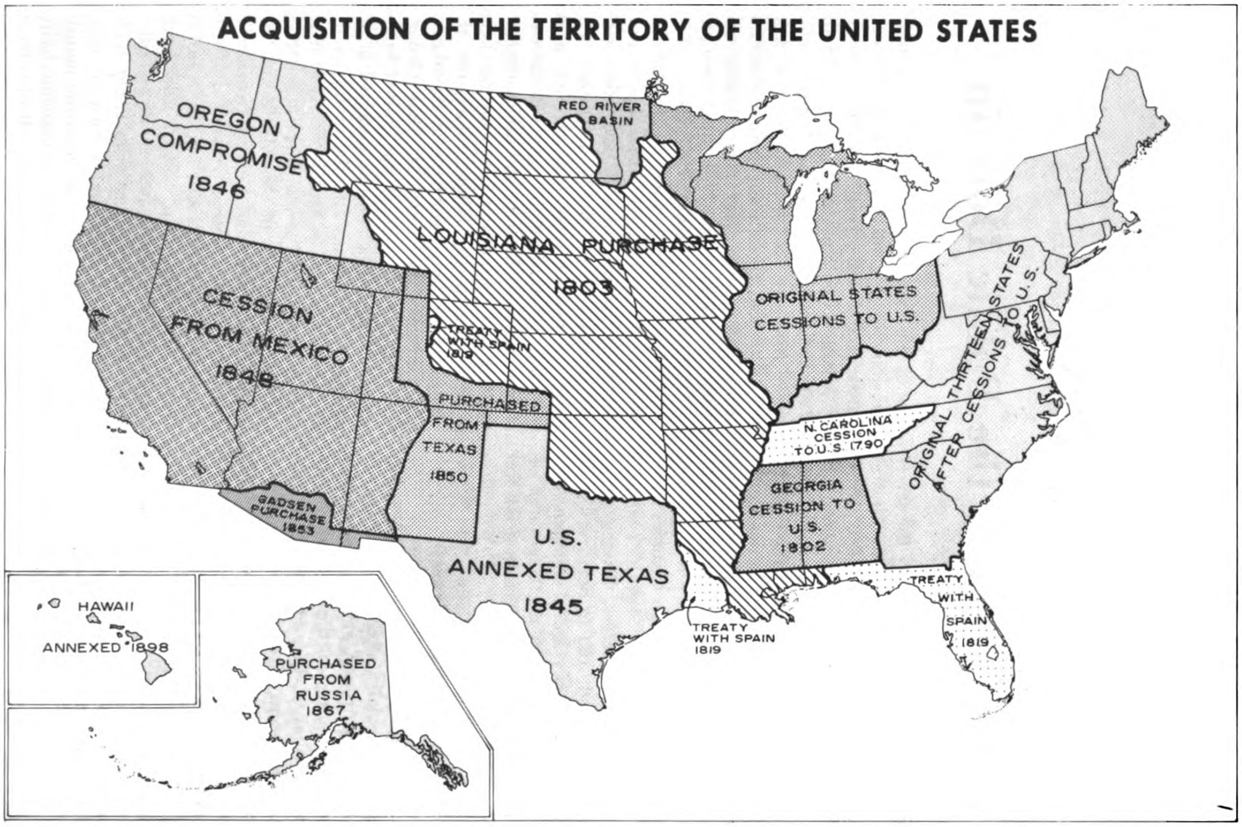
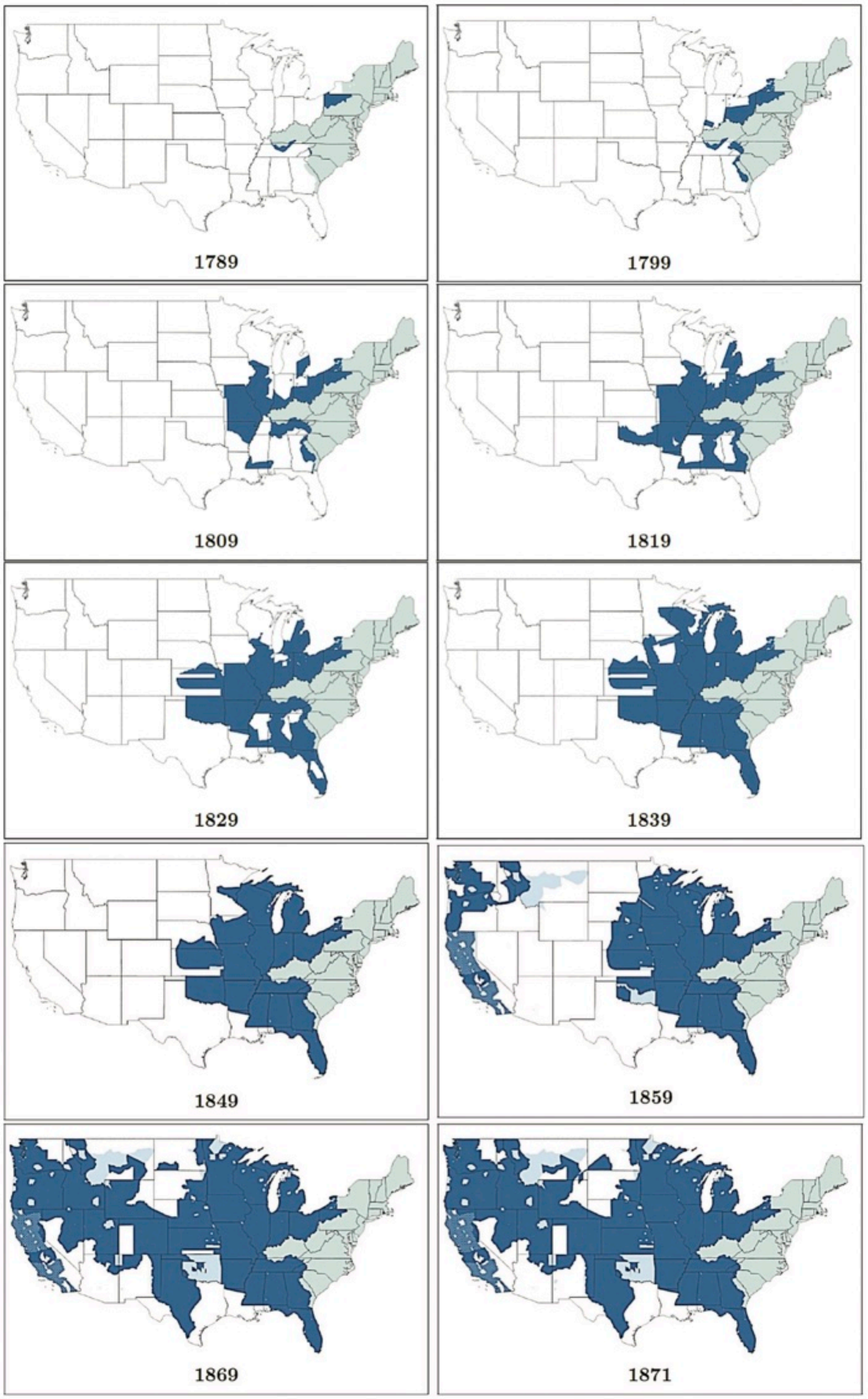
Figure 1. United States Acquisition of Pre-emption Rights



