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# Projects in the History of Knowledge

## *An Introduction*

▼ **SPECIAL ISSUE** in *Knowledge and Power: Projecting the Modern World*

▼ **ABSTRACT** The Panama Canal, the silkworm, a sugar plantation, the South Sea Bubble, an industrial workschool: they may seem to have little in common, but these, and other disparate interventions from around the globe, share a common epistemology relating knowledge and power in a specific dynamic: the project. A category new to the early modern period that still structures the world around us, the project offers tools for the critical and historical analysis of the large-scale, entangled changes that made modernity. Projects were, to borrow a phrase from Foucault, “technologies of power” that brought together, in a short span of time, many of the social mores, spiritual ends, and epistemic values associated with the modern world. Yet, even as projects claimed to offer new mechanisms for eradicating waste, solving problems, and realizing untold profits by mobilizing peoples and materials, they also engineered large-scale displacement and devastation. The history of projects centers not only the dynamism and ambition but also the violence and ignorance built into economically rationalized visions of the future. For projects were not the laughable schemes many satires suggested; they were integral to global capitalism, epistemic and financial risk-taking, labor exploitation, and environmental degradation. This special issue shows what their impacts were, how projects were configured as forms of knowledge,

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and how they interrelated with a global landscape of risk and possibility. Addressing their legacies requires critically exploring projects as modes of intervention in the world.

▼ **KEYWORDS** projects; knowledge; power; situation; violence; risk; labor; information

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Projects are so pervasive today that they might seem impossible to pin down; they were recognizably new in the early modern period. What made them so was the way they defied customary categorization. The identity of the projector appeared around 1600, in English: a figure whose interventions across a wide range of endeavors and crafts made him impossible to pigeonhole in any traditional trade or office. Projects have never been exclusively commercial, political, or scientific; they are world-building exercises that entangle each and all of these with interests and emotions, as well as with shifting and contested notions of space, time, and society. Historiographical approaches that naturalize and isolate these categories conceal the world of relationships in which their subjects operate. The history of knowledge, broader than the history of any one intellectual discipline, can render such entanglements precise, even revelatory, rather than opaque or obscure. It is thus an essential point from which to analyze projectors. It is this, for example, that allows Reut Ullman, in her contribution to the present volume, to reconsider the figure of Michael Lomonosov, ordinarily classified as the “father of Russian science,” as instead working where “the personas of courtier, scholar and entrepreneur intersected.”

What differentiates projects from other types of entanglement is their ambition to transform the web of material and ideological relationships from which they emerge: to enclose lands, uproot and transplant people, and, generally, re-categorize and mobilize knowledge, materials, and relationships as portable, mutable, salable, and scalable resources—within Europe as well as without.<sup>1</sup> Projectors launched world-making efforts to delegitimize indigenous, local, and customary relationships between people, places, meaning, knowledge, and ignorance, exemplified in this special issue by the Royal African Company’s “projects of nutmeg and indigo,” which, Kate Murphy shows, simultaneously appropriated and ignored African knowledge. Projects did not deploy a single tool, such as a survey or a statute, but an armory of interlinked protocols, esthetics, mores, theories, emotions, and sociotechnical imaginaries.<sup>2</sup>

The project, whose proximate aim was ordinarily the acquisition of a patent or some legal entitlement to knowledge and resources, enclosed knowledge as the property of the project’s investors and patrons. This might include the

1 Whitt, “Science, Colonialism”; Robson, “Improvement.”

2 Krajewski, *World Projects*; Jasanoff and Kim, *Dreamscapes of Modernity*.

enclosure of knowledge within the bodies of laborers that projectors owned. It was for this reason, as Murphy argues, that the Royal African Company, “leverag[ing] the infrastructure of the slave trade,” preferred to process the more noxious Asian indigo in West Africa rather than the existing West African indigo that locals knew and preferred. The Company removed people and plants from their homes to enclose knowledge in bodies the Company controlled. The aim of a project was to “put [knowledge] in use” or “reduce it to practice”: epistemic interventions aimed at physical interventions. However, as Keith Pluymers’s essay emphasizes, the “undertakers” (whence terms such as “entrepreneur” derive) of a project were not its projectors. Projects remained firmly in the realm of knowledge, even as they initiated an iterative dynamic with practice.

Projects operated at radically different scales, transcending boundaries between private and public, church and state, body and multitude. Will Cavert’s contribution analyzes a late Stuart project to make the English state not only the nation’s scientific intelligencer but also the shepherd of individual economic decisions. Meagan Wierda explores ostensibly emancipatory, antislavery projects in the antebellum United States that sought to relocate and remake racialized populations not only via large-scale, transnational mobilizations but through the “colonization” of individual wombs. Kelly Whitmer’s account of a German project that removed youth from their homes and schools and set them instead to planting profitable trees shows, in a similar way, how local displacements of people promised intertwined transformations of society, agricultural economy, and landscape—with the end of “happiness” (discussed also by Cavert and Pluymers here). Such happiness, however, was defined as public, not individual. Its demands overrode not just the personal proclivities but even the customary rights of subjects or citizens. It was for these reasons, Ullman notes, that Lomonosov wanted recently enserfed peasants rather than waged laborers as factory workers. To put it another way, following Cavert, the public was constructed in the apologetic texts of projectors, not found among “the people.”

Even as they productively entangled different scales and spheres of intervention, then, projects depended on abstractions and enclosures of the good, the true, and the useful—as well as the right to determine these. They thus “carve[d] nature at its joints” in a way scholars now seek to analyze and overcome through ontologies of entanglement.<sup>3</sup> A project offered a single-point perspective, spread out across time and space. It curated certain optics, a telescopic view looking beyond and hence negating current conditions in favor of an imagined future. As Ted McCormick writes in his contribution, the goal of this double gaze of surveillance and erasure was the mobilization of power in the name of possibility. Projects often discounted the entangled relationships they aimed to surpass, while strategically concealing their own, often similar,

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3 Pendleton-Jullian and Brown, “Ontologies of Entanglement.”

entanglements. Defined by their contravention of customary identities and relationships, projects established themselves by acts of regrouping, reclassifying, estranging, and appropriating things once known or settled as vacant and new.

While space precludes a complete history of the long and varied history of projecting, in this introduction we provide a brief account of the origin of the project as a genre, the distinctive features that made it recognizable to contemporaries (as well as their changes over time), and a few of the characteristic epistemic moves of projects that can be identified over the course of their history. Emerging as an epistemic genre in mid-sixteenth-century Europe and proliferating ever since, projects represent a mainstay of the modern archaeology of knowledge to which Foucault turned our attention.<sup>4</sup> As a textual genre, projects combined knowledge and ignorance with practices of financial, political, and epistemic speculation, entrepreneurship, and risk-taking, often undertaken—like the planned flooding of Philadelphia described by Pluymers or the thermonuclear perforation of Panama envisioned by Christine Keiner’s engineers—in the name of improvement, as well as risk reduction.<sup>5</sup> Yet, as these and other examples underline, the legacy of projecting is one of unequal payoffs that favor the already powerful. Considering projects as technologies of power allows us to complicate Foucault’s account of power/knowledge without abandoning its insights. Viewed from the perspective of the history of knowledge and of agnotology, the history of projects allows us to better capture the emotions, epistemic violence, unstable forms of categorization, and risky calculations that shaped the knowledge/power relationship of modernity.<sup>6</sup>

This more contingent, chaotic view of knowledge/power reflects the particular, probabilistic forms of knowledge whose rise typified early modernity. From the reason of state and political arithmetic to experimental natural philosophy, new approaches to knowledge rejected systematic deduction from universals in favor of immersion in discrete experiences. The latter produced at best highly likely, never certain, knowledge claims.<sup>7</sup> High modern narratives have characterized science, technology, and statecraft as secured upon certain bases; that view inflected Foucault’s accounts of panoptic control and taxonomic rigor. In fact, no such security existed. Rather than removing or reducing risk, projects often redistribute or displace it onto other people, distant places, future times. Even as many aspects of practice have shifted over the centuries, and institutions and disciplines have formed and reformed, the epistemic basis of knowledge in the experimental and social sciences has remained probabilistic since the early modern era.

