A World From Nowhere: Nineteenth-Century Expert Politics and the Technocratic International



Jan Eijking
Balliol College
University of Oxford

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Abstract

The long nineteenth century witnessed both the entrance of "international" into the modern political vocabulary, and the rise of expert-centred international practices and institutions. Historians of international relations have thus far not investigated the connection between these two developments. This thesis engages the topic by asking: how should we make sense of this coevolution? It conceptualises the simultaneous emergence of internationality and expert politics as a case of *domain differentiation*: the articulation of the distinctiveness of a sphere of political action as a mode of authorisation. Multiple such articulations coexist and potentially conflict—domain differentiation is messy, inchoate, and contested.

Yet rather than advance a causal-predictive claim about why experts emerged as central actors of international order, the thesis examines the indeterminate processes by which people with projects constructed a technocratic international with authorising effects. It adds a methodological argument for studying *differentiators*. Combining intellectual history with historical sociology, the thesis shows how by the mid-nineteenth century new elite actors were elevated to technical expert status to gain international authority. To do so, they articulated the international as a domain of impartiality, where scientific and technical experts should have special authority. This claim also was an attempt to shield their projects from political capture and contestation. A technocratic worldview gave them the confidence to first undertake large-scale engineering works across borders, and then worry about implications, from extraterritoriality to dispossession and informal empire, later. This double move—grasp for authority and deflection of contestation—was the chief innovation of the "world from nowhere."

This was, as case studies based on archival research show, naturalised at the first World Fairs in London and Paris; it was used to justify the making of the Suez canal and its attendant extraterritorial 'international zone'; and it spurred on the cable industry at the 1865 International Telegraph Conference. Saint-Simonians, industrial capitalists, and free-trade liberals all contributed to this endeavour. But this was not a triumphant history. For all their professed hopes for an expert-driven engine of peace, they ended up facilitating and providing the infrastructure for what they had sought to overcome: military-territorial power politics, aggressive nationalism, and renewed imperial expansion. Given its influence on modern international organisations, excavating this link between expert-driven impartiality and technocratic international interventions puts difficult questions about the legitimacy of international institutions into perspective.

INTRODUCTION

In 1779, there was no such thing as "the international". The term had not yet been invented, and so world politics was neither organised around "international" institutions, nor was it carried out by "international" actors. By 1879, internationality was seemingly everywhere.[1] Now the term recognisably applied to lawyers, associations, secretariats, commissions, conferences, fairs, journals. There were socialist, feminist, anarchist, liberal internationalists. There was talk of international policy, international responsibility, international society. To this day, the term conjures up special significance: when climate change activists implore the international community, when the World Health Organisation calls for international vaccine solidarity, or when the International Monetary Fund intervenes in the name of international trade.

Another major change took place during this time. Domestic politics and societies across the globe were being radically transformed by the pushes and pulls of republicanism, nationalism, industrialisation, globalisation, and colonisation. In the midst of this muddle, a new and distinctly modern type of elite actor emerged: the technical-scientific expert. Experts became integral not only to the bureaucracies of modern states and empires, but also to a new range of technical projects beyond borders.[2] Since science knows no homeland, the thought went, international cooperation should be expert-driven. And so a widespread justification for 'new, powerful, and autonomous international institutions' was 'the argument that there are socially beneficial, technical tasks that should be handed over to 'experts".[3] International cooperation and international expertise, it seems, were born twins. Their alliance became fundamental to modern international institutions and their contestation, from finance to European integration to public health.[4] How do we explain this remarkable coevolution?

The standard answer is functionalist: experts emerged as integral to international order because their knowledge of technical problems and solutions strengthened the action capacity of international organisations. Yet this tells us relatively little about how epistemic groups and politics relate, or what political and economic circumstances international institutions are embedded in or respond to.[5] Historians of international

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[1] I am paraphrasing Abbott 1995, 864-65.

[2] Mitchell 2002; Hodge 2007; Steinmetz 2007; Schaffer et al. 2009.

[3] Murphy 2000, 799; Murphy 1994.

[4] Orford 2011; Clavin 2013; Steffek 2021; Martin 2022.

[5] Jasanoff 1990; Jasanoff 2004; Maasen/Weingart 2005; Kennedy 2016.

organisations remind us that institutions are far from 'neutral arenas for the solution of common problems but rather sites of power, even of dominance'.[6] Building on their critique, this thesis conceptualises the co-evolution of internationality and expertise as a case of *domain differentiation*: the articulation of the distinctiveness of a sphere of political action as a mode of authorisation. Multiple claims to what a domain is, and who has authority to act in its name, coexist and potentially conflict—domain differentiation is a messy, inchoate, and contested process. To fully appreciate this and avoid reifying domains as entities with supposed real qualities and limits, this thesis makes the case for studying *differentiators*: instead of developing a causal-predictive claim about why experts emerged as central actors of international order, I examine the indeterminate processes by which people with projects constructed a technocratic international with authorising effects. In a historical-sociological frame, I show how by the mid-nineteenth century new elite actors were elevated to technical expert status to gain international authority. To do so, they intellectually and practically conveyed the international as a domain of impartiality, where scientific and technical experts should have special authority. This claim also was an attempt to shield their projects from political capture and public contestation, carving out a sphere where the bourgeois patrons of expertise could pursue their partial agendas in the guise of impartiality. The understanding resonated widely, and it deeply influenced modern international organisations.[7]

By imagining and enacting the international as a separate space in which impartiality was a unique source of stability and peace, nineteenth-century technocrats were able to grant technical experts a seat at the table of world politics. While the diplomats and monarchs of old imagined a domain of great powers based on military and territorial balancing, new economic elites became convinced that industrial integration would be faster than political integration. They actively advanced their projects with reference to the term "international" and against the vocabulary of great power politics. A technocratic worldview gave them the confidence to first undertake large-scale engineering works across borders, and then worry about political implications —extraterritoriality, dispossession, informal empire—later.

In other words, these differentiators appealed to the international significance of their projects to pursue their agendas more autonomously. This double move—both grasp for authority, and deflection of contestation and resistance—was the chief innovation of the "world from nowhere." It was, as this thesis shows in individual chapters, naturalised at the first World Fairs in London and Paris; it was used to justify the making of the Suez canal and its attendant extraterritorial 'international zone'; and it spurred on the cable industry at the 1865 International Telegraph Conference. Saint-

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[6] Hurrell 2005, 56; Murphy 1994; Reinalda 2009; Pedersen 2015; Ravndal 2020.

[7] Steffek 2021.

Simonians, industrial capitalists, and free-trade liberals all contributed to this endeavour. But theirs was a fragile enterprise, and this thesis is not a history of triumph. For all their professed hopes for an expert-driven engine of peace, they ended up facilitating and providing the infrastructure for what they had sought to overcome: military-territorial power politics, aggressive nationalism, and renewed imperial expansion.

In short, the thesis makes two main contributions: theoretically, it introduces a framework that characterises the international as a contingent and inchoate domain of political action; empirically and methodologically, it puts into perspective nineteenth-century differentiators on their quest to render a technocratic international self-evident and authoritative. To delineate the scope of the thesis, the remainder of this introduction first situates its overall argument in existing work; second, it sketches out the theoretical framework; and third, it closes with a preview of individual chapters.

1. Main argument

Why and how should international relations (IR) care about the role of experts? To answer this question, this section explains why we need a historicised account of the role of experts; identifies shortcomings of existing work and starting points for developing such an account; and finally makes the case for a new framework.

First, what is at stake when we study expertise in IR? Proliferating work on the elitism of international organisations, and on the role of expert authority in both facilitating and masking political aims,[8] faces the issue: are globalisation and the international organisations tasked with regulating its effects inevitably 'accompanied by the anti-democratic government of 'expertise"?[9] To better understand the problem, studying the historical emergence of impartiality as a central component of claims about the international puts into perspective the 'crises of legitimacy in global governance' we face today.[10] Instead of asking, as many scholars have done, how international organisations can best mobilise, utilise, and protect expert knowledge, I start from the question: how come the international often looks like an obvious arena for expert politics, and what purpose does its differentiation in that shape fulfil? We can then view the international not as a singular disciplinary object but as a plural historical phenomenon. Building on recent work on nineteenth-century international relations,[11] this thesis shows that the international did not magically come into existence wherever

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[8] On the former: Zürn 2018; Tallberg/Bäckstrand/Scholte 2018. On the latter: Broome/Seabrooke 2012; Sending 2015; Villumsen Berling/Bueger 2015; Littoz-Monnet 2017; Broome/Homolar/Kranke 2018; Allan 2018; Steffek 2021.

[9] Murphy 2000, 800.

[10] Gök/Mehmetcik 2021.

[11] Howland 2015; Yao 2019; Ravndal 2020; Sluga 2021.

states cooperated: it was constructed in particular contexts, to particular ends. Actors heading a growing number of transnational technical projects—canals, cables, tunnels, lighthouses, and more—saw their activity as apolitical and replaced justification with licence by feasibility and efficiency. They did so by advancing a claim about the principles, methods, and actors that should characterise the international as a domain.

Second, my argument responds to shortcomings of existing work on the role of expertise in international organisations. Foremost among those are a face-value conceptualisation of expert authority, and methodological barriers to historicisation. By a face-value conceptualisation of expert authority I refer to the tendency to take the origins of expert authority to be purely epistemic, i.e. to assume that experts logically have authority because of their specialist knowledge.[12] Without going into epistemological detail, suffice it to say that whilst pragmatically warranted (acknowledging some trade-off between analytical value and comprehensiveness) this assumption is not borne out by empirical observation. Experts are typically selected by political or bureaucratic agents for reasons that are never purely epistemic but a combination of reputational factors, social networks, and confirmation bias.[13]

The face-value view also creates methodological barriers to historicisation: if we define experts as intrinsically authoritative, then there is little need to explain when and how they got there. Consider institutionalists who explain the centrality of experts in international organisations as a matter of rational design.[14] On their view, international cooperation turns on collective action problems; rational bargaining strategies then result in different institutional design preferences.[15] Expertise becomes part of what makes international institutions authoritative: how easily global governance institutions mobilise and implement expert input determines how effectively they can reach their goals.[16] Neofunctionalist work on 'epistemic communities' follows a similar logic: epistemic communities deliver information services as 'networks of knowledge-based communities with an authoritative claim to policy-relevant knowledge'; they are internally cohesive and share beliefs about epistemic principles and standards of validity.[17] Important differences notwithstanding, these approaches conceptualise expertise as part of organised responses to cooperation needs that arise *externally*: industrialisation, natural disaster, pandemics, climate change, and so on. A separation between international institutions and the outside world, as well as between experts and politics, is integral to the rationalist

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[12] e.g. Brennan 2016; Collins/Evans 2017.

[13] Boswell 2009; Friedman 2019; Pamuk 2021.

[14] Krasner 1983; Martin/Simmons 1998; Jupille/Mattli/Snidal 2013.

[15] Koremenos/Lipson/Snidal 2001, 761-62.

[16] Barnett/Finnemore 2004, 24-25; Louis/Maertens 2021.

[17] Haas 2014, 29-30; see Haas 1992; Haas 2004; Davis Cross 2007; Davis Cross 2013.

conception. By drawing the line where it does, it turns non-epistemic aspects of expert authority and historical variation into externalities.

This tells us little about how epistemic groups and politics relate, or about the political and economic forces that international institutions historically draw from, facilitate, or express. The agency of practitioners gets lost in the determinism of institutional design and the logic of merely responding to externalities. Scholars of science and technology have long insisted on these shortcomings.[18] In IR, Ole Jacob Sending captures the problem when he stresses that extant rationalist frameworks invoke authority 'as a constitutive element' of the centrality of experts, 'but no explanation is offered as to how and why such authority was established in the first place.'[19] If institutions are not just 'neutral arenas' of problem-solving but actually 'sites of power', then expertise too is no mere policy-optimising service, but a mode of legitimation with an identifiable history.[20] While functionalists thus shed light on part of the story, their account of expertise in international affairs is insufficient if we want to account for "the politics" of expertise; its variation over time; and its elective affinity with internationality.

Third, the above suggests the need for an alternative approach: one that is agnostic about the sources of expert authority and refrains from defining either expert authority or international institutions in ways that pose barriers to historicisation. To fill this gap, I propose the notion of *domain differentiation*: the articulation of the distinctiveness of a particular sphere of action as a mode of authorisation. This lens combines social theories of fields and differentiation to conceptualise meta-level authorising moves: the parameters and 'rules of the game' that put actors, procedures, and institutions in charge of a project or issue. Crucially, differentiated domains exist only through continual enactment. The individuals and groups who do this should therefore tell us something important about the character of that which they differentiate. The basic intuition is that if political actors construct the objects they act upon,[21] they also construct the domains within which they act. Studying this generative process can illuminate why given actors and interests are privileged in a given domain.

The point is not to show what the international actually *is* but to carve out, among a multitude of claims to its meaning, a nineteenth-century association of the international with expert-generated impartiality. Domain differentiation illuminates the role of parochial interests and agency in constructing international authority. This also implies that we end up with a range of coexisting, malleable domains. The thesis therefore examines a variety of claims to a technocratic international in which actors

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[18] Jasanoff 1990; Jasanoff 2005; Maasen/Weingart 2005; Kennedy 2016.

[19] Sending 2015, 16.

[20] Hurrell 2005, 56. See Ravndal 2021 for an excellent overview.

[21] Allan 2017.

invoke their impartiality for different reasons and through different practices. There is no single "logic" of expert politics the origins of which I excavate; just as impartiality is not always tied to internationality, and just as there are other "internationals" out there. It follows that, as Jeanne Morefield has argued, if history is best understood as a 'contested field' we need to challenge existing parameters for 'what counts as "thought" and who counts as a thinker'.[22] This is the methodological contribution of my thesis: it zooms in on *differentiators*, making us see and pay attention to thinkers and practitioners of international relations that are typically neglected or invisible. In so doing it brings historical granularity to our understanding of the status of IR's master domain.

Theorising the role of technical experts in international organisations as part of domain differentiation processes allows me to make visible aspects of both expertise and "the international" that have not received sufficient attention thus far. It shifts the focus from the validity of individual experts' credential and the ways in which the use of expert knowledge in international organisations can be protected, monitored, or held accountable, to their contribution to and interest in making the domain that authorises them. It also allows me to place actor interests and audience construction centre-stage. The overarching aim is to rethink the way in which IR approaches both expertise and the international: the "point-zero" international is predicated on a hope for real impartiality, subjecting it to contestation and often rejection on the basis of that claim. Both the epistemic elitism implicit in reactive defences of expertise, and populist backlash vaguely targeted at "the experts" severely complicate the legitimacy and action capacity of international institutions. A clearer understanding of what interests the twinning of internationality and impartiality has historically privileged, not least as a step towards reimagining the purposes of international institutions in the future, is needed.

2. Domain differentiation

If the international does not actually exist out there as an object, but gets routinely invoked as a source of authority, what process explains its discernibility? To find out, I conceptualise the international as a *differentiated domain*: a sphere within which contingent elements—principals and agents, subjects and objects—are held constant as logically, naturally related. Domains correspond to what Niklas Luhmann has called 'islands of low complexity':[23] to make political action imaginable and practicable, human beings develop frames that place structure, agency, and physical objects in straightforward relations. To think inside or outside the box, we first *think the box*. To picture the international as one such box, I follow Justin Rosenberg's basic intuition on 'the differentiation of spheres which gives us our familiar domains of politics and

[22] Morefield 2017, 169; Tully 2008.

[23] As cited in Albert/Buzan/Zürn 2013, 191.

economics': if these spheres arise under historically specific conditions, then the question is not 'how to fit the parts together but rather *why they appear to be separate in the first place*.'[24] This has crucial implications. We can only undertake economic regulation if the domain of the economy is imaginable; we can only devise a social intervention if the domain of society is imaginable; and so on.[25] These are not natural phenomena but historical 'forms of rule and ways of organizing space'.[26] In IR, Halvard Leira has recently argued that around the turn of the nineteenth century, foreign policy 'was construed as a separate sphere—one where special knowledge reigned', and that this very separation was chief among 'the reasons why foreign policy has remained so contestable since its emergence'.[27] This suggests that studying such articulations of distinctiveness and how they are socially articulated and maintained has considerable purchase.

My approach has two main advantages. First, it stresses the agency involved in the construction and contestation of domains, against a tendency in IR that Jennifer Mitzen characterises as a crowding out of 'the intentional or agentic aspect of governing'.[28] Domains are, in Cox's familiar phrase, 'always *for* someone and *for* some purpose' and therefore created and enacted *by* someone too.[29] Identifying who is involved in the process of domain differentiation should then help explain what interests and actors a domain privileges. Second, the framework applies existing sociological work on governance objects, whose contestability has been noted to depend on their naturalisation or appearance as immutable, to the domains within which both governors and objects are placed in a relationship.[30] This thesis suggests that under particular historical conditions—crisis, contestation, opportunity—autonomous pockets of political authority can emerge that insulate themselves from other domains.

A differentiated domain gets continually enacted and re-enacted through a set of principles, practices, and actors—it is never fully accomplished and 'there'. Its boundaries are always subject to contestation from those who seek authority, and those already authoritative over other domains. A domain attaches itself to principles, practices, and actors that are evoked as its self-evident markers, manifestations, and arbiters. This has consequences for which practices get authorised, to the benefit and at the expense of whom: though starting from a semantic ascription (a category), authority turns into the driver of concrete material interventions, innovations, and institutions. Domain

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[24] Rosenberg 1994, 100; emphasis added.

[25] See Mitchell 2002; Owens 2015.

[26] Rosenberg 1994, 99.

[27] Leira 2019, 194, 196.

[28] Mitzen 2013, 3.

[29] Cox 1981, 129.

[30] Such work includes Sending 2015; Kennedy 2016; Allan 2019.

ascription gets claimed in real physical space, not purely as a social construct.[31] The result is not just a new label for something that always existed, but a contingent response to social, political, and economic changes that enables new modes of authorisation.

The final analytical upshot is this: while international organisations scholarship has made important headway in dissecting the constitution of governance objects and methods, we still lack an account of how the domain of the international itself gets deployed on temporally and spatially variable terms. There is no reason why primary frames of the political imagination, within which governance objects and methods become meaningful in the first place, should be left unaffected by our analysis. This thesis thus recognises that the identity of governance objects is endogenous to a framework for understanding the authority of governance subjects.[32] But if this is the case, then the whole constellation within which subjects relate to objects, and within which this relation appears self-evident, ought to be critically examined across time and space. Moving from objects to domains of governance becomes imperative if we wish to better understand and examine one persistent meaning of the international—particularly one that underpins the historical legacy of expert-driven international institutions.

3. Preview

To arrive at its conclusions, the thesis is structured as follows. In Chapter I the theoretical framework is situated in the social-theoretical literature. I build the notion of domain differentiation by combining insights from work on differentiation, fields, and authorisation, before drawing out the methodological innovation of the thesis as a study of *differentiators*. The chapter then closes by explaining what makes the early nineteenth century a particularly insightful empirical starting point for my story.

After this introductory section, I present an intellectual history of thinkers and ideas falling into the broad remit of technocratic internationalism.[33] In the early decades of the nineteenth century, four British and French political thinkers—Jeremy Bentham, John Stuart Mill, Henri de Saint-Simon, and Michel Chevalier—were united in a quest to place transnational interventions on a scientific footing. Their speculations and practical proposals had three innovations in common: they thought that impartiality and reform could in principle be pursued simultaneously; they all promoted various versions of actors authoritative on epistemic grounds; and they thought the chief avenues toward a harmonious world order were lawmaking, commerce, and infrastructure. Lawyers, merchants, and engineers—a triple vanguard of technical experts—respectively deserved pride of place in the new world from nowhere.

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[31] Murphy 1994; Mitchell 2002.

[32] Sending 2015, 5.

[33] An ideal-typical label rather than a distinct intellectual tradition; cf. Steffek 2021.

Against that background, Chapters II and III examine the changing relationship between impartiality and reform in international as envisioned by Bentham, Mill, Saint-Simon, and Chevalier. Only once the international could be viewed as a separate realm conformable to human agency was it possible, and did it become desirable, to theorise and experiment with a role in global governance for technical experts. The theoretical treatises, project proposals, and concrete political engagements of these thinkers and practitioners illustrate this. They reconfigured the relationship between human agency and natural order several times; the goal of reform shifted from the distribution of universal features (in Bentham and Saint-Simon) to the governance of natural difference (in Mill and Chevalier). All four thinkers under study fit an interpretation of post-1789 European social and political thought as marked by Anthropocentrism and voluntarism; my analysis adds technocratic internationalism as a cross-ideological project.

Next, the thesis turns to the first experiments with putting these radical ideas into practice. While the organisation of chapters here to some extent separates theory from practice, many of the technocratic internationalists examined in the first two chapters took to pursuing their blueprints themselves. The thinkers as well as the practitioners examined in the thesis were people with projects and domain differentiators. The middle decades of the nineteenth century were key to anchoring the impartial international firmly alongside other emerging meanings of the international. During this period, an expert mandate was secured and then gradually expanded. A technocratic characterisation of the international resulted:[34] as a domain in which technical expertise was a currency of legitimacy; one where claims to impartiality could produce and naturalise authority; and one that transnational capitalist enterprise managed to carve out and insulate from politics to its advantage.

Chapter IV turns to the first World's Fairs as platforms of technocratic international order on which expert governance manifested itself through transnational scientific cooperation. These were spaces in which experts from various nationalities came together to forge connections that had not existed before; spaces, in other words, of imagining the globe in terms of the pacifying promises of forging alliances of knowledge. Examining organisation, membership, and public reception of the first two fairs—the 1851 Great Exhibition in London and the 1855 Exposition Universelle in Paris—the chapter highlights the extent to which the fairs served as hubs for European scientific collaboration and knowledge exchange, occasioning alliances and projects that would otherwise not have had such an international character. At the height of British and French formal and informal empire, the fairs also displayed Western claims to scientific predominance over the rest of the world. The world was envisioned as a space in which nations and peoples could be classified according to scientific and technical

[34] Steffek 2021.

progress, pitting the inventiveness and industriousness of Western engineers and capitalists against an exotic and idle non-West.

The final two chapters of the thesis focus on transnational engineering projects that involved the formation of international expert committees tasked with assessing the feasibility of a project or endowing it with credibility and scientific approval. Chapter V discusses the largely neglected history of the building of the Suez canal in Egypt. An 1856 International Commission was tasked with assessing the feasibility of the canal. Its work crucially brought expertise into play not as the outcome of professionalisation, but as a contested political good the mobilisation of which was crucial for legitimating the idea of a canal cutting through the Suez peninsula. The commission was not an epistemic community but a mix of engineers, military officers, and stakeholders. Expert governance was tied to the international from the start: if, within this domain, impartiality could be squared with reform, then expert governance was a key method of international ordering. Chapter VI turns to the International Telegraph Union (ITU) established in 1865 to set standards for the proliferating use of telegraphic communication. The case of the ITU is not only significant as it was the first formal international organisation, but also as it illustrates the expanding and now increasingly institutionalised mandate of technical experts in international relations. At the ITU, expertise acted as a currency of legitimacy, impartiality, and internationality, following the logic of science that knows no homeland. But as in the case of the Suez canal, the global expansion of telegraphy aimed at improving the efficiency of centre-periphery governance between European metropoles and the outskirts of empire, yielding an upsurge in global demand for gutta-percha at immense human and ecological costs.

I conclude by restating the added value of understanding the nineteenth-century technocratic international as a case of domain differentiation: its focus on the consequences of inchoate authorising claims about the scope of "the international", and its methodological orientation towards *differentiators* as intermediary and background actors. IR would do well not to neglect these actors; my approach makes them visible. My study ultimately also speaks to broader debates in IR and history. For students of IR, it offers important insights into the history of a relationship that is easily taken for granted. Technical international cooperation, on my account, was caught up from the start in an expert predicament: political designs could be expressed as natural responses, but that did not stop them from being political. Expertise, thus conceived, serves a political function at heart—endowing an object or actor of governance with legitimacy, and decontesting a project. Technical experts inadvertently facilitated the pursuit of often highly contested projects that could now successfully be presented as *international* in kind. Expertise helped achieve internationality as a claim to impartiality.

CHAPTER I

Domains and differentiators

In the nineteenth century, how did new transnational actors advance claims to "the international" as a distinctive domain of expert-derived impartiality? As outlined in the introduction, I approach this question as a case of *domain differentiation*. In this chapter I provide the theoretical underpinnings of my approach. Domain differentiation, as I explain below, consists in reiterative performances of boundary work, or the theoretical and practical 'efforts to establish jurisdictional prerogatives over certain issues vis-a-vis others'.[35] Boundary work differentiates domains to delineate the scope of authority relations. The effects of this process are especially crucial where, as for the label "international" invented in 1780, the domain's semantic repertoire undergoes innovation.[36] There was no established consensus as to what the new term actually meant, and so thinkers and practitioners experimented with it: at first by creating demand through pointing out the insufficiency of alternatives; then by applying it to particular entities and activities to see whether usage would stick. Usage did eventually stick, but only temporarily—a central part of my argument is that domains do not shape up into some final achievement. They remain in flux, subject to contestation. How to study something that never really is a thing, then, becomes a methodological problem. Tackling this problem is the aim of the second half of this chapter.

Below I first identify the lacunae my approach aims to fill and combine social theories of differentiation, fields, and authorisation into one framework. My basic contention is that domains get differentiated in various ways depending on time, place, and actor-audience relations. This implies a picture of multiple, coexisting, essentially contested domains—which allows us to avoid reifying domains as real bounded entities, and instead conceptualise their authorising effects as resulting from contingent and inchoate claims. Second, I approach the study of domains on methodological grounds. I make the case for focusing on *differentiators*: identifiable actors with an interest in imagining and acting upon a domain in ways that lend authority to their person and legitimacy to their projects. The chapter closes by situating the theoretical argument in the context of post-1789 Europe.

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[35] Kranke 2022, 454.

[36] Abbott 1995.

1. Domains

In this section I develop domain differentiation, as outlined in the introduction, in further detail. I define domains as spheres of political action that determine the scope of an actor's authority over a type of intervention. Domains become treatable as social facts in virtue of their reiterative enactment: their characteristic relationships and practices need to be constantly made and remade, in both theory and practice. This is a process of differentiation, whereby actors endow a domain with a broadly recognisable label, draw its boundaries, and mobilise its features to act and intervene in the world with authority. Domains exist as claims or assertions, and are thus inherently fragile and contested. Below I outline three central building blocks of this lens: differentiation and fields; authorisation practices; and conceptual change.

1.1 Differentiation and fields

Although there is no agreed single way to apply it, the concept of differentiation has become a mainstay in IR. In his 1979 classic *Theory of International Politics*, Kenneth Waltz famously contrasted an anarchical international level with a functionally differentiated and hierarchical domestic level of politics.[37] On his view, differentiation could be reduced to distributions of material capability. Yet in the early 2000s, Buzan and Albert proposed that differentiation could capture more than this: to them it was a lens through which IR could ask how components of a social whole related and distinguished themselves from one another.[38] They asked whether all components of the whole were the same or distinguishable by some measure. This general line of inquiry has been applied and further developed in insightful ways, enriching the study of IR.[39] Mathias Albert for example characterises politics as 'a functionally differentiated realm of modern society', such that for human agents to act politically, the realm of politics needs to be differentiated for it to be intelligible and actionable.[40] For Albert, Buzan, and Zürn in turn this begs the question: if 'differentiation theory is a logic of division, what is it that integrates a social whole sufficiently for it to be thought of as a whole'? They contrast the domestic realm, which they suppose arose under conditions of community, with the international which presumably 'has no such starting coherence, instead coming into being as a result of rising interactions'.[41]

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[37] Waltz 1979.

[38] Buzan/Albert 2010; Donnelly 2012; Keene 2014.

[39] Kessler 2012; Lees 2012; Keene 2013a; Naylor 2018, 2022.

[40] Albert 2016, 1.

[41] Albert/Buzan/Zürn 2013, 7.

We can go a step further in this theoretical direction, but also take a more historically attuned departure. When differentiation theorists speculate that 'most of the process of 'global governance" might be conceived as 'a restructuring of the political system in terms of functionally defined problem solving', they hint at some process by which global governance acquires a particular character that results in such 'restructuring'.[42] But this process is, it seems, not done by anyone in particular: the sociologists substitute a constructivist institutionalism for the functionalists' rational institutionalism. Institutions and structures determine the behaviour of actors on both accounts, albeit to varying degrees. Agency is then easily reduced to an effect of social position and interaction. This is a problem if we want to understand the specific contributions of thinkers and practitioners—differentiators—who lay claim to and mobilise "the international" as a distinguishable domain with authorising effects. How an actor's historically situated claim to "the international" affects the very shape of that domain cannot be fully made sense of with the help of differentiation theory alone. There is thus purchase for a lens that could tell us how differentiation practically delineates one domain from another.

Field theory offers a partial remedy. Pierre Bourdieu famously suggested that the ability to draw boundaries between conceptual spaces amounts to considerable and easily underestimated social power: it represents an ability to 'impose the legitimate definition of the divisions of the social world and, thereby, *to make and unmake groups*'.[43] Bourdieu was primarily concerned with *prises de positions*, the positioning of actors who seek to obtain an authoritative stance within a given field. Their position depends on how their social attributes relate to dominant modes recognised as authoritative within the field.[44] Processes of boundary-drawing, transformation, and recognition lead variously to the hardening of field boundaries, the inclusion of new members or expulsion of former ones, or the establishment of novel sub-fields.

The latter is crucial for the study of "the international" as a domain labelled with this particular novel label from 1780 onwards: its intelligibility, accumulating over several decades, represents the 'culmination' of a 'collective process of autonomization'. Individual agents can bring 'new dispositions' into a field if 'tacit entry conditions' allow it or are modified to allow it, and if 'a transformation of the objective chances', such as economic changes leading to a growing or changing audience, permits it.[45] Autonomisation is further 'correlative with the constitution of a socially distinguishable

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[42] Albert/Buzan/Zürn 2013, 6.

[43] Bourdieu 1991, 221; emphasis original. See also Bourdieu 1977.

[44] Bourdieu 1993, 50-52.

[45] Bourdieu 1993, 54-55.

category'.[46] The result ascribes the status of objective reality to what is a social category, encouraging a 'realism of the intelligible'.[47] The problem is not only that divisions are presented as naturally given, but also that plurality disappears. Reification not only makes brick walls out of lines in the sand, it also makes rocks out of pebbles.

The articulations, whether utterances or performances, of individual actors—their claims to the scope of a domain—can be understood as boundary-work, a concept borrowed from the field-theoretical repertoire. Boundary-work is about how 'the field is bounded' given that 'boundary-drawing practices are central to establishing and maintaining the field.' By consequence, 'the structure and boundaries of the field are constantly contested'.[48] Bourdieu himself suggested that a field's boundary is 'a stake of struggles' so that the task at hand is not to accept the result of such struggles as the real contours of a social object, but instead 'to describe a *state* (long-lasting or temporary) of these struggles and therefore of the frontier delimiting the territory held by the competing agents.'[49] This importantly demands historicisation: if we no longer assume that boundaries are logical correlates of things and vice versa, we need to 'provide a temporal account of the origins of social entities.'[50]

Analogously, boundaries can be understood as points of *difference* in social space; entities as *domains*. Empirically, my inquiry thus cannot start by looking for the origins of "the international" as a domain the existence of which I would then impose on the historical record as a foregone conclusion: 'history is lived front to back'.[51] Instead I examine historical points of difference—theoretical, symbolic, practical—that were gradually combined into a domain of their own. But my framework does more. Domain differentiation singles out *differentiators* and the returns these hope to obtain (more on this later). Not all domains will be created with a great degree of agency and purpose, but the shape of those that are will approximate the characteristics that give their protagonists the centrality—the authority—they have.

1.2 Authorisation

Domains authorise particular actors and not others: acceptance of an actor's claim to speaking on behalf of a domain amounts to an imposition of what they see as 'the legitimate vision of the social world'—the actor becomes the 'holder of the *monopoly of*

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[46] Bourdieu 1993, 112-113; emphasis added.

[47] Bourdieu 1985, 198.

[48] Kunz/Prügl/Thompson 2019, 24.

[49] Bourdieu 1993, 42-43; emphasis original.

[50] Abbott 1995, 860.

[51] Abbott 1995, 865.

legitimate symbolic violence.'[52] How does this work in the context of domains? While there is disagreement as to how exactly authority and legitimacy relate,[53] for present purposes I define authority as '*power taken to be legitimate*'[54] such that authority and legitimacy are relationships with an audience 'rather than a possession of the actor'.[55] This definition emphasises takes no stance on the success of a given claim to legitimacy. It also adopts the basic Weberian position that authority 'comes in many forms' and that 'what makes a certain practice of power legitimate is the process through which an authority justifies its exercise of power and gains social acceptance' with a taken-for-granted register of authority as the temporary outcome.[56]

By consequence, the construction of audiences is crucial to any claim to domain-specific authority: an audience has to be invited, it has to gather, and it has the limited power to approve or disapprove. As for fields, for domains too 'the *relationship to the audience* and, more exactly, economic or political interest in the sense of interest in success and in the related economic or political profit, constitute one of the bases for evaluating the producers and their products.'[57] Drawing the lines around who counts as audience (and to what extent that audience is actively or passively involved) is fundamental to obtaining legitimacy: 'audiences of (de)legitimation do not exist a priori, but rather are constructed through political processes.'[58] Based on this I adopt a relational position that sees authority as an ever-contested relationship arising from interaction.[59] Domain differentiation in this sense varies not only by time and by space, but also by actor-audience relations: to whom a differentiator addresses their claim affects the requirements for making that claim persuasive. Authority needs to be *produced* in the first place; it is historically contingent.[60] Julia Costa Lopez notes the central role of 'constant (re)authorization' in this context. On her view, authority relies on semantic fields that get deployed to 'reauthorize authority'—'these categories and their variability are central to understand the production and evolution of authority itself.'[61] A relational perspective is a useful starting point for thinking about how authority relations are produced and/or coproduced at the level of domains.

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[52] Bourdieu 1985, 205; emphasis original.

[53] See Zürn 2018.

[54] Kustermans/Horemans 2022, 3; emphasis original.

[55] Cattani/Ferriani/Allison 2014, 260.

[56] Kauppi/Madsen 2014, 326.

[57] Bourdieu 1993, 46; emphasis original.

[58] Tallberg/Bäckstrand/Scholte 2018, 121. See also Reus-Smit 2007.

[59] Costa López 2020, 226-28.

[60] Nexon 2009; Adler-Nissen 2012; Pouliot 2016.

[61] Costa López 2020, 229. Consider the authorisation of great powers by naming them, Keene 2013b.

Several IR scholars have hinted at this. Ole Jacob Sending argues that 'how the authority to govern is established within distinct fields has direct bearing on the identity of governance objects'.[62] Bentley Allan makes a similar observation: 'states do not necessarily share the same representations of the world', but for global governance to work they 'must come to have similar understandings of what the global is made of and how it works.' Such a set of 'similar understandings' is, at heart, the raw material of a domain. Allan suggests that the international comes about from among a multitude of governance objects—in constituting objects, actors such as experts ultimately lay 'the basis of the international system itself'.[63] But if designation is a part of object construction, how can an object be labelled 'international' if that domain is not yet meaningfully available? Both Sending and Allan thus prepare the ground for identifying and empirically examining distinctive domains. I pick up this thread and bring into view how these are constructed, and with what consequences for the constitution of governance objects. I render explicit what Sending, Allan, Costa Lopez and others have implied: that principles, practices, and actors come to acquire authority only insofar as a domain is constructed in ways that establish them as authoritative. Both objects and subjects of global governance presuppose an overarching domain that authorises them. This is the (never singular) international—differentiated in various ways depending on time, place, and actor-audience relations.

1.3 Conceptual change

A domain's intelligibility is the outcome of imagination and contestation. But how do we know a domain when we see one? As a shorthand, we may consider as the object of contestation 'the monopoly of legitimate *naming*, that is to say, official—i.e. explicit and public—imposition of the legitimate vision of the social world'.[64] To know a domain when we see one, then, we can trace a domain's name to those articulating it, the context in which they do so, and the reasons they give for doing so. This public appearance of a domain can be traced by the use of a term. In the nineteenth century, various terms referring to something we would today group up as "international relations" could be found in the works of political theorists, legal philosophers, political economists, but also in periodicals, pamphlets, manifestos. The neologism "international" joined the ranks of an older, early modern vocabulary that included concepts such as the balance of power, a system of states, and the family of nations. The new term's self-assertion during the first third of the century was a reflection of contestation between state and non-state, power-political and commercial claims to transborder legitimacy.

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[62] Sending 2015, 7-8.

[63] Allan 2017, 142, 156.

[64] Bourdieu 1985, 205; emphasis original.

Under these circumstances, how did claims about a distinguishable domain of the international hold their ground? If 'claims to internationality function as a means of social differentiation'[65] then we should be able to account for what collocations qualify this differentiation, and what modes of legitimation resulted from different historical articulations of such claims. This aligns with J. L. Austin's distinction between locutionary and illocutionary force: words can have literal meaning but also represent a 'speech act' as they are used for particular ends.[66] Domain differentiation can in this sense be understood as illocution-as-authorisation. Let me specify what this entails as a twofold process of *innovation* and *boundary work*.