Source: Gates 1968: 76.

Figure 2. Land Cession Treaties to 1871



Source: Figure from Carlos, Feir, and Redish (2022: 15), data from Bureau of American Ethnology in 1899 under the guidance of Charles C. Royce, digitized by Saunt (2014).

Table 1. Expected versus actual revenue of the canal fund available to service loans

	Expected income, estimated by canal commissioners, 1817	Actual income, reported by commissioners of the canal fund, 1821			
		1817	**1818**	**1819**	**1820**
Auction Duties	60,000	72,061	145,943	111,319	122,653
Public Lands	120,000	-	-	-	-
Steamboats Tax	30,000	16,510	18,903	16,412	6,685
Salt Duty	40,000	2,926	48,784	54,411	67,039
Assessments and Lotteries	50,000	*omitted*	*omitted*	*omitted*	*omitted*
Donations	60,000	*omitted*	*omitted*	*omitted*	*omitted*
Loan Premiums	*omitted*	0	9,040	7,885	23,518
Western Inland Lock Navigation Co. Dividend	*omitted*	0	5,060	0	3,678

Source: NYS 1821: 91; 1825: 326.

Table 1. Although the Erie Canal was not ultimately financed via any proceeds from public land sales, the public lands were called upon in the Canal's early years to avoid assessing a direct tax on state residents. The public lands also indirectly provided financial support for the Erie Canal via the duty which was assessed on salt manufacturers.

Table 2. Sources of Reclamation Funds, 1903-1966

Sale of public lands	$177,804,595
Oil leases	$753,438, 127
Other mineral royalties	$37,893,808
Water power licenses	$2,370,180
Collections	$1,330,421,258
Subtotal of Reclamation Funds	$2,232,559,545.
Appropriations from General Treasury	$2,786,969,052
Total Funds Available for Bureau of Reclamation Projects	**$5,019,528,597**

Table 2. The sources of Reclamation funds, 1903-1966, demonstrates how the practice of using public lands to support government promotion of infrastructure projects lasted far beyond the Erie Canal.

Source: Gates 1968, p. 29