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4 Foucault, *Archaeology of Knowledge*; Foucault, *Power/Knowledge*.

5 Keller and McCormick, “History of Projects”; Brugger, “Dealing with Uncertainty”; Fedyukin, *The Enterprisers*.

6 Proctor and Schiebinger, *Agnotology*; Dotson, “Tracking Epistemic Violence.”

7 Abou-Nemeh, “Daring to Conjecture”; Sandl, “Development as Possibility.”



Interventions that aim to shift current conditions reckon with epistemic risk-taking. Taking this into account turns Foucault's picture of the knowledge/power dynamic into one far more ragged around the edges. This raggedness—the upheaval, chaos, and risk built into the projecting dynamic—is a feature, not a bug, of modernity. The history of projects highlights how, when groups of people, parts of nature, and forms of knowledge are enclosed into a project, they are not secured from so much as exposed to risk. The history of projecting from early modernity onward shows that projects often ramify. Leaky interventions produce unforeseen, complex, and far-flung problems, provoking more and larger projects in response. Pluymers describes a cycle from project to undertaking back to project within an expanding envirotechnical system. This dynamic obtains on even larger historical scales. Seventeenth-century projects established the slave trade in the British Atlantic; its nineteenth-century abolition raised the specter of a large free Black population, which whites sought to dispel through new projects. And, as Keiner shows, this cycle has persisted into the twentieth century. Grandiose as the Panama Canal was in its time, it soon gave way to the still greater and more devastating projects of a nuclear age. This expanding, spiraling, ramifying tendency not only likens but links the early modern to the modern worlds. It is a dynamic undergirding the Anthropocene, making this special issue unfortunately timely. Despite the cultural specificity of projects and their legacies, however, their history, we hope, also illuminates similar notions and dynamics in other times and places.

## Projecting as an Historical Phenomenon

A specific historical relationship to probabilistic epistemology and risk society differentiate projects from plans; the latter were far more widespread geographically and chronologically.<sup>8</sup> The etymological roots of the “project” were indeed bound up with particular kinds of planning: fifteenth-century military engineers redesigned defensive walls to include projecting ramparts for artillery, and these physical “projects” came to name interventions that projected in more abstract ways into time as well as into space.<sup>9</sup> However, as in all conceptual history, it would be remiss to insist too rigidly on the term “project” to capture the historical phenomenon we describe. A constellation of related terms, including “scheme” and “design,” clustered around projects.

In contrast to “progress” (from Latin *progređior*, to go forward), which suggests collective social agency, the project as something “thrown forward” (from Latin *projicio*) highlights coerciveness and social disruption and invites popular opposition. Projects thus offer opportunities to critically reappraise

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<sup>8</sup> Hein, “Planning History.”

<sup>9</sup> Stewart and Whitmer, “Expectations and Utility”; Koselleck, “Futures Past”; Burke, “Foreword.”

subjects long subsumed into histories of progress, placing events typically narrated as Scientific and Industrial Revolutions in a context of contestation. Current accounts by economic, British, and environmental historians such as Joel Mokyr, Paul Slack, and Paul Warde, organized around “improvement” and the pursuit of “happiness” in seventeenth-century England, downplay the roles of social as well as political coercion and of emergent hierarchies in seventeenth-century projecting, stressing instead the success of these pursuits.<sup>10</sup> The future-oriented optics of projects focuses attention on anticipated profit and power and obscures past harms and failures, supporting modern narratives of continual progress.<sup>11</sup> We emphasize failure, as the archive indicates we should.

Contemporaries emphasized failure, too. As an actor’s category, “project” was rarely a term of praise and “projector” never one. Early modern critics castigated and satirized projecting as a dubious and irrational practice that would be funny were it not so often terrifying. At the same time, projectors’ claims to serve the public good (in contrast to interests cast as private, hence partial and divisive) made them difficult to argue against. Skilled writers such as Jonathan Swift in *A Modest Proposal* critiqued projectors’ moral claims by exposing and exaggerating the recognizable traits of their projects rather than engaging them in debate.<sup>12</sup> By demarcating what unknowns served the public interest and were thus worthy of projects, projectors established “epistemic hierarchies” that determined “what is and what isn’t knowable, who is and who isn’t knowledgeable of it, and which known unknowns, and unknown unknowns are and which aren’t actively pursued.”<sup>13</sup>

## The Genre of Projects and the History of the Archive

As an analytical frame, the project offers a corrective to current literature that ties the history of information to governance through the disciplining of reliable data and predictable expertise, and to economic transformation through the willing uptake of improvement as a goal.<sup>14</sup> Studying the epistemic practices of projects reveals historically specific ways in which disorder existed within practices of gathering, arranging, taxonomizing, and using knowledge, including who got to determine what was collected and used, by whom, and

<sup>10</sup> Mokyr, *Gifts of Athena*; Slack, *Invention of Improvement*; Warde, *Invention of Sustainability*.

<sup>11</sup> Dimbath, *Oblivionism*; Renn, *Evolution of Knowledge*; Keller, “Into the Unknown”; Burke, “Foreword”; Krajewski, *World Projects*.

<sup>12</sup> On Swift see Gierl, “Science, Projects, Computers.”

<sup>13</sup> Verburgt, “History of Scientific Ignorance,” 297. For a study of varied unknowns and how they were put in relation to public interest, see Keller, *Knowledge and the Public Interest*.

<sup>14</sup> See Thirsk, *Economic Policy and Projects*, who distinguished a “constructive” phase of projects; Ash, *Power, Knowledge, and Expertise*; Soll, *Information Master*; Jardine, “Instruments of Statecraft”; Head, “Records, Secretaries”; Burke, “History of Knowledge,” 272–73.

how.<sup>15</sup> By drawing attention to the shifting, probabilistic, and often prospective nature of the knowledge involved, a focus on the project also challenges accounts of the circulation of knowledge that posit discrete and stable units of knowledge moving through space and between cultures. By contrast, the project specifies *transformative* projection across time and space.

One of the first transformative acts in the composing of a project was that of surveying: taking stock and (re)identifying. Opposing traditional mores concerning waste, thrift, and charity, projectors sought to make something out of nothing by identifying materials, lands, and people that were “waste” and could be utilized as a resource, projecting schemes onto ostensibly vacant spaces that were in fact occupied.<sup>16</sup> Entities with pre-existing social worlds, productive logics, and identities were drafted into projects by means of particular tools—such as natural histories, explored in this issue by McCormick. As rival projects crammed these crowded fields, the projector himself could become the projected upon. At the same time, projects that failed in one place might move (with or without their original authors) to others, in hopes of better outcomes.<sup>17</sup> They might, indeed, prove adaptable at need wherever opportunity beckoned. Likewise, projects of one moment might resurface unexpectedly later (such as the Panama Canal, first proposed in the early modern period). The taxonomies proposed in projects were inherently unstable: concepts and categories were reimagined, reconfigured, even redefined to suit the aspirations at the core of specific schemes—and the changing cast of authorities, benefactors, and audiences, private and public.

The boundary between public and private was emergent, fraught, and unstable in the early modern period. As Vera Keller discusses here, it provided the conceptual terrain where projectors worked. Projects arose where market speculation encouraged projectors to court not only heads of state but also putative publics, often in print. Paradoxically, projectors dealt in the operations, even secrets of state, in a public way, “literally invent[ing] new state functions that [they] would perform.”<sup>18</sup> Among the sixty-two ideas for money-making projects John Aubrey jotted down with William Petty’s advice was a scheme for a “Register General of People, Plantations, and Trade of England” that he might offer the King so as to give him “a true State of the Nation at all times.”<sup>19</sup> This note included a memo concerning which individuals to visit to obtain this information. In physical space, projectors moved between privileged sources of information in homes, taverns, printshops, and on the Exchange on the one hand, and formal spaces of state, such as a royal audience, on the other. In producing public knowledge, projects helped produce the notion of the public itself, as against older structures of kinship, vocation, and divinely

15 Calè and Craciun, “Disorder of Things,” 3.

16 Wynter, “Columbus”; Mukerji, *Impossible Engineering*.

17 Ash, *Draining of the Fens*; Mukerji, *Impossible Engineering*.

18 Fedyukin, *The Enterprisers*, 22.

19 Aubrey, *Faber Fortunae*, 13v–14v.

arranged social order. They thereby generated a vast manuscript and print archive, as well as extensive public commentary and critique. The boundary between the private and public records undergirding state projects solidified by the twentieth century; comparing these records reveals how officials in the imperial center often used the insights of knowledge workers in the field to their own ends, as Keiner's study explores.