First, at a given time, a specific 'legitimation vocabulary' is available to political actors. This vocabulary makes particular types of political behaviour intelligible as legitimate contributions to politics, at the same time as it excludes other types of behaviour as illegitimate. So how do new types of behaviour, or indeed old behaviours carried out by new actors, become imaginable, intelligible, and ultimately understood as legitimate? Quentin Skinner calls transgressive political action 'untoward' and argues that the 'innovating ideologist' thus has to manipulate, as Duncan Bell puts it, 'the meaning and/or application of concepts in order to modify political behavior.'[67]

Second, how innovation gets stabilised over time can be examined as a form of boundary work. As explained above, boundary work refers to the establishment of 'prerogatives over certain issues vis-a-vis others'.[68] This matters especially where a concept is not yet fully established and therefore semantically fluid: boundaries are, as Andrew Abbott argued, ontologically prior to entities.[69] A set of political principles and assumptions gets bundled up, labelled, and then articulated against alternatives. Bell notes that throughout such a process it 'sets the parameters for action, opening up some channels and closing down others.' This results in a degree of 'path-dependency involved in the choice of legitimation vocabulary'. While this may suggest slow and only incremental change in the 'normative architecture' of a given time and place, with some manipulation 'the innovating ideologist can indeed bring about a radical change in the normative parameters of society.'[70]

So far this chapter has developed the framework of domain differentiation by building on social theories of differentiation and fields; a practice-oriented conceptualisation of authority as reiterative authorisation; and a conceptual perspective

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[65] Basaran/Olsson 2018, 97.

[66] Austin 1961; see Tully 1988; Bell 2002.

[67] Skinner in Tully 1988, 110; Bell 2002, 337.

[68] Kranke 2022, 454.

[69] Abbott 1995.

[70] Bell 2002, 339.

on contexts of innovation. The next section draws out the methodological implications of this approach, specifically with regards to the role of differentiators.

2. Differentiators

How should we study domain differentiation? In this section, I make the case for a methodological focus on *differentiators*: identifiable thinkers and practitioners with an interest in imagining and acting upon a domain in ways that lend authority to their person and/or legitimacy to their projects. This preference has two key advantages: it adds granularity and nuance to historical-sociological IR's preference for generalisability and structural determination; and it makes specific recommendations about the study of thinkers and practitioners at the margins of IR (as a discipline), but at the heart of international relations (as political practice).

On the one hand, the notion of domain differentiation explicates a common denominator implicit in studies of 'the invention of international order', 'worldmaking', or 'visions of global order'.[71] On the other hand, the main contribution of this thesis is not simply to organise these existing works into a new framework of analysis. Rather I aim to capture 'the relationship between international thought, international practices and international publics'[72] by articulating strong reasons to look at otherwise marginal figures at the intersections between these three dimensions. In this vein, the texts and interventions examined in the thesis confirm that the nineteenth-century international imagination deserves being unpacked in its rich detail and its messy indeterminacy—not as a structural, institutional, or professional story with a stable, singular international as its determinate end point. For this reason I suggest looking at how "people with projects" get involved in domain differentiation, and how they affect political change by claiming to belong to a specific domain tied to specific interventions. This section first identifies the methodological contribution to existing approaches; second, I outline the methods and empirical strategy pursued in the remainder of the thesis; and third, I specify what my approach leaves unaddressed.

2.1 Methodological contribution

Rather than reinvent the methodological wheel, let us pump up its tire. IR scholars inspired by field theory typically adopt a 'relational ontology', where relations are the primary unit of analysis.[73] Methodologically they turn to 'prosopography' or the study of

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[71] Sluga 2021; Getachew 2019; Bell 2007.

[72] Keene 2014, 401. See also Keene 2017; Vergerio 2019.

[73] Adler-Nissen 2012.

the common characteristics of a group of people as fields.[74] These clusters of relations, within which actors inhabit social positions, can be quantified, visualised, and examined with the help of methods including social network analysis, multiple correspondence analysis, as well as biographical methods—with instructive results. Kauppi and Madsen further develop field theory to investigate the relationship between 'transnational power elites' and 'fields of global governance'. In order to 'devise tangible objects of empirical inquiry', they propose focusing on 'transnational social groupings.' Rather than explaining 'a hypothetical international field' their aim is 'to examine the many different fields which structurally organize international society and its daily practices.'[75]

Yet while these scholars turn away from *institutions*, their emphasis on *professions* retains a certain requirement for structural commonalities that resists historical variation. This results from basic propensities of field theory itself: the goal of inquiry is to identify and characterise the field. Domain differentiation, by contrast, aims to capture the multiple and open-ended claims that actors advance in order to authorise what they wish to do. This requires a role for actors that is less reducible to social positions such as class, professional membership, or institutional affiliation. To bring this into view I propose a different methodological avenue—one that lends itself to more granular historical inquiry and provides stronger reasons to pay attention to typically unseen actors. Domain differentiation builds on Bourdieu's intuitions but captures more directly how actors articulate and perform separateness—how autonomisation is practically done—to the effect of claiming inchoate authority. It zooms in on the actors and actions articulating domains in concrete, "micro-level" ways.

To illustrate how this works, picture the hypothetical case of an entrepreneur around the middle of the nineteenth century. This wealthy and well-connected individual may have conceived of a large-scale infrastructure project that would cross several inter-polity borders. The project would have faced a number of practical challenges: absent technical, industrial, and manufacturing standards at this time, much negotiation would have been needed just to get started.[76] At the level of authorisation, in terms of both political legitimacy and financial backing, the entrepreneur would have had to pitch the project to a transnational audience of prospective shareholders and local authorities who could grant necessary permissions and concessions. A technocratic claim to internationality, as this thesis will show in subsequent chapters, would have been uniquely attractive to this actor, given its relative semantic openness, autonomy from national oversight, and lower risk of deterring audiences should the project appear as a power-

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[74] Bigo 2011; Rossier 2019; Kahlert 2019.

[75] Kauppi/Madsen 2014, 324-25.

[76] Yates/Murphy 2019.

political move. But to capture this type of actor and this type of claim, we need to adopt a particular empirical strategy.

2.2 Empirical strategy

My approach makes three methodological demands. First, domain differentiation relies on semantic *labels* which can be traced by the simple shorthand of a word's use. Second, it zooms in on the projects of individual *differentiators*. Third, advanced claims produce *legitimacy* for a type of political intervention.[77] Where an intervention gets legitimised on the basis of belonging to a separate sphere or order of things—pushing it out of one container into one of its own—domain differentiation can be said to be at work. For the technocratic international examined in this thesis, I respectively examine (1) connotations in thought and practice with the label "international" (impartiality, neutrality, objectivity) that leverage a mandate for experts; (2) technocratic thinkers, entrepreneurs, and individual experts as differentiators; and (3) the centrality of experts in international cooperation as the domain-specific legitimation of political interventions from canal-digging to cable-laying. In brief, the thesis reads nineteenth-century European intellectual and international history through the prism of domain differentiation: as a series of historically specific, open-ended attempts at authorising interventions aimed at an "international" underpinned by technological integration. These attempts are reducible neither to pure theory nor to pure practice but include treatises, periodicals, commission reports, maps, sketches, biographies. The archival material under scrutiny is correspondingly diverse in terms of authorship, audience, and genre.

A claim to the distinctiveness of a particular domain of activity always involves an actor as claimant, an audience, and a type of intervention the claim is intended to authorise. To draw a line in the sand around the extent of their authority, great powers might mobilise references to territoriality, superior force, royal patronage, or the exclusion of lesser powers. Empires in turn, often the very same powers but now joined by company-states and oriented towards a different type of intervention, could carve out their own public-private domain with its own set of authoritative sources, practices, and actors. The international as a new route had to mark the boundary between itself and such alternatives—it had to become clear what the international *was not* before it could become clear what it properly *was*. Consider the role of international commissions, prototypical nineteenth-century international organisations whose work plays a central role in this thesis. Their choices about membership, qualifications, and the output they generate all reflect certain historically specific understandings of what kinds of social capital are politically valuable, what symbols reflect status, and what acts and actions require special legitimation for whom. We can therefore study the boundary work they

[77] On global governance legitimacy and authorisation see e.g. Tallberg/Bäckstrand/Scholte 2018.

engage in in terms of who lays claim to international significance, who such a claim is addressed to, and what type of political action is legitimated as a result.

A focus on differentiators allows me to unpack the role of thinkers and practitioners we would otherwise not pay attention to: extant frameworks would perhaps have us start from a predetermined canon of classical theorists of the international, for whom we would presume that they were all concerned somehow with the same object; or from a range of practitioners visible to us in virtue of the predetermined significance of their credential, professional membership, or institutional affiliation. If our aim is however to understand how new elites managed to forge a position of authority for themselves, and then defend this position under conditions of contestation, looking into already-existing sites of authority does not get us very far. As Jeanne Morefield has argued, if history is best understood as a 'contested field' we need to challenge existing parameters for 'what counts as "thought" and who counts as a thinker'.[78] Recall that I defined differentiators as actors with an interest in imagining and acting upon the international as a domain in authorising ways. Some of them write proposals for world organisation, others raise shares to finance the building of an interoceanic canal. All of them are "people with projects" involved in domain differentiation with various specific aims in mind. I focus on nineteenth-century differentiators of a *technocratic* international who shared a technocratic stance on the relationship between expertise as generator of impartiality, and internationality as technical integration. Their various contributions then made a claim to the international as a domain of impartiality increasingly obvious—never static and fully accomplished, but more easily taken for granted.

This historical-sociological lens allows me to trace conceptual innovation and its implications for the authorisation of practices and practitioners. What follows is throughout the thesis is therefore not a causal analysis of conditions to be met for domains to be successfully differentiated, but an interpretation based on the frequent use of a particular label (international) for the authorisation of a particular practice (expert governance), mandating a particular actor (technical experts). The argument is not causal but temporarily constitutive, following the contention that domains always remain inchoate and unfinished. I do not introduce a new origin story for "the" international but offer a way for understanding how a domain's articulation as separate makes actors authoritative within its limits. These articulations are multiple, temporary, and contested. Often their plurality means that we talk past each other when we talk about the international. Appreciating that each claim to its meaning is a specific contextual phenomenon, connected to specific political intentions, bears promise.

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[78] Morefield 2017, 169; Tully 2008.

2.3 Limitations

Let me close this section by stressing what my framework is *not* going to capture. First, of course other methods are available and might similarly capture parts of the material covered in this thesis—process-tracing, social network analysis, or discourse analysis all represent opportunities of conducting a study of domains with different emphases. Discourse analysis is particularly well-suited to uncovering the power-knowledge constellations underlying political claims to authority. But my overall point, as explained above, is not only to capture one particular nineteenth-century discourse about the international, but to zoom in on the relationship between claims to this domain and the resulting authority relations and practices. This allows me to raise new questions. I ask not only, how was it possible to imagine the international in technocratic terms? But also, how did such a view condition the actions of people with projects—how did it facilitate concrete, deeply disruptive material interventions? How were the World Fairs able to naturalise a link between internationality and impartiality? What role did invocations of the international play in justifying the Suez canal project? How did they boost the telegraph cable industry?

Second, the technocratic international was being articulated alongside a multitude of other claims to the scope and authority relations of the international: we can think of apologies of empire in an international frame, self-determination as anticolonial internationalism, the international women's suffrage movement, the socialist First International, and so on. While I focus on technocrats, each of these can be conceptualised and examined as alternative claims to the domain of the international in the nineteenth and twentieth centuries.[79] To include these in the thesis I could have contrasted, for example, elite and popular strategies of social positioning through domain differentiation. Take the 1864 International Workingmen's Association, a kind of counter-international that disrupted elite prerogatives for speaking in the name of internationality. Nineteenth-century socialists across Europe mobilised class-based bonds of global solidarity by reclaiming the meaning of the international. "International" served as concept both of critique—a critique of globalising capitalism—and of collective self-enfranchisement. These alternatives attest to domain plurality and contestation: multiple claims coexist and may relate co-productively, in competition, or otherwise. Given its focus on one particular claim, this thesis offers no comparative perspective in this context and makes no claim about the relative importance of one "international" over another. Excellent scholarship is available on each of these, but scholarship on technocratic claims to the international is as yet relatively scarce.[80]

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[79] For overviews see Clavin/Sluga 2016; Long/Schmidt 2005.

[80] Morefield 2005; Pedersen 2015; Getachew 2019; Steffek 2021.

3. Contested authority after 1789

At the close of this theoretical and methodological chapter, let me sketch out the historical context in which the empirical core of the thesis is situated. The long nineteenth century, from the French Revolution to the First World War, is typically characterised as the dawn of a globalising modernity.[81] It also was the first century to articulate, develop, and establish the vocabulary of the international that is still in use today. This semantic change was more radical than is usually acknowledged. This was not least related to the crisis of political authority brought on by the American, Haitian, and French revolutions: a period of intense debates about popular sovereignty, intensifying market pressures of globalising industrial capitalism, and debates about the moral status and economic viability of colonialism. Long-standing modes of authority had begun to appear out of step with the times, particularly to members of the post-1789 bourgeoisie.[82] This had direct consequences for the political imagination of world affairs. The language of a "system" and a "balance of power", though far from disappearing and in fact gaining new currency in the wake of the 1814-15 Congress of Vienna, was increasingly seen as overdetermined by traditional political actors: diplomats, military advisors, colonial officers. Young elites, enthused by the revolutionary spirit of rejuvenation but also appalled at the violence and chaos the same spirit seemed to inspire, articulated a demand for an alternative, more autonomous domain. A transnational elite of scientists, engineers, and capitalists had begun to raise an increasingly incontrovertible demand for a mode of authorisation that was transnational, like the domain of a world system and a balance of power, but more independent from government license and partisan capture.

As is well known, the term "international" was coined by Jeremy Bentham in his *Introduction to the Principles of Morals and Legislation* written in 1780 and published in 1789.[83] What exactly this innovation represented, however, is not self-explanatory. Glenda Sluga warns us that 'if Google Ngram could answer all our questions we would not need historians.' We need to do more than 'blithely citing the utilitarian philosopher's coinage as shorthand for a more significant historical shift in how we came to imagine ourselves in a world of states.'[84] A good part of the underlying 'significant historical shift', I want to suggest here, is nevertheless tied to vocabulary change. First, what did the term "international" replace, and what alternatives did it define itself against? Consider the decades leading up to Bentham's intervention. World-political thought at this time was heavily influenced by the work of political economists, particularly Scottish

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[81] Bayly 2004; Osterhammel 2009; Buzan/Lawson 2015.

[82] On the rise of transnational middle classes at this time see Dejung/Motadel/Osterhammel 2019.

[83] Bentham 1789; cf. Armitage 2011, 72-73.

[84] Sluga 2015, 108.

Enlightenment thinkers such as Adam Smith or David Hume, as well as debates in Europe on the overseas trading monopolies of the British and Dutch East India Companies.[85] The growing number and intensity of global economic interdependencies fuelled the political imagination. In 1767 the Göttingen historian Johann Christoph Gatterer stressed the need 'to imagine the general connection of things in the world', or a '*Nexus rerum universalis*', because 'nothing in the world is, as it were, insular.'[86] Three years later the French Enlightenment philosopher Guillaume Thomas Raynal discussed the possibilities for a 'society of nations' to prosper; elsewhere he referred to a 'universal society'.[87] Already then a connection to world integration by technological means was not an uncommon idea. To Raynal, the society of nations had to be facilitated by means of technical *grands projets*: 'The general well-being of nations, the utility of commerce demand that the isthmus of Panama, the isthmus of Suez, open to navigation, bring us closer to the limits of the world.'[88]

An alternative vocabulary largely drew from widespread theories of balance. Debates on Latin American liberation, Anglo-Russian rivalry in Asia, and an emerging Anglo-Saxon sphere typically referred to a 'balance of power'.[89] This terminology notably survived the invention of the term "international": the Comte d'Hauterive described the 'political equilibrium of the universe' in 1800;[90] Friedrich von Gentz spoke of a 'world balance' in 1806; in an 1809 *Handbook for the History of the European States-System and its Colonies*, Göttingen historian A. H. L. Heeren saw a 'world states-system' coming to replace an outdated 'European states-system';[91] and Simón Bolívar discussed the 'world balance' in 1815.[92] In 1823, the American diplomat Alexander Hill Everett in turn criticised the 'rude form of a balance of power'.[93] Despite notable differences, there was a consistent world-political vocabulary of a "system" of states and governments that remained in usage well into the nineteenth century.

Yet after the 1780s, the vocabulary of the "international" gained ground. Initially confined to legal contexts, after the 1815 the term spread to neighbouring issue areas, particularly trade.[94] One of the first modern usages can be attributed to the British

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[85] Armitage 2013; Phillips/Sharman 2020.

[86] Gatterer 1767, 85; as cited in Gollwitzer 1972, 260. My translation.

[87] Raynal 1770, II, 552.

[88] Raynal 1770, IV, 448.

[89] Gollwitzer 1972, 324-25.

[90] D'Hauterive 1800, 125.

[91] Heeren 1817, VIII, xii.

[92] Gollwitzer 1972, 327.

[93] Everett 1823, 403.

[94] See Marjanen/Ros 2022.

abolitionist Henry Brougham, later known for his role in passing the 1832 Reform Act and the 1833 Slavery Abolition Act. Brougham's widely-read 1803 *Enquiry into the Colonial Policy of the European Powers* argued that the interweaving of metropoles and colonies would ultimately result in a 'general system of international relations'. Likely the first to use the expression, Brougham's 1803 text introduced readers to a 'theory of international relations'.[95] While modern international thinkers until then generally thought that 'states were the primary actors, not individuals, corporations or other non-state actors', the idea of internationality brought a change of tack.[96] In 1823 there was such a thing as 'international policy' with the purpose of 'securing to all nations their separate independence' and promoting 'their constant intercourse for every purpose of social and moral improvement.'[97] Once gradually entering common parlance, the concept could productively be deployed as a nineteenth-century authorising move for new actors both within and without the state.

Second, a remarkably persistent connotation with internationality was with impartiality. The 1814 Treaty of Paris, for example, enshrined the principle of free navigation as a hallmark of a free-trade international order tied to the ideal of impartiality: the work of the Commission on the Free Navigation of Rivers would assist 'communications between nations' so as to 'render them less strangers to each other,' 'in the mode the most impartial, and the most favorable to the commerce of all nations.'[98] Likewise, most among the first compounds with the word appeared in decidedly technical contexts including 'international correspondence' (1807), 'international commerce' (1811), 'international copyright' (1833), 'international ports' (1848), 'international code' (1855), and 'international units' of measurement (1857).[99] During the century's middle decades, as this thesis will show, many international commissions emerged independently from the Vienna system and increasingly enmeshed with private transnational capital. Free-trade liberals, technocrats, and pacifists shared the common goal of escaping power politics and instead articulated a sphere where progress beyond borders did not depend on political licence.

Historical developments galvanised this differentiating move: a range of mid-century projects and agreements were being 'demanded by, and then further promoted and advanced, an economic-technical internationality'.[100] Consider the 1814 and 1839 declarations of Rhine and Scheldt as international waterways; the 1856 Danube

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[95] Brougham 1803, II, 242-52.

[96] Armitage 2004, 11.

[97] Eden 1823, 1.

[98] As cited in Sluga 2021, 128-29. See Mitzen 2013; Schenk 2021.

[99] Oxford English Dictionary.

[100] Gollwitzer 1972, 435.

Commission; the 1864 international maritime signalling agreement; the 1865 establishment of an International Telegraph Union; the 1874 establishment of a Universal Postal Union;[101] or the 1875 Metric Convention: each of these, in different ways, drew on a sense of the "international" as a sphere characterised by technical-impartial expert cooperation. In the 1840s, a Paris journal funded by the International Shipwreck Society—with contributors and readers located across the globe—was named *L'International*. The journal placed special emphasis on the scientific character of international cooperation.[102] The preface to an 1866 edited volume on 'International Policy' noted in like fashion that 'the international relations of mankind are a fit subject for a systematic policy', endowed with 'a moral, not a political or purely national foundation. All questions, therefore, concerning the interest, power, or prestige of any particular nation are secondary and subordinate.'[103] Scottish lawyer James Lorimer's 1876 lecture in turn advocated the 'Denationalisation of Constantinople and its Devotion to International Purposes' as a twin pursuit of internationality and impartiality: to Lorimer, 'international purposes' had to be impartial, depoliticised goals common to 'all nations' and respecting 'international responsibility'.[104]

The nineteenth century was thus a crucial time of experimentation until the new term acquired obviousness—a suitable context for the study of domain differentiation, in other words. In a recent study tracing its uses, Marjanen and Ros confirm this much when they note a 'gradual appropriation of 'international' as a modifier for other nouns, for a broader application than its first users intended'.[105] This experimentation was emphatically European: both in terms of the sites of knowledge production, and in terms of the metropolitan and colonial sites of experimentation. Not least, 'the Western experience of modernity acquired a privileged status and Western political concepts were widely translated into other languages across the globe.'[106] The meaning of "international" as one such modern concept was not yet clear or stable—there may have been 'at least three different strands of understanding the international'[107]—and it could therefore be developed by actors looking to carve out their own sphere of influence.

From this historical situation sprang 'the idea that the "international" constitutes a separate zone of political life with its own rules, norms, and institutions',[108] culminating

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[101] Yao 2019; Murphy 1994.

[102] Davies 2021.

[103] Congreve et al. 1866, v-vi.

[104] Lorimer 1876, 1-4.

[105] Marjanen/Ros 2022, 64.

[106] Heiskanen 2021, 245-246.

[107] Holmila/Ihalainen 2022, 10.

[108] Mazower 2012, 44.

in an 'international turn' that continued into the early twentieth century. It also was fundamental to establishing the modern international institutions eventually incorporated into the League of Nations and, subsequently, the United Nations.[109] Their progenitors had for decades worked to endow projects and platforms labelled 'international' with legitimacy and authority by recourse to an ideal of impartiality. The latter, in its modern shape, was largely derived from the self-understanding of modern science and economics as spheres that had no homeland and took no sides: spheres in which the modern ideal-type expert reigned supreme. To technocratic internationalists, the international itself could be inscribed with those attributes: a *world from nowhere*—one in which various legislative, commercial, and infrastructural interventions could be carried out from an Archimedean impartial point of view—was thought to be possible. The first mid-century modern projects designated "international" were not, as rationalists would have it, mere expert-driven trial runs in cooperation and institutional design. Instead they constituted exercises of authority and hierarchy, favouring and facilitating a Eurocentric world order driven and enforced by empire and capitalism.

[109] Sluga 2013, 11; cf. Sluga 2021.

Part I
Imagining The International

CHAPTER II

The world reformers

The international thought of Bentham and Mill

> 'The character which improves human life is that which struggles with natural powers and tendencies, not that which gives way to them. The self-benefiting qualities are all on the side of the active and energetic character.'
>
> — John Stuart Mill, 1861[110]

After the French Revolution, British and French radical political theorists, members of a 'cosmopolitan brotherhood' forming 'a transnational elite',[111] rethought the parameters of international order. They imagined it as a realm at once separable from state politics, and conformable to human agency. International order, to them, could be created. And it had to be, for they thought it in disarray and dire need of reform. This could take the shape of legislation, trade, or large-scale engineering projects: of new methods of governance. Each thinker of course developed different ideas about the kind of actor that should carry out these reforms. Yet despite important differences, they all stressed the need for impartial agents of change in international order.

This was their response to a complex intellectual challenge that had arisen at the dawn of the nineteenth century: to square reform projects with impartiality—to develop an Archimedean viewpoint "from nowhere" as an authoritative position from which to spread progress to the world. This reflected a broader concern at the time with endowing politics with scientific foundations.[112] Passing on the torch of top-down Enlightenment —in the spirit of Voltaire's confession never to have 'claimed to enlighten shoemakers and servant girls'[113]—the technocratic concern with impartiality was deeply reflective of

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[110] Mill 1861, 407.

[111] Sluga 2021, 15.

[112] Collini/Winch/Burrow 1983.

[113] Voltaire 1757, as cited in Mishra 2017, 60.

its time. As Tocqueville put it in 1835, 'knowledge became a tool of government and intellect a social force; educated men played a part in affairs of state.'[114] In another way, it represented a new, distinctly modern, but also largely open-ended way of imagining the possibilities and limits of what today we call international relations.

This chapter and the next offer an intellectual history of that challenge; first in the British context, then in the French. The technocratic commitments underpinning international thought in both became the necessary but not sufficient condition for differentiating the international as a domain of impartiality: a "world from nowhere." A separate domain of the international defined on technical, depoliticised terms was a condition of possibility for conceptualising a novel kind of actor. But as subsequent chapters will show, the exact scope of this newfound actor's authority, and how precisely it fit in with existing and emerging international institutions was a matter of trial and error. As an exercise in the history of international thought, then, the claims put forth in both chapters are limited to the creation of new parameters.

My overarching argument in this chapter is as follows: only once the international came to be viewed as a distinguishable domain conformable to human agency—rather than as part of natural order the laws of which one had the duty to obey—was it possible, and did it become desirable, to theorise and experiment with a role in international affairs for technical experts. In the context of the theoretical argument outlined in the introduction, this was early-stage domain differentiation: in the early nineteenth century, there was no established consensus yet as to what "international" meant. Thinkers and practitioners thus experimented with the term, creating demand by pointing out the insufficiency of alternatives.

Still, this was no even emancipation after which international theorists and practitioners considered all the world an artifice. Instead the relationship between human agency and natural order was reconfigured as the goal of reform shifted from the rearrangement of universal features (Bentham) to the governance of natural difference (J. S. Mill). The irony was that domain differentiation did not simply naturalise an artificial construct of the international. The first move was to *de*-naturalise international order by separating it out from the laws of nature and instead conceptualising it as human-made and reformable. The remarkable shift in the first third of the nineteenth century was then to inscribe desired reforms and interventions—geared towards a world ordered by commerce and colonial capitalism[115]—in a *re*-naturalised international. By this sleight of hand, domain differentiation was like a reset button: a new label did not create a new thing, but characterised and legitimated existing things in new ways—ways that turned out incredibly powerful in subsequent decades, as later chapters will detail.

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[114] Tocqueville 1835, 4.

[115] Ince 2018.

The wake of the French Revolution is an appropriate point of departure for two reasons. First, most accounts of the so-called long nineteenth century start with the French Revolution.[116] Beginning at this supposed dawn of modernity should thus allow for closer inspection of what kind of departure this marked with regards to international thought. Second, as this chapter and the next show, the post-Revolutionary moment played a central role in the development of Anthropocentrism, voluntarism, and technocratic internationalism on both sides of the Channel, affecting social, political, and international thought in substantive ways.

As the echoes of the French Revolution resounded across Europe, many contemporaries experienced the turn of the nineteenth century as an uprooting of social and political order, calling for restoration.[117] Faced with these circumstances, promising and yet also potentially threatening, Jeremy Bentham saw this as an opportunity for promoting reform for the sake of the greatest happiness of the greatest number. Utilitarianism was an ambitious project. With unceasing dedication, Bentham classified, codified, and legislated nearly everything that could be enlisted for the pursuit of utility —with significant implications for international order. As is well-known, Bentham was the first to coin the term "international" in 1780. He initially applied the neologism to the legal domain, essentially as what he thought a more convenient term for what had hitherto been called the law of nations.[118] But once uttered, the new term spread across domains, spurring theories and imaginations not only of law but also of commerce and politics. From its birth the international was imagined as the subject of a particular kind of making sense of the world, of global order, and of the possibilities for changing and governing it. It is easy to overlook just how radical this moment of invention really was. Its early-onset intertwinement with technocratic political thought, moreover, has received scarcely any attention until recently.[119]

Another thinker, engaged in a related undertaking on the other side of the Channel, was Henri Comte de Saint-Simon. Like Bentham, Saint-Simon was trying to grasp the meaning and potential of politics after the French Revolution. But his was a somewhat less enthusiastic assessment. The problem the revolution had posed, in his eyes and influenced by Joseph de Maistre's widely-read 1797 conservative critique, was a reopening of old questions of authority and obedience.[120] What to do with the rising popular masses? How to ensure that this thing called *society* would continue steadily to advance toward economic, cultural, and political progress? Bentham's answer was

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[116] Hobsbawm 1962; Braudel 1972; Buzan/Lawson 2013; Abbenhuis 2013.

[117] Wilson 2011, 9; see Welch 2011.

[118] Bentham 1780.

[119] Steffek 2021.

[120] De Maistre 1797. For the influence of de Maistre on Saint-Simon see Armenteros 2011.

publicly accountable constitutional reform; Saint-Simon's was leadership by an avant-garde of scientists. Both favoured reform over revolution; but while Bentham emphasised government by example, Saint-Simon, like many fellow readers of Voltaire, thought progress sometimes necessitated coercive domination.

John Stuart Mill, in the case of Bentham, and Michel Chevalier, in the case of Saint-Simon, were avid readers but also immoderate interpreters of their intellectual godfathers. This chapter and the next are not intended as correctives, extracting a true Bentham and a true Saint-Simon, to then defend those against supposed misreadings by Mill and Chevalier. In what follows, the key concern is instead with the various answers each of these thinkers gave to a particular set of questions, and how these answers changed from one generation to the next. Of each thinker I ask, through the prism of domain differentiation, three questions: what *principles* of international order did they have in mind? What *agents* of international order did they envision? And which *methods* of international order did they prefer, and how did they justify these?

This chapter, focusing on the British context, proceeds in two main sections. First I introduce Bentham as a technocratic international thinker. One of Bentham's central concerns was to operationalise political practice in an organised, scientific fashion. A contextual reading of Bentham as a theorist of practice highlights the changing remedies he recommended for the problem of governing at large distances. Bentham initially thought the problem of distance placed an insurmountable limit on the human design of overseas territories, insofar as it constrained practitioners' knowledge and thus capacities of reform. Yet his relatively neglected 1822 *Junctiana Proposal* for an interoceanic canal in Nicaragua shows that in his post-Revolutionary work he had begun to cast doubt on how insurmountable that limit actually was, but also articulated a special role for commerce over state government in overcoming it.

The second section turns to John Stuart Mill, who further developed this line of thinking. Furnishing Bentham's theory of practice with a natural hierarchy of desirable qualities, resulting in scales of civilisation and national character, Mill developed the idea of a designable international order further.[121] The central ordering principle to him was tutelage or a 'government of leading-strings', which he saw as an actionable measure of utility. Mill was convinced that expertise was key to colonial internationality. An administrative technocrat, he preferred East India bureaucrats as expert rulers over India; enlightenment as a condition for democratic authority; and the colonies to be overseen 'by a class of "philosophical legislators" who understood the art and the science of political economy'.[122] I argue that this was the basis of his international thought writ large, in ways that both reflected and shaped an emerging differentiation of the

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[121] Varouxakis 2013.

[122] Bell 2010, 43.

international as a domain of impartiality. Mill's chief contribution in this context was to enable the transition from a non-natural international capable of reform to a re-naturalised international in which interventions favouring empire and trade had become built-in parts of "the way the world works." I note important differences as well, particularly Mill's belief in expertise as integral to state government rather than an alternative mode of international authority transcending the state.

The obscured normative content of early nineteenth-century technocratic internationalism, this chapter shows in conclusion, was strongly infused with the idea (imperial by trend) of exporting civilisation as a benevolent gift to the globe. The shift from Bentham to Mill, I argue, is best understood as a shift from an understanding of reform as rearrangement of universal features to an understanding of reform as the governance of natural difference. Specifically then, my reading offers a sketch of early-stage domain differentiation through conceptual innovation in the works of two British nineteenth-century technocrats.

1. Impartiality and reform in Bentham

Bentham is known as a both prolific and eccentric political thinker and legal reformer. He is typically remembered for his espousal of the principle of utility, filling the pages of copious volumes on how to scientifically organise the study of morals, laws, and politics; for codifying constitutions for balanced, publicly accountable government; and for a rejected project proposal for the Panopticon, a prison the circle-shaped architecture of which would simultaneously allow prison guards to see every prisoner from a single spot in the building, and keep every inmate in the dark as to whether or not someone was watching them.[123] A lot has been written about each of these aspects of Bentham's work. Given the sheer mass of his writings, much remains to be examined. Recently headway has been made by contributions trying to globalise Bentham in various ways. Globalising Bentham, a project with obvious purchase for the history of modern international thought, has yielded significant insight on utilitarianism and empire; Bentham's anti-colonialism; and Bentham as a theorist of international law.[124]

What is still lacking is a systematic account of Bentham as a theorist of international practice, and the extent to which his views were articulated and promoted in various proposals for large-scale technical projects. This section advances the case for reading Bentham's work through the lens of technocratic internationalism. His various projects not only aimed at constitutional reform, but also at engineering, figuratively and literally, a domain of the international according to technocratic ordering principles. In this subsection, I pursue this interpretation as I first discuss utility as a principle of

[123] Foucault 1991 [1977].

[124] Pitts 2003; Pitts 2005; Schultz/Varouxakis 2005; Armitage 2011; Cello 2021.

international order; second, the methods Bentham endorsed to further those ends, most importantly legislation and commerce; and third the impartial legislator as his central actor of international order.

1.1 Principles

Throughout his lifetime, Bentham was troubled by the following puzzle: how can legislation, based as it should be on knowledge of the circumstances to which it was to apply, be devised for far-away dependencies? How can, in other words, law apply to colonies? A close reader and fierce critic of the natural lawyers of the eighteenth century, Bentham took early steps in what is known today as the transition from natural law to legal positivism.[125] But more can be said about Bentham's international thought, with consequences outside the remit of law. Despite important inconsistencies in Bentham's international thought, utility played a role throughout as a principle of order and a guide to beneficent intervention. The *universal* principle of utility was the basis on which Bentham imagined the near-boundless reformability of the globe. Below I provide textual evidence to support this claim and then discuss implications.

Recent work on Bentham has highlighted the extent to which he does not fit with a supposed inherently pro-colonial utilitarianism. According to Jennifer Pitts, rather than a colonial apologist, Bentham belongs to an eighteenth-century anti-colonial critique based on commercial and labour inefficiency. Pitts concludes that 'Bentham did not regard utilitarianism as legitimating the sort of despotic colonial rule that characterized the hopes of many of his successors: rule and administration by Europeans with little concern for the opinions of the ruled or for their interests as they themselves understood them.'[126] Yet he was less far-removed from his disciples in other respects: his opposition to despotic colonial rule did not imply principled non-interference. While opposed to those kinds of colonialism that would merely exploit overseas territories for commercial benefit and at the expense of native populations, Bentham's international thought was still a powerful endorsement of an international order shaped by active design and intervention. The key difference was the *source* of intervention: his critique of colonialism, given its economist underpinnings, objected to colonialism as a political project pursued by governments—not however to commercial protectorates under capitalist auspices. In more general terms, the former belonged to the realm of state politics, the latter to international relations. On this reading, Bentham advanced a strong case for technocratic international order.

On the one hand, Bentham saw himself as an international activist. This becomes evident when we consider his numerous interventions in a whole array of

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[125] On this shift see Hall 2001; Koskenniemi 2006 [1989]; Koskenniemi 2001.

[126] Pitts 2005, 201; see also Pitts 2003.

debates of matters international. During the 1820s, Bentham began to 'cast his gaze outwards, beyond Europe,' his works being distributed and read widely, due not least to his Genevan translator and collaborator Étienne Dumont.[127] On the other hand, Bentham's international thought was, even as it expressed opposition to despotic overseas rule and in its reflections on the problem of distance, nearly always articulated within the confines of the possibility of beneficent governance in the stead of maleficent despotism. Pitts notes in this vein that Bentham believed 'that colonial rule was in the hands of a small group of "sinister interests" *rather than in the hands of beneficent and farsighted governors*.'[128]

This beneficent option meant two things: one, to reject domination left justifications for intervention by example untouched—because two, the target of Bentham's critique were 'sinister interests' pursued by narrow-minded politicians. The implied distinction between government and governors, as we will see, paralleled that between politics and economics; interest and impartiality; the perspective of the state and that of internationality. Its conceptual consequences can be made sense of against the backdrop of utility, Bentham's basic benchmark for judging beneficence. In the preface of his 1776 *A Fragment on Government*—published at the height of the American Revolution, the same year as Thomas Paine's famous pamphlet *Common Sense* calling for independence from British rule in the Thirteen Colonies—he conveyed to his readers what he thought was the central challenge of his age:

> The age we live in is a busy age; in which knowledge is rapidly advancing towards perfection. In the natural world, in particular, every thing teems with discovery and with improvement. The most distant and recondite regions of the earth traversed and explored — the all-vivifying and subtle element of the air so recently analyzed and made known to us — are striking evidences, were all others wanting, of this pleasing truth.
>
> Correspondent to *discovery* and *improvement* in the natural world, is *reformation* in the moral; if that which seems a common notion be, indeed, a true one, that in the moral world there no longer remains any matter for *discovery*.[129]

The sense of improvement, obeying the principle of utility, stood out markedly. It was the basic justification, still rudimentary, for a beneficent option. In the 1782 *Essay on the Influence of Time and Place in Matters of Legislation*, Bentham elaborated his concept of international reform according to the principle of utility further, stressing that the world was always essentially reformable:

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[127] Cello 2021, 9. See also Isabella 2009.

[128] Pitts 2005, 211; emphasis added.

[129] Bentham 1776, 393; emphasis original.

> The whole of history proves, that there is no circumstance connected with climate or texture of the earth incompatible with the happiness of man; and that, wherever men can live, there they may possess a government, a religion, and manners, that will render them happy. The world has been a field of change: Egypt no longer worships the goddess Isis, and India may cast off its devotion to Bramah: … Greece has been once covered with republics, and there is therefore no reason to believe it doomed to be for ever the habitation of slaves.[130]

Bentham here conveyed a sense of boundless possibility: 'wherever men can live,' he claimed, 'there they may possess a government … that will render them happy.' And happiness, after all, was the point of utility. Utility informed the beneficent design of international order. But who should render whom happy? And what did and what did not count as international? To answer these questions I turn to the methods and actors Bentham envisioned for his reformable domain of the international.

1.2 Methods

What methods did Bentham devise for the purpose of furthering utility as a principle informing international order? Legislation and the codification of international law are typically highlighted, but commerce and technical interventions to improve its conditions were important means, too, of increasing overall utility at the international level. Both legislation and commerce supported the beneficent option. Legislation, to Bentham, obtained a special significance in an international context. His 1786-89 *Principles of International Law* in this respect clarified what he understood as international order.[131] The *Principles* assigned utility a firm place at the heart of international legislation, and resolutely subsumed the work of legislating under its banner.

Added to this was a qualification of what did and what did not count as international. 'In civilized nations', he wrote, 'the greater part of mankind are *glebæ ascriptitii*, fixtures to the soil on which they are born. With nations of hunters and shepherds—with tribes of American savages, and hordes of Tartars or Arabians, it is otherwise. But with these we have no business here.[132] The kind of international order envisioned in this passage attached a concept of civilisation to Bentham's claimed meaning of the international—with important consequences. If legislation on behalf of the world was attached to the common interest of all nations, but this interest did not in fact rest with all of them, then international legislation was not the interest of all but a

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[130] Bentham 1782, 175.

[131] Bentham 1789.

[132] Bentham 1789, 542; emphasis original.

specific normative project. The *Principles* are far from the only place where Bentham insisted on international legislation and codification qualified in such a way—even much later in 1827 he expressed his intention 'to undertake a New Vattel … grounded in the greatest happiness principle'.[133]

As mentioned, alongside his attempts to codify a positive international order, Bentham focused on overseas constitutional reform. Exporting constitutionalism was a method of international ordering with analogies in Bentham's thought on material interventions. His practical proposals thus shed additional light on the consequences of his understanding of the international. What undergirded these proposals, by contrast with constitutional reform, was a vision of removing natural obstacles to free and global commerce.[134] The textual evidence presented below warrants applying Bentham's principles of international order to non-legal contexts. My reading fits with views of Bentham as a pragmatist. Cello contrasts standard readings in IR of Bentham as an idealist with the extent to which his 'attempts to imagine ways to govern, regulate and reform political relations beyond borders were actually informed by a good dose of political realism and pragmatism.' This was reflected less in Bentham's international legal thought than in his promotion of the 'global diffusion of constitutional and representative forms of government.'[135]

Rarely taken note of, the project published in 1822 under the title *Proposals for the Junction of the Two Seas,—The Atlantic and the Pacific, by Means of a Joint-Stock Company, to be styled the Junctiana Company* (henceforth *Junctiana Proposal*) is remarkable for the idea of internationality it invokes and, by extension, its contribution to differentiating the domain of the international as characterised by technocratic impartiality. Bentham's disciple, amanuensis, and later editor John Bowring appended this draft proposal for an interoceanic canal to the *Principles of International Law*, with a brief but revealing note explaining his motivation for doing so: 'The MSS. from which the following work is taken,' Bowring commented, 'bear date from 21st to 24th June 1822, and appear to have been prepared for the press under the author's superintendence. As *the project brings out a practical illustration* of the principles inculcated in the Essays on International Law, it is conceived that the account of it will form a suitable appendix to that work.'[136]

Bentham built his proposal on a mention of the possibility of building a canal crossing Central America from the Pacific to the Atlantic, passing through Nicaragua, made by William Davis Robinson in his *Memoirs of the Mexican Revolution* two years prior to the Junctiana Proposal. In that work, Robinson referred to such a project as originally

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[133] Bentham to Henry 1827; as cited in Cello 2021, 6.

[134] See Drayton 2000.

[135] Cello 2021, 2.

[136] Bentham 1822, 561; editor's note; emphasis added.

conceived by Alexander von Humboldt. Bentham added that Robinson spoke 'of the nine several supposed lines of junction, mentioned in that universally known work: but by Humboldt, in making the number of them so considerable, physical possibility is alone taken into consideration: length of voyage in respect of time, and consequently prospect of net profit, not being taken into the account: to which latter purpose, if the reports given by Mr. Robinson are to be depended upon, the nine will be found reduced to one.'[137] Robinson had referred to three different spots at which a canal could be built: one from Porto Bello to Panama (to Bentham 'decidedly impracticable'), another from Guasacualco to Tehuantepec ('not worth a thought'), and finally a third route along a Nicaraguan mountain range. The latter, Bentham argued, would be the only one to which 'the attention of capitalists can be directed, with a view to the formation of any such company as is here proposed.'[138] To build a canal along this route, a joint-stock company was to be established to hold the lands surrounding the canal and administer eventual profits to its shareholders.

Several obligations would then apply to this company: it should pay local authorities 'in the name of purchase money for the powers of government' and indemnify 'all such individuals, original inhabitants styled Indians included, as possess any interest in whatsoever land comes to be purchased'. It should also cover all expenses



Figure 1. Direct and indirect routes of Bentham's interoceanic canal. Red lines my addition, based on *Junctiana Proposal*. Jocelyn 1856, Item G4850 1856 .G6, Library of Congress, Washington, D.C.

[137] Bentham 1822, 561.

[138] Bentham 1822, 561-562.

of communication and regulation, 'including, as well necessary fortifications towards the two seas, as necessary means of communication of all sorts, such as canals, locks, bridges, tunnels, &c.: and necessary receptacles of all sorts for vessels, such as docks, jetties, &c.'. No slavery should be permitted under any circumstances, nor should vessels with slaves on board be admitted into the territory; and the company should make public the price of transit per ton. Once opened, the canal was to perform a double role as international artifice. On the one hand, the company would 'admit vessels of all states, at the outset and forever, on exactly the same footing' and maximum tonnage permitted should be decided by mutual consent of the contracting parties. On the other hand, the territory of the canal ought to be placed under protection and admitted into the union of the 'Anglo-American United States'.[139]

Key conditions were thus the cession of territory to the company; ascription of internationality; and protectorate status under the United States. The domain-specific ascription of internationality, it is worth highlighting, served as a condition to enable transborder technical intervention. Bentham stipulated 'That the dominion so ceded have —not on both sides of it a territory belonging to one and the same government; but, on one side, a territory belonging to one government, namely Mexico,—on the other side of it, a territory belonging to another government, namely Columbia.'[140] What did Bentham mean by this? And why did it necessitate protectorate status under the United States? Bentham explained that 'For its direct object, this plan has the securing the establishment of the communication for the benefit of all nations without exception; and more particularly for the benefit of Mexico, Columbia, and the Anglo-American States; these being the three nations to which local proximity will render it in a peculiar degree advantageous.'[141] He added:

> For the sake of *peace* in general, and for the *peace* and *safety* to Mexico in particular, this proposal has therefore for its *main* object, the preventing a possession thus important to all nations, from being endeavoured to be taken for a subject of exclusive property by any nation—to preserve it from becoming a bone of contention to all nations—to preserve it from this fate, by placing it in the conjunct hands of three nations, in the character of trustees for themselves and for all others without exception.[142]

This still did not conclusively justify the protection at the hands of the Anglo-American union that Bentham had in mind. A more direct explanation, though still not entirely

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[139] Bentham 1822, 562-563; emphasis original.

[140] Bentham 1822, 563; emphasis original.

[141] Bentham 1822, 564; emphasis original.

[142] Bentham 1822, 565; emphasis original.

obvious, is that Bentham sought in the United States a third party that would be able to uphold principles of impartiality and practicability to the highest possible degree. It seems then that he feared the territory would become a bone of contention between Mexico and Colombia, a conflict not however involving the United States in the same manner. The arrangement would then have as its object 'cordial and durable amity', and:

> The infant state would behold in them its common parents. In the Anglo-American union, of whose kindness the Columbian republic has had such recent experience, and at whose hands the Mexican state has so sure an anticipation of the like kindness, they would behold a common friend, and a friend, in case of misunderstanding, whether on these or any other points; *a common referee—a referee, such as for impartiality, probity, and sound sense, has assuredly never as yet been matched in the history of nations.*[143]

This was to render practicable the principles Bentham had developed in previous years. The referee status of the United States was both representative and temporary: eventually, 'men of all occupations from all nations on both sides of the American continent, the Asiatic, as well as the European' would come to participate in the construction, administration, and governing of the Junctiana enterprise. 'Junctiana,' Bentham speculated, 'with its two principal towns, one on the Atlantic, the other on the Pacific, would present to every eye the civilized world in miniature.'[144] The enterprise had a second objective, apart from facilitating global trade—Junctiana was to become a veritable school of good government: '[H]er two great neighbours, parents as they are to her,' Bentham wrote, 'would enjoy the benefit of a common school, established under the eyes of both of them'. It would be

> an all-comprehensive school, of everything that is useful in art and science, but more particularly of those things that are most useful,—good legislation, good judicature, good government in every line. This, indeed, supposes and assumes, that the territory of Junctiana will be a member of the Anglo-American United States, and thereby, that the government will be in the only form to which that school can give admittance … for if it be in any other, nothing that is good can be answered for, on any tenable ground.[145]

The ultimate point of internationality—the designation of a territory, in the name of capitalist enterprise, as international—was to export Bentham's preferred form of government. The utilitarian goal was simple: 'the establishment of a form of

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[143] Bentham 1822, 566; emphasis added.

[144] Bentham 1822, 567.

[145] Bentham 1822, 567; emphasis original.

government, which had really for its object the greatest happiness of the greatest number of the people.' The United States should hold protector status over Junctiana for 'in Washington may be seen an institution, which has long been in the habit of taking in infant states to nurse; witness Indiana, Illinois, Alabama, Missouri: and how excellent the system of nursing is—how admirable a dry nurse the President has always been—experience has abundantly testified.'[146] This betrayed a growing distrust of how large an obstacle the problem of distance really was. Bentham had changed his mind. What he had originally thought of as imprudent and hubristic—to presume one could know remote lands well enough to legitimately govern them—now appeared in much modified light. Sure, Junctiana's distance from Europe implied 'an additional sea voyage of some days'. But 'what, if any, will be the amount of the practical inconvenience? At the utmost, it may operate as a slight deduction from the value of the benefit, but cannot assuredly ever operate as a bar to it.'[147]

Bentham's proposal was politically untimely. The 1814-15 Congress of Vienna had just established the foundations of a great power-political order disenchanted, for the time being, with republican ideals. Contemporaries did not pay all that much attention to Bentham's idea. But the fascination with interoceanic canals would remain, and Bentham's vision in many ways paralleled the French trajectory towards a Suez Canal (see Chapter III). Though Junctiana never turned real, Suez and Panama eventually did, and a Nicaraguan canal went on to capture the attention of European politics for a long time.[148] Bentham's attitude in this vein can well be characterised as '*Janus bifrons*: one face tirelessly advocating a detailed critique of the evils of colonial possessions; the other face defending a reformist dream, where the new nations were far away enough so that all reforms could be invented, sketched, imagined, whether they were or not to be realized.'[149] Bentham did not simply offer his readers 'an engineering plan, but a political and economic project within feasible engineering limits which could function as a vehicle for implementing his own ideas.'[150] The problem of distance was now merely relative.

1.3 Actors

What kind of actor did Bentham envision to play the central role in matters international? In his earlier writings, the emphasis was still fairly specific and primarily connected to a legal context. In his 1776 *A Fragment on Government*, two figures were key to the reformation of the moral world—the Expositor and the Censor. The former was

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[146] Bentham 1822, 569.

[147] Bentham 1822, 571; emphasis original.

[148] See Clayton 1987; Herrera 2018.

[149] Cot 2014, 2-3.

[150] Williford 1970, 82.

to explain what the Law was, based on facts, the latter to show what he thought the Law ought to be, based on reasons. The Expositor was thus bound to the particular empirical make-up of a given country, whereas the Censor was concerned with that which 'is in all countries to a great degree the same.' From this it results that 'The Expositor, therefore, is always the citizen of this or that particular country: the Censor is, or ought to be the citizen of the world. … To the Censor, in short, it belongs to teach that science, which when by change of hands converted into an art, the LEGISLATOR practises.'[151]

Notably Bentham here presented a cosmopolitan actor, a 'citizen of the world', endowed with the power of teaching a science that the Legislator should put into practice. At this point we do not yet know what characterises the Legislator as opposed to the Censor. We do know that to reform the world, Bentham thought, protagonist actors of the international ought to belong to it as its citizens. To grasp universals, they had to rise above the particular position of individual states. This was an important qualification of what kinds of knowledge would be needed (scientific knowledge of universals) in order to formulate apt principles upon which the Legislator of the world could then act. Bentham further fleshed out the actor of his preference in the 1782 *Essay on the Influence of Time and Place in Matters of Legislation*. Recall from above that in this text, Bentham had suggested a near-boundless reformability of the world based on the universal principle of utility: 'wherever men can live,' he had claimed, 'there they may possess a government … that will render them happy.'[152] But who should bring about this happy change? The Legislator—an actor now much more clearly characterised by an impartiality that rendered him an optimal fit for designing a better future:

> Legislators who, having freed themselves from the shackles of authority, have learnt to soar above the mists of prejudice, know as well how to make laws for one country as for another: all they need is to be possessed fully of the facts; to be informed of the local situation, the climate, the bodily constitution, the manners, the legal customs, the religion, of those with whom they have to deal. These are the data they require: possessed of these data, all places are alike. If they are more at home in their own country than elsewhere, it is only because the requisite stock of facts in the former situation is already possessed by them, without their being obliged to wait the time which, in a foreign country, it would require to seek them out.[153]

This was a discernibly technocratic innovation. In the Legislator, the Expositor and Censor blend into one, the Legislator subsuming all the Expositor's particulars, all the

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[151] Bentham 1776, 397-398; emphasis original.

[152] Bentham 1782, 175.

[153] Bentham 1782, 180-181.

data there is about a given country in order to be 'possessed fully of the facts.' This to then perform their conversion into instruments for better performing the duty of acting on behalf of the Censor's universal point of view, such that once 'possessed of these data, all places are alike.' Legislating on the basis of impartiality is specified as 'soar[ing] above the mists of prejudice' on the basis of a 'requisite stock of facts'. Finally the Legislator 'ought to be calm, collected, and temperate in well-doing: he ought to fear to enkindle the passions, and to excite an opposition which may irritate even himself.[154] Here impartiality required prudence and moderation. Bentham in this vein posited that 'indirect legislation should be preferred to direct; gentle means, to violent: example, instruction, and exhortation should precede, or follow, or, if possible, stand in the place of law.'[155] Reform was preferable to radical, abrupt, or violent change—and the impartial, prudent Legislator was its ideal carrier.

None of this implied arbitrary, violent, or despotic rule. That would be, as Pitts already warned us, a retrospective reading of Bentham through the eyes of later interpretations by J. S. Mill and others. The line that separates Bentham from the Benthamites, Pitts relates, is that what Bentham said about *legislating* did not automatically apply for *governing*. '[I]n Bentham's thought exercise,' she continues, 'the legislator who had risen above prejudice produces a system that would then be run by the people of India.' The Benthamites gave such 'impartial governors' much more leeway, 'notably John Stuart Mill in his depiction of the perfectly trained and knowledgeable technocrats who would govern India and whose ranks would only very slowly be opened to Indians themselves.'[156] If this was a matter a degree it may well not have been a real rupture. Instead we might argue that Mill simply teased out aspects already implicit in Bentham.

Bentham's conception, at this point, of the ideal actor of international order gravitated around impartiality—but only insofar as he was concerned with legislation and the viewpoint of the Legislator, not as an overarching mode of governance applicable to all aspects. Even more, Bentham understood reform as a matter of rearrangement of relations, not as the governance of some naturally given entities. In the *Principles of International Law*, this had begun to shift: the impartial actor began to appear as more than a Legislator. We can only speculate as to why exactly Bentham extended this notion. His stance on political upheaval at the time provides a partial explanation. The 1775–1783 American War of Independence was one important backdrop to the question of representation, and possibly stimulated Bentham's thinking about how to implement positive change without getting caught up in partisan battles. We know that Bentham saw the French Revolution as an opportunity to put some of his ideas into practice; after all

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[154] Bentham 1782, 184.

[155] Bentham 1782, 181-182.

[156] Pitts 2003, 216.

this was the context in which he formulated utilitarian ideas in terms of a democratic identity of interests between rulers and ruled.[157] Notably he started from a consideration of impartiality as difficult to implement. Acting on behalf of the world stood out as a complicated challenge from the onset. 'If a citizen of the world had to prepare an universal international code,' Bentham began the first essay of the *Principles*, his object ought to be 'the common and equal utility of all nations: this would be his inclination and his duty.' This begged the question: 'Would or would not the duty of a particular legislator, acting for one particular nation, be the same with that of the citizen of the world?'[158] The cosmopolitanism previously ascribed to the Censor now attached equally to the Legislator. Aiming for 'the common and equal utility of all nations' was the Legislator's 'inclination' as well as 'duty'. The Legislator's work was totally subsumed under the goal of utility. 'Expressed in the most general manner, the end that a disinterested legislator upon international law would propose to himself, would therefore be the greatest happiness of all nations taken together.'[159]

To conclude, Bentham's international thought applies much beyond the remit of international law. This is noteworthy in the context of early-stage domain differentiation, particularly in the case of the very thinker who coined the term "international." Bentham as a technocratic international thinker projected most of his basic political tenets to the international level—domestic reform had an equivalent in world reform. Utility applied to the international realm translated roughly into a preference for the beneficent option: the idea that good legislation and good governance would enable backward nations to become independent and rule themselves. Intervention, then, could with the right purposes in mind have the effect of helping others help themselves.

The actor Bentham imagined as a protagonist in practices of international order was initially the impartial Legislator, but in his post-Revolutionary writings it becomes clear that impartiality was to guide international order more generally. Merchant capitalists, stockholders of an envisioned interoceanic canal in Central America, were particularly well-suited to carry out interventions in the name of internationality. Though he did not develop the impartiality-internationality nexus much further, he had taken a glimpse at an avenue that the Benthamites would walk down further. Bentham suggested that impartiality could be squared with reform—that a universal point of view could be adopted to justify projects that would otherwise seem merely to advance state interest.

The methods Bentham had in mind were both legal (the codification of a set of principles of international law), confining membership in the international to civilised nations; and non-legal, technical methods geared towards facilitating free, global

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[157] Schofield 2006.

[158] Bentham 1789, 537.

[159] Bentham 1789, 538.

commerce. The *Junctiana Proposal* stands out as a striking, though under-acknowledged exemplar of the latter, sketching out, as Bentham's editor Bowring put it, the practical implications of Bentham's international thought. Bentham highlighted the consequences of removing world legislation and commerce from predetermined natural order, instead enabling speculation about an international domain subject to human design.

The differences between Bentham and, as we shall discuss in more detail below, John Stuart Mill, are important. And yet, 'the civilized world in miniature' and 'infant states to nurse' catered to an idiom not all that remote from Mill. The above reading of Bentham's work on international order and practical intervention into that realm has shown that the post-Revolutionary Bentham was able to disregard some of the limits he had previously placed so emphatically upon his own thought; here Bentham was indeed *both* 'defender of colonial emancipation' and 'apologist for imperialism'.[160] The limit of colonialism was softened by the benevolent option; and the limit of distance was opened up by the practicability of capitalist enterprise.

2. Impartiality and reform in J.S. Mill

John Stuart Mill was an avid reader and interpreter of Bentham. The philosophical radical, liberal reformist, and pioneering social scientist advances this chapter's history of the international's differentiation as a domain of impartiality in two ways. First, his reading of Bentham reveals a great deal about the mid-nineteenth century reception of utilitarian political thought, and should thus help us learn about Bentham's impact on nineteenth-century international thought. Second, Mill developed the denaturalised subject matter of the international further and conceptually facilitated its sealing-off as newly natural: Mill's reforms did not require an object to be first extracted from nature—Bentham had done this much already—but to sustain their authority, Mill inscribed his reformed visions of the international in his conception of the natural order of things. Mill's generation of international thinkers and practitioners was thus able to conceive of and act upon an international imagined as more cohesive, more distinguishable, and more self-evident. To this extent, with its built-in assumptions about what should count as naturally given, his international thought was inseparable from his imperial thought, adopting utilitarian principles but also taking them in new directions.[161] His concept of national character and his advocacy for international tutelage represented significant departures from Bentham's concept of reform as rearrangement (treating the international as a fluid object) in favour of reform as mastery over nature (treating the international as a fixed object).

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[160] Cello 2021, 10.

[161] See most notably Varouxakis 2013.

This subsection provides textual analysis to sketch a picture of what British technocratic international thought ended up looking like by the early 1860s. First, what principle of international order did Mill envision? As a utilitarian he still subscribed to utility, but he had more in mind for the domain of the international. He made the case for tutelage as chief ordering principle, an idea deeply rooted in imperial practices and focusing on hierarchies of national character. Second, Mill's methods of international order were enlightened despotic rule in the colonies but also benevolent intervention through technical projects such as the Suez canal. Third, the kind of actor Mill favoured to carry out the task of tutelage was an impartial practitioner, but now crucially one that had to be not only intellectually superior, by virtue of knowing the facts, but also culturally, by virtue of a degree of civilisation.

2.1 Principles

Mill developed the idea of tutelage as a principle of international order throughout his lifetime. His starting point was to fill in what he saw as gaps in Bentham's work. In the 1838 essay *Bentham*, published six years after Bentham's death, Mill waxed lyrical of one of the foremost minds of his age. Most importantly, 'the field of practical abuses … was Bentham's peculiar province: to this he was called by the whole bent of his disposition: to carry the warfare against absurdity into things practical. His was an essentially practical mind.'[162] A classifier, codifier, and systematiser of the highest order, Mill argued, Bentham however lacked real-life experience. He had done a poor job at complementing practice with actual experience of human qualities, desires, hopes. The human being had disappeared in a forest of data because of 'the incompleteness of his own mind as a representative of universal human nature' and 'his deficiency of Imagination.'[163] He was, Mill believed, a hermit inhabitant of the ivory tower, intellectually desiccated and unable to comprehend what being human was if not a combination of pains and pleasures.[164]

Mill put forth his charges against Bentham's view of international order. Bentham, he argued, held an overly idealistic notion of what other nations would be capable of. This had left him unable to concede that there may be a gradation of natural qualities and talents of different nations: 'Other ages and other nations were a blank to him for purposes of instruction. He measured them but by one standard; their knowledge of facts, and their capability to take correct views of utility, and merge all other objects in

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[162] Mill 1838, 81.

[163] Further: 'By these limits, accordingly, Bentham's knowledge of human nature is bounded. It is wholly empirical; and the empiricism of one who has had little experience. … He never knew prosperity and adversity, passion nor satiety: … He was a boy to the last.' Mill 1838, 91-92.

[164] Even a cursory reading of Bentham's *Principles of Morals and Legislation* should have suggested how intimately Bentham did in fact understand the human emotions.

it.'[165] The world could not be infinitely reformable if the capacity for reform was not distributed equally. Given this, Mill thought, something other than just spreading ideas for change had to be done; handing out leaflets, as it were, was nowhere near enough. Bentham's single standard yielded an inability to explain what would become a centrepiece in Mill's international thought—the "ethology" of national character:[166]

> That which alone causes any material interests to exist, which alone enables any body of human beings to exist as a society, is national character: *that* it is, which causes one nation to succeed in what it attempts, another to fail; … The true teacher of the fitting social arrangements for England, France, or America, is the one who can point out how the English, French, or American character can be improved, and how it has been made what it is. A philosophy of laws and institutions, not founded on a philosophy of national character, is an absurdity.[167]

National character was important to Mill because the notion did not start from the commonalities or equal footing of nations—in his opinion a naive view of the potentials of international law—but instead paid heed to the crucial differences between them. These differences could be identified and ranked by the 'true teacher' of 'fitting' arrangements for a given nation. Breaking with Bentham's minimalism, Mill specified positive ends that could overrule the primacy of the least harmful means.[168] Once the end was specified as good character—crucially a *natural* property that was now the object of reform—the subordinated means was tutelage. Nations varied according to their 'degree and kind of culture' and so they had to be treated differently, 'as a tutor gives his pupil different lessons according to the progress already made in his education.'

> The same laws would not have suited our wild ancestors, accustomed to rude independence, and a people of Asiatics bowed down by military despotism: the slave needs to be trained to govern himself, the savage to submit to the government of others. … Very different institutions are needed to train to the perfection of their nature, or to constitute into a united nation and social polity, an essentially *subjective* people like the Germans, and an essentially *objective* people like those of Northern and Central Italy.[169]

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[165] Mill 1838, 92.

[166] See Leary 1982.

[167] Mill 1838, 99; emphasis original.

[168] As Engelmann has noted, 'it is precisely moments of Benthamic liberalism and pluralism that are lost in the turn to social science, which elevates character and its education to center stage, and which substitutes an imperial technopolitics for Radical vigilance.' Engelmann 2008, 2.

[169] Mill 1859, 105; emphasis original.

One had to view institutions not in their functional quality as springboards of utility, but in their normative potentials as training sites of national character. The goal of institutionalised governance around the globe was to 'train [peoples] to the perfection of their nature'. Nature was paradoxical: it was *given* but also something that could be *perfected* by human intervention. Mill's lifelong work for the East India Company, it should be noted, suggests that the paradox was only apparent and not a real obstacle: the task of perfection could not cease to require tutelage, so perfectibility had to be understood, in the final instance, as limited by nature. This was a necessary assumption if Mill's goal was to maintain British imperial supremacy, and flatter his employer while he was at it. Effectively, these recommendations obeyed a standard of civilisation—slaves had to be trained, savages to submit to foreign rule. Imperial and international thought, to this extent, shared the same set of values and assumptions. International tutelage was Mill's response to his world of naturally different national characters.

He developed this link further in later works. The main argument in his 1859 *A Few Words on Non-Intervention*, written in response to Lord Palmerston's refusal to lend British support to building the Suez canal, was a defence of exceptions to non-intervention that rested on national character. The conscientious national character of the British imposed a duty upon the United Kingdom to endorse the canal project. 'Why should we abnegate the character we might with truth lay claim to, of being incomparably the most conscientious of all nations in our national acts? … Being in reality better than other nations, in at least the negative part of international morality, let us cease, by the language we use, to give ourselves out as worse.' Note Mill's emphasis on language while using the term 'international' in conjunction not with law, as would have been more typical for Bentham and his contemporaries, but with an appeal to morality. In effect, Mill widened the scope of the meaning of international, and with it the scope of his claim to what that domain properly contained and did not contain. The imperative of 'international morality' yielded a practical obligation: 'if we ought to be careful of our language, a thousand times more obligatory is it upon us to be careful of our deeds'.[170] Intervening in the affairs of other countries, however, depended on another criterion—reciprocity. Again, national character made the difference:

> To suppose that the same international customs, and the same rules of international morality, can obtain between one civilized nation and another, and between civilized nations and barbarians, is a grave error, and one which no statesman can fall into, however it may be with those who, from a safe and unresponsible position, criticise statesmen. Among many reasons why the same rules cannot be applicable to situations so different, the two following are among the most important. In the first place, the rules of ordinary international morality imply reciprocity. But *barbarians will not reciprocate. They cannot be*

[170] Mill 1859, 115.

> *depended on for observing any rules.* Their minds are not capable of so great an effort, nor their will sufficiently under the influence of distant motives.'[171]

The criterion of civilisation to take such a central place in a theory of international order, while still underpinned by a commitment to technocracy, represents a departure from Bentham. To base justifications for intervention on such an elusive concept, relying on assumptions about the mental capacities of different nations, even more so—with severe consequences: 'nations which are still barbarous have not got beyond the period during which it is likely to be for their benefit that they should be conquered and held in subjection by foreigners.' And:

> The sacred duties which civilized nations owe to the independence and nationality of each other, are not binding towards those to whom nationality and independence are either a certain evil, or at best a questionable good. … To characterize any conduct whatever towards a barbarous people as a violation of the law of nations, only shows that he who so speaks has never considered the subject. A violation of great principles of morality it may easily be; but *barbarians have no rights as a nation, except a right to such treatment as may, at the earliest possible period, fit them for becoming one.*[172]

This was to subordinate the means of ruling over barbarians and savages, so long as they were unfit for nationhood, over the end of improving their lot. Mill thought that the benevolent option had to be benevolent in its *ends*, not so much in the *means* it deployed —a reversal of Bentham. As Mill stressed: 'The criticisms, therefore, which are so often made upon the conduct of the French in Algeria, or of the English in India, proceed, it would seem, mostly on a wrong principle.'[173]

The principle of international tutelage found its most notorious formulation, however, in another work, the 1861 *Considerations on Representative Government*. Largely in line with *Non-Intervention*, the argument here was that a people's fitness for representative government depended on civilisation. 'A rude people, though in some degree alive to the benefits of civilized society, may be unable to practise the forbearances which it demands: their passions may be too violent, or their personal pride too exacting, to forego private conflict, and leave to the laws the avenging of their real or supposed wrongs.' This was a defence of Voltairean Enlightened despotism: 'In such a case, a civilized government, to be really advantageous to them, will require to be in a considerable degree despotic: to be one over which they do not themselves exercise

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[171] Mill 1859, 118; emphasis added.

[172] Mill 1859, 118-119; emphasis added.

[173] Mill 1859, 119.

control, and which imposes a great amount of forcible restraint upon their actions.'[174] Lack of obedience was a sure sign for such unfitness and required 'that the public authorities should be armed with much sterner powers of repression than elsewhere, since the first indispensable requisites of civilized life have nothing else to rest on.'[175]

In both *Non-Intervention* and *Considerations*, intervention was justified on the grounds of national character and its deficiencies. Superior status on such a ranking was sufficient legitimation for intervention for the sake of inferiors' improvement. Tutelage now meant, in the context of Enlightened despotism, a 'government of leading-strings'. Progress had to be 'superinduced from without.' Inferior nations had 'to be raised from a government of will to one of law'. Only a teacher-student relationship between superior and inferior nations could bring that about:

> They have to be taught self-government, and this, in its initial stage, means the capacity to act on general instructions. What they require is not a government of force, but one of guidance. Being, however, in too low a state to yield to the guidance of any but those to whom they look up as the possessors of force, the sort of government fittest for them is one which possesses force, but seldom uses it: a parental despotism or aristocracy, resembling the St. Simonian form of socialism; maintaining a general superintendence over all the operations of society, so as to keep before each the sense of a present force sufficient to compel his obedience to the rule laid down, but which, owing to the impossibility of descending to regulate all the minutiæ of industry and life, necessarily leaves and induces individuals to do much of themselves. This, which may be termed the government of leading-strings, seems to be the one required to carry such a people the most rapidly through the next necessary step in social progress. … I need scarcely remark that leading-strings are only admissible as a means of gradually training the people to walk alone.[176]

This time there was no indiscriminate licence to improve others by whatever means, including violent ones, but an explicit preference for 'guidance' over 'force'. The final

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[174] Mill 1861, 377.

[175] Mill 1861, 377-378. The passage in context: 'Again, a people must be considered unfit for more than a limited and qualified freedom, who will not co-operate actively with the law and the public authorities, in the repression of evil-doers. A people who are more disposed to shelter a criminal than to apprehend him; who, like the Hindoos, will perjure themselves to screen the man who has robbed them, rather than take trouble or expose themselves to vindictiveness by giving evidence against him; … a people who are revolted by an execution, but not shocked at an assassination—require that the public authorities should be armed with much sterner powers of repression than elsewhere, since the first indispensable requisites of civilized life have nothing else to rest on. … a people so disposed cannot be governed with as little power exercised over them, as a people whose sympathies are on the side of the law, and who are willing to give active assistance in its enforcement.'

[176] Mill 1861, 395-396.

sentence of the passage even resembles Bentham's concept of reform, allowing for the 'government of leading-strings' *only* under the condition of 'gradually training the people to walk alone', that is, intervening only in order to ultimately withdraw once an inferior nation had risen to a level of independence (and, presumably, a capacity for reciprocity as pertained to international morality). Remarkably, the thinker whose conception of technocratic governance Mill relies on here is Saint-Simon, to whom we shall turn in the next chapter. The reference is no coincidence. Saint-Simonian 'general superintendence' *was* the 'government of leading-strings', and what they had in common is crucial: the slow and uneven differentiation of a domain of the international where technocratic means and actors had the authority to impose impartial reforms.

2.2 Methods

Superior knowledge, enterprise, and practicability effectively blended into one in the international imagination of John Stuart Mill. In addition, nature had taken centre-stage in the ethology of national character; he departed from Bentham's reform as rearrangement to his own notion of reform as mastery over nature. What did this imply about his methods of international order? What he proposed was, essentially, another reconfiguration of the relationship between natural order and human agency. This rested first on a justification, similar to Bentham's beneficent option, of benevolent intervention abroad; second on a notion of fabrication as the most natural relation between humanity and nature.

First, Mill endorsed benevolent intervention in his 1859 *Non-Intervention*. This was a concrete intervention in a parliamentary debate on the question of whether or not to endorse the building of the Suez canal (see Chapter III). Its aim was to develop principles of non-intervention. Yet while the essay deplored intervention, it was simultaneously an avid defence of intervention for some greater good. A hegemon such as England, Mill argued, never ought to intervene—but it ought to aid where its help could improve the other's lot. The Suez canal, not surprisingly, was a prime example for the latter. Mill postulated an alternative to unjust intervention redolent of humanitarianism. If the end was to improve national character and hence a contribution to world civilisational progress, then surely one had a duty to intervene. *Non-Intervention* should thus be read not only as a manifesto against intervention, but also a defence of its exceptions: if 'other nations do not meddle with' England, 'it will not meddle with them.' Any interference or attempt at exerting influence over foreign peoples 'is rather in the service of others, than of itself: to mediate in the quarrels which break out between foreign States, … or finally, to procure the abandonment of some national crime and scandal to humanity, such as the slave-trade.'[177] It was a matter of 'obligation of public or

[177] Mill 1859, 111.

international morality', a higher principle that much broadened the scope of the domain of the international as compared to Bentham.[178]

Second, Mill naturalised his interventionism by rendering reform a matter of human mastery over nature. Mill thought of reform and governance primarily in terms of mastery over nature.[179] A contradiction between natural predetermination and perfectibility was bound to remain. He later tried to resolve this tension by dividing nature into two realms, such that human agency was equipped 'only with limited power': 'and the duty of man is to co-operate with the beneficent powers, not by imitating but by perpetually striving to amend the course of nature—and bringing that part of it over which we can exercise control, more nearly into conformity with a high standard of justice and goodness.'[180] As in *Non-Intervention*, in *Considerations* Mill stressed that human mastery over nature was itself a natural relation. This corresponded to an activist inclination towards the world for the sake of perfecting it: so long as 'the energy is there, some persons will apply it, and it will be applied more and more, to the perfecting not of outward circumstances alone, but of man's inward nature.[181]

Mill was describing mid-century technocratic internationalism in a nutshell. The character of the international domain as natural remained double: as *given* but also something that could be *perfected* by human intervention. This lent legitimacy to both top-down intervention from the enlightened core of civilisation, *and* to the task of maintaining a hierarchical world order understood as naturally given. Improved physical comfort, a 'continual extension of man's power over material objects' had as its end goal 'the greatest intellectual and social achievements', even the perfecting 'of man's inward nature'—the development of superior knowledge by teaching others, and the ensuring of social obedience for the basic functioning of the 'political machinery'.

2.3 Actors

If the international was ordered by tutelage, it required a specific type of actor. Practitioners were needed who stood out not merely for their impartiality but also for their cultural superiority. Mill's politics of knowledge supplied such a notion. Superior knowledge now not only had to be collected to combine facts of particulars into a general view of universals. It was also a natural consequence of superior status in the ranks of civilisation. This meant that Mill no longer accepted local knowledge to be of a better quality *per se*. The point of knowledge was instead to strengthen a claim about

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[178] Mill 1859, 114-115.

[179] Drayton 2000.

[180] Mill 1873, 402.

[181] Mill 1861, 409-410.

governance. A superior nation was required to know the national character of an inferior one in order to accommodate the former's rule over the latter to it: 'It would be a great mistake in any legislator not to shape his measures so as to take advantage of such pre-existing habits and feelings, when available.' Knowledge of inferior nations combined with 'general practical judgment and sagacity', according to Mill, served a specific function in advancing civilisation:

> A people may be unprepared for good institutions; but to kindle a desire for them is a necessary part of the preparation. To recommend and advocate a particular institution or form of government, and set its advantages in the strongest light, is one of the modes, often the only mode within reach, of educating the mind of the nation not only for accepting or claiming, but also for working, the institution.[182]

Hence the central need for superior intellect on the part of the governors. Mill's endorsement and promotion of the systematic training of East India Company officers at Haileybury College put these ideas into practice. Obviously, Mill thought, superior intellect was the key to superior government—for who on earth would prefer foolish governors to wise ones? Actors of international order further had to possess an inventive mentality intent on modifying nature: 'The character which improves human life is that which struggles with natural powers and tendencies, not that which gives way to them.' Improvement of the world required not only a particular way of understanding that globe as an independently governable, perfectible space, but also required a corresponding conception of an actor thus inclined: 'All intellectual superiority is the fruit of active effort. Enterprise, the desire to keep moving, to be trying and accomplishing new things for our own benefit or that of others, is the parent even of speculative, and much more of practical, talent.'[183]

Mill went down an avenue Bentham had opened up but still been reluctant to explore further. The implications of Bentham's 1822 *Junctiana Proposal* were those of an international of near-boundless possibilities of reform—but he understood reform as the rearrangement of social and political relations. With Mill it turned into an act of mastery over nature, obeying a duty of 'international morality' by which civilised nations ought to teach savage and barbarous peoples how to progress. As Engelmann notes, in contrast with Bentham Mill considered it self-evident 'that there is a something there to improve, with natural tendencies of its own.'[184] The ordering principle of the

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[182] Mill 1861, 379.

[183] Mill 1861, 407.

[184] Engelmann 2008, 7. On mastery over nature as a standard of civilisation see Yao 2019.

international was tutelage, rooted in imperial practices and the 'ethology' of national character. The actor tasked with tutelage had to be an impartial practitioner—not only intellectually superior, by virtue of knowing the facts, but also culturally, by virtue of civilisation. Accordingly, Mill's methods of international order were enlightened despotic rule in the colonies alongside benevolent intervention through technical projects such as the Suez canal.