In ways we have forgotten, projects were paper objects. Early modern projectors are described as thronging around Parliament with their paper projects by Sir John Melton in 1609 and in the anonymous 1707 print, *The Ass Age*. In the 1809 print, *The School of Projects* [Fig. 1], two projectors at work on a "grand project" to build a bridge between the Earth and the Moon began by boring a tunnel through the center of the Earth to retrieve the materials they needed from elsewhere on the planet; they were empowered by the plans in their pockets.<sup>20</sup> Another "had engaged to light up the tunnel and the bridge," taking on the role of Lucifer by darkening the scene with dark smoke clouds from his broken patent gas chimney even as he aimed to illuminate the trial of the project, thus "setting the world on fire." Yet another projector, not depicted, "had constructed a carriage to cross to the Moon which would go without horses." A projector who aimed to raise sheep as large as oxen force-feeds a sheep further projects, while a veritable fountain of projects cascades, not from the desk of the president of the school at the right, but from his behind; he sits on them "as if hatching them."<sup>21</sup> The presiding genius, Hope, looks on complacently from her niche on this ensemble, each of whose projects were supposed to fit together into "one grand scheme" to be entitled "The Lunatic Company."<sup>22</sup>

Connoisseurs such as Sir Robert Cotton (1586–1631) collected paper projects.<sup>23</sup> Projects also remain in the personal papers of administrators, such as the papers of Attorney General Sir John Bankes (1589–1644) now in the Bodleian Library. Some bureaucratic offices accumulated projects en masse; the archive of the "courtly chamber" (*Hofkammer Archiv*) in the Austrian State Archives (*Österreichisches Staatsarchiv*) conserves a collection of 624 items categorized as "various proposals" (*Verschiedene Vorschläge*, 1597–1731). Masses of rival projects, public solicitations, and critiques illustrate Susanne Friedrich's point that "early modern archives" are "more or less disordered stacks of paper," rather than readymade "tools of knowledge and power or... places where the world's complexities are rendered legible."<sup>24</sup>

As a genre, projects had formal characteristics that developed over time. In the early modern period, they often included a declaration of the expenses and effort incurred by the projector, a brief description of the (often multifaceted)

<sup>20</sup> De Wilde, "The School of Projects," 316.

<sup>21</sup> *Ibid.*, 314.

<sup>22</sup> *Ibid.*, 317.

<sup>23</sup> *Projects*, Cotton MS.

<sup>24</sup> Friedrich, "Caveat from the Archive," 12.





Figure 1. Samuel De Wilde, "The School of Projects," *The Satirist* (London: Tipper, 1809). Wellcome Collection 38405i. Public domain.

interventions the project proposed, reasons why success was probable (the use of calculations and reference to trials are common here), and arguments for the benefits to the public and/or the state—often decrying the waste of productive resources (whether unexploited land or un- or underemployed people) and using the language of interests. In the “economic suggestions” of German camer-alist writers, projectors were encouraged to respond formally to a list of likely objections (*Einwürfe*).<sup>25</sup> The personal touch was important early on, when presenting a project often entailed an audience with a ruler or highly placed courtier and might also demand other forms of expression, such as poetry or gift-giving, as ancillary to the presentation of a project; this was still the case for Lomonosov, as Ullman shows. As courtly settings gave way to civic and corporate ones, and the patent process was routinized in state bureaucracies, more impersonal esthetics came to the fore—for example, narrative reasoning about population and situation giving way from the late seventeenth century to tabular presentations of apparently objective facts.<sup>26</sup>

This shift toward the impersonal also affected political and legal justifications for disruptive interventions. From the sixteenth to the eighteenth centuries, arguments about projects’ public and private benefits were heavily informed by the reason of state, a counterintuitive and extralegal body of knowledge practiced by statisticians who prided themselves on their ingenuity. Early projects were, often, solutions in search of a problem. As in Lomonosov’s case, they identified problems others had not seen, answering questions nobody else had posed. Once the counterintuitive views about society and economy voiced in projects became the cultural norm and were naturalized as common sense, projects responded increasingly to publicly or at least bureaucratically evident problems. Modern projectors in certain realms still trumpeted out-of-the-box thinking, such as the nineteenth-century chemist Wilhelm Ostwald, who abandoned the “secure terrain of institutionalized knowledge” in order “to transform uncertainty into insight—for the common good.”<sup>27</sup> The self-fashioning of white men of science and technology as eccentric geniuses was performed in opposition to the mainstream, including to quondam projects that had become such entrenched features of industrialized life as to lose their visibility *qua* projects. Projects allow us to broach a labor history of knowledge, as they highlight the taxonomic act that redefined some people’s “callings” or “usefulness” as labor and recast others’ as a novel form of creative disruption.<sup>28</sup>

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25 Zincke, “Vorrede,” Section 2.

26 McCormick, *Human Empire*.

27 Krajewski, *World Projects*.

28 Hui et al., “Introduction: Launching”; Ahmed, *What’s the Use?*; Whitmer, “Projects and Pedagogical Expectations”; Whitmer, “Imagining Uses for Things.”

## The Optics of Projects: Multiple Perspectives and Epistemic Violence

As instruments for suggesting how an intervention might unfold in the future, projects created a sense of perspective. For this reason, projects were not windows onto reality; they sought to create what did not previously exist. New ways of visualizing information were themselves projects of the period. Johann Joachim Becher (1635–1682) prided himself on offering visualizations in the form of a project, such as his “setting before the eyes in a small Project the entire nature of a treasury.”<sup>29</sup> Such sweeping statistical charts and tables were often compared to optical instruments that made what was not immediately visible come into view. Famously, it was an account of the “*Microscopium Staticum*” that gave rise to the term statistics itself.<sup>30</sup> Yet tools for directing attention were quickly seen as technologies of distortion as much as of transparency.<sup>31</sup>

Becher’s rival, Wilhelm von Schröder (1640–1688), had his own “project” of “manufacture inventories” that visualized the important features of each manufacture to forecast the impact of any novel intervention; von Schröder called these charts a form of “state glasses” (*Staats-Brille*), an idea that his rival, Leibniz, would cast as his own idea of “state tables,” presenting the kernel of all political information so that it might be viewed at a glance.<sup>32</sup> Von Schröder’s example of a “manufacture-inventory” for hat-making comprised information concerning employment, raw materials, outlay, income, exports, and related industries and competing markets [Fig. 2].

Yet the very term that von Schröder deployed for this form of visual depiction of knowledge, “state glasses,” was also used heavily in satires of political vision as blinkering and tendentious.<sup>33</sup> Von Schröder himself frequently described the doubt and difficulties of his “state glasses.” Rather than claiming that they offered perspicuous views onto reality, he also compared his tools of visualization to an alchemical alembic that murkily brought bodies into view.<sup>34</sup>

Likewise, Dalby Thomas (ca 1650–1711) deployed a tabular presentation [Fig. 3] in a tract defending a commercial project of his that critics called “a most ridiculous preposterous thing.”<sup>35</sup> His defense included economic arguments valorizing “imaginary wealth” (such as labor) over “real wealth” (such as material resources). He insisted that “all Imaginary ways” should be utilized to discourage harmful professions, such as beggars, who should be “tam’d or

29 Becher, *Politische Discurs*, 890: “in einem kleinen Project die gantze Beschaffenheit einer Finantz-Cammer vor Augen stelle.”