3. Conclusion

Bentham and Mill were noticeably influenced by the revolutionary upheaval of their times. Bentham was enthralled by the American and French Revolutions, and much of his work can be read as an attempt to come to terms with the meaning and potentials of post-Revolutionary politics. His answer was peacefully to promote the goals of the revolutionaries. His vocal economic critique of colonialism notwithstanding, Bentham's *Junctiana Proposal* shows that he could well envision commercial protectorates under capitalist auspices. In more general terms, the former belonged to the realm of state politics, the latter to international relations. On this configuration, Bentham presented a case for technocratic international order. Mill in turn responded to revolution by embracing the liberal reformism of his time, and of which he was a major proponent, while simultaneously being steeped in imperial causes. Both thinkers tried to undergird their ambitions for reform with an impartial viewpoint: whether legislators, capitalists, bureaucrats, or engineers—the international was to be ordered by impartial practitioners, not the 'sinister interests' of politics.

Both thinkers too worked out ways to reconfigure the relationship between natural order and human agency. In so doing they endowed a technocratic, supposedly detached conception of the international as a distinct domain with specific political purposes. These purposes were geared to maintaining imperial hierarchies and exporting civilisation, but presented as a technocratic set of claims to the appropriate principles, methods, and actors of the international. For IR, three points are of particular interest. First, this chapter has carved out the grounding of authority relations in international order in corresponding conceptions of the relationship between natural order and human agency. Agency largely depends on where we believe we stand in the world, and to what extent we believe intervention in that world to be justified.

Second, this chapter also illustrated what it means to read the history of modern international thought at least partially through the prism of imperial thought. The embrace of empire entailed an extension of what counted as the natural order human agency was justified to intervene upon by technical means. This made particular practices imaginable as logically attaching to the domain of the international. Intervention in natural order by impartial practitioners could now in relatively self-evident ways take the

shape of digging an interoceanic canal to facilitate commerce and, to the same end, the shape of expropriating land and employing forced labour in nations deemed uncivilised.

Third, the international thinkers examined in this chapter blended theory and practice. They allow us to respond to the suggestion that 'it is in the relationship between international thought, international practices and international publics that the future of international intellectual history may lie.'[185] The texts examined in this chapter suggest that from the onset, speculations about international order were imagined as interventions upon it. Bentham's proposal for an interoceanic canal in Nicaragua came out of but also fed back into his international thought. Remarkably then, Mill's point of departure from Bentham, as has been noted above, was that he thought Bentham was too unpractical. The second generation, as we shall see in more detail in the next chapter, thus not only stressed the role of practice but became practitioners too.

[185] Keene 2014, 401.

CHAPTER III

The spiritual technocrats

The international thought of Saint-Simon and Chevalier

> 'Man thus, applying his intelligence to grasping the material world by which he is surrounded, … comes to diminish … the obstacles that are placed between him and the objects that he has a need for, or which here he needs to connect, there to separate, almost always to mould, so they may adapt themselves to his needs.'
>
> — Michel Chevalier, 1851[186]

The post-1789 decades, I have argued thus far, witnessed significant contestation for "the international." Claims to its scope and meaning were contrasted with the domain of imperial and great-power politics. Of course the vocabulary of the "states-system" and a balance of power continued to be in fashion; the 1814-15 Congress of Vienna reinforced this.[187] But this view of what determined the shape of world politics was met with growing discontent among republicans and radicals. To political thinkers on both sides of the debate, nothing less was at stake than basic agreement on the parameters and contours of modern international order properly so-called.

In this context, the previous chapter has brought to attention the international thought of Jeremy Bentham and John Stuart Mill. Based on their work I made a number of claims about early- to mid-nineteenth century European conceptions of the relationship between impartiality and reform. My central argument was that both thinkers reconfigured the relationship between natural order and human agency in order to make a world imaginable in which intervention could extend from an impartial point of view. Central to their project proposals, from the building of canals to the training of colonial officers, was the conceptualisation of a novel actor type: impartial agents of

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Parts of this chapter have previously been published in Eijking 2022.

[186] Chevalier 1851, 28-29. All translations from French are the author's unless otherwise stated.

[187] De Graaf 2018; Sluga 2021.

change in international order. Impartial reform emerged here as a practice that helped mask commitments to imperial expansion and transnational capitalism. My interpretation also noted a significant shift from Bentham to Mill, from reform as the rearrangement or reorganisation of universal features, with the international denaturalised as a *fluid* domain, to the governance of natural difference based on an international re-naturalised as a *fixed* domain geared towards the pursuit of normative goals now built in as givens.

In what follows I expand this intellectual history by turning to the French context unfolding roughly at the same time. A contemporary of Bentham's with a comparable outlook, engaged in a comparable project but with a distinct influence on political practice, was the spiritual technocrat Henri de Rouvroy Comte de Saint Simon (1760-1825). His devotee Michel Chevalier, known in IR for his contribution to the first modern international trade agreement, the 1860 Cobden-Chevalier Treaty, carried his intellectual godfather's torch into new depths as he distilled the more palatable and influential aspects of the latter's thought. The main argument of this chapter is initially the same: only once the international had come to be viewed as a separate realm conformable to human agency was it possible to theorise and experiment with a role in global governance for technical experts with scientific credential. Like the British utilitarians, Saint-Simon and the Saint-Simonians too reimagined the relationship between human agency and natural order—and again, the goal of reform shifted from the rearrangement or reorganisation of universal features (Saint-Simon) to the governance of natural difference (Chevalier).

Yet Saint-Simon's assessment of the consequences of 1789 produced different results. The problem the revolution had posed, in his eyes and influenced by Joseph de Maistre's widely-read 1797 reactionary critique, was a reopening of old questions of authority and obedience.[188] What to do with the rising popular masses? How to content them whilst ensuring the progress of society? While Bentham's answer was publicly accountable constitutional reform, Saint-Simon's was leadership by an avant-garde of experts. Both favoured reform over revolution; but where Bentham emphasised government by example, Saint-Simon thought progress might require coercive means. His devout disciple Michel Chevalier, in turn, followed this latter implication further whilst fervently promoting a Saint-Simonian technocratic internationalist agenda—its tenets having become so intuitive today that they go largely unmentioned as IR legacy.

As before, of each thinker the chapter asks three questions: what *principles* of international order did they develop; what *methods* of international order did they prefer; and what *actors* of international order did they envision? The chapter proceeds in three sections. The first advances my reading of Henri de Saint-Simon as a technocratic international thinker. In parallel to Bentham, Saint-Simon developed a conception of

[188] De Maistre 1797. For the influence of de Maistre on Saint-Simon see Armenteros 2011; Lebrun 2011.

leadership by technocrats. Many elements in Saint-Simon echoed Bentham and philosophical radicalism more broadly. Saint-Simon departed from Bentham to the extent that he specified utility as industry (understood as the opposite of idleness) and embedded this in a teleological philosophy of history. These departures, respectively, supported a less liberal and more authoritarian commitment to a politics of knowledge that was 'pacifying' in both senses (against war and against revolution) of the word. Both focused on superior knowledge as the chief justification for technical intervention abroad, driven by an emphatically positive assessment of the commercial and social benefits brought on by industrial enterprise. Crucially, and even more strongly than Bentham and others at the time (see introductory chapter), Saint-Simon articulated the domain of the international against the states-system and the balance of power.

The second section then turns to Michel Chevalier. Chevalier synthesised Benthamite and Saint-Simonian tenets into a remarkably flexible idiom of technocratic internationalism. Its flexibility can be read, I argue, as a key reason for why Chevalier's model for how to differentiate the modern international and authorise its technocratic agents was ultimately more successful than Mill's. Chevalier articulated an agenda that blended impartiality, practicability, and the greater international good into a vision of fabricating the globe by means of an expert vanguard. This vision was on the pulse of time: its ambition was practically compatible with free-trade liberalism. Chevalier's influential yet vastly underestimated role in nineteenth-century international relations—both in the shape of private industrial enterprise and public international cooperation—attests to the success of his views and projects.

The third section compares all four thinkers studied so far. I advance a historical and a theoretical argument. Historically, Saint-Simon had read and admired Bentham; Mill was a reader of Saint-Simon, his theory of Enlightened despotism explicitly referencing the latter's work; and Chevalier was a staunch advocate of Mill's radicalism in France. Theoretical commitments they shared or disagreed on tell us a great deal about how they thought to differentiate the modern international: they reconfigured the relationship between natural order and human agency, each of them equipping technocratic internationalism with highly normative content. The shift from Bentham and Saint-Simon to Mill and Chevalier, I argue in conclusion, is best understood as a shift from an understanding of reform as rearrangement of universal features to a naturalist understanding of reform as the governance of natural differences.

1. Impartiality and reform in Saint-Simon

Henri de Rouvroy Comte de Saint-Simon (1760-1825) was a persistent advocate for a technocratic conception of world politics. Most notably in his widely-read *De la Réorganisation de la Société Européenne* (1814/15), co-authored with Augustin Thierry, he urged the Congress of Vienna delegates to pursue a harmonious international order led

by scientists, engineers, and savants—the solution to the supposed perils of a 'Westphalian' state-system beset by constant rivalry. Saint-Simon's disciples went on to become leading exemplars of this vision: whether the banking innovations of Olinde Rodrigues, the Pereire brothers, and François Arlès-Dufour;[189] Henri Fournel's reports on mining prospects in Algeria;[190] Charles Lambert's work on the Suez canal; Michel Chevalier's campaign for a Channel tunnel; the 1860 Cobden-Chevalier free-trade agreement; or the involvement of several Saint-Simonians in Frédéric Passy's 1867 *Permanent League for International Peace*.[191] One historian has called Saint-Simon the 'utopian precursor of the League of Nations';[192] another characterises him as theorist of 'a capitalist International'.[193] This all begs the question: what exactly did Saint-Simon's international thought consist of?

So far IR has seriously underestimated the importance of this thinker. E. H. Carr's 1939 classic *The Twenty Years' Crisis*, adopting Friedrich Engels' history of socialism, describes Saint-Simon as a 'utopian socialist' who 'made unverified assumptions about human behaviour and … drew up visionary schemes of ideal communities'—his work having been 'the product not of analysis, but of aspiration'.[194] A few years on, Hans Morgenthau offered a more nuanced reading: 'Saint-Simon meant to reorganize European society', he wrote in *Scientific Man vs Power Politics*, 'by connecting through canals the Pacific with the Atlantic, Madrid with the sea, the Danube with the Rhine, the Rhine with the Baltic.' He pointed out that 'Saint-Simon recommended congresses of scientific societies as a means of promoting international peace. In practical application of this idea, private and public conferences of an international character preceded and accompanied the liberal era of international relations'.[195] Neither Morgenthau nor any other IR scholar has explored this much further.[196]

Instead, reducing Saint-Simon to one more voice of liberal internationalism seems to have contented most. But this was neither a straightforward liberal nor an outright conservative—and yet a bit of both. Saint-Simon complicates extant histories of modern international order insofar as he reimagined the relationship between human agency, the driving force of reform, and natural order, its object. Central to his thought was the role of savants, whom he saw as harbingers of social and political change.

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[189] Davies 2016.

[190] Alleaume in Régnier 2002, 305-26.

[191] Pilbeam 2014; Drolet 2015, 2018.

[192] Polinder 1943; Swedberg 1994.

[193] Yonnet 2004, 26.

[194] Carr 1939, 7-8; Engels 1886.

[195] Morgenthau 1947, 75-6.

[196] Notable exceptions: Mazower 2012; Kaiser/Schot 2014; Steffek 2021.

Influenced by the French radical Enlightenment, particularly the *philosophes* and the *encyclopédistes* who considered scientific knowledge the foundation of social order, Saint-Simon grappled with the question of political authority after 1789. The problem the revolution had posed in his eyes, influenced by Joseph de Maistre's reactionary critique, was a reopening of old questions of authority and obedience.[197] How to content society whilst ensuring industrial progress? To Saint-Simon, as to Voltaire before him, a desire for progress was bound up with a demand for social control.

Saint-Simon tends to be remembered as a pioneer of socialism[198] or a second-rate figure in the history of sociology[199]—rarely as a key figure in modern French international thought. Readings of his work through the lens of emerging technocratic international thought are nearly absent.[200] This is although Saint-Simon's life and work strongly support such an interpretation. At the beginning of the nineteenth century, first in an anonymous 1802 pamphlet written in Geneva (*Lettres d'un Habitant de Genève*), then in a series of journals (*L'Industrie* in 1816, *Le Politique* 1818-19, and *L'Organisateur* 1819-20), he developed a concept of leadership by savants and *industriels*. In contrast with claims he was a socialist, many elements of his thought can be tied to philosophical radicalism, radical strands of the French Enlightenment, and radical republicanism—chief among which his commitment to the voluntarist idea that 'a reformed humanity would not come about spontaneously, but required mobilization and collective action'.[201] Saint-Simon stressed utility, commerce, and industry as normative goals; but he specified utility as industry and subscribed to a teleological view of history—a notion alien to conjectural histories of law dominant among readers of the Scottish Enlightenment such as Bentham.[202] Jointly these departures favoured industrial progress and social hierarchies over equality: stable order and rule by the wise mattered more than levelling.[203]

Saint-Simon had witnessed dramatic changes to French politics, protracted warfare, and the transition of his country from absolutism to industrial modernity. These experiences were key to his thought, much of which he framed as a response to forces that destabilised social order: revolution, war, and the domination of the *oisifs*, those who ruled from inherited authority. In their stead, though in important ways subscribing to

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[197] De Maistre 1797; see Armenteros/Lebrun 2011, 30-3; Wilson 2011.

[198] Engels 1886; Hayek 1952.

[199] Aron 1965; Ansart 1970.

[200] Exceptions are Mazower 2012; Kaiser/Schot 2014; Steffek 2021. The classic case for Saint-Simon as a technocrat remains Carlisle 1974.

[201] Hazareesingh 2020, 4.

[202] See Pitts 2003.

[203] To Hazareesingh, Saint-Simon was 'not overly preoccupied with the question of equality' and committed to 'industrial expansion' and a 'belief in legitimate social hierarchies.' Hazareesingh 2020, 7.

the fundamental premises of 1789, Saint-Simon sketched out a project combining organic unity with universal peace and merit. Each of these were inseparable from his understanding of international order: they had to be its very foundations. Before the Saint-Simonians' rise to prominence in the engineering milieu of the new École Polytechnique, there was an intimate connection in Saint-Simon's political imagination between radical social thought and transnational reform by means of technical intervention. This speculative impetus came to life in particular when Saint-Simon met Auguste Comte, whom he employed as secretary for some time. Positivism and Saint-Simonian international thought saw the light of day in a twin birth.[204]

In this subsection, I first sketch out Saint-Simon's principle of rule by superior knowledge as the basis for the reorganisation of society, and its application to international order; second, the methods Saint-Simon favoured for pursuing this principle; and third, the type of actor he consequently endorsed. Based on a close reading of primary texts IR has thus far paid little to no attention to,[205] this chapter introduces Saint-Simon as an international theorist who developed an influential actor type: impartial, knowledge-based agents of international change. He modelled such arbiters of specialist knowledge first on scientists, then on engineers. My reading suggests that Saint-Simon is unduly neglected and a key figure in the history of technocratic internationalism, and that by extension a crucial contributor to early-stage differentiation of the international as a domain of impartiality.

1.1 Principles

A central concern spanning across Saint-Simon's work was with the theoretical requisites and practical conditions for rule by superior knowledge in a reorganised post-Revolutionary Europe. His perspective was transnational from the start, not least since his life had been marked by border-crossing, whether on Lafayette's 1780 military mission to America or as intellectual émigré writing from Geneva. One of his first writings on the politically restorative power of knowledge, the anonymous 1802 *Lettres d'un Habitant de Genève*, started to sketch out what would become basic principles of his international thought.

Foremost among them was the premonition of a coming rule by physiologists. Their congregation in a 'council of Newton' would form the basis of the only form of government that could ensure social order in an age of scientific progress. At the heart of the proposal was a push for purging belief and embracing positive science. 'The physiologists,' he wrote, 'must expel from their midst the philosophers, moralists, and

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[204] Pickering 1993.

[205] Research is based primarily on the *Œuvres Complètes de Saint-Simon*, 4 vols. (ed. 2012), and supplementary materials accessed via the digitised archives of the Bibliothèque Nationale de France. See bibliography.

metaphysicians, as the astronomers have expelled the astrologers, and the chemists the alchemists'. Prestige and wealth should henceforth be in the hands of the Enlightened—leaving unspecified whether this meant that the latter should automatically receive the former, or only those who had prestige and wealth could be eligible for Enlightenment to begin with. As an early prototype of a project Saint-Simon would promote throughout his life, the *Lettres* placed emphasis on a connection between science and benevolent authority. Science was discovery, and discovery was progress—so progress had to be steered by scientists themselves.[206]

Saint-Simon also incorporated a rudimentary notion of international hierarchy into this picture, distinguishing between 'educated' and 'ignorant' nations, with the 'Turks' as an example of the latter.[207] As Swedberg has pointed out, the *Lettres* proposed something 'truly international in character', juxtaposed to the 'egoism' of states. International order would come as a union of all enlightened peoples, but only *European* peoples would qualify: Saint-Simon dismissed 'Negroes' as 'bloodthirsty' and 'Asians' as 'indolent.' These racist underpinnings of course implied a fixed international hierarchy: 'negroes' would never be enlightened given their 'basic physical structure'.[208]

Saint-Simon next wrote a meta-history of science in which he further fleshed out the Eurocentric link between science and progress. His 1808 *Introduction aux Travaux Scientifiques du Dix-Neuvième Siècle*, the first text published under his name, articulated a theory of scientific progress through crises. Systems of fundamental belief would succeed one another only by passing through phases of crisis, breakdown, and transition. At the unsurprising pinnacle of this history of science stood the nineteenth century. Reflecting a paradox that would survive him and haunt his successors, Saint-Simon saw the passage from one phase to the next as both a natural development, and thus inexorable, *and* in need of correct perception and steering by an epistemic elite. History was a natural, predetermined progression but still needed agents to hasten it. Technical experts were to be such agents. The corresponding history of science went as follows: in the seventeenth century, physiologists had undermined the theologians when Cartesian methodical doubt emerged as the preferred way of overcoming superstition.[209] In the eighteenth century, the world witnessed the triumph of the *encyclopédistes*, a 'resounding victory won by the *savants novateurs* over the clergy that had defended the old system'.[210] This was victory, and it was these 'innovative savants' who had heralded the new age as they had emerged victorious over the defensive clergy of the old system.

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[206] Saint-Simon 1802 in *Œuvres Complètes de Saint-Simon* (henceforth *OCSS*), vol. 1, 117-18.

[207] Saint-Simon 1802 in *OCSS*, 1, 108.

[208] Swedberg 1994, 147-48.

[209] Saint-Simon 1808 in *OCSS*, 1, 240.

[210] Saint-Simon 1808 in *OCSS*, 1, 297.

A more systematic outline of the underlying logic of history emerges in the 1813 *Mémoire sur la Science de l'Homme*. Here Saint-Simon proposed a general theory, building on the works of anatomists Vicq-d'Azyr and Bichat, physiologist Cabanis, and mathematician-philosopher Condorcet, in which a 'priesthood of knowledge' remedied crisis at each transitory moment in history, ultimately to restore order. Arranging for and organising a 'general theory of the sciences, both physical and moral, based on the idea of gravitation regarded as the law to which God has submitted the universe, and by which He rules it' was possible, Saint-Simon proclaimed.

> As soon as there is a theory corresponding to the [current] state of enlightenment, all shall return to order. The common institution of European peoples will re-establish itself, and a priesthood adequately educated according to the present state of knowledge will promptly return tranquility to Europe by restraining the ambition of peoples and Kings.[211]

The ambition of kings here may have reminded readers of Shakespeare's *Macbeth*, famous for the perils of ambitious sovereigns, or perhaps of John Webster's seventeenth-century poem *All the Flowers*: 'Vain the ambition of kings / Who seek by trophies and dead things / To leave a living name behind, / And weave but nets to catch the wind.'[212] Saint-Simon juxtaposed ambitious kings pursuing power politics to his own vision for a 'return to order' through a 'common institution of European peoples'. Though Saint-Simon did not yet use the term *international*, which entered French usage with some delay, a basic conception of international relations did clearly undergird his vision for how to reassemble the fragmented social order: 'national organisations are particular applications of general ideas about social order, and the reorganisation of the general system of European politics will lead to the national reorganisation of different peoples who, by their political union, form this great society'.[213] Once the 'general system'—'positive science', which alone could produce and maintain social cohesion in the way religion had done in the past—had 'ameliorated the institutions of general politics', then 'national politics are necessarily perfected'.[214] Saint-Simon hinted at what ought to be done to enable a stable future Europe: order could be regained by establishing a European institution complete with a 'priesthood' of knowledge.

The central guiding principle for a stable international order, Saint-Simon thus thought at this early point in his work, had to be the restoration of social, cultural, and spiritual unity by means of political leadership by savants. Crucially, Saint-Simon

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[211] Saint-Simon 1813 in *OCSS*, 2, 1225, 1226.

[212] Webster in Grierson/Bullough 1934, 204-205.

[213] Saint-Simon 1813 in *OCSS*, 2, 1075.

[214] Saint-Simon 1813 in *OCSS*, 2, 1076.

emphasised unity and industrial-scientific progress over equality. In fact, as we shall see below, he was deeply committed to upholding and indeed promoting social hierarchies based on property, civilisation, and race.

1.2 Methods

Consistent with these premises, in the following year Saint-Simon began outlining the methods he favoured to render leadership by the priesthood of knowledge a workable solution for international politics. In the words of French historian Pierre Musso, from this point on Saint-Simon began to 'think and analyse the tools of political action, to conceive and organise the passage from one social system to another'.[215] To this end he proposed nothing less than the creation of a pan-European political institution. Together with his assistant Augustin Thierry, the later renowned historian and romantic liberal, in 1814 he published *De la Réorganisation de la Société Européenne*. Its subtitle—'Of the necessity and means of uniting the peoples of Europe in a single body politic, conserving in each its national independence'—invoked Saint-Simon's deterministic philosophy of history but also signalled his definitive turn to internationalism, prompting one historian to liken reading this work to 'reading [Jean] Monnet'.[216]

The text is notable because its authors advanced, for the first time, specific structural reforms and institutional innovations to lay out the methods of a future industrial society.[217] Similar ideas were circulating more widely in France at the time, and it would be an overstatement to claim that Saint-Simon invented them. His well-known contemporary Benjamin Constant published *De l'Esprit de Conquête et de l'Usurpation* at around the same time, in which he too argued that industry would bring peace—jointly with a call for European unity. Saint-Simon's proposal distinguished itself, however, by the clarity of its practical instructions and its broad call for leadership by *industriels*, in contrast with Constant's general gesture towards a link between commerce and peace.[218]

The first edition of *Réorganisation* was released to coincide with the opening of the Congress of Vienna—reorganisation as a principle of internationality directly targeted, as it were, the great power politics of the states-system. Prince Klemens von Metternich met Europe's ambassadors starting in November; the first print of *Réorganisation* was dated October 1814. The opening lines of its preface admitted that 'This work has been hastened by the circumstances' and already announced a second

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[215] Musso 1999, 47.

[216] Delors in Rougemont [1961] 1990, v.

[217] Swedberg 1994, 153.

[218] Constant 1813; see Swedberg 1994, 165-66.

edition.[219] Supposedly each delegate to the Congress of Vienna received a copy of the book, though there is no evidence that any of them actually read it.[220] In France in the meantime it did receive a good deal of attention and was fairly well-received by the press. A second edition was published shortly thereafter at the start of the Hundred Days upon Napoleon's return from exile on the island of Elba in March 1815, this time addressed to Napoleon himself. Henri Fournel later remarked that his fellow Saint-Simonian Olinde Rodrigues had been in possession of a letter by Saint-Simon to Tsar Alexander II, which he supposed to have been a part of the second edition's revised introduction. Whereas the first edition was an appeal to the group of delegates assembled in Vienna, then, the second urged individual leaders to take the lead in bringing about industrial society. It had notably been altered under a strict royal censorship regime introduced in the meantime. Saint-Simon added a note to several copies of this edition, pointing out that it 'could not be reprinted without being submitted to censorship. The censors have altered passages and added others according to their fancy, we have restored by hand what they had disfigured and removed what they had added.'[221]

Saint-Simon took pains to censor the censors, sticking paper strips on top of their additions and manually putting back in what they had redacted out. Three censored passages are worth highlighting for what they reveal about the reactionary response of Louis XVII's restoration regime to the text: first, a passage in which Saint-Simon argued that 'one could say with certainty' that the French Revolution was not yet completed. A note of caution was added to the word 'certainty'. A second passage was redacted in Chapter VI on the 'causes of a new revolution in France'. Here the censors removed a half-sentence stating that 'among so many contrary interests, so many opposed pretensions, a general cry arises: regret for the past and dissatisfaction with the present.' Third, a passage in Chapter VII in which Saint-Simon characterises Louis XVII as an impulsive and indecisive man was censored too.[222] The message, it seemed, was that the pamphlet might provoke another revolution.

Applying his theory of change to his own century, the work presented the outlines of Saint-Simon's principle of rule by superior knowledge applied to a redesign of politics. Key was the concept of reorganisation, wholly in the spirit of rupture and opportunity that the end of Napoleonic France and the restoration of Europe under the Vienna order stood for. It was no coincidence that this concept combined counter-

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[219] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1246.

[220] Swedberg 1994, 152.

[221] Quoted in OCSS, 2, 1240.

[222] Grange/Musso/Régnier /Yonnet 2012 in *OCSS*, 2, 1284-1287.

revolutionary reaction with organicist social thought.[223] Notably the transition Saint-Simon now had in mind was from revolution to organisation, from disarray to order. This was meant to bring about spiritual unity, an aspect Saint-Simon would considerably expand upon in his later *Le Nouveau Christianisme* (1825), his most definitive work in the eyes of his more sectarian disciples.[224] The preface to the 1814 edition of *Réorganisation* proclaimed that

> The march of the human spirit, this need for general institutions that makes itself felt so imperiously through the convulsions of Europe, all of it tells me that the examination of the great political questions will be the goal of the work of our times. *The philosophy of the last century was revolutionary; that of the nineteenth must be organising.* … Social order has been upset, because it no longer answered to Enlightenment; it is up to you to create a better one: the body politic has been dissolved, it is up to you to reconstitute it.[225]

Saint-Simon's declaration here can be read as politically opportunist: to reconstitute the body politic in the name of human spiritual progress was, after all, the order of the day. But Saint-Simon and Thierry saw this as a confirmation of their own understanding of the laws of historical change. Transitioning from revolution to organisation was, in this light, the enabling condition of reconstituting the European body politic. The emphasis on philosophy was about more than providing overarching moral purpose: it was part of Saint-Simon's strong endorsement of benevolent absolute rule by superior knowers. Their merit was knowledge as opposed to blood relations. But reform was more promising than revolution, for only it could bring progress through knowledge, the path to utility.[226] What Louis XIV, Catherine the Great, and Frederick the Great had all had in common was a commitment to the common good that only superior knowledge can secure. And thus, the 1814 edition of *Réorganisation* boldly asked, with an obvious nod to Vienna: who would be next in that glorious line of succession?[227]

The principal method Saint-Simon proposed to move from disarray to a new organic state was an Anglo-French coalition that would enable pan-European union. 'This union is possible because France is free and so is England; this union is necessary, for it only can ensure the tranquility of both countries, and save them from the ailments that threaten them: this union can change the state of Europe, for England and France

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[223] Saint-Simon here drew heavily on the physiology of Cabanis, Bichat, and Vic d'Azyr, who similarly saw the reorganisation of knowledge as a chief goal. See Haines 1978.

[224] Saint-Simon/Thierry 1825 in *OCSS*, 4, 3167-3226.

[225] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1247; emphasis added.

[226] See Bellet 2009.

[227] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1248.

united are stronger than the rest of Europe'.[228] Such a union would be a way to overcome the warmongering that had originated in the 1648 'treaty of Westphalia' which had 'established a new order of things by way of a political operation that is called *balance of powers*.' Westphalia, they insisted, had but 'created war and constitutionally maintained it, for two parties of equal force are necessarily rivals, and there are no rivalries without wars.' Indeed, 'since the treaty of Westphalia, war has been the habitual state of Europe'.[229] Harmony had to replace rivalry. Only organic union could fulfill this need.

In the first book of *Réorganisation*, Saint-Simon and Thierry sketched out why they thought the parliamentary form of government was the ideal foundation for a pan-European union. General interests had to supersede particular interests, a task parliamentary government was best equipped for. This was an important foundation for Saint-Simon's international thought, as the structure of the argument reveals:

> Austria will seek to persuade [others] that it matters for Europe's stability that she obtain in Italy a great preponderance; that she maintain Gallicia and the Illyrian Provinces; that her supremacy over all of Germany be returned to her; Sweden will establish, a geographical map in hand, that nature wills that Norway be in her dependency; France will reclaim the Rhine and the Alps, as natural borders; England will claim to be in charge, naturally, of policing the seas, and will want that others regard the despotism she practices, as the most unshakeable fundament of the political system.[230]

Saint-Simon saw this as the fundamental problem of international politics: each nation strove to promote its particular interests at the others' expense. Something else had to come in the place of such quarrels, a mechanism that could stand above it. Saint-Simon warned those enamoured with the states-system and its congress diplomacy: 'Assemble congress after congress, multiply treaties, conventions, accommodations, none of what you do achieves anything but war, you will not destroy it, you can at most make it change location.' There was but one path to peace and stability: 'For any congregation of peoples, as for any congregation of men, common institutions are needed, an organisation is needed: apart from that, everything is decided by force'.[231] Establishing such a body depended on practicable principles and methods. The architects of the Vienna system needed to recognise the importance of this.

For a blueprint one had to look not to the Abbé de Saint-Pierre, but further back to the veritable priesthood of knowledge that was the fourteenth-century papal order. A

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[228] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1251-1252.

[229] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1249; emphasis original.

[230] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1254.

[231] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1255.

religious blueprint for thinking about science-led international order is an odd choice unless we consider Saint-Simon's intention: spiritual unification as the end to which the borderless force of science was the chief means. A theology of international order was fundamental to rearranging it in the name of science. Impartiality beyond borders was a principle for which science was most suited by its very nature, but a stable international order still required spiritual unity. Contrary to present-day understandings of technocracy as the hyper-rationalist rule of bureaucrats, its choice of clerical imagery shows Saint-Simonian technocratic internationalism's firm reliance on spiritual underpinnings.

The four overarching principles of fourteenth-century papacy were, in Saint-Simon's view, systematic homogeneity at each level of government; independence of general from national government; a general viewpoint of those in the general government; and responsiveness to public opinion. Saint-Simon concluded: 'The papal organisation was founded on these principles and that is what made it useful. But the ignorance of the times had not permitted putting these principles to good use, and that is what rendered her vicious'.[232] Benevolent authority, based on this, was a combination of organisation, independence of general (international) from particular (national) interest, and the opposite of ignorance: superior knowledge.

To establish this kind of government, the scientific method had to be introduced to questions of politics. 'The method of the sciences of observation must be applied to politics; reasoning and experience are the elements of that method'. And 'Up until this point the method of the sciences of observation has not been introduced in political questions; … [which is why] as yet we have had neither precise solutions, nor general results'.[233] This required two steps: synthesis and analysis. First, the ensemble of objects would be examined conjointly, *a priori*; second, matter was to be decomposed so as to observe it in its details, *a posteriori*. Results from one would be verified by the other. This reciprocity also determined how levels of politics related: the general interest of the nation vis-à-vis the particular interest of members of society; and by the same token the general interest of a European organisation vis-à-vis the particular interests of nations.[234]

1.3 Actors

Saint-Simon's international thought thus stressed agency throughout. He may never have resolved the tension between reform and predetermined history, but he did present a powerful case for a scientific avant-garde inaugurating the future. Saint-Simon then

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[232] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1259.

[233] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1267, 1260.

[234] Later thinkers like Chevalier would replace the notion of 'general interest' with that of internationality. This compares to Bentham's emphasis, and that of the utilitarians more broadly, on a 'generality of views', equally alluding to an impartial justification for political power. See Engelmann 2008.

argued *from* a natural condition for ways of overcoming it. Nature had given humanity the tools to know it, and therefore to master it by speeding up the (natural) course of human progress. Mastery of nature by virtue of knowledge required a particular type of actor. This actor would have to be able to accumulate, assess, manage, and utilise the wealth of information required for true acquaintance with, and objectification of, the world. An actor thus equipped had to be impartial. They were epitomised, Saint-Simon thought, in the *industriel* or the industrious producer and generator of wealth. Developing an idea of industrialism that opposed the industrious to the idle, Saint-Simon's international thought ran in parallel to early forms of utilitarianism and a vocabulary that exerted lasting influence over French political thought.[235] Reflecting this, a European organisation as laid out in *Réorganisation* would work in a parliamentary Chamber of Deputies whose members should have general views to be able to speak on behalf of the common European interest, admitting only

> those men who, by virtue of the most extensive relations, of the habits least circumscribed by the circle of native habits, of those works the utility of which is not limited to national use, and spreads to all peoples, are more capable of coming soon to this generality of views that must be the *esprit de corps*, the general interest that must be the interest of the body of the European Parliament. Only merchants, savants, magistrates and administrators should be called upon to make up the Chamber of Deputies of the Great Parliament.[236]

Why only merchants, savants, magistrates, and administrators? Because these would be the most impartial knowers of the world. It was them, after all, who entertained the most far-reaching relations, and their habits were the least limited by the confines of 'native habits'. This was a class of people most inclined to have in mind the utility of their works not merely for their own nations but for all peoples. Theirs was an international disposition, and for that reason—a consequence Saint-Simon notably considered obvious—theirs was a most 'general' point of view. Of course, strings were attached. One delegate of each of the four sectors per one million inhabitants, nominated for ten years, would sit in the General Parliament granted they own a minimum of 25,000 Francs in

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[235] Though Saint-Simon did not coin the term '*industriel*' he did much to advance and precision its meaning. After *Réorganisation* it formed a thread throughout his *œuvre*, and in 1821 he even commissioned Rouget de L'Isle, the famous author of the *Marseillaise*, to write a hymn dedicated to the *industriels*. Swedberg 1994, 159. For usage of the term across Saint-Simon's work see Saint-Simon 1817/18 in *OCSS*, 2, 1417-1728; Saint-Simon 1821 in *OCSS*, 3, 2323-2632 and 4, 2753-2791; Saint-Simon 1823/24 in *OCSS*, 4, 2861-3016.

[236] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1270.

land rents.[237] This only, though, for as long as enlightenment remained tied to landed property, which Saint-Simon considered regrettable. An additional provision to mitigate this was to include 'non-owners distinguished by exceptional merit' and pay them the respective sum so that 'talent and ownership be undivided, for talent, which is the greatest force, and the most active force, would soon invade property if they would not be united'.[238] His preference for superior knowledge notwithstanding, what Saint-Simon implied was rule by educated, property-owning, bourgeois men with a small provision for meritocratic access to rule; and even merit of course extended from a distinction hardly attainable without certain means.

A glance just a little underneath the surface of such industry- and science-led restoration reveals more than the reformist projections of someone enthused by the promises of technological progress. One confronts a much weightier normative subscription; early forms of technocratic internationalism implied more than leadership by a technical-scientific elite. They were bound up with elitist visions of domestic order on the one hand, and imperial visions of international order on the other. Saint-Simon did not endorse this fully, but he did open up avenues others would tread to their conclusions. For why exactly did Saint-Simon want to advance the cause of European progress? To restore, he assured his republican readers, national glory. There was no contradiction but indeed a complementarity between nationality and internationality. But what better way, Saint-Simon added, of restoring glory than to advance that which Europe's nations claimed to stand for: civilisation? Was there not a legitimate yearning in French society for restoring not only social order but imperial grandeur as well? After all:

> All classes of society, all French people, speak out against the weakness the government has shown in letting Belgium be taken; one sees with spite Austria being extended by a part of Poland and the Illyrian provinces; Russia by Crimea, Finland, and vast possessions in Asia; Prussia, by Silesia, and a part of Poland; and France humiliated, weakened, reduced to her old borders.[239]

Best to let France lead the way, alongside Great Britain, in establishing a scientific order for a reorganised Europe. Even more, Saint-Simon also envisioned a racialised internationalism as one of the obligations of a European organisation once established. A note in Book II, Chapter V, of *Réorganisation* on 'interior and exterior action of the Great Parliament' offered a glimpse of what kind of project was implied in this respect:

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[237] In absolute terms today's equivalent would be roughly 177,450 Euros; relative to labour power, this is closer to 4.8 million Euros. Based on the historical currency converter, Edvinsson 2016.

[238] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1270-1271.

[239] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1286.

> Without activity outside, there is no tranquility within. The surest means of maintaining peace within the confederation will be to it out of itself ceaselessly and to keep it relentlessly busy with great works within. To populate the globe with the European race, which is superior to all other races of men; to make it navigable and habitable like Europe, that is the undertaking by which the European Parliament will have to continually exercise the activity of Europe, and always keep it in suspense.[240]

This was a clear statement of the normative outlook of Saint-Simon's technocratic internationalism. To people the globe with the superior 'European race' was the point, to which end it had to be made 'like Europe'. Consistently, Saint-Simon stressed the role of national character (a concept later revived by J. S. Mill; see Chapter I) in a hierarchical international order. A nation could find itself in three different states: under arbitrary government, 'happy in servitude'; risen to mid-level 'through philosophical enlightenment and the nobility of feelings'; or in a third 'and without a doubt the best' state of self-government in which 'anyone can be a member, if they are worthy of it; putting to use all one's care, one's work, one's knowledge'.[241] Saint-Simon's proposal was deeply Eurocentric. Notably its core components were nations as cultural-racial units striving for self-mastery, not states and rulers in the pursuit for power.