30 Rassem, “Stichproben.”

31 Reeves, *Evening News*.

32 Von Schröder, *Schatz- und Rent-Kammer*, 98–99. Nipperdey, “‘Intelligenz’ und ‘Staatsbrille.’”

33 For example, *Franckreich Wage nicht zu viel!*, 93.

34 Von Schröder, *Fürstliche Schatz- und Rent-Kammer*, 93; Keller, “A Political Fiat Lux.”

35 Oldmixon, *British Empire*, 48.



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§. V. Exempel der Manufaktur- Kappelmacher.	
Meister - - -	VI.
Gesellen - - -	XVIII.
Jungen - - -	VI.
Wollen-Zurichter	VI.
Consumiren monatlich.	30. Centner Wolle à 20. fl. f. 600. fl. 2. Tuzent Cartäſchen à 1. fl. f. 2. fl.
Machen	9600. Kappel.
Verkauffen.	Auſſerm Land 4600. Kappel. Im Lande 4000 Kappel.
Bezahlen.	Gesellen-Lohn. 108. fl. Färber 384. fl. Koft 72 fl. Rabbato. 30. fl.
Verwechſeln.	1196. fl.
Verkauffen.	1620. fl.
Gewinnen.	724. fl.
Employren	6. Wollenzurichter 30. Meiſter. mit den Ge- ſellen und Jungen. Summa 36. Perſonen.
Bringen ins Land	vor 4600. Kappeln. 920. fl.
Geben aus dem Land.	vor 2. Duß Cartäſchen 2. fl.
Von ihnen dependiren.	Färber/ Diechſler/ Schloſſer/ Kupferſchmid/ und Eiſchler.
Fremde Länder welche Nürnberg wegen der Cartäſchen. von ihnen gewinnen.	
Inven-	

Figure 2. Von Schröder, Fürstliche Schatz- und Rent-Kammer, 90. Herzog August Bibliothek Wolfenbüttel, <http://diglib.hab.de/drucke/sd-116/start.htm?image=00138>. Public domain.



An Account of what Advantage hands Employ'd in the Collonies are to this Nation per Annum.						
	White Men.	Blacks.	Will make	English Tonnage. which is in	Value in England.	Pays Customs.
Of Sugar.—	10	50	C. 800	40	at 20s. per C. is 800l.--	at 4s. 10d. per C. is 193l. 6s. 8d.
Of Mellasses.—			280	14	at 8s. per C. is 112l.--	at 0s. 9d. per C. is 10l. 10s. 0.
The Exciſe of Mellasses when made into Spirits.						at 0s. 6d. per Gall. is 56l. 0. 0.
Total.	10	50	1080	54	912l.--	259l. 16s. 8d.
Cotton.—			L. 33000	41½	at 0s. 6d. per l. is 78s. 10d.	
Ginger.—	5	50	15000	7½	at 20s. per C. is 134l.--	at 1s. 0d. per C. is 6l. 14s. 0d.
Indico.—	5	50	5500	23	at 4s. per l. is 1100l.--	at 5s. 0d. per C. is 13l. 15. 0.
Total.	15	150	53500	71½	2019l.--	20l. 19. 0.
Tobacco			C. 1430	143	at 7d. per l. is 4689l.--	at 5d. per l. is 3340l. 5s. 0.
Sweet Sented—	21	50	1712	214	at 5d. per l. is 3954l.--	at ½d. per l. is 395l. 7s. 0.
Orronocko. ---	21	50	3142	357	8643l.--	3735l. 12s. 0.
Total.	42	100				

Figure 3. Thomas, *Historical Account*, 45. Used with permission from the Kislak Center for Special Collections, Rare Books and Manuscripts, University of Pennsylvania.

destroy'd as the worst of Vermine."<sup>36</sup> Rather than eliminating beggars through real violence, he suggested "imaginary" ways, or what we might call epistemic violence—that is, a framing and visualization of knowledge that tended to the destruction of beggars. Such visualizations, of course, might quickly lead to real or material violence. His analysis found that enslaved labor in the Americas contributed most to the "Wealth, Power, and Glory of the Nation" in contrast to other workers, such as the clergy, who were useless, and he deployed a table to make this visible.<sup>37</sup>

Its matter-of-fact presentation works to embed racial violence in a seemingly unremarkable way into practices of cost-benefit analysis. The ethics of categorizing humans as sources of profit do not factor into this table. "White Men" and "Blacks" appear as self-evident categories of colonial labor, even as Thomas's own use of enslaved people alongside English craftsmen on the African coast exposed their illogic.<sup>38</sup> The tabulation of neat round numbers ("10" and "50") makes the institution of slavery appear coolly rational, blinkering our gaze from the debilitation and death that constantly stalked the ranks of the enslaved (making it always difficult to "make up" a full shipload of people kept in a barely living state).<sup>39</sup> As Stephanie Smallwood has written concerning the visual logic of the slave merchant's ledger, by "[c]ontaining only what could fit within the clean lines of their columns and rows, they reduced an enormous system of traffic in human commodities to a concise chronicle of quantitative 'facts.'"<sup>40</sup> Seemingly objective statistical presentations at once concealed and entrenched colonial ideology.<sup>41</sup> Meanwhile, Thomas accused those who criticized his views on ethical grounds as deploying "false and envious Opticks"; they were not able to see the true interest of the nation, which his "right scrutiny" laid bare.<sup>42</sup> It was for such interventions that Thomas's accountant, Daniel Defoe, dedicated his famous 1697 *Essay on Projects* to Thomas.<sup>43</sup> As Koji Yamamoto points out, Defoe protested too much that Thomas did not deserve "the Despicable Title of a Projector."<sup>44</sup>

Unlike real wealth, such as gold, neither interest nor labor nor statistical taxonomies exist as mundane objects. They are epistemic objects, brought into being through acts of projection that aim to embed countercultural ideas and mores as a commonsensical part of a new civic epistemology. Jonathan Swift, in his 1733 *Serious and Useful Scheme to make an Hospital for Incurables*, picked up on the ways that people were processed into epistemic objects for

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<sup>36</sup> Thomas, *Historical Account*, 3.

<sup>37</sup> *Ibid.*, 30, 2.

<sup>38</sup> Newman, *New World of Labor*, 145–47.

<sup>39</sup> Smallwood, *Saltwater Slavery*; Puar, *The Right to Maim*.

<sup>40</sup> Smallwood, *Saltwater Slavery*, 98.

<sup>41</sup> Sussmann, "Colonial Afterlife."

<sup>42</sup> Thomas, *Historical Account*, 6.

<sup>43</sup> Defoe, *Essay upon Projects*. On Defoe as a projector himself, Novak, *Age of Projects*.

<sup>44</sup> Yamamoto, *Taming Capitalism*, 2.

consumption by projects via statistical tabulations. His chart [Fig. 4] outlines nine incurables and the costs for perpetually confining them to promote the “felicity of the kingdom.”<sup>45</sup>

The characteristics of Swift’s table—the nice round numbers for each category, the debatable taxonomies, the massive total sums, the ambition to enter into the most intimate details of people’s lives on a national scale—were humorous to contemporaries because they had become familiar in projects. Defoe himself had advocated erecting a “Fool House” in his *Essay on Projects*.<sup>46</sup>

Making a project was a paper technology a bit like map making, some contemporaries argued: an exercise in information-gathering, analysis, and imagination. Writing in 1744, for example, a professor of political economy (*Oeconomie*) and cameralism at the University of Leipzig named Georg Heinrich Zincke (1692–1769) described how:

The French word *Projet*, or the Latin-German word *Projecte*, seems to have originated in Mathematics (*Mathematique*). This is because an idea of a sphere shown on a glass board a certain distance away as it would appear to the eye in one glance, when all the rays are drawn into the eye from every point, is called a **projection**; and it is well known that the same designs (*Entwerfungen*) are useful for making maps and offer an advantage in that they allow one to bring future focused intentions into the present more vividly and conveniently, with the help of the imagination, memory and precise observation, especially in art and architecture. But there is also a resemblance between precisely this and a reliable sketch that in state and economic things (*Staats- und oeconomischen Sachen*) we call a **Project**, because it also presents something far off in the distance in a single glance, indeed an entire undertaking, the thing, the purpose, the means and obstacles (*Mittel und Gegenmittel*), so that one is able to undertake a precise consideration before making a decision about if and how to skillfully implement it.<sup>47</sup>

“Precise consideration” hinged on imagination, memory, and observation. But how to ensure that those to whom a project was being pitched would each see the same thing? The atmosphere of confusion that projects often created—What are we looking at? Are we being deceived? Is there actually anything to see?—is powerfully presented in the image below [Fig. 5]. In it, several men look through the windows of a project as if it were a “peep show.” It offers tantalizing glimpses and clearly generates interest in all viewers; however, none of them can agree on exactly what they are seeing, on its scale or scope. There is no consensus, only a variety of competing impressions. One figure (on the

45 Swift, *Serious and Useful Scheme*, 2.

46 Defoe, *Essay upon Projects*, 181.

47 Zincke, “Vorrede,” Section 4.

( 20 )

By which plain Computation it is evident, that two hundred thousand Persons will be daily provided for, and the Allowance for maintaining this Collection of Incurables, may be seen in the following Account.

		p. Day.
For the In- curable	Fools, being 20,000 at one Shilling each	1000
	Knarves at 30,000 Ditto	1500
	Scolds 30,000	1500
	Scriblers 40,000	2000
	Coxcombs 10,000	500
	Infidels 10,000	500
For the In- curably	Liers 30,000	1500
	Envious 20,000	1000
	Vain 10,000	500
Total mainain'd		200,000 Tot. Ex. 10,000

From whence it appears, that the daily Expence will amount to such a Sum, as in 365 Days comes to

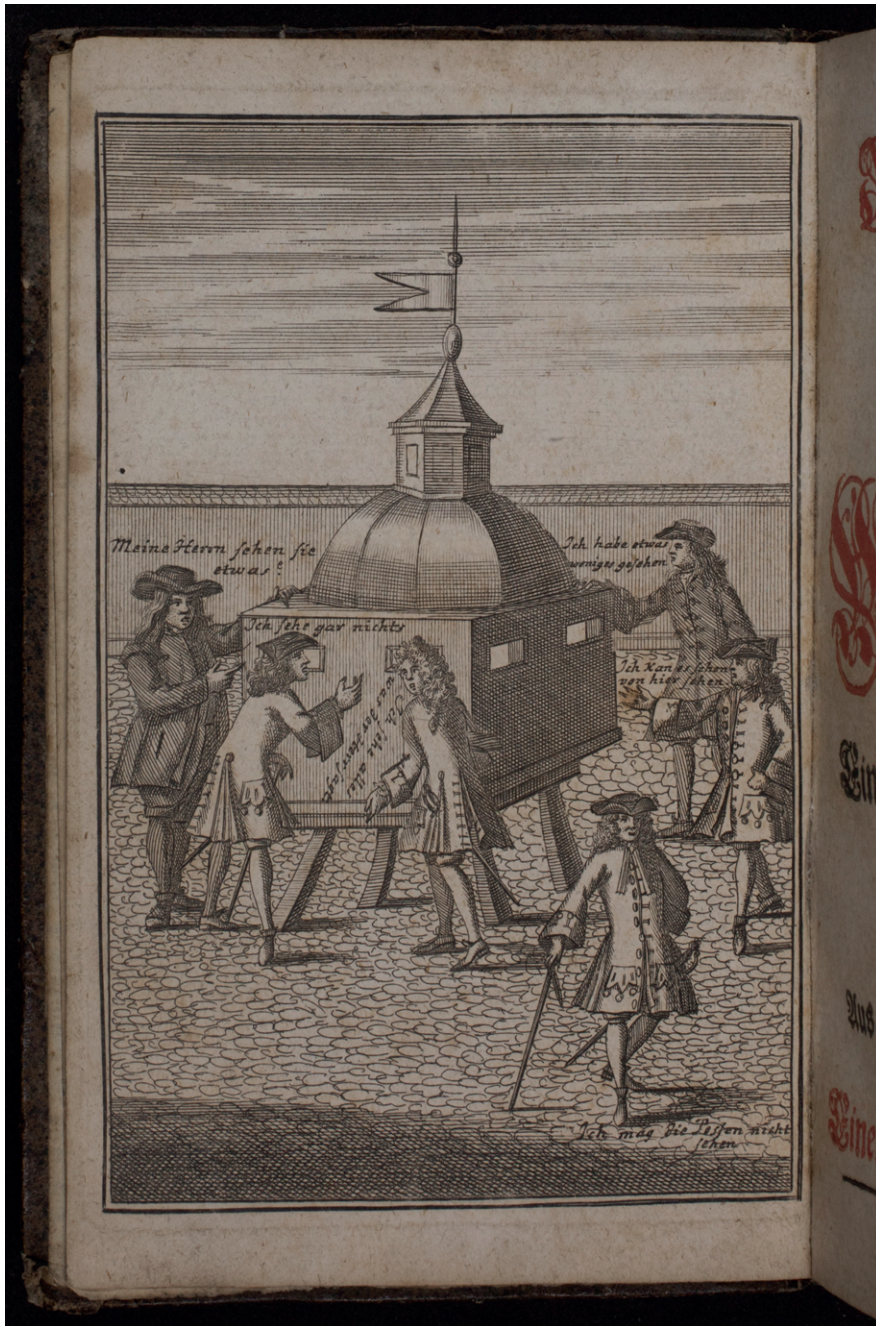
M. Tb. H.  
3,650,000

And I am fully satisfied, that a Sum, much greater than this, may easily be raised, with all possible Satisfaction to the *Subject*, and without interfering in the least with the Revenues of the *Crown*.

In

Figure 4. Swift, *Serious and Useful Scheme*, 20. Wellcome Collection EPB/MST/102. Public domain.





**Figure 5.** The project as a “peep show.” From *Curieuser Raritäten-Kasten, in welchen vorgestellt wird die Wind-Macherey, als ein heute zu Tage überhand genommenes Laster, aus aufrichtiger Neigung zu allen Menschen herausgegeben von einer Liebhaber der Wahrheit* [transl.: *Curious Chamber of Rarities, in Which the Art of Wind-Making is Presented ...*] (Leipzig: n.p., 1733). Used with permission of the Niedersächsische Staats- und Universitätsbibliothek Göttingen. Shelfmark DD92 A 33435.

left) says, “My lord, do you see something?” Another (on the right) says, “I saw a little something.” The figure below him says, “I can see it from here!” Meanwhile another one across the way says, “I see nothing at all.”

## The Three Keywords of Projects

Projects spread domestically and globally through practices of enclosure and colonialism. In the early modern period, notions of public utility, like the later Enlightenment idea of “universal reason,” claimed a commonly shared human position that in fact was not shared in common. We ask to whom, in particular, was “useful knowledge” of use? And who shaped what use looked like? We have identified three key elements of projected futures that bring out these questions: **situation**, **violence**, and **risk**.

### *Situation*

The term “situation” was ubiquitous in early modern European writing about politics, history, geography, and economy. Situation was both ambiguous and indispensable—indeed, its ambiguity was no smart part of its use. In its simplest sense it denoted location, whether that of an estate nestled in a valley, a castle commanding a promontory, a port exploiting a natural harbor, or a republic squeezed between kingdoms. Yet it increasingly came to connote a strategic position wherein there was a unique relationship—ideally one that could be measured, or mathematized—between the assets or virtues of particular places.<sup>48</sup> The genre of the geographic “description” or “relation” analyzed how the situation of each place conferred strategic advantages or disadvantages, as exemplified in numerous instances in the work of Ludovico Guicciardini’s *Description of the Low Countries*, and methodical travelers were urged to do the same.<sup>49</sup> In the reason of state, the climate and terrain where peoples were situated could explain aspects of their temperament and indicate how they should be dealt with.<sup>50</sup>

Situation straddled the boundary between art (including labor, technology, and policy) and nature. Or rather, it transcended this boundary by furnishing the context for action of all kinds. Rather than mapping onto presumably stable geopolitical orders, situation was an Archimedean point from which they might be upended. And at any given moment, in any given locale, situation was at once the product of planned interventions made to past environments and the expression of natural advantages that new projects alone could realize. Building canals, in seventeenth-century France or twentieth-century Panama

<sup>48</sup> “Lage,” in Zedler, *Großes vollständiges Lexicon*, 218.

<sup>49</sup> Guicciardini, *Descrittione*. Botero, *Relations*; Zwinger, *Methodus apodemica*, 74.

<sup>50</sup> Botero, “Del Sito,” 56–60; Henin, *Del sitio*.

(as discussed by Keiner), could transform a place's strategic potential, and re-engineering streetscapes in eighteenth-century Philadelphia (examined by Pluymers) could diminish the risks of disease. Each transformation set a new stage for further projects.

Just as it could redraw lines between center and periphery, situation could be intensely local or expansively global. In the context of imperial rivalries and long-distance trades, intervention at one scale might confer power at quite another. A late-seventeenth-century "proposal for better securing the West India trade, and for hindering commerce between France and Ireland" involved little more than spending £160 fortifying Inis Arcáin (Sherkin Island), opposite the Munster port of Baltimore.<sup>51</sup> Despite this radical disparity between means and ends, however, such projection was not simply tall talk; sea lanes, wind patterns, and the vulnerability of fleets tied local causes to global effects. At the other end of the scale, enterprises sited in far-flung colonies, targeting large numbers at the margins of society, or involving large-scale mobilizations of people and things, promised greater profits and better futures for those at *some* center—whether metropolitan or not. Cromwell's grand and costly strategic project, the "Western Design" (entangled with related designs by Spanish, Dutch, Portuguese, and French powers, as discussed by Keller in this issue) ended in the conquest of Jamaica, making that island "the present Scittuacion, & Center of the Interests of his Highnes and this Commonwealth in America"—a platform "most pernicious to the Spanyard" and hence a vital site for fortification and plantation alike.<sup>52</sup> Mastery of such dynamic connections, grounded in shifting constructions of situation, was central to projecting.

### **Risk**

In his 1668 *Essay towards... a philosophical language*, John Wilkins listed the actions taken before the beginning of any business. These included acts of "designing," such as to "project," and, at the "first entrance" of any business, acts of "essaying" or testing, including running the "risk or adventure."<sup>53</sup> Contra Wilkins's classification, however, risk entered any business well before any actual risk was run. Projectors routinely outlined the costs, risks, and benefits within the design of their proposals.

Since the publication of Ulrich Beck's *The Risk Society*, risk has been seen as an organizing feature for modern societies which respond to the ways they are put at risk by modernity itself.<sup>54</sup> While Beck argued that modern risk societies differ fundamentally from the forms of danger run in the early modern period, the history of projecting shows throughlines in risk-taking

51 "A proposal for better securing the West India trade," 287–88.

52 Report to [of] the Committee of the Councill, f. 157r.

53 Wilkins, *Essay*, 40.

54 Beck, *Risk Society*; Mohun, "History of Risk."

across these centuries. Risk involves potential benefits and harms in a situation of unknowns. The history of ignorance has addressed risk through the forms of knowledge developed to delimit it, such as the history of maritime insurance.<sup>55</sup> However, it has not addressed how ignorance and harm persist within knowledge. This is not only the case, as Beck argued, of the ways in which the far-flung, complicated networks of risk impinge upon the “cognitive sovereignty” of individuals who must make choices and take action with unequal knowledge concerning their risks.<sup>56</sup> Rather, risk and ignorance are built into the design of projects, plans for the unknown that often function by displacing risk from some people to others, including to future generations.

The displacement of risk queries the ways that Foucault has related knowledge to power in his account of modern security. Deploying a carceral framework of police, discipline, and security, Foucault argued that state technologies replaced dangers with security. He explored one early-eighteenth-century project, that of Jean-Paul Abeille for the lowering of the cost of grain and thus preventing famines by abandoning the dole and relying upon free trade. Foucault argued that the varied phenomena considered in this project would “cancel out” one another, so that scarcity “is gradually corrected, compensated for, checked, and finally nullified.”<sup>57</sup> In fact, this project centers, rather than eliminates, scarcity. True security would entail providing food to anybody who hungered, precisely the idea Abeille opposed. He relied on scarcity in the marketplace to eventually adjust supply and demand. This puts people at risk; while the market adjusts, some will starve. Abeille does not propose eliminating people by directly seeking out and killing any individuals. In Abeille’s project, deaths instead fall within a margin of ignorance created by probabilism. Those most at risk would likely die, but who precisely these would be was not mathematically certain.

Abeille accepted uncertainty, suffering, and death as the central mechanism that allowed his project to function to the ultimate overall benefit of the state, he claimed. Calculations of state benefit undermined previous legal understandings of every individual’s right to survive.<sup>58</sup> Abeille explicitly rejected the maxim *salus populi supremus lex esto* (the good of the people is the supreme law). The good of the people should only be considered, he claimed, if it was salutary to the nation.<sup>59</sup> Likewise, as Ullman discusses, for Lomonosov and other projectors, human and monetary “loss” were construed as necessary “for the expansion of navigation, commerce, power” and for “the state and national glory.”

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<sup>55</sup> Zwierlein, “Introduction,” 28.

<sup>56</sup> Beck, *Risk Society*, 53.

<sup>57</sup> Foucault, *Security*, 40. Thanks to Steven Vanden Broecke for the suggestion of this passage.

<sup>58</sup> Van Duffel, “Distributive Justice.”

<sup>59</sup> Abeille, *Lettre*, 23.



## Violence

In a restrained tone claiming to serve generous ends of the public good (reminiscent of the rhetoric discussed by Will Cavert in this issue), Jonathan Swift advocated that poor parents sell their children as food for the wealthy in his *A Modest Proposal for preventing the children of poor people from being a burthen to their parents or country, and for making them beneficial to the public* (1729).<sup>60</sup> Jennifer Morgan has pointed out how similar violence had already been realized in the slave trade. Political economic rationalization made what had “previously been unspeakable into palatable speculative planning.”<sup>61</sup> The knowledge acts of a project—calculating (and redistributing) risks, framing perspectives, and surveying waste resources, lands, and people—were acts of epistemic violence.

The history of projects draws attention to the agency in planning and carrying out coercive social disruption in contrast to the agentless and minute or “channelized” forms of power that Foucault preferred to see humming everywhere throughout a particular cultural episteme. Our approach attends to the powerful critique of Foucault and others launched by historians of slavery such as Morgan.<sup>62</sup> Political economists from Marx onward have dismissed the centrality of slavery to European modernity and the very act of enslavement itself as the remaking of human kin into inheritable consumer goods. Related epistemic maneuvers remade kinship and humanity in Atlantic enslavement into commodities, and European workers into disposable and retrainable laborers or forms of biopower. Likewise, they enclosed common lands in Europe and colonized the lands of others throughout the world. Moreover, they not infrequently did so in intertwined ways in the scope of a single project, as some of the essays in this special issue discuss.

## Conclusion

The Panama Canal, the silkworm, a sugar plantation, the South Sea Bubble, an industrial workschool: they may seem to have little in common, but these and other disparate interventions from around the globe share a common epistemology relating knowledge and power in a specific dynamic: projects. A category new to the early modern period yet still structuring the world around us, projects offer tools for critical and historical analysis of the large-scale entangled changes that made modernity. Yet, even as projects claimed to offer new mechanisms for eradicating waste, solving problems, and realizing untold profits by mobilizing peoples and materials, they engineered large-scale

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<sup>60</sup> Swift, *Modest Proposal*.

<sup>61</sup> Morgan, *Reckoning with Slavery*, 106.