This motif would reappear in his later work. After the journal *Le Politique* ceased publication in May 1819, Saint-Simon advertised a new journal in Benjamin Constant's liberal paper *Le Minerve*. It launched in August of the same year. Redacted in part by Auguste Comte, *L'Organisateur* (1819-1820) appeared as fourteen serially published letters to 'fellow citizens' with the chief goal of promoting and developing the idea of the coming 'industrial society'. In unmistakably Comtean phraseology equated with a 'system of positive politics', this new society would be governed by a parliament dividing its labour across three chambers: a 'chamber of invention' for engineers and artists, a 'chamber of examination' for savants, and a 'chamber of execution' for *industriels*. *L'Organisateur* is notable for winning Saint-Simon a readership and attention outside of France.[242] The infamous 'parable' of its first letter provoked debate: suppose, Saint-Simon wrote, that France suddenly lost its foremost industrial workers and producers—those citizens 'most useful to their country, those who procure it most of its glory, who most drive its civilisation as well as its prosperity.' Upon their loss 'the nation would become a body without a soul' and 'immediately fall into a state of inferiority vis-à-vis the nations whose rival it is today'. What in turn if France lost its noblemen and its

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[240] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1272-1273.

[241] Saint-Simon/Thierry 1814 in *OCSS*, 2, 1293.

[242] Grange/Musso/Régnier/Yonnet 2012 in *OCSS*, 3, 2103.

councillors of state? What if 'Monseigneur the Duke of Angoulême, Monseigneur the Duke of Berry, Monseigneur the Duke of Orléans' all suddenly disappeared? It 'would not result in any political loss for the State'.[243] Shortly after publication, the Duke of Berry actually was killed. Saint-Simon could hardly have looked more suspicious.

Three aspects stand out here: first, the social fragmentation that Saint-Simon feared to result from losing France's most industrious citizens would take place on an *international* level: France would fall prey to rivalry with other great powers. Second, this was one of the strongest articulations of the centrality of actor-type to Saint-Simon's international thought: the text placed savants, artists, and artisans most firmly at the heart of a society organised around 'positive utility'.[244] Third, and crucially in the context of domain differentiation, this move relied on a sharp contrast between aristocratic *politics* and industrial *organisation*.

Saint-Simon's 1821 *Du Système Industriel*, an elaboration of the industrialist principles of the 1817 *L'Industrie*, once again insisted upon a refashioning of the world as a space infinitely reformable according to the principles of scientific progress, simultaneously objective and objectifying. The text aimed to outline 'the way to follow so as to operate with calm, with certainty, and with promptness, despite the real obstacles' and determine 'the formation of the industrial and scientific system, the establishment of which alone can put the ongoing social torment to an end'.[245] At the dawn of the century, Saint-Simon recalled, the moment had arrived at which the 'utility' of 'legal experts [*légistes*] and metaphysicians' had borne fruit in the 'advancement of civilisation'. It was time to move on and 'organise the industrial and scientific system'—time, Saint-Simon insisted, 'that the industrials and the savants had to occupy the political scene, each in their natural roles.' Instead, the 'legal experts and metaphysicians' had taken the lead during the revolution, setting the terms of political debate to this day. Only a clear sense of the promise of a 'positive politics' could correct this. There could only be one of two forms of social organisation: a feudal-military system, or an industrial system—'for a nation as for an individual' these represented 'two goals of activity, either conquest or work, to which spiritually correspond either blind beliefs, or scientific demonstrations, that is to say, demonstrations based on positive observations'.[246]

What measures should be taken to actualise, against the domain of conquest, the industrial system of work? First, alliances had to be forged with the industrial class—'by their position, the industrials are essentially friends of order' and so its ideal makers.[247]

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[243] Saint-Simon 1819 in *OCSS*, 3, 2120-2121.

[244] Saint-Simon 1819 in *OCSS*, 3, 2122.

[245] Saint-Simon 1821 in *OCSS*, 3, 2343.

[246] Saint-Simon 1821 in *OCSS*, 3, 2345-2347.

[247] Saint-Simon 1821 in *OCSS*, 3, 2353.

The book then addressed itself to all those Saint-Simon considered to be members of the class of *industriels*, offering arguments as to why their future lay in taking the lead: farmers, traders, manufacturers ought to stop playing a 'passive role in politics'; only a party rallying around industry and prosperity would be able to 'triumph' and 'end the revolution'.[248] Industrials would be perfectly suited to political leadership given that 'the foremost political capacity is the capacity of administration'.[249] So long as militaries, metaphysicians and legal experts held sway, this epoch would remain one of 'ignorance' and 'half-science'—but fear not: 'Gentlemen, the progress of Enlightenment has finally brought the regime of common sense, and common sense is neither violent nor wordy; it is neither military nor legalistic.' And 'the natural organs, the only veritable organs of common sense, or of common interest, are the *industriels*'.[250] Saint-Simon ended his panegyric quite fittingly with a letter to the king himself, urging him to see things for what they were:

> Today, scientific decisions are the only ones that would have the power to command a universal faith. Theological decisions no longer have real influence except over the least enlightened classes of society; and even that influence is rather feeble, and in no way comparable to that which, over the same classes, the opinions of savants exert.[251]

Once more, faith and science mingled: science could inspire faith in progress, maintained by the leadership of non-idlers and savants—and this combination would provide the foundations of the only social system adequate to Enlightened modernity.

In sum, Saint-Simon not only provided a grand project proposal for an early vision of a European union—something disciples like Chevalier picked up on in both theory and practice. He also proffered guiding principles, methods, and types of actors needed to undergird an international order equipped for an industrial future. Saint-Simon stressed reform over revolution, but also intervention over the mere setting of examples. He also sought to identify a unified system of rendering politics and society scientific and 'positive'.[252] His was a proto-positivism distinct from that of his secretary, disciple, and future near-nemesis Auguste Comte. It was voluntaristic: positive politics meant to get out into the world and change it. The blueprint for that change was European science

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[248] Saint-Simon 1821 in *OCSS*, 3, 2358-2359.

[249] Saint-Simon 1821 in *OCSS*, 3, 2363.

[250] Saint-Simon 1821 in *OCSS*, 3, 2370.

[251] Saint-Simon 1821 in *OCSS*, 3, 2377.

[252] Bellet writes that 'for Saint-Simon, utility is dependent on the hypothesis of perfectibility, which, for man, favours the development of useful faculties to the detriment of other faculties. Therefore utility is an historic and emergent principle of which the strict achievement is industry.' Bellet 2009, 54-7.

and industry. Saint-Simon's international thought, however, was not just Eurocentric, but explicitly universalist in its embrace of advancing civilisation worldwide, and in this respect it imposed a patronising and racist perspective on the non-European world. Yet his international vision was never explicitly imperialist. Saint-Simon was a pragmatic entrepreneur of sorts, which is why his vocabulary overlapped simultaneously with that of the early Bonapartists, that of republican liberals like Benjamin Constant, and that of radical philosophers like Jeremy Bentham.

Nineteenth-century ideas about international order were tightly interwoven with social and political thought about domestic organisation and the orderly recovery from revolution. The Malthusian fear of overpopulation, mingled with a nineteenth-century concern of Europe's great powers with mass popular sovereignty, fed into efforts to envision and organise post-revolutionary order. The Social Question was omnipresent. This is the context in which Saint-Simon should be read. Revolution tempted war, he thought, whereas reform in the shape of organic spiritual unity combined with the rule of the wise could guarantee stability; a project inseparable from a corresponding vision of international order. This vision, as we will see in the next section, energised a global activism based on technical intervention—'the French tradition of the *grand projet*'.[253]

2. Impartiality and reform in Chevalier

Saint-Simon's call for making the world European by way of technical, expert-led intervention inspired his disciples' international technocratic activism well into the mid-century. For Prosper Enfantin, the 'Supreme Father' of the Saint-Simonians, it would require marrying the West with the East in a spiritual union between scientific Man and passionate Woman.[254] For his equally influential fellow devotee Michel Chevalier, the order of the day was to achieve Saint-Simon's industrial system within a distinctly impartial domain of the international.

Deputy and confidant of Enfantin's, Chevalier had studied at the École Polytechnique and joined the Saint-Simonians once he was appointed engineer in 1830. The movement had just reached its peak. He embarked upon a remarkable career within its ranks, emerging as editor of the group's own journal *Le Globe* and 'Cardinal of the Church of the Industry.' According to one disciple, 'by way of the press' Chevalier 'was the centre of all the Saint-Simonians' events'.[255] The *Globe* was a remarkable journal less for the attention it received, which was limited, than for its transnational circulation. Chevalier himself was responsible for steady correspondence—letters and copies of the

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[253] Hazareesingh 2020, 7; see Schot/Buiter/Anastasiadou 2011; Todd 2015, 2021.

[254] Pilbeam 2014.

[255] Fournel 1879, 7, cited in Murphy 2011, 109; cf. Drolet 2015.

journal—with potentially like-minded individuals and groups across Europe. Between 1830 and 1832 he connected with 'educated men in Belgium, England, Spain, and Germany'. One ally was journalist José Fonteuberta, who upon his return to Spain from French exile in 1835 worked for the journal *El Propagador de la Libertad* which then also published selections from the *Globe* by Chevalier, Enfantin, Saint-Simonian writer Gustave d'Eichthal, and German poet Heinrich Heine.[256] Likewise, after Belgium's liberation from Dutch rule, in January 1831 Enfantin proclaimed a *mission Belgique*. Saint-Simonians Margerin, Carnot, and Leroux went to Brussels. Shortly after, Duveyrier founded Belgium's own Saint-Simonian journal, *L'Organisateur Belge*.

In 1832 Chevalier published a collection of articles originally written for the *Globe*, the *Système de la Méditerranée*. This remarkable work outlined a network of canals and railroads spanning across Europe into the Mediterranean periphery, ultimately constituting the material basis for a 'universal association' of nations. Industry could so become the 'peacemaker of the world' through which 'the whole world successively drawn will gravitate towards universal association through the pumps of industry, the brilliance of science and the pleasures of the arts'.[257] In short, Michel Chevalier synthesised liberal elements in Bentham and Saint-Simon to develop an idiom of technocratic internationalism. This idiom differentiated the international as a domain of impartiality—one where imperial goals still could be pursued, but in the name not of state power but of world peace and global harmony.

As Schot and Kaiser suggest, 'Chevalier and the Saint-Simonists developed a very specific technocratic way of thinking', propagating 'a key role for experts in the development of large-scale infrastructure projects and close collaboration with state institutions that expanded their remit and developed public utilities.' Their projects, they note, 'were often drawn up and implemented to integrate Europe's emerging colonial empires. The technocratic approach to modernization, therefore, was closely connected to both national integration and colonial expansion.'[258] Below I argue that this linkage was a key reason for why Chevalier's model for how to differentiate the international and authorise its technocratic agents was ultimately more successful than Mill's. Yet both understood reform as mastery over nature, and hence as governance of natural difference. To Chevalier, international relations were determined by two overarching conditions: one, the natural inequality of peoples, an obstacle to be overcome by making the world more European; and two, technological progress in transport and communication, paving the steam-powered, expert-led way to a civilised and peaceful

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[256] Murphy 2011, 114-15; Sánchez Hormigo 2004, 217.

[257] Chevalier/Duveyrier/Flachat/Fournel 1832, 26; Drolet 2015.

[258] Kaiser/Schot 2014, 35.

world. Chevalier endorsed a double international order and imagined an expansion of Europe across the globe—by means of railroads, canals, and trade.

Chevalier's contribution was important for two reasons: he was central to the Saint-Simonian movement itself, allowing us to draw inferences about Saint-Simonianism more generally, but also to the diffusion of Saint-Simonian tenets into the French and European social, cultural, and political mainstream. The latter began, perhaps ironically, from the moment he broke with fellow disciples. Imprisoned for his involvement with the increasingly sectarian group, he publicly renounced his loyalty. This was politically opportunist but also intellectually consistent: Chevalier was less interested in Saint-Simonian thought as a catechism, in the religious sense in which Enfantin understood it. He preferred a closer reading of the early Saint-Simon, gravitating around the technocratic virtues of industry and organisation, combined with a pan-European internationalism. Such a reading struck a chord: after the 1830 July Revolution had toppled the Bourbon Restoration, the July Monarchy endorsed an official policy of counter-revolution and cooperation with Britain; both publicly welcomed by Chevalier.[259]

Once released from prison, Chevalier obtained the support of Adolphe Thiers, a key figure in the July Revolution and Minister of the Interior at the time, Prime Minister in 1836, 1840, and 1848, and later president of the Third Republic. Backing from such an eminent statesman was a springboard for Chevalier's way into French establishment. In 1833 Thiers sent Chevalier on a mission to the United States and Mexico to evaluate overseas industry and finance. The journey was meant to last eight months, but Chevalier did not set foot on French soil until two years later in November 1835.[260] His travel reports appeared periodically in the widely-circulated *Journal des Débats*, collected in an 1836 volume entitled *Lettres sur l'Amérique du Nord.* Its third edition was translated into English, published in the United States in 1839 under the title *Society, Manners and Politics in the United States*. It remains one of the very few of Chevalier's works available in translation.[261] It also represented a turning point not just in terms of career, but in terms of intellectual development: while his contemporary Tocqueville returned from America with a sense of awe for the voluntary associations marking civic life overseas, if with well-known reservations, Chevalier turned the disagreeable into the desirable. His reports concluded that 'some sort of aristocracy, whether hereditary or not, was required to sustain a society'. In that vein he now praised 'industrial development per se, relegating considerations about the conditions of the workers to second place' combined with 'an increasingly enthusiastic advocacy of free trade and competition'.[262]

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[259] Todd 2015.

[260] Jennings 2006, 402.

[261] Chevalier 1836; English translation Chevalier 1839.

[262] Jennings 2006, 420-423.

This turn, often viewed as break with Saint-Simonianism at large, was actually quite consistent with Saint-Simonian political and social thought. Chevalier had simply opted for a more palatable kind of Saint-Simonianism, more attuned to French establishment sensitivities. As he declared himself as late as 1837, 'not only did I have the honour to have been one of the disciples of Saint-Simon, but I am proud to say that I still am one.'[263] Inspired by what he had witnessed in the United States, in 1837 he published a grand engineering plan for French infrastructure, *Des intérêts matériels en France*. The following year he was made *conseiller d'état* of the July Monarchy under Louis Philippe I. He had this position renewed under Napoleon III, who sent him off in 1860 to negotiate the Anglo-French trade agreement today famous as the Cobden-Chevalier treaty. Crowning the career of an old *polytechnicien*, in 1875 he became president of the *Compagnie de Chemin de Fer Sous-Marin Entre la France et l'Angleterre*, the Channel Tunnel Company he had long envisioned in his own work. His œuvre primarily contained such project proposals—from reforesting French-occupied Mexico, canals in Egypt, Panama, and Nicaragua, an Anglo-French railway tunnel, or a cross-Mediterranean railway and canal network—but also key works on political economy and even poetry.[264]

The Cobden-Chevalier treaty was one of many signs of the receptiveness of the mid-century to Saint-Simonian technocratic internationalism; particularly during the Second Empire, reinstated on 2 December 1852 after Louis-Napoléon had staged a *coup d'état* which dissolved the National Assembly and ended the Second Republic. Rule over France became hereditary once again, a turn to authoritarianism as much as to top-down industrial reformism. The most lasting legacy of the reign of Napoleon III was a relentless technological restructuring of France: railroads expanded from from 3,500 to 20,000 kilometres in the years of the Second Empire alone, complete with a new style of grand railway stations; the first department stores fundamentally changed public consumption in France and soon across Europe and elsewhere; Haussmann's imperious layouts transformed the city of Paris; and last but not least the 1869 opening of the Suez canal made a spectacle of the future of global commerce.

Said to have been a 'Saint-Simon on horseback', Napoleon III supported former Saint-Simonians for many of his projects.[265] The Pereire brothers founded the *Crédit Mobilier* which transformed investment banking by channelling French middle class savings into lending schemes to finance infrastructure. Though short-lived, it was one of the first banks based on contributions from the general public.[266] A banking revolution

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[263] Chevalier 1838, 6; cited in Murphy 2011, 298.

[264] See Walch 1975; Drolet 2015; Drolet 2018.

[265] The phrase is attributed to Victor Hugo's friend and writer Charles Augustin Sainte-Beuve. Guérard writes of 'a Jules Verne, or, if you prefer, an H.G. Wells in Napoleon III–a romanticist whose dreams were of the future, not of the past.' Guérard 1943; Price 2001; Hazareesingh 2014.

[266] Cameron 1953; Roth/Dinhobl 2008.

was underway. In 1863 the *Crédit Lyonnais* was founded, soon the world's largest bank; in 1864 Eugène Schneider's *Société Générale* successfully rallied finance and industry around investment banking.[267] An impressive number of commercial treaties and international agreements further underscore the Second Empire's technocratic internationalism, from the 1858 French-Japanese Treaty of Amity and Commerce to the 1860 Cobden-Chevalier Treaty and the 1865 International Telegraph Convention signed in Paris (see Chapter V). Benefitting from and contributing to these developments, Chevalier stood out as an 'archetypical proponent and activist of technocratic internationalism.'[268] His work drew from the time's free-trade liberal pacifism but was equally suffused with imperial aspiration and technocratic Saint-Simonian tenets.[269] Below, his contribution to differentiating the international as a domain of impartiality is examined again with a view to principles, methods, and actors of international order.

2.1 Principles

Lecturing as professor of Political Economy at the prestigious Collège de France in Paris, magisterially overlooking the Quartier Latin across the street from the Sorbonne, Chevalier started an 1851 opening speech by posing a timely question: under what conditions can science satisfy the legitimate desire for well-being? His answer required a clear sense of man's purpose in nature. Though a defender of the public value of science, and perhaps still echoing his days under the spiritual leadership of Enfantin, he saw this purpose in a divine supposition:

> Man does not have the power to create an atom; it is out of pride that he arrogates to himself or bestows upon his fellowmen the quality of creator … All the efforts of human industry, all the acts which agriculture, the manufactures and commerce perform, tend to seize, extract, combine, shape or finally place under our hand, ready for our use, substances created by divine will. … In this sense progress, gentlemen, is of divine institution, and those who seek it outside the ways of God are guilty of a detestable sacrilege … Man thus, applying his intelligence to grasping the material world by which he is surrounded, and to discovering the laws that govern natural phenomena, comes to diminish … the obstacles that are placed between him and the objects that he has a need for, or which here he needs to connect, there to separate, almost always to mould, so they may adapt themselves to his needs.[270]

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[267] Milza 2006.

[268] Kaiser/Schot 2014, 31.

[269] Michael Drolet argues that 'Chevalier forged a synthesis between Saint-Simonianism and liberalism.' Drolet 2008; see Welch 1984.

[270] Chevalier 1851, 28-29.

Endorsing the idea of a spiritual purpose for humanity's place in nature, Chevalier argued that we should think of progress as a divine institution. Progress was the application of human intelligence to observing the material world, and to discovering the laws immanent in nature. It would allow 'man' to achieve the steady diminution of the obstacles placed between him and nature. Objectified nature was but 'the objects which he has a need for'. Nature, from the point of view of humanity carrying out the divine tasks of progress, was an assemblage of resources waiting to be extracted, lands waiting to be irrigated, isthmuses waiting to be pierced, barriers waiting to be broken.[271]

This was, in other words, a strong endorsement of an overarching principle of human intervention in natural order as a *natural act itself*. Intervention was imperative, and the need for it increased rather than diminished once a union between France and Britain would have been established. Such a union, guaranteeing peace and stability in Europe, would provide the basis of a drive for reform across and beyond national borders. Progress was ensured, Chevalier had written in the *Globe* in 1830, by means of 'a continuous exchange of sentiments, ideas and material products between nations' from which would result 'an unremitting *intervention* between man and man, city and city, nation and nation, continent and continent.' France was destined to be at the fore of this drive, heading 'the mission of civilising peoples'.[272] It had direct consequences for Chevalier's international thought. Previously, at the height of his involvement with the Saint-Simonians, he had published the *Système de la Méditerranée* drafting a plan for what he thought was a most practicable peace proposal: a network of canals and railways spanning from France across Europe and into Northern Africa.

This Mediterranean system, he thought, would pacify the world by virtue of the border-crossing and divides-bridging powers of industry. The principle upon which this idea rested was the supposed incompatibility of that which builds and creates with that which destroys and kills. 'Industry is immanently peaceful,' Chevalier wrote. 'She instinctively repels war. That which creates cannot reconcile itself with that which kills.'[273] Closely linked to this assertion was a conception of politics as fundamentally an industrial-technical form of regulation: 'Let us consider this *Mediterranean system* under an industrial aspect; for politics is especially the regulation of the interests of the people and of individuals in that relation.'[274]

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[271] Drolet argues that Chevalier represented a blend of advocacy for economic liberalism and science-led *grands projets* 'out of a scientifically sophisticated understanding of nature.' I agree but would argue that seeing nature from the viewpoint of the engineer, Chevalier's conception of nature was still bound to its (sustainable) exploitation. See Drolet 2018a, 7-8.

[272] Chevalier 1830, reprinted in Chevalier 1831; cited in Todd 2015, 17-18. Todd's translation and emphasis.

[273] Chevalier 1832, 9. For context also see Drolet 2015.

[274] Chevalier 1832, 35; emphasis original.

These notions were then, however, mapped onto a pacifism that was at once about common humanity and natural inequalities between peoples: 'People are members of humanity; humanity will not be happy unless it ensures the free exercise of all its members, that is, *unless every people occupies in the workshop, in the laboratory and in the temple, the place assigned to it by its nature*.'[275] Chevalier was reluctant to frame his proposal as one of imperial aspirations, but at the same time he made sure to stress that each people of the globe had its own place assigned to it by nature. The principle of civilisation and its spread was central to Chevalier's international thought—notably prior to the revived French imperialism of the reign of Napoleon III. The *Système de la Méditerranée* was deliberately envisioned as a network that would pump the blood of civilisation through the veins and arteries of the social organism:

> Such a railway, I say, … would be like a system of veins and arteries along which the circulating civilisation would awaken slumbering Spain, would link its disconnected members and would wake it from the torpor into which its guardians have plunged it … to this intoxicating activity which will keep populations constantly driven under the empire of a religious faith sanctifying industry, on a rich and fertile soil, in an atmosphere perfumed by orange trees and aloes.[276]

Essentially, the idea was to export Europe to the globe—not, however, in order to simply render all the world Europe's equal.[277] Instead, paralleling Mill's preference for international tutelage under Enlightened despotism, Chevalier favoured a top-down, technical kind of civilisation. In his proposal for a Mediterranean system he had imagined industry as the 'peacemaker of the world':

> The peacemaker of the world will reach out to all peoples; it will open its career to all, without placing guards at the entrance who force them to put on the tunic of democracy. … The peacemaker will welcome all; to all, peoples, classes and individuals, he will assign, according to their vocation, a distinct place, a distinct work in the work of all [*l'œuvre commune*]. … He will make each individuality, race, people, class or man grow, according to the law which is proper to him, by teaching him to rely on all and to help all, by

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[275] Chevalier 1832, 24; emphasis added.

[276] Chevalier 1832, 41.

[277] Note e.g. the notion of an expanding Europe in this passage: 'Concevons que, *poussant devant soi la civilisation, l'Europe s'étende* peu à peu sur l'Asie, par les Russes au nord, par les Anglais au midi, par la Turquie à l'ouest; supposons que, de leur côté, les Américains y affluent à l'est; imaginons que pour mettre en activité le double courant qui de l'Amérique et de l'Europe viendrait visiter la vieille Asie, l'on perce les deux isthmes de Suez et de Panama, et représentons-nous, s'il est possible, le ravissant tableau qu'offrirait bientôt l'ancien continent.' Chevalier 1832, 52; emphasis added.

> connecting it to all. Through him the whole world successively drawn will gravitate towards universal association through the pumps of industry, the brilliance of science and the pleasures of the arts.[278]

Again the spotlight was on the equal recognition of all the world's peoples; on pacifying, civilising the world thus in the name of common humanity—whilst at the same time assigning each of them 'a distinct place … in the work of all.' A double order was the logical consequence of a single principle. The spiritual end goal was classically Saint-Simonian: a universal association of Orient and Occident, a central motif of the movement's religious turn under the leadership of Prosper Enfantin.[279] In Chevalier's own words, 'the peaceful politics of the future will have as its object, in its most immediate application, to constitute as association, around the Mediterranean, the two massifs of peoples who for three thousand years collide as representatives of Orient and Occident: that is the first step to take towards the UNIVERSAL ASSOCIATION.'[280]

Civilisation would become a central occupation spanning across most of Chevalier's writings. In his 1840 *L'Europe et la Chine, l'Occident et l'Orient*, for example, published in the *Revue des Deux Mondes*, spreading European civilisation again featured as a condition for consolidating Europe's internal peace. International order in this context was clearly double in the sense of regional stability among European nations while promoting a benevolent *mission civilisatrice* outside of Europe: 'It is precisely in order to consolidate this European peace,' Chevalier argued, 'that it will be necessary to permit the European peoples to expand to the exterior.'[281] An 1843 examination of the historical and geographic conditions for building a canal in Panama, in itself significant as a testament to international activism, likewise centred on spreading a technically defined civilisation by means of opening up an international trade route. Here Chevalier imagined the engineering project as a manifestation of tutelary civilisation:

> Europe, or to put it better, the European race … is in a movement of expansion by virtue of which the whole planet seems soon to be brought under its rule. She wants to be the sovereign of the world; but she intends to be so with magnanimity, to raise other men to the level of her own children. *Nothing could be more natural than to overturn the barriers which stop it in its dominating impetus, in its plans for tutelary civilisation.* … From this point of view, the plan to cut the Isthmus of Panama is highly recommended; and even if this work served

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[278] Chevalier 1832, 25-26.

[279] The search for the *femme Orientale* was what motivated Enfantin's journey, together with his more enthused acolytes, to Constantinople and later Egypt. Disappointed in their endeavour, the group decided to turn their attention to building roads, irrigation systems and exploring the idea of a Suez canal instead.

[280] Chevalier 1832, 35.

[281] Chevalier 1840, 40.

> only to establish, by joint effort, one more link between France and England, even if it should cost our treasury 50 million or even 100, let us agree that taxpayers' money has often been spent more badly.[282]

Chevalier was international thinker and practitioner alike. His thought often assumed the shape of an international project proposal, complete with numerical estimates of material, monetary, and labour costs, geographical specifications, and political considerations. But he was an apologist of empire as well; particularly once French informal imperialism flourished under Napoleon III.[283] In his 1862 *L'Expédition du Mexique* he praised the sixteenth-century Spanish conquistador Hernán Cortés for his strategy of befriending natives to justify their exploitation in the name of benevolence.[284] In 1863 he declared to the Senate, again endorsing an anti-militarist imperialism, that to make Algeria industrially beneficial it needed not military force but 'a strong European population.'[285] Chevalier's free-trade advocacy 'was compatible with the use of coercion, provided that it served the cause of Western industrial civilization.'[286]

Chevalier's principles of international order, endorsed throughout his life and both during and after his involvement with the Saint-Simonians, rested on two basic assumptions. First, the natural inequality of peoples took centre-stage as starting point for managing differences by means of benevolent, technical global governance. Second, the Europeanisation of the globe was key to spreading civilisation—civilisation defined in terms of liberty and industry. Together, these notions reconfigured the relationship between natural order and human agency, stressing the latter as divinely ordained to modify the former.

2.2 Methods

Chevalier's chief method to act by the above principles was international reform through transnational mega-projects: the international as a domain of impartiality, once intelligibly differentiated in theory, also needed to be engineered in practice. If human agency was on a divinely ordained course of intervention in the natural order of things, and if free trade was Chevalier's principal path to world peace, then railway networks and interoceanic canals were ideal avenues for implementing the kind of international order he had in mind. This becomes evident from a reading of his 1832 *Système de la*

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[282] 'Rien de plus naturel que de renverser les barrières qui l'arrêtent dans son élan dominateur, dans ses plans de civilisation tutélaire.' Chevalier 1843, 170-172; emphasis added.

[283] See Todd 2011; Todd 2021.

[284] Chevalier 1862, 5.

[285] Chevalier 1863; cited in Belly 1866.

[286] Todd 2015, 32.

Méditerranée, but also from his 1843 work on the Panama Canal, his 1851 commentary on the London universal exhibition, and an 1862 collection of articles in support of the second French invasion of Mexico.

As mentioned, Chevalier defined politics as an industrial-technical method of regulation.[287] Politics was an expression of preferences and a matter of setting the conditions to facilitate industrial enterprise—to Chevalier, the latter took absolute priority over the former considering its immensely more significant contribution to human progress. Once facilitated, technical enterprise would not only advance the pacifist, world-unifying cause of free trade but also pump blood into the veins and arteries of global civilisation. A Mediterranean railway network 'would be like a system of veins and arteries along which circulating civilisation would awaken slumbering Spain.'[288] With an estimated span of 60,000 km of rails and a budget of approximately 4,500 million Francs, this was a large-scale and costly undertaking.[289]

The relationship between this method and international politics in general was not as simple as rendering politics more technical. Chevalier nowhere understood his project as a *reduction* of politics to the merely technical; it was an *expansion* of the merely technical to politics. The goal of industrial politics was to endow the engineer with a conception of the moral and political dimension of his—never her—work, so that he may come to understand his work as part of a mission to unify peoples and places. Introducing a large-scale web of cross-continental railways and steamships across the Mediterranean would be much more, Chevalier was convinced, than an industrial revolution—it would be a political revolution too:

> By their means, and with the help of some other modern discoveries, such as the telegraph, it will become easy to govern the majority of continents that border on the Mediterranean with the same unity, the same instantaneity that exists today in France. For among all countries, with the exception of England, France is by far the one where it is easiest to communicate the impulse of the centre to the extreme circumference.[290]

In the same vein, Chevalier promoted the idea of interoceanic canals eleven years later. In an 1843 'historical and geographical examination of the different directions into which one could pierce the isthmus of Panama, and the means to employ for it; followed by an overview of the isthmus of Suez' he presented a quintessentially Saint-Simonian project, on the one hand, but justified it much more starkly in terms of the free-trade

[287] Chevalier 1832, 35.

[288] Chevalier 1832, 41.

[289] Chevalier 1832, 52.

[290] Chevalier 1832, 38.

liberalism that had become popular across Europe at the time. Suggesting a canal to be built in Panama, like Bentham's *Junctiana Proposal* justified with reference to universally beneficial commerce (see Chapter I), he simultaneously stressed tutelary civilisation to be one of its positive outcomes.[291]

Relatively undisturbed by the political upheaval of 1848 that swept across Europe and shook up French politics, Chevalier continued working on proposals and projects in France—always in close contact with other engineers and politicians in Switzerland, Britain and across Europe. The February Revolution had toppled the July Monarchy and inaugurated, after several months of dictatorship under Louis Cavaignac, the Second Republic under the leadership of Louis Napoléon, to be crowned Emperor of France exactly three years later. Though heralding a period of conservatism and the end of revolutionary politics for several decades to come, this shift actually strengthened the *grands projets* Chevalier had become such a champion of: the new president and later emperor was sympathetic to the idea of restoring France's glory through large-scale public works projects and grand industrial enterprise. He was also said to have been a closet Saint-Simonian. In a commentary on the 1851 London World Exhibition Chevalier provided a spirited, cosmopolitan defence of engineering world peace. Marvelling at the wonders of technical achievement across the globe, his paean went:

> Let us not forget that if one of the aspects of civilisation is to share, whilst diversifying it, the labour among men and among peoples, it is the proper [aspect] too of civilisation to multiply in the midst of each people the special vocations and there to develop every kind of talent. … Those nations one gives the name of great powers, and which carry this title by universal admission, have it much less because of the number of their bayonets than because of their enlightenment, the solidity and luminance of their spirit. For, what is industry, if not a manifestation of the human spirit, the domination exercised by the spirit over nature?[292]

Here the mid-nineteenth century understanding of industry came to romantic life, cast in far more extensive terms than one would attach to the term today. 'Industry' was not merely machinery and manufacture but still closely wedded to its etymological relative 'industrious', the opposite of 'idle'—energetic activity, busyness, productivity. Saint-Simon himself had been, as noted previously in this chapter, a key thinker in the development of industry as a political idea, and *industrie* emerged as a term closely associated with Saint-Simonian vocabulary.[293] 'Industrial organisation' in the original

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[291] Chevalier 1843, 170-172.

[292] Chevalier 1851b.

[293] See e.g. Swedberg 1994, 155-156.

Saint-Simonian sense of an ideal form of a society led by physiologists, scientists, and engineers, referred to the inverse of idle disarray.

A final manifestation of this ardent desire to hasten the progress of civilisation by means of technical interventions around the globe, be it railways or interoceanic canals, was a collection published in 1862 in the *Revue des Deux Mondes*, at the height of the 1861-1867 second French invasion of Mexico. The so-called Mexican Adventure was an attempt by Napoleon III to restore French imperial glory under the banner of free trade—intervening in Mexico, to the Emperor, meant no less than to advance commerce, and hence peace. To Chevalier, this chain of reasoning was logical—not least in light of the rise of Prussia, endangering France's place at the vanguard of civilisation. His articles, published as *L'Expédition du Mexique*, praised the benevolent path to Enlightened Empire, the great promise of bringing representation and publicity to those lacking it. Notably at odds with his free-trade liberalism, but not at odds with his commitment to the engineering method of international order, he also spoke highly of the 'enterprising genius' of the 'European race' in its creation of prosperous overseas colonies:

> the prosperous colonies which, for half a century or even less, the enterprising genius of the European race has formed in its archipelagos … Among the old colonies of Europe in these areas, the majority have grown in productive power; Java is the most beautiful example for that. … Thus a new life, breathed by the genius of Europe, penetrates from all sides the Great Ocean.[294]

The example of Java here was significant. It referred to a boost in productivity in the Dutch East Indies, where in 1830 Governor-General Johannes van den Bosch had introduced the Cultivation System or *cultuurstelsel* that effectively turned the entire island of Java into a Dutch plantation. This had won him and the Dutch colonial venture renewed acclaim across Europe. The system was economically effective as it saved his country from the brink of bankruptcy; but it came at the expense of the local population which was kept in forced labour and suffered multiple famines and epidemics in the 1840s resulting from the intervention. The destabilising and exploitative effects of the policy famously inspired parts of the widely read 1860 anticolonial novel *Max Havelaar*.[295] More or less in the spirit of van den Bosch, Chevalier thought that to spread civilisation from a technical point of view meant to objectify the globe as a productive resource. What type of actor did this idea require?

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[294] Chevalier 1851c, 65.

[295] Multatuli 1860. See Bosma 2005; Wielenga 2012.

2.3 Actors

Chevalier generally placed more emphasis on the practically-minded creator than on impartiality as such. This was a differently structured argument for expert governance, and it can be read in at least two ways. Chevalier may either have thought impartiality to be so obvious a trait of *polytechniciens* and entrepreneurs that he hardly needed to point it out; that is, he actually did imply impartiality as a basis for international actorhood. Alternatively he may have thought impartiality largely unimportant or insubstantial to internationality insofar as key criteria for appropriate actors were concerned; in that case, he would deviate from other differentiators considered in this thesis. The textual evidence available supports the former interpretation. I argue that we should see Chevalier's international thought as a strong defence of the subjection of natural order to human creation—a defence that foregrounded the specialist practitioner, an agent of international order still drawing authority from a notion of impartiality. Yet in articulating this defence Chevalier consistently referred to European, 'civilised' peoples as the agents of human creation and to essentially all else, but particularly 'barbarous' peoples and unmodified landscapes, as the natural order to be subjected.

While Chevalier endorsed impartiality thus, he did not consider it the most important trait of an international actor. That place was reserved for the entrepreneurial, reformist spirit he had been so familiar and enthralled with at the École Polytechnique. This was, again in classical Saint-Simonian vein, centred around the creation of permanent organisations, commissions, and companies. These always combined, in a technocratic sense, a response to the shifting power politics of mid-nineteenth century Europe with Chevalier's own technical outlook. After the 1864 Prussian defeat of Denmark, the French created anti-Prussian alliances on various levels. Chevalier played a key role in many of them, sharing intensifying fears of Prussian expansionism which, after its shocking victory over the French in 1870, escalated into a 'crisis of self-confidence in the superiority of French civilization and its natural seductiveness' and significantly contributed to Anglo-French inter-imperial rivalry and colonial expansion in the later decades of the nineteenth century.[296]

Chevalier, who had been the only French senator voting against the war with Prussia in 1870, returned to his early ideas as he suggested to mitigate the shifting balance of power with a pan-European 'tutelary organisation'.[297] In the 1860s he became vice-president of the International Association for the Standardisation of Measures, Weights and Currencies, and in that capacity contributed to the 1865 creation of the Latin Monetary Union between France and Belgium, Italy, and Switzerland.[298] He also

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[296] Todd 2015, 42.

[297] Todd 2015; from Chevalier 1866.

[298] Willis 1901, 35, 74-77. See Einaudi 2001; Drolet 2018b.

collaborated with Frédéric Passy in the 1867 creation of the *Ligue Internationale et Permanente de la Paix* (a precursor of the 1889 Inter-Parliamentary Union) which he served as vice-president and promoted alongside other former Saint-Simonians such as François Arlès-Dufour and Gustave d'Eichthal.[299] Chevalier placed the engineer at the pivot of his double international order, such that the actor was European, civilised, and liberal, while the world upon which he acted was foreign, barbarous, and repressed. A passage from *Système de la Méditerranée* prophetically conveyed this much:

> Railways have so far only been considered from an abstract industrial perspective. Those who have studied them … have neglected the political and moral question in order to confine themselves to the technical question. … In the eyes of men who have faith that humanity is progressing towards *universal association*, and who are dedicated to leading it [in that direction], railways appear in a whole new light. The railways on which people and products can move with a speed that twenty years ago would have been considered fabulous, will uniquely multiply the relationships between peoples and cities. In the material order, the railway is the most perfect symbol of *universal association*. Railways will change the conditions of human existence.[300]

Chevalier suggested that engineers had a duty to more than just their profession. They should embrace political and moral questions and look beyond the confines of technical aspects—and to do so, they needed to realise what, say, constructing a railway really meant for humanity. Railways, he concluded, were more than improved means of transport—they were the 'most perfect symbol of the *universal association*' between Occident and Orient; and they transformed the conditions of human existence. This realisation in the mind of the practitioner would undergird technocratic internationalism: a politicisation of the technical, not a technification of the political. Despite Chevalier's ardent support of free-trade liberalism, the politicisation of the technical was fundamentally technocratic in the authoritarian sense of the word. Consider once more the 1848 election of Louis-Napoleon to presidency: whereas Alexis de Tocqueville saw this as a choice for tyranny, vindicating his warnings of the danger of the tyranny of the majority, Chevalier applauded the soon-to-be Emperor of France and became his economic advisor as Counsellor of State. This exemplified the 'other' face of French social and political thought in the nineteenth century: if the post-Revolutionary period had revived the old choice between the Few and the Many, technocratic internationalism had offered an acceptable way of favouring the former over the latter.[301]

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[299] Cooper 1991, 33.