<sup>62</sup> Morgan, *Reckoning with Slavery*; Hogarth, *Medicalizing Blackness*; Nacol, *Age of Risk*.

devastation. The history of projects centers the violence and ignorance built into economically rationalized visions of the future. Projects were not the laughable schemes many satires suggest, but integral to global capitalism, epistemic and financial risk-taking, and environmental degradation. Our special issue shows what their impacts were, how projects were configured as forms of knowledge, and how they interrelated with a global landscape of risk and possibility. Addressing their damaging legacies requires critically exploring projects as modes of intervention in the world.

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## **Bibliography**

### **Archival Sources**

#### **Dublin, Trinity College**

“A proposal for better securing the West India trade, and for hindering commerce between France and Ireland, and giving the Irish a considerable disturbance in the south near Cape Clear.” n.d., MS 1180 (Robert Southwell Papers).

### **London, British Library**

*Proiects*. Cotton MS Titus B V. Report to [of] the Committee of the Council for the Affairs of Jamaica, Treasury Chamber, 11 January 1657 [1658], BL Egerton MS 2395, ff. 157r-158v.

### **Madrid, Biblioteca Nacional de España**

Jorge Henin, *Del sitio, de la disposición y humor de los marruecos y de sus modos de pelear*, 1614, MS/17645. <https://bdh-rd.bne.es/viewer.vm?id=0000243022>.

### **Oxford, Bodleian Library**

Aubrey, John. *Faber Fortunae*, MS Aubrey 26.  
Banks, John. Papers of Sir John Banks, MSS Banks 1–76.

### **Other Sources and Literature**

- “Lage.” In *Großes vollständiges Universal-Lexicon aller Wissenschaften und Künste*, edited by Johann Heinrich Zedler. Halle and Leipzig: Zedler, 1731–54.
- Abeille, Jean-Paul. *Lettre d’un négociant sur la nature du commerce des grains*. S.n., 1763.
- Abou-Nemeh, Catherine. “Daring to Conjecture in Seventeenth- and Eighteenth-Century Science.” *Isis* 113, no. 4 (2022): 728–46. <https://doi.org/10.1086/721999>.
- Ahmed, Sara. *What’s the Use? On the Uses of Use*. Duke University Press, 2019. <https://doi.org/10.1215/9781478007210>.
- Anonymous. *Franckreich Wage nicht zu viel!* Frankfurt: Weidmann, 1686.
- Ash, Eric H. *Power, Knowledge, and Expertise in Elizabethan England*. Johns Hopkins University Press, 2004.
- . *The Draining of the Fens: Projectors, Popular Politics, and State Building in Early Modern England*. Johns Hopkins University Press, 2017. <https://doi.org/10.1353/book.51998>.
- Becher, Johann Joachim. *Politische Discurs*. Frankfurt: Zunner, 1673.
- Beck, Ulrich. *Risk Society: Towards a New Modernity*. Translated by Mark Ritter. Sage Publications, 1992.
- Botero, Giovanni. “Del sito.” In *Della ragion di stato*. Venice: Appresso I Gioliti, 1589.
- . *Relations of the most famous Kingdoms and Common-weales through the world, Discoursing of their situations, manners, customes, strengthes and pollicies: Translated into English and enlarged*. London: Iohn Iaggard, 1611.
- Brugger, Eva. “Dealing With Uncertainty. The Practice of Projecting and the Colony of New Netherland, 1609–1664.” In *The Cultural Life of Risk and Innovation: Imagining New Markets from the Seventeenth Century to the Present*, edited by Chia Yin Hsu, Thomas M. Luckett, and Erika Vause. Routledge, 2020.
- Burke, Peter. “History of Knowledge.” In *Debating Contemporary Approaches to the History of Science*, edited by Lukas M. Verburgt. Bloomsbury, 2024.

- . “Foreword: The History of the Future, 1350–2000.” In *The Uses of the Future in Early Modern Europe*, edited by Andrea Brady and Emily Butterworth. Routledge, 2010.
- Calè, Luisa, and Adriana Craciun. “The Disorder of Things.” *Eighteenth-Century Studies* 45, no. 1 (2011): 1–13. <https://dx.doi.org/10.1353/ecs.2011.0036>.
- De Wilde, Samuel. “The School of Projects.” *The Satirist*, Sept. 12, 1809.
- Defoe, Daniel. *An Essay Upon Projects*. London, 1697.
- Dimbath, Oliver. *Oblivionism: Forgetting and Forgetfulness in Modern Science*. Brill, 2021. <https://doi.org/10.30965/9783846765739>.
- Dotson, Kristie. “Tracking Epistemic Violence, Tracking Practices of Silencing.” *Hypatia* 26, no. 2 (2011): 236–57. <https://doi.org/10.1111/j.1527-2001.2011.01177.x>.
- Van Duffel, Siegfried, and Dennis Yap. “Distributive Justice Before the Eighteenth Century: The Right of Necessity.” *History of Political Thought* 32, no. 3 (2011): 449–64.
- Fedyukin, Igor. *The Enterprisers: The Politics of School in Early Modern Russia*. Oxford University Press, 2019. <https://doi.org/10.1093/oso/9780190845001.001.0001>.
- Foucault, Michel. *Power/Knowledge: Selected Interviews and Other Writings 1972–1977*, edited by Colin Gordon. Pantheon Press, 1972.
- . *Security, Territory and Population: Lectures at the Collège de France, 1977–78*. Edited by Michel Senellart and translated by Graham Burchell. Palgrave Macmillan, 2007.
- . *The Archaeology of Knowledge and the Discourse on Language*. Knopf Doubleday, 1982.
- Friedrich, Susanne. “Caveat from the Archive: Pieter van Dam’s *Beschryvinge van de Oostindische Compagnie* and Crisis Management,” *Journal for the History of Knowledge* 1 (2020): 1–14. <https://doi.org/10.5334/jhk.15>.
- Gierl, Martin. “Science, Projects, Computers and the State: Swift’s Lagadian and Leibniz’s Prussian Academy.” In *The Age of Projects*, edited by Maximilian E. Novak. University of Toronto Press, 2008.
- Guicciardini, Ludovico. *Descrittione... di tutti i Paesi Bassi*. Antwerp: Willem Silvius, 1567.
- Head, Randolph C. “Records, Secretaries, and the European Information State, circa 1400–1700.” In *Information: A Historical Companion*, edited by Ann Blair, Paul Duguid, Anja-Silvia Goeing and Anthony Grafton. Princeton University Press, 2021. <https://doi.org/10.1515/9780691209746-010>.
- Hein, Carola. “The What, Why, and How of Planning History.” In *The Routledge Handbook of Planning History*, edited by Carola Hein. Routledge, 2017. <https://doi.org/10.4324/9781315718996>.
- Hogarth, Rana A. *Medicalizing Blackness: Making Racial Difference in the Atlantic World, 1780–1840*. University of North Carolina Press, 2017.
- Hui, Alexandra, Lissa Roberts, and Seth Rockman. “Introduction: Launching a Labor History of Science.” *Isis* 114, no. 4 (2023): 816–26. <https://doi.org/10.1086/727646>.

- Jardine, Boris. "Instruments of Statecraft: Humphrey Cole, Elizabethan Economic Policy and the Rise of Practical Mathematics." *Annals of Science* 75, no. 4 (2018): 304–29. <https://doi.org/10.1080/00033790.2018.1528510>.
- Jasanoff, Sheila, and Sang-Hyun Kim, eds. *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. University of Chicago Press, 2015.
- Keller, Vera. *Knowledge and the Public Interest, 1575–1725*. Cambridge University Press, 2015.
- . "'A Political Fiat Lux': Wilhem von Schroeder (1640–1688) and the Co-Production of Chymical and Political Oeconomy." In *"Eigennutz" und "gute Ordnung": Ökonomisierungen der Welt im 17. Jahrhundert*, edited by Sandra Richter and Guillaume Garner. Harrassowitz, 2016.
- . "Into the Unknown: Clues, Hints and Projects in the History of Knowledge." *History and Theory* 59, no. 4 (2020): 86–110. <https://doi.org/10.1111/hith.12183>.
- Keller, Vera, and Ted McCormick. "Towards a History of Projects." *Early Science and Medicine* 21, no. 5 (2016): 423–44. <https://doi.org/10.1163/15733823-00215p01>.
- Koselleck, Reinhart. *Futures Past: On the Semantics of Historical Time*. Translated by Keith Tribe. MIT Press, 1985.
- Krajewski, Markus. *World Projects: Global Information Before World War I*. Translated by Charles Marcum II. University of Minnesota Press, 2014.
- McCormick, Ted. *Human Empire: Mobility and Demographic Thought in the British Atlantic World, 1500–1800*. Cambridge University Press, 2022.
- Mohun, Arwen P. "Constructing the History of Risk. Foundations, Tools, and Reasons Why." *Historical Social Research/Historische Sozialforschung* 41, no. 1 (2016): 30–47. <https://doi.org/10.12759/hsr.41.2016.1.30-47>.
- Mokyr, Joel. *Gifts of Athena: Historical Origins of the Knowledge Economy*. Princeton University Press, 2002.
- Morgan, Jennifer L. *Reckoning with Slavery: Gender, Kinship and Capitalism in the Early Black Atlantic*. Duke University Press, 2021.
- Mukerji, Chandra. *Impossible Engineering: Technology and Territoriality on the Canal du Midi*. Princeton University Press, 2009.
- Nacol, Emily C. *An Age of Risk: Politics and Economy in Early Modern Britain*. Princeton University Press, 2016.
- Newman, Simon P. *A New World of Labor: The Development of Plantation Slavery in the British Atlantic*. University of Pennsylvania Press, 2013.
- Nipperdey, Justus. "'Intelligenz' und 'Staatsbrille.' Das Ideal der vollkommenen Information in ökonomischen Traktaten des 17. und frühen 18. Jahrhunderts." In *Information in der Frühen Neuzeit. Status, Bestände, Strategien*, edited by Arndt Brendecke, Markus Friedrich, and Susanne Friedrich. LIT, 2008.
- Novak, Maximilian E., ed. *The Age of Projects*. University of Toronto Press, 2008. <https://doi.org/10.3138/9781442687349>.
- Oldmixon, John. *The British Empire in America*. Vol. 2. London: John Nicholson, 1708.
- Pendleton-Jullian, Ann, and John Seely Brown. "In Search of Ontologies of Entanglement." *Daedalus* 152, no. 1 (2023): 265–71. [https://doi.org/10.1162/daed\\_a\\_01987](https://doi.org/10.1162/daed_a_01987).

- Proctor, Robert N., and Londa Schiebinger. *Agnotology: The Making and Unmaking of Ignorance*. Stanford University Press, 2008.
- Puar, Jasbir K. *The Right to Maim: Debility, Capacity, Disability*. Duke University Press, 2017.
- Rassem, Mohammed. "Stichproben aus dem Wortfeld der alten Statistik," In *Statistik und Staatsbeschreibung in der Neuzeit*, edited by Mohammed Rassem and Justin Stagl. Schöningh, 1980.
- Reeves, Eileen. *Evening News: Optics, Astronomy, and Journalism in Early Modern Europe*. University of Pennsylvania Press, 2014.
- Renn, Jürgen. *The Evolution of Knowledge: Rethinking Science for the Anthropocene*. Princeton University Press, 2020.
- Robson, Elly. "Improvement and Epistemologies of Landscape in Seventeenth-Century English Forest Enclosure." *The Historical Journal* 60, no. 3 (2017): 597–632. <https://doi.org/10.1017/S0018246X16000261>.
- Sandl, Marcus. "Development as Possibility: Risk and Chance in the Cameralist Discourse." In *Economic Growth and the Origins of Modern Political Economy: Economic Reasons of State, 1500–2000*, edited by Philipp R. Rössner. Routledge, 2016.
- Schröder, Wilhelm, von. *Fürstliche Schatz- und Rent-Cammer*. Leipzig: Gerdesius, 1686.
- Slack, Paul. *The Invention of Improvement: Information and Material Progress in Seventeenth-Century England*. Oxford University Press, 2015.
- Smallwood, Stephanie E. *Saltwater Slavery: A Middle Passage from Africa to American Diaspora*. Harvard University Press, 2008.
- Soll, Jacob. *The Information Master: Jean-Baptiste Colbert's Secret State Intelligence System*. University of Michigan Press, 2009. <https://doi.org/10.3998/mpub.243021>.
- Stewart, Larry, and Kelly Whitmer. "Expectations and Utility in Eighteenth-Century Knowledge Economies." *Notes and Records* 72, no. 2 (2018): 111–17. <https://doi.org/10.1098/rsnr.2018.0004>.
- Sussmann, Charlotte. "The Colonial Afterlife of Political Arithmetic: Swift, Demography, and Mobile Populations." *Cultural Critique* 56 (2004): 96–126. <https://doi.org/10.1353/cul.2003.0065>.
- Swift, Jonathan. *A Modest Proposal for preventing the children of poor people from being a burthen to their parents or country, and for making them beneficial to the public*. Dublin: S. Harding, 1729.
- . *Serious and Useful Scheme to make a Hospital for Incurables*. London: J. Roberts, 1733.
- Thirsk, Joan. *Economic Policy and Projects: The Development of a Consumer Society in Early Modern England*. Oxford University Press, 1978. <https://doi.org/10.1017/S0022050700104759>.
- Thomas, Dalby. *An Historical Account of the Rise and Growth of the West-India Colonies, and of the Great Advantages they are to England, in respect to Trade*. London: Jo. Hindmarsh, 1690.
- Verburgt, Lukas. "History of Scientific Ignorance." In *Debating Contemporary Approaches*, edited by Verburgt.

- Warde, Paul. *The Invention of Sustainability: Nature and Destiny, 1500–1870*. Cambridge University Press, 2018. <https://doi.org/10.1017/9781316584767>.
- Whitmer, Kelly. “Imagining Uses for Things: Teaching ‘Useful Knowledge’ in the Early Eighteenth Century.” *History of Science* 55, no. 1 (2017): 37–60. <https://doi.org/10.1177/0073275316678872>.
- . “Projects and Pedagogical Expectations: Inside P. J. Marperger’s ‘Golden Clover Leaf.’” *Notes and Records* 72, no. 2 (2018): 139–57. <https://doi.org/10.1098/rsnr.2018.0005>.
- Whitt, Laurelyn. *Science, Colonialism, and Indigenous Peoples: The Cultural Politics of Law and Knowledge*. Cambridge University Press, 2009. <https://doi.org/10.1017/CBO9780511760068>.
- Wilkins, John. *An Essay towards a real character and a philosophical language*. London: Gellibrand, 1668.
- Wynter, Sylvia. “Columbus and the Poetics of the *Propter Nos*.” *Annals of Scholarship* 8, no. 2 (1991): 251–86.
- Yamamoto, Koji. *Taming Capitalism Before its Triumph: Public Service, Distrust, and ‘Projecting’ in Early Modern England*. Oxford University Press, 2018.
- Zincke, D. Georg Heinrich. “Vorrede, worinnen von Projecten und Projecten-Machern gehandelt wird.” In Peter Krezschmer, *Oeconomische Vorschläge, Wie das Holtz zu vermehren, Die Strassen mit schönen Alleen zu besetzen ... sind: Nebst einem Anhang ohnmaßgeblicher Vorschläge, wie grosser Herren Küchen und Tafeln verbessert*. Halle and Leipzig, 1744.
- Zwierlein, Cornel. “Introduction: Towards a History of Ignorance.” In *The Dark Side of Knowledge: Histories of Ignorance, 1400 to 1800*, edited by Cornel Zwierlein. Brill, 2016.
- Zwinger, Theodor. *Methodus apodemica in eorum gratiam, qui cum fructu in quocunq[ue] tandem vitae genere peregrinari cupiunt*. Basel: Episcopius, 1577.