[300] Chevalier 1832, 36, emphasis original.

[301] Kaiser/Schot 2014, 31-35; Drolet 2008, 1260-63.

To sum up, Chevalier's principles of international order rested on two assumptions. First, the natural inequality of peoples took centre-stage as the starting point for managing differences with benevolent, technical global governance. Second, Europeanisation of the globe was key to spreading civilisation—defined in terms of liberty and industry. Together, these notions shaped a reconfiguration of the relationship between natural order and human agency that stressed the latter as divinely meant to modify the former. It was naturally determined, whether divinely or not, that human agency should subject natural order to its designs. Human intervention in nature was imperative *and natural*. This was key to Chevalier's international thought to the extent that it stressed a double conception of a European perspective of the practitioner onto the world as a set of landscapes to be modified and cultivated for the sake of progress and civilisation.

The corresponding methods of international order emphasised large-scale engineering projects such as transnational railway networks, trans-Mediterranean shipping lines, interoceanic canals, or an Anglo-French channel tunnel. In the late 1860s, Chevalier even acquired a piece of land in Nicaragua with the intention of eventually building an interoceanic canal. Though never realised, this was a striking reflection of intellectual common ground with someone like Jeremy Bentham, who decades earlier had envisioned a canal along that exact route (see Chapter I).[302] Such projects, but also campaigns like the 1861-1867 French invasion of Mexico which he supported, appealed to Chevalier's free-trade pacifism. Intervention, ultimately, was what characterised the relationship between the technical avant-garde of civilisation and the world.

Finally, the actors that emerged as protagonists of the international domain were the engineer and the entrepreneur. Their collaboration emerged in Chevalier's international thought as the link between technological and economic progress. Chevalier's defence of the subjection of natural order to human creation foregrounded the specialist practitioner. This defence consistently referred to Europeans as agents of human creation, and to 'barbarous' peoples and unmodified landscapes as the natural order to be subjected. While he thus endorsed impartiality by implication—given not only his Saint-Simonian past, but also his endorsement of free trade and industry precisely for their escape from the muddied waters of politics—he did not think it the single most important trait of an international actor. That place was reserved for the entrepreneurial reformer epitomised by the *polytechnicien*.

3. Conclusion

A synthesis of the four thinkers under study in this section of the thesis is bound to be artificial, but the connections that do exist are real and substantive. There is a historical and a theoretical argument to be made. Historically, Saint-Simon had read and admired

[302] Murphy 2011, 314.

Bentham; Mill was a reader of Saint-Simon and explicitly tied his theory of colonial despotism—the 'government of leading-strings'—to 'the St. Simonian form of socialism' (see Chapter I);[303] and Chevalier was a champion of Millean-Cobdenite liberal reform if ever there was one.[304] All four thinkers were influenced by the revolutionary upheaval of their times. Bentham and Saint-Simon, each in their own way, were captivated by the American and French Revolutions, and much of their work can be read as attempts to come to terms with the meaning and potentials of a post-Revolutionary politics. For Bentham the answer lay in peacefully promoting legal and political reform. For Saint-Simon the aim was to establish order in the name of industrial reorganisation —industry as opposed idleness; organisation as opposed to social strife. Bentham and Saint-Simon had in common that they both presented 'a defence of reforms and the role of a Legislator', sharing the 'same ambition for order and knowledge'.[305] Mill and Chevalier, in turn, were responding to revolution with a full embrace of the liberal reformism of their time, although both were also steeped in imperial causes. Both generations, it can be said, tried to undergird their ambitions for reform with an impartial viewpoint: whether legislators, physiologists, imperial officers, or engineers—the international should be ordered by impartial practitioners, not by partisan politicians.

Theoretically, too, the commitments that united them, as much as those that divided them, tell us a great deal about the differentiation of the international as a domain of impartiality. All thinkers studied here reconfigured the relationship between natural order and human agency; and they all formulated early ideas of what in the second half of the nineteenth century emerged as technocratic internationalism. These ideas were, crucially, always tied to normative projects. The normative content of technocratic internationalism, this chapter has attempted to show, historically overlapped significantly with imperial thought and was able to inscribe the latter into a conception of the international as a discreet domain within which international intervention by expert-approved enterprise seemed natural and not in need of further justification.

For IR scholarship, three points are of note to conclude this chapter. First, this and the previous chapter's excursion into intellectual history has carved out the grounding of conceptions of agency in international order in corresponding conceptions of the relationship between natural order and human agency. This in itself provides a context that is often lacking: agency largely depends on where we believe we stand in the world, and to what extent we believe intervention in that world to be justified. This thesis, in that vein, is concerned after all with a kind of technocratic worldmaking: the idea of a world that can be seen through a view from nowhere, an objective point of

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[303] Mill 1861 in Robson 1977, 377-378.

[304] In the words of one British contemporary, Chevalier was 'the enlightened and eloquent advocate of free trade in France'; Brown 1864.

[305] Bellet 2009, 56.

view that legitimates merely technical solutions to the merely technical challenges of global governance.[306] Expert governance was its most visible essence from the mid-nineteenth century onwards; but before the terms 'expert' and 'expertise' entered common parlance, the technocratic international thought of Bentham, Mill, Saint-Simon, and Chevalier established its basic condition of possibility: a world in which impartial reform was imaginable to begin with.

Second, this section of the thesis has also illustrated what it means to read the history of modern international thought at least partially through the prism of imperial thought, so dominant at the time. The embrace of empire entailed an extension of what counted as the natural order human agency was justified to intervene upon by technical means. This made particular practices conceivable and justified them. Specifically it meant that intervention in natural order by impartial practitioners could take the shape, as it did at Suez some decades later, of digging an interoceanic canal to facilitate commerce and, to the same end, expropriating land and employing forced labour in nations deemed further down the civilisational hierarchy. The politics of the technical point of view were wedded to the notion, increasingly considered obvious, that science had no homeland and so guaranteed impartiality. The scientific or technical merit of a measure or project that was in fact political emerged as a mask that could present commitment under the veil of detachment. Saint-Simon's view of the international, and Saint-Simonian projects thought proper to that domain, ultimately universalised a parochial French perspective, the result inspiring disciples to endorse a form of universal interventionism that placed a premium on French colonisation and informal empire. Saint-Simonians were involved in the colonisation of Algeria;[307] the Suez canal enterprise in the early 1850s (see Chapter IV); campaigns for a Panama canal;[308] and the 1861 French invasion of Mexico.[309]

A third observation of note for IR is that the international thought of each figure considered in this section of the thesis blended theory and practice. This might be one way of responding to Keene's suggestion that 'it is in the relationship between international thought, international practices and international publics that the future of international intellectual history may lie.'[310] The texts discussed in this and the previous chapter point to an important insight for such an international intellectual history: theories of international order were, from the moment the new terminology was introduced, not only supported with but also essentially imagined as normative designs

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[306] Louis/Maertens 2021; Steffek 2021.

[307] Morsy 1989; Pilbeam 2014; Zouache 2015.

[308] Bonin 2010.

[309] Cunningham 2001.

[310] Keene 2014. See also Keene 2017; Vergerio 2019.

or interventions upon it. In Bentham, Saint-Simon, Mill, and Chevalier, theory, hypothesis, and experiment did not succeed in orderly fashion but were blended almost circularly. Bentham's push for constitutional reform in Latin America, and his proposal for an interoceanic canal in Nicaragua, came out of but also fed back into his international thought. Saint-Simon's main form of writing were letters to politicians and project proposals, complete with painstakingly detailed action plans. Mill's point of departure from Bentham was that he thought Bentham was too unpractical. The second generation, in both Britain and France, thus not only stressed the role of practice but became practitioners too. Mill and Chevalier both entered politics, and were both involved in imperial governance. Their international thought was always part theory and part project.

But the utilitarians and Saint-Simonians were not only carving out an understanding of international order that tried to combine reformism with impartial governance. They were also carving out an understanding of themselves as protagonists in their schemes for international affairs. Bentham had enjoyed a reputation in Latin America as 'legislador del mundo', legislator of the world. Saint-Simon proclaimed himself the spiritual leader of the 'new Christianity', the Saint-Simonian religion that sought to restore glory under the leadership of savants and entrepreneurs. Mill's international thought was geared towards keeping India under control of the company he worked for. Chevalier was politically and financially invested in the technical interventions he endorsed. There was a strange irony in all this. Despite ardently longing for an impartial perspective from which to govern the globe, thinkers North and South of the Channel had themselves hardly ever been able to transcend their own points of view. Impartiality as the basis of reform was far from solid ground to stand on. The international entrepreneurs of the later nineteenth century—pioneers of the globalising capitalism of canals and cables—would put this to the test.

Part II
Performing The International

CHAPTER IV

The fair-holders

The first World Fairs, 1851–1855

> 'The World Fairs are part of that vast economic progress to which belong the railways, electric telegraphs, steam navigation, the piercing of isthmuses, all major public works, and which must bring about an increase in moral well-being, which is to say more liberty, at the same time as an increase in material well-being, which is to say more ease for the benefit of a great number. These great celebrations bring together all the savants of the world.'
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> — Prince Napoleon, 1855[311]

On 1 May 1851, London was up in arms. A monumental structure of glass and steel three times the size of St Paul's Cathedral, designed by greenhouse architect Joseph Paxton and assembled over a mere five months, opened its gates to millions of spectators from Britain and the world. Everybody wanted to take a look at the industrial and scientific exhibits assembled at Hyde Park, and everybody—a staggering six million people—showed up indeed. Among the crowds flooding the exhibition halls one could stumble upon such illustrious figures as Charlotte Brontë, Lewis Carroll, Samuel Colt, Charles Darwin, Charles Dickens, or Karl Marx. Sponsored among others by the world's first soft-drink, the cosmopolitan *Schweppes* bottled in the Republic of Geneva, the exhibition remained open until mid-October, changing life in the city of London for one long summer. Under Prince Consort Albert's patronage, and visited 34 times by his wife the Queen and Empress Victoria, the exhibition had been organised by a Royal Commission led by industrial designer and incidental inventor of the Christmas card, Henry Cole. The *Great Exhibition of the Works of Industry of All Nations* was a remarkable success. It turned a profit of £186,000,[312] the bulk of which was used to create London's Albertopolis, including the Victoria & Albert Museum, the Science Museum, the Natural History Museum, and the Imperial Institute.

Four years later, the Emperor of France Napoleon III accepted the challenge and in turn hosted his own *Exposition Universelle des Produits de l'Agriculture, de l'Industrie et des Beaux-Arts*. A majestic *Palais de l'Industrie* was erected between the Champs Élysées and the Seine, enclosing an exhibition space surpassing the Crystal Palace by a recalcitrant

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311 Prince Napoleon 1855, 131.

312 Approximately £26,600,000 today.

five hectares. A second building, the *Palais des Beaux-Arts*, was added to host an impressive fine arts exhibition. Though attracting fewer visitors (a million less) and turning a profit nowhere near that of its London predecessor, the 1855 exhibition confirmed a growing sense that the World Fairs were, for the time being, here to stay as a testament to the brave new world. Surrounding these spectacular sites all matters "international" could be heard of on a near-daily basis. A gushing stream of exhibition commentary reflected eager popular participation in a collective enterprise of imagining —differentiating—the international as a domain of industrial progress, free trade, and taken-for-granted imperial hierarchies.

Art historians and historians of empire most often treat the World Fairs as preludes to the brutal decades of the New Imperialism.[313] This is why later fairs, from the 1870s into the 1920s, receive the bulk of scholarly attention: these spectacles featured human exhibits and made an unvarnished show of imperial conquest, complete with proud displays of arms and loot. The first World Fairs, by contrast, were subtler, more self-indulgent, and more banal. They are nevertheless revealing snapshots of the mid-century world imagined and enacted in the light of technocratic internationality. Crucially for the perspective of domain differentiation, at the World Fairs one could now experience the international as though it were a *thing*: internationality became tangible in majestic halls filled with objects to be grasped, held, watched, smelled, tasted, and purchased. After 1851 and 1855, the haptic encounter with the international, claimed to be a domain of impartiality, became a regular spectacle in which a select and policed public could, at the price of admission, get a sense of having been everywhere at once—of having participated in the creation of a world from nowhere.

And yet crucially this was 'a world' created, as Marx and Engels had famously put it in the *Communist Manifesto* of 1848, 'after the image' of the bourgeois mode of production: a world viewed and made intelligible on the terms of global industrial capitalism, engendering in its expansion a 'universal interdependence of nations'. Amply illustrating Marx and Engels' characterisation of global capitalism, the World Fairs put on display 'barbarian and semi-barbarian countries dependent on the civilized ones, nations of peasants on nations of bourgeois, the East on the West'.[314] They presented 'a 'cosmopolitan' capitalist vision of a singular humanity' as something that could be squared with industrial, cultural, and racial hierarchies.[315] Ultimately, the fairs conveyed and normalised an understanding of the world as structured by the so-understood impartial forces of technical expertise and industrial power. The international as represented at the fair naturalised industrial capitalism, driving force and beneficiary of

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[313] Isay 1937; Greenhalgh 1988; Davis 1999; Auerbach 1999; Auerbach/Hoffenberg 2008.

[314] Marx/Engels in McLellan 1977, 224-225; cf. Young in Auerbach/Hoffenberg 2008, 11.

[315] Bell 2011, 727.

empire, as the centrepiece of what with Wallerstein we may call 'a neutral "universal" culture'.[316] Such a characterisation was possible because of the close link between internationality and impartiality drummed into the public imagination by way of fair fantasy. At the World Fair, the real world turned fair at the same time as the abstract international turned real.

This chapter argues that the first World Fairs in London and Paris performatively differentiated the "world from nowhere"—represented and evaluated by impartial commissioners as differentiators—as both natural fact and spiritual experience of modernity. This enabled and popularised a view of the international as a differentiated domain spearheaded by private entrepreneurs and technical experts. The World Fairs carried out one particular form of boundary-work. Their contribution in the context of this thesis resembled what Michael Walzer calls the 'art of separation', purporting to successfully separate or insulate one domain (the technocratic international of industrial-technical integration) from another (the political, manifested in state and empire).[317] Though they attract far less attention today than they once did, World Fairs became reiterative markers of a technocratic worldview that promoted universal harmony at the price of Western industrial superiority. In line with the Saint-Simonian technocratic thought discussed in Chapter III, despite their obvious material emphasis the World Fairs celebrated what contemporaries referred to as a "cult of industry", consecrating industrial leadership and productivity in deeply spiritual ways.

The World Fairs conveyed the authority of those acting in the name of technocratic international order—capitalists, merchants, scientists, engineers—as both natural and spiritual. At a time when political authority was routinely performed in ceremonial and spiritually ordained ways, the international offered an alternative spiritual experience so as to appear meaningful. Below I first introduce the 1851 and 1855 World Fairs as such performances of domain differentiation; second, I examine the international commissions that presided over each fair and acted as differentiators; and third, I conclude by discussing the overall place of the World Fairs in the nineteenth-century international imagination.

1. Performing a world from nowhere

There had been notable precedents in the first half of the nineteenth century, across and beyond Europe, of national exhibitions of industry, albeit at a smaller scale. These had opened their doors to audiences in Munich (1818), Ghent (1820), Stockholm (1823), Tournai (1824), Haarlem (1825), Dublin (1826), Madrid (1827), New York (1828), Moscow (1829), St. Petersburg (1829), Brussels (1830), and Berlin (1844). They were not

[316] Wallerstein 1995, 85.

[317] Walzer 1984; see Cutler 2003 for the global governance context.

strictly speaking international in denomination or scope, with the possible exceptions of the Brussels (the Low Countries were invited) and Berlin exhibitions (various German polities convened). These earlier national exhibitions had spread hopes that 'manufacturers might benefit from seeing foreign produce up close'.[318] An 1834 French observer recommended internationalisation: 'Why should we be afraid', he wrote, 'to open our halls to manufacturers whom we call foreign; to the Belgians, to the English, to the Swiss, to the Germans? How noble would be a European exhibition, and what a mine of instruction it would be for all.'[319]

In what follows, I discuss both the 1851 Great Exhibition in London and the 1855 Exposition Universelle in Paris in detail. It should be noted that there was another World Fair in 1853, held in New York, which this chapter omits for two simple reasons: it exceeds the scope of the dissertation; and it played a much less central role in setting precedents for later fairs to come. Below I focus on two aspects in particular: first, the *rationale* for holding World Fairs, chiefly market creation and pacification. I show that these were political motives in the service of maintaining and naturalising international hierarchy cloaked in the cosmopolitan language of universal harmony. Second, I detail the *performance* of the fairs, highlighting consecration through architecture and aesthetics and classification through the spatial arrangement of objects. I highlight the role of contestation in both.

1.1 The exhibition rationale

The scope of French industrial exhibitions grew at a steady pace, and in 1849 French President Louis-Napoléon Bonaparte (soon to be Emperor Napoleon III after the 1851 self-coup) hosted a crowning display of the fruits of French national and imperial labour. An Englishman by the name of Henry Cole happened to be in Paris at the time and went to visit the exhibition. Henry Cole had made himself a name working between 1837 and 1840 as assistant to Rowland Hill, the renowned inventor of the penny post, and in that role had been credited with designing the Penny Black, the world's first postage stamp. He had also campaigned for postal reform and joined Richard Cobden's Anti-Corn Law League during this time. In 1843, Cole had introduced the world's first commercially produced Christmas card. As a member of the *Society for the Encouragement of Arts, Manufactures, and Commerce*, Cole subsequently began to lobby the British government to improve standards in industrial design. As a result of his efforts the Society was granted a royal charter and held *Exhibitions of Art Manufactures* in 1847, 1848, and 1849. This is how Cole ended up visiting the French exhibitions. Impressed by the ambitious display, upon his return to London Cole put forth a proposal to Prince Albert:

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[318] Greenhalgh 1988, 10.

[319] Boucher de Perthes [undated] in Greenhalgh 1988, 10-11.

why not, he suggested, do the same—but even bigger? Cole would recount his conversation with the Prince Consort as follows:

> I asked the Prince if he had considered if the exhibition should be a national or an international exhibition. The French had discussed if their own exhibition should be international, and preferred that it be national only. The Prince reflected for a minute, and then said, 'It must embrace foreign productions', to use his words, and added emphatically, 'International certainly.'[320]

This was a crucial moment of domain designation: the next big thing had to be *international*. Henry Cole went on to become an indefatigable campaigner for the Great Exhibition to be held at Hyde Park in 1851. With the backing of the Prince Consort's industrial enthusiasm he was able to count on royal patronage. A meeting at Mansion House on 17 October 1849 captured the sense among industrialists across Britain that making the exhibition international would be key:

> Messrs. Hoyle and Sons, of Manchester, whose name has a sort of world's reputation for a particular class of fabric, were unanimously agreed that the exhibition ought certainly to be international. … The Master of the Merchants' Company at Edinburgh said, rather graphically, that 'he thought the exhibition should be universal, and that its tendency would be to rub the sharp corners of many nations off.' (Hear, hear, and a laugh.) The Rev. Mr. Yate, of Dover, expressed his hope and belief that the proposed exhibition would hasten the period when men shall beat 'their swords into ploughshares and their spears into pruninghooks.' (Hear, hear.)[321]

Nearly seven decades after Bentham had first coined the term, "international" now appeared as an obvious label for an industrial exhibition with a claim to world standing. Who was going to make this claim stick? At the Mansion House meeting it was also determined that a Royal Commission would be in charge of a prize competition. The commissioners should judge the merit of exhibits, ordered by country and by kind, 'with the utmost impartiality.'[322] Prince Albert was careful to specify what he meant by impartiality and, according to one historian, 'anxious to avoid the impression that it would serve the narrow interests of business or, worse still, the aristocracy'.[323] Impartiality could, to Prince Albert and Henry Cole, be achieved by removing links too

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[320] Cole 1849 in Greenhalgh 1988, 11-12.

[321] Cole 1849, 134-44 in Shears 2017, 20.

[322] Cole 1849, 134-44 in Shears 2017, 23.

[323] Shears 2017, 25.

easily perceived as class-based, or to individuals drawn from a narrow (partial) pool of commercial sectors. Impartiality, to them, referred to independence from group-based or factional loyalties. In January 1850, the *London Gazette* happily echoed the commission's intention of 'securing the most impartial distribution' of prizes.[324]

Why was impartiality foregrounded? One explanation lies in the belief that international understanding among nations and peoples should be guided by a set of values they all shared: a universal point of view that, by virtue of being shared and so in-between a range of diverse interests, was impartial. Just as the commissioners would impartially judge the fruits of the world's labours, international understanding more generally could be imagined and displayed as a force that relied on impartial agents and activities: industry, commerce, science, expertise. Many of these were euphemistic references to imperial control, racial and civilisational distinctions between knower and object of knowledge, or forced labour. They could be promoted by being woven into an internationality-impartiality nexus. To do this the international as a domain had to be differentiated against politics: a proxy for the autonomy of governance from government, the private forces of the market from the public force of the state, and so on. Rather ironically, Prince Napoleon even took the 1855 exhibition as occasion to stress his 'firm belief that the State should do as little as possible, and that its role should be limited … to getting [private] individuals to act for themselves.'[325]

Jointly encapsulating the rationale of the exhibition performance—and echoing the technocratic principles discussed in Chapter III—the twin reasons for hosting a World Fair were the creation of markets on the one hand, and pacification at home and abroad on the other. Market expansion introduced an incentive to promote the perception of World Fairs as apolitical, even anti-political, venues of transnational commercial exchange. Creating new markets was an emphatic goal in both preparatory debates among supporters and organisers, and public critiques of the events in periodicals and newspapers. Participating nations would display their goods at the fair either to join and so become visible on a globalising market, as was the case for Russia at the 1851 London exhibition,[326] or they competed for investment and trade, as was the case for settler colonies such as New Zealand.[327] As David Fisher writes of Russia, 'the image of Russia's inferior industrial development could be put to good use before the court of European public opinion.'[328] Ultimately 'the point was to advertise

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[324] London Gazette 1855, 23-24 in Shears 2017, 27.

[325] Prince Napoleon 1855, 138.

[326] Fisher in Auerbach/Hoffenberg 2008, ch. 6.

[327] Johnston in Auerbach/Hoffenberg 2008, 77.

[328] Fisher in Auerbach/Hoffenberg 2008, 125.

improvements in production with nations showing products as signs of their progress.'[329] Participating at a World Fair carried considerable political meaning, and could so be both indicator and generator of international status.

Pacification, in the sense of both peace-making and appeasement, was the second major motive for hosting World Fairs. In both London and Paris, promoters and critics understood the exhibitions as responses to political turmoil at home, particularly in the wake of 1848, and as a welcome escape from the politics of great power rivalries abroad. Pivotal to this, the concept of 'peaceful rivalry' relied on the assumption that technical cooperation would inevitably bring peace and harmony: at home, workers would no longer destabilise the nation by joining the dangerous socialist cause, instead rallying to the common cause of industry; abroad, nations would no longer fight once they recognised and reinforced their interdependencies. The World Fairs promised behavioural therapy for quarrelling nations. To Prince Albert this was nothing less than 'the *realisation of the unity of mankind*':

> Not a unity which breaks down the limits and levels the peculiar characteristics of the different nations of the earth, but rather a unity, the *result and product* of those very national varieties and antagonistic qualities. The distances which separated the different nations and parts of the globe are rapidly vanishing before the achievements of modern invention, and we can traverse them with incredible ease; the languages of all nations are known, and their acquirement placed within the reach of everybody; thought is communicated with the rapidity, and even by the power, of lightning. … the Exhibition of 1851 is to give us a true test and a living picture of the point of development at which the whole of mankind has arrived in this great task, and a new starting point from which all nations will be able to direct their further exertions.[330]

The exhibition promised, Albert added, to make visible, celebrate, and further advance what he saw as 'the *great principle of division of labour*, which may be called the moving power of civilisation.' Now that 'the languages of all nations are known', the task at hand was simply to intensify their interconnections. Universal knowledge of all quarters of the globe was real, and one had 'only to choose' which products to trade for what raw materials. In the spirit of free-trade liberalism, and with an obvious nod to sponsors and exhibitors, that task was one best left to 'the stimulus of *competition and capital*'. Commissioner and famous polymath Charles Babbage concurred, writing that 'England has invited the civilized world to meet in its great commercial centre; asking it, in friendly rivalry, to display for the common advantage of all, those objects which each country

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[329] Purbrick 1997, 55.

[330] Prince Albert 1850, 279-281 in Shears 2017, 32-33; emphasis original.

derives from the gifts of nature, and on which it confers additional utility by processes of industrial art.'[331] To commissioner Henry Cole, the case for the commodification of the non-European world was straightforward: 'a more extensive knowledge among European manufactures of the Raw Products of the Indian soil', he declared, 'could hardly fail to increase its commerce'.[332] In his lectures on the results of the 1851 exhibition, William Whewell likewise described the Crystal Palace as 'a cabinet in which were contained a vast multitude of compositions—not of words, but of things.'[333] Such things included peoples represented not by creative engineering genius but by trophies and raw materials. Pacific rivalry, the motor of market creation, was attuned to capitalist industrial competition.

Whether pretence or not, some version of these motives, combining into a broad defence of the technocratic international, appeared in nearly every commentary surrounding the 1851 and 1855 exhibitions. In her opening speech at the Crystal Palace, Queen Victoria stressed her 'anxious desire to promote among nations the cultivation of all those arts which are fostered by peace, and which in their turn contribute to maintain the peace of the world.'[334] An anonymous critic by the pen name of 'Helix' summarised the first goal of the Great Exhibition with less ornament:

> 1. To promote brotherhood amongst mankind. 2. To make all cognisant of what we can do for others. 3. To diminish human drudgery by mechanism. 4. To promote art of the higher kind. 5. To show how clothing may best be made by machines without handicraftry. 6. New preparations for human food.[335]

'Brotherhood amongst mankind' took pride of place; but the phrase had vague meaning. Michel Chevalier, who attended the fair, viewed fraternity as limited to the upper ranks of civilisation: 'Industrial solidarity between the nations of Western civilisation reveals itself once more through this circumstance, that in the greatest number of cases today the organisation [of exhibitions] is due to the direct or indirect, apparent or latent, concert of men of all nations. … The Crystal Palace is the right place to verify this similitude, this fraternity, this equality of industry among the principal peoples of Western civilisation.'[336] As Greenhalgh paraphrases the tension, 'love and understanding between nations was the single most laboured aspect of exhibition diatribe' though

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[331] Babbage 1851, vi.

[332] Cole 1855, 585–607 in Hoffenberg 2010, 40.

[333] Whewell 1852 in Hoffenberg 2010, 204.

[334] Queen Victoria 1851 in Anonymous 1851; see Greenhalgh 1988, 17.

[335] Helix 1850, n.p.

[336] Chevalier 1851, 17; my translation. All translations in this chapter are mine unless otherwise stated.

'ridiculed by displays of military technology, imperial conquest and abject racism on the sites themselves.'[337] Long before the rise of the New Imperialism, the first World Fairs helped legitimate a path to national enrichment by foreign conquest and exploitation under the more palatable banner of universal association. This view became 'an apolitical constant' from the 1850s.[338]

France followed a similar rationale. The initial practical goal was the creation of markets, not only for mass-produced industrial goods but also for art works. The exhibition occasioned lowered thresholds and increased incentives for market exchange, chiefly by means of making it 'easier for artists and industrialists to send us their works or products', simplifying 'a host of difficulties raised by our legislation and bylaws', and introducing separate customs procedures to speed up import.[339] With regards to importing foreign exhibits, the 1855 exhibition was a remarkable case of swift concerted action to increase administrative efficiency at the international border: months of correspondence between the imperial government, national and foreign customs administrations, as well as railway and postal companies culminated in the opening of special customs offices and reduced railway tariffs. An additional agent was, for example, deployed to Cologne to cluster consignments from the various German states 'to prevent any delays which might have occurred at the intermediate borders.'[340]

Pacification was a prominent theme in France too, though with a stronger emphasis on foreign than on domestic tensions. Prince Napoleon declared Paris ideally suited for a fair given its 'cosmopolitan character',[341] but the Crimean War turned 1855 into a rather inopportune moment to celebrate universal harmony.[342] The technocratic international nevertheless proved resilient: while the allied powers bombarded Russian targets during the Siege of Sevastopol, the fair offered an escape into the insulated international, where impartial commissioners, capitalists, and markets reigned instead. Napoleon III thus opened the exhibition with the words: 'Gladly I open this temple of peace which invites all peoples to concord.'[343] Crimean turmoil could be safely ignored in the refuge of a differentiated domain.

Russia declined the invitation to send delegates; and yet the organisers insisted that the exhibition would spur 'peaceful and orderly competition.'[344] Prince Napoleon

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[337] Greenhalgh 1988, 17.

[338] Greenhalgh 1988, 18.

[339] Prince Napoleon 1855, 7.

[340] Prince Napoleon 1855, 34-35.

[341] Prince Napoleon 1855, 139 in Murphy 2010, 31.

[342] Murphy 2010, 32.

[343] Napoleon III 1855 in Isay 1937, 15.

[344] Napoleon III 1855 in Isay 1937, 34.

suggested that World Fairs could generally serve as a pacifying alternative to political tensions: 'It was in the aftermath of a revolution whose effects had spread to the most remote parts of Europe that the English opened the Crystal Palace. It was in the midst of the twists and turns of a great war that the French Exhibition began and developed.'[345] Contemporary observers attached high hopes to the World Fair as a function and facilitator of universal association. Art critic Julien de la Rochenoire referred to the exhibition as a 'beautiful battle' for 'no longer will we conquer by sword but by intelligence';[346] another critic concurred that 'a battle of nations is taking place', adding:

> All the peoples, and not only of Europe, but of the world, find themselves yet again in each other's presence and vie for victory. — But this will be a peaceful victory. They will no longer fight with cannon blasts, but with blasts of discovery. The fight is no longer called Waterloo; it is the *Exposition Universelle de Paris*.[347]

Similarly Placide Couly's 'Hymn to the Foreigners', distributed on leaflets during the fair, proclaimed that 'Of all battles we offer you the most beautiful'.[348] Not everyone was happy with the military analogy—there was serious disagreement as to whether peaceful rivalry implied such a thing as 'supremacy' or, instead, some kind of cosmic harmony. The famous poet Charles Baudelaire, a part-time cosmopolitan, flirted with this idea: the 1855 exhibition could promote hierarchy without supremacy—a poetic rephrasing of Prince Albert's global division of labour. In Baudelaire's view, 'certain nations [are] prepared and educated by Providence towards a predetermined goal, a goal more or less elevated, further away from or closer to heaven' but nevertheless have 'equal utility to the eyes of HIM who his indefinable', lending each other 'miraculous support … in the harmony of the universe.'[349] Because the utility of each nation would appear equal in the eyes of God, given that each kind of utility had its own place in the harmonious universe, this was a just hierarchy.

This had specifically Saint-Simonian undertones, but also more generally gestured towards Enlightenment universalism. Historian Raymond Isay has pointed out that the Second Empire in many ways was a 'vast Saint-Simonian experience'—the World Fair was 'only a special case of this general fact. It is to the school, the Church of Saint-Simon and Enfantin that it [the World Fair] owes, to a very large extent, its essential

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[345] Prince Napoleon 1855, 130.

[346] Rochenoire 1855, 13 in Pointon 1981, 237.

[347] Paris Chez Soi [undated] in Pointon 1981, 237-238.

[348] Couly 1855; my translation.

[349] Baudelaire 1855 in Murphy 2010, 575.

inspiration, … its very appearance and figure.'[350] More generally, the dissolution of difference into singularity characterised much discourse around the French fair. The nineteenth-century Parisian art critic Eugène Loudun spoke of a 'spirit of universality which tends to efface distinct characters and to melt away all nuances in a yet undecided ensemble'.[351] His contemporary Louis Peisse wondered 'whether the entire world was not on its way to forming a single world culture' if national borders eventually 'disappear[ed] under the levelling of the railways'.[352] And yet universal gestures often had a fundamentally inward-looking core. To Loudun, 'in the works of the foreigners one finds the representation of the same ideas, but it is a pale representation, a reflection; the light comes from us.' Clearly, he continued, while 'all nations represent their own genius … only one nation has a general character, France. She is not confined within her borders … she does not represent the citizen of this or that country, she represents man.'[353]

In sum, both World Fairs were perceived as apolitical events promoting the supposedly innocent forces of market creation and pacification. 'The culture of the market' with its attendant 'practice and language of consumption and production', writes Hoffenberg, 'provided a seemingly neutral and natural representation' of the tensions it produced.[354] Magically, 'trade could unite peoples, solve the ills of the world and generate happiness'. An 1851 World Fair poem summarised the point: 'The band of commerce was designed, / To associate all the branches of mankind; / And, if a boundless plenty be the robe, / Trade is the golden girdle of the globe.'[355] Trade was here envisioned as a capitalist reply to the threat of politics. Politics appeared as a threat to be averted or, if possible, managed by forces understood to be outside that contentious partisan sphere.

Flight into an anti-political sphere, away from the rabble, appeared urgent, and the World Fairs provided the physical infrastructure needed for such an escape. To differentiate domain of governance is to place a limit on the general domain of government, or as Walzer puts it: 'Limited government is the great success of the art of separation, but that very success opens the way for what political scientists call *private* government'.[356] To borrow from Clare Cutler, at the fairs the domain of the international was 'isolated from the sphere of politics through a barely perceptible analytical move

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[350] Isay 1937, 30-31.

[351] Loudun 1855, 1-2 in Majluf 1997, 874.

[352] Peisse 1855, 22-23 in Majluf 1997, 874.

[353] Loudun 1855, 101 in Majluf 1997, 890.

[354] Hoffenberg 2010, 23.

[355] Anonymous 1851 in Greenhalgh 1988, 22.

[356] Walzer 1984, 321.

neutralizing it of political content'.[357] Escaping from politics, crucially, required a conception not only of that which needed escaping from but also of that which it would be desirable to define as not political. In that light, the World Fairs were a response to and venting of political tension, offering a way out of crises of political authority: whether the threat of socialism upsetting Londoners in 1851 or the ongoing Crimean War casting its shadow over Paris in 1855.[358] The fairs shared a common rationale that emphasised international modernity under the joint leadership of private capital and technical experts. Prince Albert, Prince Napoleon, and the entrepreneurial entourage of each, gave the idea of holding an international exhibition a cosmopolitan gloss whilst advancing unmistakable imperial and industrial-capitalist agendas. French World Fair architect Alexis Barrault's brother and fellow Saint-Simonian, politician Emile Barrault, would later summarise this agenda when characterising industry as 'the only weapon of proselytising civilisation'.[359] How was this logic reflected at the fairs themselves?

1.2 The exhibition performance

What did arrangement and architecture at the World Fairs reveal about the view of the world they sought to convey? Below I show, first, that the World Fairs symbolically *consecrated* the internationality-impartiality nexus as part of the natural world, thus adding to the process of domain differentiation sketched out in previous chapters; second, they presented a Eurocentric, industry-centric, and expert-centric *classification* of the world in terms of industrial productivity. Technocracy is typically understood as quintessentially materialist and profane, yet both the Crystal Palace and the Palais de l'Industrie raised industrial prowess to spiritual plains. Only twenty years earlier, the Saint-Simonians had been fantasising about a cult of industry. Chevalier had described an imaginary 'Voltaic temple' where 'Earth's life' could be 'seen in its mysteriousness by magnetism and electricity, in its lavishness by the glistening of metals and fabrics, by marvellous waterfalls, by a luxuriant vegetation appearing through the temple's stained-glass windows'.[360] The fantasy could have been, almost word for word, a description of the Great Exhibition at Hyde Park. In fact, Chevalier himself visited the fair and served as fair commissioner four years later in Paris. Upon his return from London he compared

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[357] Cutler 2003, 16-17.

[358] The 1850s were still wrestling with the aftermath of 1848; from the assassination of the Duke of Parma and the workers' uprising in Barcelona (March 1854) to two coups d'état in Denmark (May and July 1854) to the assassination attempt against Napoleon III by Italian nationalist Giuseppe Pianori (April 1855), a precursor to the 1858 Orsini affair; see Démy 1907.

[359] Barrault 1858 in Isay 1937, 35.

[360] Chevalier 1832 in Picon 2016, 355; Picon's translation.



Figure 1. 1851 sketch of the Crystal Palace, dedicated 'to the Royal Commissioners.' London: Read & Co.

the Crystal Palace to basilicas, cathedrals and churches, likening the exhibition itself to 'a sort of voyage around the world … a pilgrimage'.[361]

Indeed, upon entering the halls of Joseph Paxton's masterpiece at Hyde Park, visitors were immediately awestruck. After the opening ceremony, Queen Victoria wrote in her diary: 'The glimpse through the iron gates of the Transept, the waving palms & flowers, the myriads of people filling the galleries & seats around, together with the flourish of trumpets, as we entered the building, gave a sensation I shall never forget, & I felt much moved.'[362] The Queen's use of the term 'transept', typically applied to churches, was not accidental but characterised most commentary on the structure. The building was monumental, ambitious, majestic—its glass façades flooding the halls with light, and the palace tall enough to enclose one of Hyde Park's elm trees, eliciting powerful imagery about the modern conquest of nature. The *Illustrated London News* commented on Paxton's design that 'the manner of supporting a vast glass roof covering twenty-one acres on the most secure and scientific principles, and filling in a structure of

[361] Chevalier 1851, 6.

[362] Queen Victoria 1851 in Shears 2017, 51.

such magnitude wholly with glass,' ensured this palace would be 'unrivalled in the world.'[363]

The building at once reminded spectators of the greenhouses it was modelled after, and refrained from invoking any particular national style. Notably *The Times* observed that the edifice's glittering features 'contributed to an effect so grand and yet so natural, that it hardly seemed to be put together by design, or to be the work of human artificers'—the patron's political aims, the architect's pencil stroke, and the labourer's physical effort all seemed to have dissolved in the collective assemblage of the exhibition hall.[364] It was both glorification of industrial skill and elevation of industry to sacred status—its structural divisions into nave and transept, but also its use of polychromy, a technique inspired by antique temples and medieval cathedrals, added to turning the Crystal Palace into 'a cathedral of industrial times.'[365]

On the inside, enclosed trees, statues, fountains, and an upper-floor gallery along every wall emphasised the sheer size of the building and the quantity of objects on display. Raw materials, technological inventions, machines in motion, and not least concerts and shows added to an atmosphere of novelty, spectacle, and worldliness. The Crystal Palace was a veritable 'industrial map', a 'global chart of things which established the West … as the 'Bearer of Progress'.'[366] Every map, of course, adopts a particular point of view: half the space inside the halls was reserved for Britain and the British colonies, whereas the other half was composed of stalls of foreign nations. When entering through the South transept, visitors would face a crystal fountain at the centre, with the British exhibits on the West side to the left and foreign exhibits on the East side to the right. On the West wing, British exhibits were divided into classes ranging from furniture to printing fabrics, brass and iron to coal and coke, locomotives to spinning machines in motion. These were placed, on the same level, next to small stalls—located closest to the South entrance—labelled 'Ceylon', 'Malta', 'Cape', 'Africa', 'Canada', 'New Zealand', and 'West Indies'. India was represented by a considerable eight stalls filling the entire space to the immediate West of the crystal fountain. On the East wing, in turn, the foreign section went from single stalls for Persia, 'Egypt & Turkey', 'China & Tunis', 'Spain, Portugal & Madeira' and 'Italy & Sardinia' to several stalls each for Switzerland, France, Belgium, Austria, the *Zollverein*, the Hanseatic towns, Saxony, Württemberg, Prussia, Bavaria (on the upper gallery), Denmark, 'Norway & Sweden', Russia, and finally —at the far end of the wing—the United States.

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[363] Illustrated London News 1850, 18 in Shears 2017, 47.

[364] Times 1851, 1 in Shears 2017, 53.

[365] Picon 2016, 351.

[366] Young in Auerbach/Hoffenberg 2008, 13.

The choice of the 13,000 objects on display—to the dismay of manufacturers, price indications were not permitted—provides further clues about the character of the worldview the 1851 exhibition sought to convey. The most prominent material to be seen at the colonial and foreign sections, particularly the prestigious stalls to the immediate left and right of the middle transept, were piles of raw material alongside ancient artefacts from long-gone civilisations. New Zealand's stall, for example, mainly contained Maori fish hooks and flax baskets next to piles of clay and limestone. The most famous object on display at the Indian section was the *Koh-i-Noor*, the world's largest known diamond at the time, acquired as part of the 1850 Lahore Treaty and placed on a pedestal to impress the clustering crowds. Contrasting such trophies, the English and European sections displayed impressive innovations in technology, including electric telegraphs, giant telescopes, Mathew Brady's daguerreotypes, Samuel Colt's revolvers, and Cyrus McCormick's latest harvesting reaper. Machinery in live motion attracted a considerable share of attention. The difference was an unsurprising one, characterising the non-European world as exotic and rich in resources whilst portraying engineering genius as a European trait.

The Great Exhibition was a 'commodity spectacle'[367] at the same time as its stage and scenery gave away the parameters of the performance: the international was reduced to industrial output combined with a vision for harmony through interdependence. An 1851 volume on *The Great Exhibition; Its Palace, And its Principal Contents* described the exhibits as 'a series of displays of national industry, each methodically arranged' and stressed that 'the intelligent spectator' would hardly fail 'to detect the strong and weak points in the productive power of the various countries represented.'[368] China and the Ottoman Empire, for example, were 'represented by fewer artefacts and attracted comparatively little attention in the catalogues' while 'there was no commission appointed to China'.[369] Both exhibiting countries were met with 'tokenistic and off-hand treatment', and out of a total of about 2,500 prizes awarded by the commission, the Ottoman Empire, Egypt, and Tunisia received 27 in total; China a mere two. A separate *Catalogue of the Turkish Section* included in the 1851 official exhibition catalogue expressly characterised 'Turkey' as a 'non-industrial country'. This was the culmination of technocratic internationality: spearheaded by European experts, the world could unite over the advances of scientific and technological progress.

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[367] McClintock 1995, 59.

[368] Stephenson 1851, 40 in Young in Auerbach/Hoffenberg 2008, 7.

[369] Vanke in Auerbach/Hoffenberg 2008, 191, 195.

The 1855 Paris exhibition 'differed radically' from its London predecessor[370] while resembling 'a cathedral even more clearly, with its three great naves and two immense glazed screens at either end.'[371] Notably, this exhibition was assembled in not one but several buildings: a *Palais de l'Industrie* and a *Palais des Beaux-Arts* hosted displays separately. The latter represented a novelty to the World Fair format and the French desire to show its superiority in matters of refined taste. Designed by architect Jean-Marie-Victor Viel and Saint-Simonian engineer Alexis Barrault (later associate of Suez canal entrepreneur Ferdinand de Lesseps),[372] the Palais de l'Industrie rivalled the Crystal Palace not least in its superior materials: instead of fragile glass, the French palace was made of cast iron columns and beams enveloped by massive stone walls. Instead of the long, corridor-like layout of Paxton's design, Viel and Barrault had opted for a larger main hall that

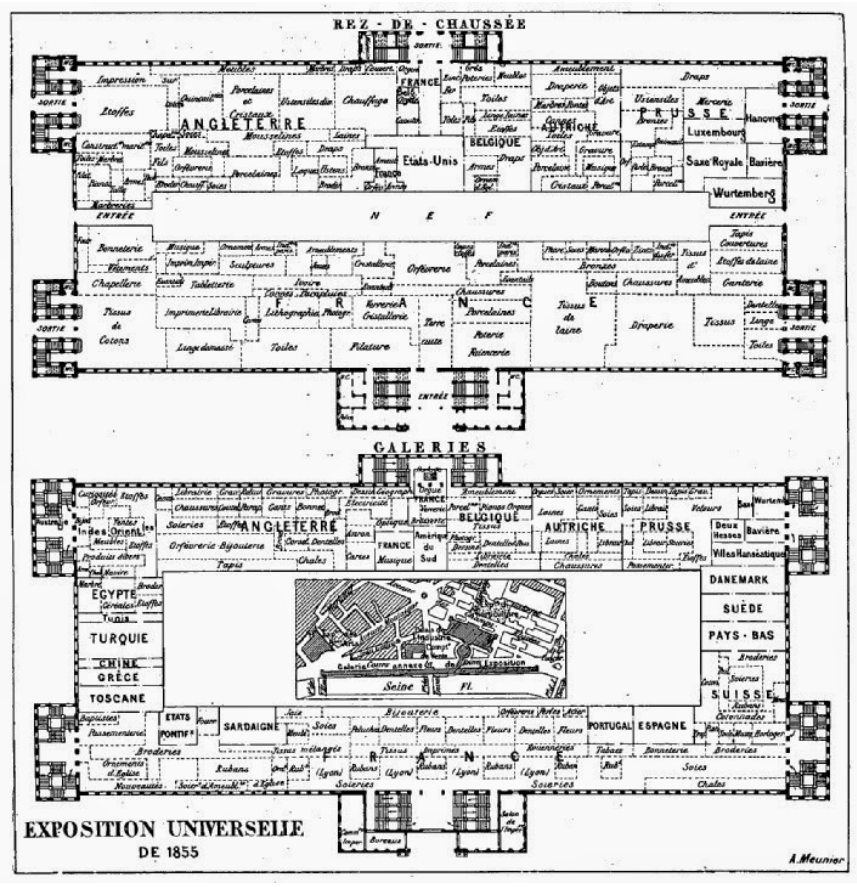


Figure 2. 1855 map of the Palais de l'Industrie. Paris: Bibliothèque Nationale de France.

[370] Pointon 1981, 235.

[371] Picon 2016, 351.

[372] Isay 1937, 35; see Chapter V.

extended further back. The main gate to the palace was crowned by Élias Robert's sculpture *La France Couronnant l'Art et l'Industrie*, suggesting French superiority whilst embracing the spirit of Chevalier's universal association by industrial progress. Isay has noted that the architectural achievement of the 1855 halls was 'the consecration of construction in metal', representing 'the cradle of a new divinity: the divinity of knowledge and human effort … the cathedral of the future.'[373] But whereas the Crystal Palace had been lauded as airy and glittering, the appearance of the *Palais de l'Industrie* was condemned by some as coarse and uncomely: as art critic Octave Mirbeau put it in 1895, the palace had 'the grace of an ox trampling through a rose garden'.[374]

On the interior, much like its London relative, the fair resembled 'a gigantic catalogue of creation and industry'.[375] A key difference was that the Paris fair did permit price labels to be attached to objects on display, rendering this a more explicitly commercial occasion. Entering through the main gate on the North side of the building, one would first have passed by the French section, occupying the frontal half of the hall both left and right. The back half was occupied by British exhibits to the left, making up for a quarter of the entire exhibition space, while the United States, Belgium, Austria, and the Prussian *Zollverein* had major stalls on the right. On the upper-floor galleries, there were further French exhibits left and right above the main gate, stalls for Sardinia, Tuscany, Greece, Tunisia, Turkey, Egypt, China and Persia to the left (the East-facing side of the building); additional British exhibits just above the British section on the ground floor; and further stalls for the United States, South America, Belgium, Austria, Prussia, Saxony, Württemberg, Denmark, Sweden, The Netherlands, Switzerland, Spain, and Portugal. Equal space was assigned to Saxony and South America, Sardinia and Egypt. Remarkably, there were no physical barriers between sections—one could get a sense that all the world's nations had blended into a single entity under a single roof.

On display were, again, scientific and industrial novelties from Foucault's pendulum to Vicat's hydraulic lime, breaking ground in the cement industry, to Lambot's boat made from reinforced concrete. Particularly exciting to spectators was 'Loysel's hydrostatic percolator, capable of producing fifty-thousand cups of coffee on a daily basis'.[376] In another departure from 1851, the Bordeaux crus were officially classified at the Exposition Universelle, the wine ranking system that is still in use today. Finally, a new instrument by Belgian inventor Adolphe Sax was on display: the saxophone. Whereas the London exhibition had paid only minor attention to the fine arts, the Palais des Beaux-Arts turned this into a major focus, arguably adding a resolutely French tone

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[373] Isay 1937, 77.

[374] Mirbeau 1895, 408.

[375] Poisson 2005.

[376] Poisson 2005.

to the event. The neo-Renaissance building displayed art works from Ingres and Delacroix, depicting among other motifs Algiers, Constantinople, and the Empress Eugénie.

The British section included 'exhibits from the East India Company, the Bahamas, Barbados, British Guiana, Canada, Cape of Good Hope, Ceylon, Jamaica, Mauritius, New South Wales (Sydney), New Zealand, Van Diemen's Land and Victoria (Melbourne).'[377] Repeating the trophyism of 1851, the British Guiana stall exhibited 160 samples of high-quality wood alongside 'a comprehensive collection of the country's weapons clothing, and utensils' but also 'a bamboo hut, home of the natives, and a fully armed Caribbean.'[378] Anticipating the infamous human zoos of later World Fairs by several decades, the 1855 French fair had already included human beings as exhibits. The colony as source of raw materials was woven into neatly arranged imperial displays throughout. The Dutch section presented a pyramid arrangement of luxury proceeds from the Dutch East Indies: coffee, sugar, various spices, plants used for dye, textiles. At the top of the pyramid 'the skins of tigers, monkeys, and panthers' crowned the colonial pile.[379] A visitor of the 1855 exhibition summarised its overall effect as showing Europe 'the way out that the colonisation of the New World offers to the overflow of its restless population', adding as its twin aims were 'first to indulge the mundane curiosity which attaches to any extraordinary display and second to exert the emulation of manufacturers by the lure of free publicity and the expectation of official rewards.'[380]

In line with the guiding motivations examined in the previous section, colonial enthusiasm was here furnished with romantic sentiment, the combination proffered not only as an answer to social and political upheaval at home, but also as enabler of a capital-driven international order of productivity. An observer described a meeting between Napoleon III and Queen Victoria at the fair with the triumphant words:

> One admires it altogether, and the two great sovereigns say to each other without speaking: "To you, Queen, the Indies: to you, Emperor, Africa to civilise! The silent world will not trouble our glorious labour so long as we remain united." They pass and proceed toward Australia.[381]

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[377] Greenhalgh 1988, 56.

[378] Hennequin 1856, 610 in Démy 1907, 67.

[379] Démy 1907, 67.

[380] Hennequin 1856, 600 in Démy 1907, 67, 70.

[381] Arnoux 1856, 38-39.

This arrangement shaped perception of the world, and concomitantly, the broader international imaginary. In the above passage the monarchs simply 'pass' from the Indies to Australia: countries, stalls, raw material value blended into one.

Foreign travel, in the same light, was substituted by one enormous artifice that reduced the world to entities of produce and culture, neatly arranged in order of civilisational progress—a 'machinery of representation' or, in the words of an Egyptian visitor to Paris in 1855, *intizam al-manzar*, 'the organization of the view.'[382] One could visit the fair and return home with a sense of knowing the world in its entirety. Inversely, travel itself turned into a search for correspondence. After having seen the Middle East at the 1855 Paris exhibition, Timothy Mitchell writes, 'Europeans brought to the Middle East the cognitive habits of the world-as-exhibition, and tried to grasp the Orient as a picture' and so as travellers 'were seeking the original' in 'a place that one "already knew by heart" on arrival.'[383]

Both rationale and performance of the first World Fairs in London and Paris, in sum, placed a materialised imaginary of the international in a technocratic frame. This section has argued that the fairs naturalised the link between internationality and impartiality. Three features common to both exhibitions support this claim: imperial narratives were backgrounded relative to technocratic-international narratives; national rivalries were explicitly understood as being displaced into the realm of peaceful or harmonious competition through science and technology; and both organisers and contemporary observers insisted—or alternatively, did not question—that the displays were impartial in character. As a result, the World Fair performance represented the world, at a time before mass tourism, as a place at industry's disposal.

The exhibition *rationale* emphasised two chief reasons to organise and host World Fairs: market creation and pacification. In the British case, entrepreneurial minds of the like of Prince Albert and Henry Cole shared a sense of being at the pinnacle of knowledge about the world—universal knowledge was available, they proclaimed, and so global harmony was a simple matter of sharing this knowledge and deepening a global division of labour based on the availability of raw materials in each country. In the case of France, a relatively more militarised idiom undergirded the exhibition rationale, where the battle of Waterloo was replaced by the battle of the Palais de l'Industrie, to the same end: universal harmony through technical cooperation. Both France and Britain, we have seen, strove to associate their own position as hosts with "universality" or "general character"—claims to impartiality aimed at dissolving partial perspective into an international point of view.

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[382] Mitchell 1989, 221; from Mubarak 1882, 817.

[383] Mitchell 1989, 233–34.

I examined the exhibition *performance*, in turn, on three dimensions: venues, layouts, and objects of display. The first World Fairs expressed a particular worldview through architectural choices that could be futuristic (London) or traditional (Paris) but in either case were interpretations of what a physical site of internationality should look like. On the interior, both fairs served as industrial maps reflecting a Eurocentric classification of productive power in a colonial world economy. Objects on display ranged from ancient artefacts to raw material to inventions in science and technology. In the case of Britain, stalls were physically separated, whereas in France they were not; the latter also adding the innovation of hosting an extensive Fine Arts section in a separate building. Both advanced their own assumptions about what mattered most to universal culture, and both offered an educating and entertaining encounter with the world. In sum, however, rationale and performance were contested and so not fully embraced by all. Contestation also characterised the work of the international commissions charged with organising and evaluating the exhibitions, whose role I turn to next.

2. Commissioners as differentiators

The 1851 and 1855 international exhibitions were organised by commissions of distinguished representatives of industry, manufacture, and the arts, tasked with selecting and inviting exhibitors, formulating criteria of distinction to judge exhibits, and finally awarding those most accomplished, innovative, or otherwise exceptional exhibits with prize medals. After the fairs, commissioners compiled reports and catalogues that went on to become 'authoritative points of reference' in the history of the modern museum.[384] The format of the commission was not new, nor was its role for industrial exhibitions: precedents at the national level had likewise employed commissioners as venerable voices of industrial eminence, or as governmental patrons' non-governmental delegates. Their power as institutions claiming credit as *international* juries of the productive capabilities of the world took on a new scale. This power was one of setting terms for the diffusion of a technocratic, imperial-industrial worldview. The World Fair commissions generally contributed to the institutionalisation of the international as a domain of impartiality, whilst specifically expanding the expert mandate to culture and commerce.

Insofar as the fairs framed and organised 'participating societies as immense administrative and informational challenges', commissioners were in charge of laying out the terms and conditions of this framing. As Hoffenberg writes, 'commissioners … used the shows to link the Empire's national communities, along with the various classes and regions within those polities, into networks of knowledge. That knowledge was intended

[384] Hoffenberg 2010, 12.

to secure social order both within and across political borders.'[385] Notably the World Fairs 'not only circulated objects and information, but also created and sustained communities of experts' which otherwise did not come into being. In IR terms, epistemic communities here emerged for a purpose other than to facilitate knowledge production: they shared a scientific mission that gave imperial projects an air of neutrality and promoted capitalist expansion. Hoffenberg underscores the distinctiveness of this type of actor, belonging to a 'new class of cultural experts' which 'authored the categories of knowledge, forms of social identity, visual images, and commodities by which the ideologies of imperialism and nationalism were articulated.'[386]

This 'new class' did not erupt spontaneously—experts were *created* by the practices that introduced and naturalised them. There was no obvious pool of exhibition experts to draw from, and so what should qualify commissioners was subject to debate and required explanation. Patrons and executive commissioners had to forge this notion for themselves, while ensuring that their commission would speak in the name of the exhibition's scope: nothing less than the world. Expert authority relied on impartiality, and so commissioners had to be—or be convincingly presented as—disinterested individuals. To commissioner Charles Babbage, writing his 1851 report on the Great Exhibition, impartiality meant to look past 'personality' or 'personal feeling'; it was an opportunity 'to remove the … formidable, because latent, impediments of party'.[387] Prince Napoleon told members of the Fine Arts jury in 1855 that 'any consideration of origin or nationality and any memory of previous awards must be set aside by the judges of the universal competition'.[388] Zooming in on individual commissioners' backgrounds should therefore provide clues as to what exactly contemporaries thought impartiality meant. With this aim, below I first zoom in on the international commissioners before contrasting their claims with the public contestation of their status.

2.1 The commissioners

The World Fairs were each organised by a general commission, composed of nationals of the host country, as well as sub-committees in each exhibiting country. My focus is on the former, but it should be noted that many of the selection criteria were the same at the level of exhibiting countries. The general commission format was being exported, adding to the global dissemination of the expert governance model. General commissioners were museum curators and trustees of existing collections, but also scientists, judges, manufacturers, entrepreneurs, and elected government officials. The

[385] Hoffenberg 2010, 31.

[386] Hoffenberg 2010, 32, 34.

[387] Babbage 1851, viii, xi.

[388] Prince Napoleon 1855, 98; my translation.

1855 commission was self-consciously inspired by the 1851 model, admitting that a 'special Commission' had been created 'like that which had convened in London'.[389]

Who were the World Fair commissioners? First, almost all commissioners were industrial actors themselves, standing to gain financially from the exhibitions' promotion of national manufactures, industry, and international trade; second, most of them were committed free-traders; third, many were imperial or military officers in some capacity; and finally, the common thread uniting these agents of impartiality was not epistemic in kind but social. Membership analysis (Tables 1 and 2) suggests that institutional socialisation at elite schools was a significant common thread, but institutional affiliations as these were not evenly distributed. Of 36 commissioners, 15 went to either Oxford or Cambridge. In the case of Britain (Table 1), the Duke of Buccleuch, the Earl of Derby, the Earl Granville, the Earl of Ellesmere, Lord Overstone, Robert Peel, Henry Labouchère, William Gladstone, and the Earl of Iddesleigh all went to either Eton or Christ Church College; most attended both. The mining sector was especially well-represented. Public figures included the Director of the East India Company (Shepherd), the Prime Minister (Russell), the President of the Royal Academy (Eastlake), and the President of the Institute of Civil Engineers (Cubitt). Friendship networks around Disraeli and Gladstone add another thread through the commission.

In the case of France (Table 2), whereas the London commission had a strong cohort of mining industrials, the Paris response counted a large proportion of wool merchants among its number. Institutional affiliations were parallel rather than determinant qualifiers. Of 25 commissioners for the industrial-agricultural section, 11 were members of the Institut de France (the national umbrella organisation for the French Academies of Science); seven were alumni of the École Polytechnique. Social bonds were more pervasive. Isay has described the 'men of 1855' as 'a sort of society of former pupils or friends of the Saint-Simonians': 'the exhibition staff was largely made up of former cult members.' This 'syndicate of friendships, ideas, and interests' made up a 'Saint-Simonian freemasonry' in the backstage area of the World Fair.[390] If less strongly, the evidence supports Isay's overall impression: prominent Saint-Simonians Pereire, Le Play, Arlès-Dufour, and Chevalier were all leading members. Beyond this, the commission was a who's-who of Napoleon III's inner circle: the Minister of War (Vaillant), the Minister of the Interior (Billault), the emperor's legal confidant who had been instrumental in providing the legal justification for his 1851 coup d'état (Troplong), the cousin of the empress (Lesseps), the empire's main arms manufacturer (Schneider), the Director of the École Polytechnique (Poncelet), and the President of the Society for the Encouragement of National Industry (Dumas).

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[389] Exposition Universelle 1855, 4.

[390] Isay 1937, 32-33.

Table 1: 1851 Royal Commission, Great Exhibition, London[391]

Member	Education	1851 distinction	Experience
Baring, Thomas (1799–1873)	Winchester College	Close acquaintance of Benjamin Disraeli's	Banker and politician, grandson of the bank founder Sir Francis; promoter of international banking.
Barry, Sir Charles (1795–1860)	Apprenticeship at Middleton & Bailey, Lambeth architects and surveyors; Royal Academy	Architect of Houses of Parliament after the 1834 fire	1817-1820 Grand Tour (Middle East and Mediterranean); father of the architect Charles Barry junior, engineer Wolfe-Barry and the architect Edward Middleton Barry.
Bazley, Sir Thomas (1797–1885)	Bolton Grammar School; apprentice Ainsworth & Co.	Owner of Barrow Bridge from 1847, world's largest manufacturer of fine cotton and lace thread	Manufacturer in cotton spinning industry and politician; member Anti Corn Law League in 1830s.
Bowring, Edgar Alfred (1826–1911)	University College, London	Youngest son of Governor of Hong Kong and Jeremy Bentham's friend and editor, Sir John Bowring	Free trade advocate; translator of German poetry (Schiller, Goethe, Heine), librarian, and registrar to the Board of Trade (1848–1863).
Cobden, Richard (1804–1865)	Dame school; apprenticed in London	1840s leading Anti Corn Law League campaigner	Experience in muslin and calico trade; Manchester calico printing business, known for high-quality "Cobden prints"; public writing under the byname *Libra*; from 1835 author of books on international trade and foreign policy, notably *Russia* against Russophobia and balance-of-power thinking; 1835 involved in founding of Manchester Athenaeum; 1837 travels to Spain, Turkey, Egypt; 1860 Cobden-Chevalier Treaty.
Cole, Sir Henry (1808–1882) (Executive Commissioner)	Christ's Hospital; Royal Academy	Inventor of the Penny Black and the Christmas card.	General Superintendent of the Department of Practical Art and the Museum of Ornamental Art; Secretary and Chief Commissioner for the British Section at the Paris Universal Exposition 1855; Principal Adviser to the Commissioners for the London International Exhibition 1862; author and editor: handbooks for public buildings and collections, including National Gallery, Westminster Abbey, Tower of London (1839-45), and official reports and catalogues for English and European exhibitions 1851-74.
Cubitt, Sir William (1785–1861)	Apprenticeship	President of the Institution of Civil Engineers at time of exhibition	Civil engineer, inventor, millwright; 1830 Fellow of Royal Society; chief engineer South Eastern Railway; chief engineer for the Crystal Palace.
Dilke, Sir Charles Wentworth (1810–1869)	Westminster School; Trinity Hall, Cambridge	Close associate of Joseph Paxton's; during 1845 Society of Arts plans for the Great Exhibition close associate of Henry Cole's and Prince Albert's	Member of the Executive Committee; art patron, horticulturalist, Whig; son of the editor of the *Athenaeum*; 1841 co-founder with Joseph Paxton of *The Gardeners' Chronicle*; central member of the Commission and Queen Victoria's trusted purchaser of goods at the exhibition; wrote International Exhibition reports for Dublin, 1852; New York, 1853; Paris, 1855; St Petersburg, 1868.

[391] Based on Oxford Dictionary of National Biography; Who's Who Database; UK National Archives.

Member	Education	1851 distinction	Experience
Drew, George (1790–1867)	—	—	Solicitor and Lancashire tea merchant; father of Francis Fuller's wife Mary Ann Drew (see below).
Du Pré Labouchère, Henry (1831–1912)	Eton College; Trinity College, Cambridge	Descendant of wealthy Huguenot banking family; known for the Labouchère Amendment, which for the first time criminalised all male homosexual activity in the United Kingdom	Journalist, theatre producer and owner, publisher, politician; junior British diplomat; controversial figure, unpopular with Queen Victoria; 1895 member of the commission investigating the Jameson Raid; author of 1899 anti-imperialist satirical poem "The Brown Man's Burden".
Eastlake, Sir Charles Lock (1793–1865)	Charterhouse; Royal Academy schools	Elected president of the Royal Academy and knighted in 1850	Painter, gallery director, collector and writer; had briefly studied in Paris in 1815; visited Italy and Greece in 1816; elected to National Academy of Design in 1845.
Egerton, Francis, Earl of Ellesmere (1800–1857)	Eton College; Christ Church College, Oxford	Owner of Worsley coal mines, reported by the 1833 Sadler Factory Commission for extremely hard labour conditions and in 1842 for 101 persons killed and injured over three years	Politician, traveller, arts patron; 1827 Lord of the Treasury; 1828 Under-Secretary of State for War and the Colonies and Privy Councillor; converted Free Trader since 1846; Ellesmere Island in Nunavut (Canadian Arctic) named after him.
Field Gibson, Thomas (1803–1889)	Blackheath Unitarian ministry; apprenticeships	Benjamin Disraeli's classmate	Unitarian, silk manufacturer, philanthropist, geologist; freeman of the Weavers' Company, takes over father's silk manufacture in 1829; Anti Corn Law League member and supporter of Cobden-Chevalier Treaty.
Fuller, Francis (1807–1887)	Isleworth; training as farmer; surveyor apprentice; Society of Arts	Close associate of Henry Cole's and Scott Russell's at the Society of Arts	Member of the Executive Committee; land surveyor, estate agent; long-time surveyor for the London Brighton & South Coast Railway; declined knighthood offered for contributions 1851.
Gladstone, William Ewart (1809–1898)	Eton College; Christ Church College, Oxford	Public figure and lifelong critic of Lord Palmerston's; responsible for 1844 Railways Act	High Tory turned Peelite turned Liberal; 1843-45 President of the Board of Trade, 1845 Colonial Secretary (both under Peel); Chancellor of the Exchequer during time of Cobden-Chevalier treaty; Prime Minister from 1868.
Gott, John (1791–1867)	Apprenticeship	Wool merchant; engineering and merchant family	Eldest son of Benjamin Gott, major Leeds wool merchant and manufacturer.
Hopkins, William (1793–1866)	St Peter's College, Cambridge	Wollaston Medal 1850; 1851 President of the Geological Society of London	Mathematician and geologist; Cambridge tutor; 1837 elected Fellow of the Royal Society.
Jones-Loyd, Samuel, Lord Overstone (1796–1883)	Eton College; Trinity College, Cambridge	Member of The Club and John Mill's Political Economy Club	Banker and politician, MP for Hythe; in charge of his father's bank Jones, Loyd & Co. from 1844; 1851–1853 President of the Royal Statistical Society.

Member	Education	1851 distinction	Experience
Leveson-Gower, George, Earl Granville (1815–1891)	Eton College; Christ Church College, Oxford	Gladstone's best friend; owner of coal and ironstone mines at Stoke-on-Trent; principal shareholder Shelton Iron & Steel Co. and Lilleshall Co.	Free Trader; 1848 Vice-President of the Board of Trade; three-time Secretary of State for Foreign Affairs, promoting a policy of no alliances; 1856 chancellor of the University of London; 1868 Colonial Secretary under Gladstone; joint leader of the Liberal Party 1875–1880.
Lloyd, John Augustus (1800–1854)	Winchester College	1830 Fellow of the Royal Society	Special Commissioner; engineer and surveyor; surveying and language training in Tortola, British Virgin Islands; recruited by Simón Bolívar as captain of engineers and lieutenant-colonel; 1827 commissioned by Bolívar to survey the Isthmus of Panama for Gran Colombia; 1831 appointed colonial civil engineer in Mauritius.
Lyell, Sir Charles (1797–1875)	Exeter College, Oxford; Lincoln's Inn	Close friend of Charles Darwin's; geologist known for demonstrating the power of known natural causes in explaining the earth's history	1823 joint Secretary of the Geological Society; 1834 Royal Medal; 1830s Professor of Geology at King's College London; 1840s travels to North America.
Northcote, Sir Stafford Henry, Earl of Iddesleigh (1818–1887)	Eton College; Balliol College, Oxford; Inner Temple	1843 secretary to William Gladstone at the Board of Trade	Prepared the 1853/54 Northcote-Trevelyan Report; Conservative MP from 1851; 1866 President of the Board of Trade; 1867 Secretary of State for India; 1870 Governor of the Hudson's Bay Company; 1874 Chancellor of the Exchequer.
Parsons, William, Earl of Rosse (1800–1867)	Trinity College, Dublin; Magdalen College, Oxford	1845 builder of the world's largest telescope, the "Leviathan of Parsonstown"	Astronomer, naturalist, engineer; President of the Royal Society.
Peel, Sir Robert (1788–1850)	Harrow School; Christ Church College, Oxford; Lincoln's Inn	Supporter of Whig repeal of Corn Laws led to his resignation as Prime Minister and breakaway to the Liberal-Conservative Peelite faction.	Conservative Prime Minister 1834–1835 and 1841–1846; free trade campaigner and promoter of modern banking; creator of the Metropolitan Police Service.
Playfair, Lyon (1818–1898)	University of St Andrews, Glasgow, Edinburgh, London, Gießen	1848 Fellow of Royal Society	Manager of calico works; 1843 Professor of Chemistry; 1853 Secretary of the Department of Science in which capacity he advocated the use of poison gas against Russians in the Crimean War; 1868 Liberal MP; 1873 Postmaster-General under Gladstone.
Pusey, Philip (1799–1855)	Eton College; Christ Church College, Oxford	Friend of Robert Peel's	Reforming agriculturalist and farmer; Tory MP; 1851 chairman of the agricultural implement section.
Reid, Major General Sir William (1791–1858)	Edinburgh Academy; Royal Military Academy	1849 Vice-President of the Royal Society	Military experience in the Peninsular War, the Anglo-American War, expedition against Algiers; reconstruction works after 1831 Great Barbados hurricane; student of tropical storms, for which elected Fellow of Royal Society in 1839; 1839–1846 Governor of Imperial Fortress Bermuda.

Member	Education	1851 distinction	Experience
Russell, John Scott (1808–1882)	University of St Andrews, Glasgow, Edinburgh	Collaborator of Henry Cole's at the Royal Society of Arts for national exhibitions pre-1851	Civil engineer and naval architect; Councillor of the Royal Society of Edinburgh 1838–1839; 1853-59 builder of the *Great Eastern* with Isambard Kingdom Brunel, world's largest ship that would lay the 1866 first transatlantic telegraph cable.
Russell, Lord John, Earl Russell (1792–1878)	Westminster School; Edinburgh University	Prime Minister at time of exhibition	Liberal MP involved in drafting the 1832 Reform Act; supported 1845 repeal of Corn Laws; Prime Minister 1846-1852 and 1865-1866.
Scott, Walter Francis Montagu Douglas, 5th Duke of Buccleuch (1806–1884)	Eton College; St John's College, Cambridge	Owner of one of Britain's largest and wealthiest estates; husband of Charlotte Anne Montagu-Douglas-Scott, Queen Victoria's mistress of the robes 1841-46	Magnate and conservative politician; 1842 privy councillor; lord privy seal in Peel's ministry 1842-1846; lord president of the council in 1846; 1877 Chancellor of Glasgow University.
Shepherd, John (1792–1859)	Military officer in the Indian marine, commander of the *Duke of York*	Director and Chairman of the East India Company at time of exhibition	Director of the East India Company 1835–1858; Chairman of the East India Company 1844, 1850, and 1851; Governor of the Hudson's Bay Company 1856–1858.
Smith-Stanley, Edward, Earl of Derby (1826–1893)	Eton College; Christ Church College, Oxford	Leader of the protectionist faction of the Conservative Party	Twice Secretary of State for War and the Colonies under Robert Peel; longest ever serving Conservative Party leader and three-time Prime Minister.
Stephenson, Robert (1803–1859)	Apprenticeships; Edinburgh University	President of the Institution of Mechanical Engineers and Inst. of Civil Engineers	Civil engineer known for railway projects across the UK; chief engineer of the London and Birmingham Railway in 1833; 1849 elected Fellow of the Royal Society.
Westmacott, Sir Richard Jr. (1799-1872)	Royal Academy	1849 Academician at the Royal Academy	Sculptor; 1837 Fellow of the Royal Society.
Thompson, William (1792–1854)	Charterhouse; ironmongers apprentice	Senior partner at Thompson, Forman and Homfray with interests in iron manufacture	English businessman with interests in iron manufacturing; Lord Mayor of London 1828-29; Member of Parliament; Chairman of Lloyd's of London 1826-1833; Co-Director Bank of England 1827-54; president of the Honourable Artillery Company 1843-54.
Wyatt, Matthew Digby (1820–1877)	Architecture apprentice to his brother Thomas Henry Wyatt	Promising architect and author of an 1849 report on the French industrial exhibitions	1851 published exhibition folio *The Industrial Arts of the Nineteenth Century*; 1854 assisted Isambard Kingdom Brunel on the London Paddington terminus; 1855 Surveyor of the East India Company, subsequently Architect to the Council of India; designed the 1867 London India Office; designed a train for Robert Stephenson's Egyptian Railway; designed the Rothschild Mausoleum on the Jewish Cemetery at West Ham; later first Slade Professor of Fine Art at Cambridge.

Table 2: 1855 Imperial Commission, Exposition Universelle, Paris[392]

Member	Education	1855 distinction	Experience
Arlès-Dufour, François (Secretary-General) (1797-1872)	Lycée Impérial; shawl factory boy	Prominent Saint-Simonian and silk merchant; knows John Bowring, Richard Cobden; close friends with the Pereires and the Talbots	Silk merchant; member of the Lyon Chamber of Commerce; manages significant proportion of Far East silk trade across Europe in collaboration with Jardine Matheson of Hong Kong; promoter of the Paris-Lyon and Lyon-Avignon railways; co-founder of the Suez Canal study group with Prosper Enfantin (see Ch. V).
Beaumont, Élie de (1798-1874)	Lycée Henri IV; École Polytechnique; École des Mines	Inspector-General of Mines, secretary of the Academy of Sciences, and senator at time of exhibition; Member Institut de France	Geologist; 1835 professor of geology at École des Mines; 1861 vice-president Conseil General des Mines; 1861 Legion of Honour; member of Academy of Berlin, French Academy of Sciences, Royal Society of Edinburgh, Royal Society of London, Royal Swedish Academy of Sciences, American Philosophical Society.
Billault, Adolphe Augustin Marie (1805-1863)	Lawyer at Nantes bar	1852-54 President of the National Assembly; Minister of Interior at time of exhibition	1839 Deputy Secretary of State of the Ministry of Agriculture and Commerce; president of the legislative corps under Louis-Napoléon; 1854 Minister of Interior
Blanqui, Jérome-Adolphe (1798-1854)	Studied chemistry and medicine	Economic reports on Corsica (1838), Algeria (1840), Bulgaria (1843); report on London exhibition (1851); deceased prior to exhibition; Member Institut de France	Political economist and free trader; 1830 Director of the École Superieure du Commerce; 1833 J.-B. Say's successor as chair of Political Economy at the Conservatoire des Arts et Métiers; early member of Pellegrino Rossi's 1842 Société d'économie politique.
Chevalier, Michel (1806-1879)	École Polytechnique; École des Mines	Leading Saint-Simonian and statesman; Member Institut de France	Councillor of State; political economist; 1844 publication of report on isthmus of Panama and Suez (see Ch. III).
Dollfus, Jean (1800-1887)	Textile apprentice in family business; some training in Leeds	Known for applying Mercerised cotton technique; free trade campaigner	Textile manufacturer and merchant, taking over uncle's company and re-founding in 1800 as Dollfus-Mieg & Compagnie; 1851 publication as member of Société Industrielle de Mulhouse in favour of free trade.
Dumas, Jean-Baptiste (1800-1884)	Apothecary apprentice; studies physics, botany, and chemistry in Geneva	President of the Société d'Encouragement pour l'Industrie Nationale at time of exhibition; Member Institut de France	1829 co-founder of the École Centrale des Arts et Manufactures; 1832 member of French Academy of Sciences; 1835 professor of chemistry at the École Polytechnique; 1843 Copley Medal; 1877 Albert Medal.
Dupin, Baron Charles (1784-1873)	École Polytechnique	Known for statistical mapping innovations; previous work for 1834 French industrial exhibition; Member Institut de France	1807 restoration of Corfu port; 1808 instructor of mathematics and mechanics in Corfu; 1818 French Academy of Sciences; 1819-54 professor at Conservatoire des Arts et Métiers; 1834 rapporteur for the jury of the French industrial exhibition; 1858 report on Suez canal.

[392] Excluding the Fine Arts section. Based on Dictionnaire de biographie française; Dictionnaire des parlementaires français de 1789 à 1889; Bibliothèque nationale de France.

Member	Education	1855 distinction	Experience
Gasparin, Adrien Étienne Pierre, Comte de (1783-1862)	Military career	Prominent agriculturist and former Minister of Interior; Member Institut de France	Statesman and agriculturist; 1830 prefect of Loire and Isère, 1831 prefect of Rhône; raised to peerage after suppressing 1834 Lyons insurrection; 1836 Minister of Interior; 1848-52 Manager of the National Agricultural Institute.
Gréterin, Théodore (1794-1861)	Legal education	Experienced customs civil servant	1830 Director-General of Customs and Indirect Contributions; 1841 Legion of Honour; 1860 Senator of the Second Empire.
Heurtier, Nicolas (1812-1870)	Legal education in Lyon and Paris	Director-General of Agriculture and Commerce at time of exhibition	1833 lawyer; 1848 municipal councillor; 1849 elected to National Assembly; 1851 contributes to Lyon-Mediterranean railway; 1852 Councillor of State and Director-General of Agriculture and Commerce; 1855 contribution to French-Belgian trade agreement; 1865 Legion of Honour.
Le Play, Pierre Guillaume Frédéric (1806-1882)	École Polytechnique; École des Mines	Prominent Saint-Simonian, engineer, and mining statistician	Chief engineer for mines; 1855 Montyon prize for his sociological study of European working-class families; 1856 founder of the Société internationale des études pratiques d'économie sociale.
Legentil, Alexandre Félix (1821-1889)	Sales apprentice	President of the Catholic philanthropic Société de Saint-Vincent-de-Paul; son of wool mill owner	Salesman and sales innovator; vice-president of the Philanthropical Society; member of the Société d'encouragement pour l'industrie nationale.
Lesseps, Ferdinand de (1805-1894)	Lycée Henri IV	Empress Eugénie de Montijo's cousin; had just obtained Egyptian concession to build Suez canal at time of exhibition	1828 vice-consul Tunis; 1832 vice-consul Alexandria; 1833-37 consul Cairo; 1839 consul Rotterdam; 1840 consul Málaga; 1842 consul Barcelona; 1848-49 Minister of France in Madrid; Director of Consulates and Commercial Affairs at the Ministry of Foreign Affairs; founder of the Suez canal company and chief entrepreneur of the Suez canal (see Ch. V); 1880s failed attempt at Panama canal enterprise.
Mimerel, Auguste (1786-1871)	Textile trade apprentice	1852 senator; cotton mill owner and trader	Cotton mill owner, senator, protectionist; active in industrial organisation to protect workers' rights; defender of child labour; 1834 Legion of Honour; 1846 co-organiser of the Association for the Defense of National Labor, a key platform for protectionists; 1852 Senator of the Second Empire.
Morin, Général Arthur Jules (1795-1880)	École Polytechnique; military career	Professor of Mechanics; Member Institut de France	Director of the Conservatoire des Arts et Métiers; 1843 Academy of Sciences; 1858 Legion of Honour; 1862 French Society of Civil Engineers.
Péreire, Émile Jacob (1800-1875)	Studies in Bordeaux	Prominent Saint-Simonian and financier of infrastructure, with his brother Isaac challenger of the Rothschilds in Second Empire *haute finance*	Writing in 1830s for *Le Globe* and other Saint-Simonian outlets; 1852 founder of the pioneering investment bank Crédit Mobilier; President of the Administrative Council of the Midi railway; 1868 manager of the Compagnie Transatlantique.

Member	Education	1855 distinction	Experience
Poncelet, Général Jean-Victor (1788-1867)	Lycée Fabert; École Polytechnique	Director of the École Polytechnique at time of exhibition; Member Institut de France	1810 Corps of Military Engineers; 1812 lieutenant during Napoleon's invasion of Russia; 1820s work on projective geometry; 1825-35 professor of mechanics at École d'Application; 1865 Foreign Honorary Member of the American Academy of Arts and Sciences.
Regnault, Henri Victor (1810-1878)	Upholstery apprentice; École Polytechnique; École des Mines	Distinguished organic chemist; recently appointed as manager of Sèvres porcelain works at time of exhibition; Member Institut de France	1840 Chair of Chemistry at École Polytechnique; 1841 Professor of Physics at Collège de France; 1848 Rumford Medal for numerical tables on properties of steam; 1848 Chief Engineer of Mines; 1851 Royal Swedish Academy of Sciences; 1854 Director of Sèvres porcelain works; 1854 founding president of Société Française de Photographie; 1855 American Philosophical Society.
Sallandrouze de Lamornaix, Charles (1808-1867)	Inherits father's carpet manufacture	Prominent carpet manufacturer who had served as delegate to the 1851 London exhibition	Manufacturer with an interest in economic-industrial legislation; 1829 publishes *Législation des brevets d'invention*; 1840 member of the Ministry of Commerce's Conseil Général des Arts et Manufactures; 1845 governmental mission to Spain to study the economic situation there; 1847 Legion of Honour; 1851 French delegate to the London exhibition.
Schneider, Eugène (1805-1875)	Trading and banking apprentice	Steel magnate and main arms supplier to the French government	1833 co-manager Le Creusot; 1836 co-founder Schneider Co. iron and steel mill; 1845 sole director of Le Creusot; 1851 Minister of Commerce and Agriculture; 1851 Legion of Honour; 1864 founding president of the cartel organisation Comité des Forges.
Seillière, Baron Florentin Achille (1813-1873)	—	Railway magnate and banker; close associate of the Pereire brothers; manager of the new Crédit Mobilier at time of exhibition	Banker and manager of the Eastern Railway; mayor of Mello; 1852 director Compagnie des Ardennes et de l'Oise; 1852 co-founder of Crédit Mobilier with Pereire brothers; 1864 railway fusion with Compagnie de l'Est; 1869 co-creator of the Banque de Paris; 1869 prosecuted for fraud.
Seydoux, Charles (1796-1875)	Military career	Wool manufacturer with military and political distinction	1830-1850 Colonel of the National Guard; founds wool mill with his brother, specialised in merino wool; deputy at the legislative corps; 1867 Legion of Honour
Troplong, Raymond-Théodore (1795-1869)	Legal education	Legal confidant of Emperor Napoleon III known as the "Portalis of the Second Empire"; Member Institut de France	1835 Conseiller at the Cour de Cassation; 1840 Member of the Institut de France; 1852-69 President of the Senate; 1852 President of the Cour de Cassation (French supreme court of appeal); 1852 as member of the sénatus-consulte co-drafts French Constitution and provided legal justification for Napoleon III's coup d'état.
Vaillant, Jean-Baptiste Philibert, Comte (1790-1872)	Military career in the engineering corps	Minister of War at time of exhibition; Member Institut de France	Served in 1812 invasion of Russia; battalion commander during 1830 campaign against Algiers; 1831 expedition into Belgium; 1837-38 commander of fortress at Algiers; 1838 Director of École Polytechnique; 1849 expeditionary corps in Rome; 1851 Grand Marshal of the Palace; 1854-59 Minister of War (throughout Crimean War).

Going to school together, hanging out, becoming friends, even conjoining families (Chevalier's daughter later married Le Play's son) were all forms of elite socialisation that effectively rendered both the 1851 Royal Commission and the 1855 Imperial Commission clubs of the technocratic international. Importantly, this was not simply a function of institutional or professional affiliation. Rather the project of the World Fair was what brought these people together and itself became a new site of convergence—a kind of *junction* of the differentiated international. Indeed many of the commissioners have appeared and will reappear throughout this thesis: Robert Stephenson, Richard Cobden, Ferdinand de Lesseps, Michel Chevalier, François Arlès-Dufour, Émile Péreire. The point of note here is that no uniform category of the World Fairs expert was available; existing social networks stepped in to fill the ranks of the technocratic international in both London and Paris.

Commissioners also played a key role at the level of official ritual, indeed performing distinctly international ritual.[393] From 1851 onwards, in contrast with previous national exhibitions, prizes were no longer being handed out by government representatives. While Queen Victoria and Napoleon III were still present at each World Fair, their roles were ceremonial not executive. The French industrial exhibitions of the 1840s culminated in a closing ceremony in which, as in 1849, the patron Louis-Napoléon personally handed out medals to each individual prize-winner. The World Fairs in contrast turned to representing merit as impartially selected by an independent international jury. Powerful imagery was at play, suggesting a shift from imperial pomp personified by a single individual, to international impartiality wielded by a group of frock-coated men. There was a subtle but unmistakable difference between the ornamented gloss of empire and the semi-anonymised elitism of the international. This change was not a sudden rupture with previous ceremonial. One visitor to the 1851 London exhibition writing in the *Friend of the People*, for instance, decried the opening ceremony's 'essentially aristocratic' character; a complaint reflective of a desire to delineate the ritual of a World Fair from the royalism of national and imperial celebrations.[394] While the royal court featured widely throughout World Fair ritual, a new aesthetic was beginning to emerge; an 1853 exhibition in Dublin, for example, was decorated with more than 'one hundred and sixty "Armorial bearings" for guilds, countries, cities, corporations, and prominent office holders' as 'signs for the "international" character of the event'.[395]

In these different ways, commissioners used exhibitions 'in their battle to achieve authority, acceptance, and prestige as a new public "clerisy," or class of seemingly

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[393] On ritual as authorisation in IR see Kustermans et al. 2022.

[394] Friend of the People 1851, 189–90 in Shears 2017.

[395] Hoffenberg 2010, 244–45.

disinterested public servants.' The World Fairs served as 'public venues for the experts' authority'.[396] This authority was grounded in experts' ability 'to collect, label, and organize objects and people—and thus create identities and inventories'.[397] The 'disinterested country gentleman' meanwhile provided the ideal type of who could be an expert practically speaking. In *Capital*, Karl Marx had recognised this type in the 'periodically appointed commissions of inquiry into economic conditions' composed of 'competent' men 'free from partisanship'.[398] Executive commissioner of the London exhibition Henry Cole called these individuals likewise '[e]minent men of science'.[399] 'Thorough impartiality,' a British periodical latter concurred, 'combined with an efficient technical knowledge' were 'vital' prerequisites for commissioners—the ability to remove the enterprise of the World Fair from 'the partiality of party politics and the deception of commercial advertising'.[400] Another blueprint for the emerging type of the impartial judge, and by extension the international commissioner, was the art critic. As historian Marcia Pointon has shown, the technocratic imperial-industrial propaganda of the 1855 Paris exhibition could be masked by the critic's impartiality. Art critic and author of a folio on the 1855 exhibition Charles Vignon wrote that at the World Fair 'the task of critique is great and her position difficult. She has to know, simultaneously, how to *conserve her impartiality which makes for her force*, and to be as much as possible benevolent to everything and everyone.'[401] Impartiality played a significant role, then, in giving the World Fair its international character, such that 'seeming "impartiality" and "technical knowledge" converged among the exhibition experts.'[402] But commissioners earned not only prestige but also money: the 1851 Royal Commission's considerable profits went in large part to its members.[403]

2.2 Contested impartiality

International authority from impartiality was a bold claim and a contested one. Pamphleteers, critics, journalists, and politicians of various persuasions objected to the impartial status of commission members, betraying the fragile foundations of domain authorisation. British critiques extended from anti-free traders as well as Chartists and unionists; in France, Catholics and conservatives set the tone. Both sides of the Channel

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[396] Hoffenberg 2010, 63.

[397] Hoffenberg 2010, 64-65.

[398] Marx 1867 in Hoffenberg 2010, 69-70; see Frankel 1999.

[399] Great Exhibition 1851, 22-23.

[400] Statesman 1883, 2 in Hoffenberg 2010, 40.

[401] Vignon 1855, 12 in Pointon 1981, 249; emphasis added, my translation.

[402] Hoffenberg 2010, 70.

[403] Shears 2017.

shared impartiality as the object of suspicion. A scathing British critique, entitled 'The Great Job of 1851', argued that far from being impartial agents of the international, the Royal Commissioners had mere personal enrichment in mind:

> The scheme of an Exhibition of the Industry of all Nations, resisted by successive administrations, has, at length, been foisted upon the public by a court intrigue, carried on with some five or six members of the Society of Arts in the Adelphi,—of which society Prince Albert is president—who in Prince Albert's name, and under his especial patronage, have succeeded in launching this unwieldy project on the vast ocean of Great British gullibility, and, at the same time, have thrust themselves into lucrative appointments on a Royal Commission—ever a fertile source of jobbing and corruption.[404]

To the anonymous author, the commission's declared impartiality was compromised because its members stood to gain financially from the exhibition: theirs were simply 'lucrative appointments' introducing ample opportunity for 'jobbing and corruption'—the Royal Commission was little more than 'a gang of rapacious speculators.' The concept of impartiality retained some ambiguity; while the commissioners were certainly not impartial in the sense of financial *independence* from the enterprise in question, they were impartial in the sense of the ideal expert: *knowledgeable* and *experienced* in matters artisanal and industrial. The latter happened to matter more, suggesting that particular kinds of partiality could be incorporated into performances of impartiality if presented as irrelevant to the task.

Other voices joined this general chorus. In the year before the opening of the 1851 Great Exhibition, the *Mechanics' Magazine* noted that the Royal Commission was composed of a selection of 'obscure individuals', a 'pack of characterless nobodies', 'distinguished for nothing whatever in the world.' The author doubted their impartiality —the commissioners were merely looking to 'reap the benefits of the fraud practised on the Crown.'[405] The magazine considered the commissioners 'their own party and not disinterested public servants'.[406] Another critique doubted the commissioners' commitment to the scientific enterprise. Charles Babbage, the Cambridge polymath credited with inventing the first mechanical computer, published an unsparing indictment of the 1851 Royal Commission, arguing that the commission had failed to honour Europe's distinguished learned associations and instead chosen to celebrate industry in the name not of science but of 'moneyed-interest'. The commission was, he wrote,

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[404] Thalaba 1855 in Shears 2017, 38, 40.

[405] Mechanics' Magazine 1850 in Hoffenberg 2010, 94.

[406] Hoffenberg 2010, 95.

> [A] body of men, all of them respectable, and some, indeed, eminent in their several lines, but entirely inexperienced in the conduct and arrangement of any such undertaking—persons, all of them amiable and excellent in their private capacity, yet who have exhibited in their corporate union an entire ignorance of the great principle on which alone such expositions rest,—and who, contrary to the advice and the remonstrance of the best informed, have forbidden the most important quality by which men judge of their commodities, their *Price*, from being attached to the objects on which their judgment is to be pronounced.[407]

Babbage reminded his readers that the experts who put their knowledge in the service of interested, partial ends—in the service of power—had abandoned the honourable pursuit of knowledge for knowledge's sake. Conflating the two was to dress merchants in scholars' gowns. As soon as expertise touched money, the implication seemed, it turned impure and lost its innocence. Babbage exemplified the desire to rescue science from politics—without explaining under what circumstances knowledge production, including Babbage's own, ever would escape the touch of money.

On another front, Babbage was not alone in complaining about the decision not to display prices in 1851. The delegates of the Prussian *Zollverein* were shocked that a fair hosted by a champion of free trade would impede its very basis, competition. This critique was not about corruption but about incompetence: the Royal Commission failed to take crucial factors into account and so lacked the expert authority it claimed. Gruffly and not without cynicism Babbage noted that 'In England, a commissioner, however small his acquaintance with the subject, is always deemed fully competent in virtue of his appointment. The light in which this places us in the opinion of other nations is by no means flattering to our national vanity.'[408] The exhibition was bound to disappoint the promise of removing the 'formidable, because latent, impediments of party'.[409] The real harbingers of scientific progress, in contrast, 'are of no party'.[410]

3. Conclusion

After 1851 and 1855, the World Fairs turned into a standard fixture of what it meant to experience international life first-hand. Hosting a World Fair became a means and indicator of the host country's international status, and usually turned the hosting city into a veritably international city: visitors from abroad flocked to the metropolis and returned home with memories of spectacle and wordliness. Using the label of

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[407] Babbage 1851, 21.

[408] Babbage 1851, 31.

[409] Babbage 1851, xi.

[410] Babbage 1851, 22.

internationality entailed claims about industrial flourishing and expert-approved progress in technology and arts, underscoring the differentiation of the international as a domain where impartiality reigned. Fairs simultaneously were tied to imperial trade and imaginaries: around the turn of the twentieth century, human exhibits notoriously added racist entertainment to the exhibition spectacle. Replica villages of natives in the colonies became a standard feature of a stroll through the fair. Though such aspects rendered the significant imperial dimension of the World Fair more visible and more obvious, the international character of these events added to the continuity of technocratic internationality in two ways: private enterprise and imperial markets combined efforts to render the international a domain separate from government; and the international commission as a modern institution emerged as arbiter of impartiality.

Both structured visions of a "World Fairs system" from the mid-nineteenth century. Speaking at an 1878 meeting at the London Colonial Institute, Queensland representative Sir Arthur Hodgson described them as 'modern systems of Exhibition' that 'give an impulse to trade, create keen competition and by a mutual interchange of compliments and civilities bring the whole world into harmonious and peaceful contact with each other.'[411] In his official report on the 1855 exhibition, Prince Napoleon similarly proclaimed that 'the World Fairs have really become part of the habits of European industry.'[412] In this light, the World Fairs merged the capitalist narrative of unifying the world in a harmony of trade with the promotion of an imperial world order in which colonies could enrich metropoles—they differentiated a technocratic international at the same time as they celebrated colonial capitalism. The former did not simply deflect from the latter, as the IR literature on expertise as depoliticisation might argue;[413] rather, it naturalised the colonial economy as unproblematic basic infrastructure of a technologically integrated world. In this frame, on the one hand the World Fairs represented a unified world by the sheer multitude of countries—nations, empires, colonies—showing off their goods. Here the encounter with foreignness was an exciting spectacle to be celebrated if with some reservation.

On the other hand, imperial hierarchy was a significant register of ordering exhibition space and making the World Fair intelligible to European spectators. A dialectic between exoticism and xenophobia was constantly at play. Some feared invasion by a socialist mob; rumour had it that continental unionists had already begun plotting an overthrow of the English upper classes. Others were haunted by the spectre of foreigners bringing illness to the capital city. The journalist George Augustus Sala parodied the general xenophobic mood in the months leading up to the London

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411 Hodgson 1878 in Hoffenberg 2010, 4.

412 Prince Napoleon 1855, 130.

413 Louis/Maertens 2021.

exhibition's opening: 'The nasty, dirty, greasy, wicked, plundering, devastating, murdering, frog-eating, atheistical foreigners! … Pestilence, of course; the plague, the yellow fever, the *vomito nero*, and the cholera morbus. The wicked Exhibition Building made useful as a lazaretto; and all the omnibuses turned into plague-carts.'[414] And yet, he added, 'this international-fête-giving' may have a point: 'a little peace, and a little good-will, and a little brotherhood among nations will result from the foreign invasion'.[415]

Normalising over time, the World Fairs promised familiarity and licence. Following Hoffenberg, 'resemblances and differences' were being 'invented, coordinated, and legitimized in a reconceptualized vision of the modern functionalist society.'[416] Industry featured as the guiding principle here. Exhibition space distinguished empires and their dependencies from the smaller powers of Europe and the extra-imperial world. Within each group, the distinction between providers of raw material and manufactured goods made clear which rung each polity occupied on the industrial ladder. The World Fairs performed and ritualised this understanding, representing the world as naturally—from the technical point of view—divided into providers and producers, idlers and industrials, juries and contestants. In so doing, they represented the "world from nowhere" premised on scientific leadership, industrial prowess, and the triumph of human inventiveness and productivity as ordering principles. While states, empires, and private companies made this world possible, at the World Fairs they could disappear from view. This had two consequences: one, an optical illusion that simultaneously removed politics from view and naturalised capitalist, expert-accredited transnational intervention; and two, the differentiation of an autonomous domain in the interest of escaping political capture and regulation.

By contrast with much extant work on technocracy, the technocratic international was neither non-secular, instead relying on intensely spiritual symbolism and discourse; nor was it principally about top-down regulation or planning.[417] Technocratic internationality was powerful as a specific expression of domain differentiation. The move to the international was hoped to be a move to a sphere relatively free from intrusion by political agents. In this chapter, I explored the first World Fairs as places where the international was performed as real and tangible. As a differentiated domain, the international was persistently being linked to impartiality—and by extension, international cooperation to expertise—in a context of transnational private enterprise. The *private* actors at the helm of nineteenth-century 'major public works' from 'the railways, electric telegraphs, steam navigation, the piercing of isthmuses' to the World

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[414] Sala 1851, 60–64 in Shears 2017, 91.

[415] Shears 2017, 94.

[416] Hoffenberg 2010, 204.

[417] Hayek 1952.

Fairs[418] saw their activity as apolitical and in need not of normative justification but of licence based on feasibility and efficiency. Shareholders mattered more than stakeholders. This logic was carried over into the international, claimed—much like the private—to be a sphere disembedded or insulated from the sphere of political contestation. Such a conception was not just a powerful cultural performance. As the next two chapters show, it served as a justification for disruptive interventions—interventions in the name of the international, but in the service of capital and empire.

[418] Prince Napoleon 1855, 131.

Part III
Building The International

CHAPTER V

The canal-diggers

The Suez canal, 1834–1869

> 'The International Commission … are now zealously employed drawing up their detailed and final report; it will soon be published, and, we feel assured, will prove completely satisfactory to those competent to form a judgment on such subject. But the summary report … suffices for the present to answer the expectations of the public, and to remove all doubts which, on grounds of prudence or policy might still be entertained as to the practicability of this vast undertaking.'
>
> — Ferdinand de Lesseps, 1856[419]

In histories of international relations, the Suez canal typically features as a conduit of global commerce, the product of modern industrial progress, or Gamal Abdel Nasser's strategic target of Egyptian self-determination during the 1956 Suez crisis.[420] All of these invoke the canal as a powerful if complicated symbol of international modernity. Many of them suggest that the canal 'put Egypt at the center of global trade',[421] implying that it rationally solved a technical problem: commerce could flow more freely once the separation between Mediterranean and Red Sea was overcome. European imperial expansion, crass financial dependency, and racialised labour hierarchies fall by the wayside of this reading. While it gave Egypt indeed a firm place 'at the center' of global shipping—a six-day blockade in March 2021, preventing trade worth about $9.6 billion, is a recent reminder of this—the canal did not benefit Egypt itself. As Rosa Luxemburg put it in 1913, its overall effect was instead to 'deflect the entire trade between Europe and Asia from Egypt and [it] would painfully affect her part in this trade'.[422] To bring this dimension into view and examine the Suez canal as 'an exemplar of capitalist

[419] Lesseps 1856, 18.

[420] Reinalda 2009; Huber 2013; Axelrad Cahan 2018.

[421] Jupille/Mattli/Snidal 2013, 106.

[422] Luxemburg 1913, 410 in Khalili 2020, 32.

infrastructural power and colonial expansion',[423] we need a different approach. Through the lens of domain differentiation, this chapter interrogates what exactly the making of this major international artefact—an expert-approved conduit of imperial infrastructure—required, entailed, and made possible. I examine the canal's justification and making as a case of non-institutionalised technocratic internationality.

Global historians have recently begun to treat the Suez canal as illustrative of the *limits* of familiar narratives about the 'time-space compression' brought on by globalisation.[424] Valeska Huber characterises the period as neither 'an era of unhampered acceleration, nor one of hardening borders and increasing controls' but as instead marked by 'differentiation, regulation and bureaucratisation of different kinds of movement'.[425] Zooming in on the 1855 International Commission for the Suez canal—neglected by histories of international relations so far[426]—this chapter shows that expert governance enacted such differentiation and regulation. The practice also emerged as inextricably *international*: to internationalise was to legitimise, and experts were key agents of making this happen, articulating and performing internationality as a claim to impartiality. In this context expertise served as a political good the representation and mobilisation of which legitimised the canal project. Its chief entrepreneur Ferdinand de Lesseps, former diplomat and 1855 World Fair commissioner (see Chapter IV), cultivated this resource to his strategic advantage: Lesseps and his commissioners were quintessential *differentiators* of a technocratic international. This approach pays heed to Headrick's injunction against viewing technological change as a mere 'application' of industrial ingenuity to the world's natural obstacles: we need to study 'not "things" but the people who developed, manufactured, and controlled these "things."'[427]

The Suez case corroborates another important part of my argument: not only did the international commission, composed of individuals not uniformly bound together on epistemic grounds but nevertheless claiming authority as experts, engage in domain differentiation. Once (temporarily) perceived as authoritative, commissioners were also actually able to carry out a major intervention that improved conditions for globalising capitalism and the inter-imperial world order. The "international" Suez canal became the fast lane to India and helped consolidate European imperial power over colonies in Asia, East Africa, and the Pacific. For decades to come, it would 'lubricate the machinery of empire'—but as this chapter shows, despite its imperial significance the enterprise was originally legitimised in the name of a technocratic international.

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[423] Khalili 2020, 31; see Headrick 1988, 18-48.

[424] This narrative underpins e.g. Buzan/Lawson 2015.

[425] Huber 2013, 3; see Huber 2012.

[426] It is absent in e.g. Reinalda 2009; Mazower 2012; Carvalho/Costa López/Leira 2021.

[427] Headrick 1988, 23.

Based on archival research and membership analysis, the chapter supports this argument with three empirical findings. First, I show that the nominally independent 1855 International Commission was composed not simply of Europe's top engineers, but also of imperial officers and entrepreneurs with direct stakes in the economic success of the project. Second, the findings of the commission were not only used to bolster the project from a technical point of view, but turned into a campaigning centrepiece and a means of silencing Egyptian objections. Third, digging works on the canal were characterised by imperial and racial labour hierarchies and created an inroad for long-term economic and financial dependency; the project's legitimation as international concealed this. Impartiality was a *claim*—not an accomplishment that we can take for granted. It was the politically desired, temporary outcome of a contentious process that generated concealment and action capacity.

The chapter proceeds in four sections. The first, from 1834 to 1848, focuses on the Saint-Simonian attempt at building a Suez canal. The attempt failed because technical cooperation did not resolve national-political differences. The second section from 1848 to 1856 provides an analysis of the international commission's composition and output. I show that expert governance drew authority not from the cohesiveness of an epistemic community—no such thing was yet available—but from domain differentiation. The project gained legitimacy not from scientific accreditation as such, but from ascription into the technocratic international. The third section from 1856 to 1869 explores the afterlives of this ascription: the instability of authorisation by domain differentiation (see Chapter I) suggests that its outcome remains deeply contestable. Indeed contestation of expert judgement accompanied all ten years of digging the canal; it was also met with circular epistemic self-defence. Whenever political controversies arose—from forced labour to imperial encroachment—canal proponents tried to deflect opposition by returning the conversation to engineering technicalities. The fourth section after 1869 finally addresses long-term effects of domain differentiation. Protagonists of the gradually ascending New Imperialism saw the completion of the project and its nominally international character as an opportunity to expand British control. But while they recast the canal as part of the empire's infrastructure, they did have to accept its basic characteristics as an artefact of technocratic internationality.

1. Saint-Simonians in Suez

Setting foot in Alexandria, reaching the first destination of his 1798 campaign to Egypt, Napoleon Bonaparte brought with him not only an army, but also an entourage of scholars, tasked among other things with surveying the make-up of the land to assess optimal future use.[428] These experts, primarily military engineers, rediscovered an ancient

[428] Burleigh 2007.

waterway in Suez. Once they published their findings back in Paris, French engineers—only just forming into a profession—became enthralled with the possibilities of a Suez canal. Napoleon briefly contemplated the idea but discarded it based on the scientific finding, later found to have been mistaken, that a difference in sea levels between the Mediterranean and the Red Sea would render the undertaking too costly and complicated. A lasting cultural fascination, sometimes obsession, with all things Egyptian and "oriental" remained: in the post-Revolutionary period, *L'Égyptomanie* took Parisian architecture, literature, art, and salon conversation by storm.[429]

Of course the Red Sea route was attractive not only to French explorers but to a growing number of imperial enthusiasts in France and beyond. Commercial changes increased the demand: from 1835, British correspondence with India no longer went via the Cape but instead crossed the Red Sea.[430] In the same year, Richard Bourne, Brodie Willcox, and Arthur Anderson established the Peninsular Steam Navigation Company, later Peninsular and Oriental (P&O). Initially the company ran a regular steamer service from London to Spain and Portugal, which quickly turned into a gun-running route. From 1840, the business ventured further east as the partners acquired a contract to deliver mail to Alexandria, to which leisure cruises but also opium exports to Bengal and Malwa were soon added.[431] The trajectory of the P&O and its competitors was 'closely linked to the Eastern or Oriental Question' that preoccupied French and British geopolitical attention.[432] So was the idea of a Suez canal. Below I examine the latter's growing appeal and its transformation from imperial flirtation to international project. I first consider its role in the Saint-Simonian imagination, then the Saint-Simonian journey into Egypt, and finally its eventual failure.

1.1 Spiritual technocracy beyond borders

As noted in Chapter III, the 'marriage of East and West' was a central concern to the Saint-Simonians, with Michel Chevalier as its chief propagator. Far from unique to this group, however, the idea was in line with a Bonapartist imperative of facilitating global commerce as well as with stipulations for the facilitation of international trade put forth at the 1814-15 Congress of Vienna.[433] After the overthrow of the Bourbon Restoration government in 1830, the July Monarchy likewise embraced trade cooperation with Britain as a central part of its foreign policy.[434]

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[429] Humbert 1975; Humbert 1984, 106-108; Colla 2007.

[430] Huber 2013, 23.

[431] Thackeray 1846; Harcourt 2006.

[432] Huber 2013, 24; Macfie 2014.

[433] Yao 2019.

[434] Todd 2015.

At this very time, having withdrawn into the seclusion of life as a monkish fraternity at their Ménilmontant property in Paris, the radicalising Saint-Simonians began to raise the French government's suspicions. The movement's leaders were evicted from the commune, put on trial, and punished with prison. This was a harsh turning point for someone like Chevalier, who now turned his back to Enfantin's sectarian inclinations and instead devoted his life to the cause of industrial organisation.[435] Others too found their way back to *le monde*: 'the old Saint-Simonian [had turned] into a State counsel, a deputy, a senator.'[436] None of them abandoned their technocratic creed: Henri Fournel became chief mining engineer in French Algeria. Frédéric Le Play, a sympathiser and Chevalier's close friend, got involved in organising the 1855, 1862, and 1867 World Fairs (see Chapter IV), became senator of the Empire, and was made Grand Officer of the Legion of Honour. Paulin Talabot built railway lines across France and Algeria, and supervised public works for bridges, tunnels, and docks. His friend Charles Didion thought their Saint-Simonian past had paved the way for lasting impact: 'Our old Saint-Simonian group … will become, I hope, very useful, because our friends have got respectable positions and want order before anything else, at the same time as they, better than the others, understand the situation and its difficulties.'[437]

Many Saint-Simonians, in other words, transitioned into high society after 1832.[438] They could do so in their formal capacity as *polytechniciens*, alumni of the prestigious École Polytechnique, but also more informally as a high-social-capital network of friends and relatives. Not all Saint-Simonians were quick to make this transition; many still clung to their religious mission. Upon his release from prison, still an influential leader of the sect, Prosper Enfantin departed to Egypt in search of the Female Messiah that would complete the union of East and West. Former Ménilmontant disciples Hoart, Bruneau, Prax, Tourneux, Decharme, Drouot, and Fournel all followed their Supreme Father to the desert, answering his call: 'the work for which I call you is the great work of Suez… and further still, Panama.'[439]

1.2 The Société d'Études

When Enfantin and his acolytes disembarked in Alexandria, they were welcomed by a city buzzing with 'French merchants, English entrepreneurs, Austrian middlemen, Greek traders, and a crazy quilt of other Europeans.'[440] The Wāli Muhammad Ali's modernising

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[435] Murphy 2011, 39; see Musso 2006.

[436] Pinet 1894, 91.

[437] Pinet 1894, 94; emphasis added. See Noblemaire 1905.

[438] See Ménard 2014, 45.

[439] Pinet 1894, 89.

[440] Karabell 2004, 39-40.

rule had turned Alexandria into a thriving hub of commerce. Part of a more general pattern in the region, Egyptian trade had begun gradually to turn to Europe. As Al-Sayyid Marsot writes, 'Egypt became part of the European world system, that is, it became subject to European trade pressures and economic directives' in a 'reorientation of trade patterns from internal-imperial to external-European'.[441] Under these circumstances, Enfantin's group went to Cairo where they lobbied fellow Frenchman Linant de Bellefonds, chief engineer to the Egyptian government, to obtain an audience with Muhammad Ali. Linant de Bellefonds later recalled that 'there were Saint-Simonians in Cairo, with their father Enfantin' and that 'Muhammad Ali knew, like everyone else, of the merit of many of them'.[442] The Egyptian ruler did not much care for a canal at Suez, but approved of a barrage project that would limit Nile flooding to render crop yields more predictable. While Enfantin and Linant de Bellefonds worked on the barrage, relying on the forced manual labour of tens of thousands of *corvée* workers provided by the Egyptian government,[443] Enfantin also established École Polytechnique-style schools across the country.[444]

A mere two years later, the Supreme Father grew impatient with the barrage and returned to France to work as postmaster, scientific commissioner for the colonisation of Algeria, and eventually director of the Paris-Lyon railway.[445] Yet when in 1844 his once-associate Michel Chevalier published a book on the possibility of a Panama canal followed by 'a glance at the isthmus of Suez', the canal project was revived.[446] Enfantin hastily raised 150,000 francs to establish the *Société d'Études de l'Isthme de Suez* in 1846.[447] The venture included prominent engineers from Britain, France, and Austria-Hungary. Paulin Talabot and Robert Stephenson had joined the cause, along with Austrian engineer Alois Negrelli. The group was divided into national chapters called 'brigades', each tasked with geologically and topographically investigating a different section of the Suez peninsula. Talabot headed a French group including topographic engineers Bourdaloue and Lepère; Negrelli lead an Austrian-German group with Johann Jassnüger (chemical engineer and campaigner for a Polytechnic in Vienna) and Pottika as chief engineers; Stephenson headed a somewhat less committed British group.[448] In 1847 they all travelled to Egypt. Linant de Bellefonds received Enfantin and his fellowship with

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441 Al-Sayyid Marsot 1984, 2.

442 Linant de Bellefonds 1872-73, 443.

443 Karabell 2004,. 44.

444 Solé 2015, 130-35; Diesbach 1998, 55-57.

445 Abi-Mershed 2010; Pilbeam 2014.

446 Chevalier 1844; Pilbeam 2014, 126.

447 Karabell 2004, 67.

448 Taboulet 1968, 95-96; see Pilbeam 2014, 127.

open arms. Talabot proved to be the most effective member of the group, believing himself destined to bring progress to the Orient and viewing 'grand public-works projects not just as puzzles to be solved, but as integral components of the harmonious development of civilization.'[449] Soon enough, his French group made a groundbreaking discovery: Bonaparte's engineers, sent to Egypt half a century ago, had been sorely mistaken—the levels of the Red Sea and Mediterranean were actually close to equal.[450]

1.3 Discord and dissolution

Before Talabot's finding could bear fruit, however, internal disagreement got in the way. The group disintegrated, differing starkly on their assessment of the topographical conditions but also, interestingly, along national lines. Negrelli's group, tasked with surveying the Nile's embouchure in the Mediterranean, recommended a direct cut through the isthmus of Suez, in line with Linant de Bellefonds, implying a canal at a convenient distance from the seat of Egyptian power. Talabot's group in turn envisaged a canal cutting across the Nile delta, passing through the heart of Egypt. The British section defected altogether once Stephenson changed his mind and concluded the project was unrealistic, instead preferring the Alexandria-Suez railroad enterprise Muhammad Ali had requested two decades prior. Enfantin began to doubt his prospects.

The Saint-Simonian Suez canal also failed because of terrible timing. The group's lack of funding only worsened during the 1847-1850 economic crisis; while the political turmoil of 1848 turned public attention inwards. The February Revolution put an end to the July Monarchy as Louis Philippe's regency was overthrown, and the Second Republic was established under the leadership of Bonaparte's nephew. Egypt was simultaneously in transition as Muhammad Ali passed away in 1849 to be succeeded by Abbas, a leader with starkly opposite priorities. If Muhammad Ali was a moderniser, Abbas was a reactionary. Egyptians studying abroad were called back, Enfantin's polytechnics were shut. Expatriates returned to Europe. Only once the dust of the February Revolution had settled did Napoleon III's Saint-Simonian sympathies tip the balance in favour of a Suez canal—though no longer on Enfantin's terms.

2. Manufacturing legitimacy

Former vice-consul to Egypt Ferdinand de Lesseps (1805-1894) now assumed charge over the project of 'piercing the isthmus of Suez'.[451] We already met this influential diplomat-turned-entrepreneur as a member of the 1855 commission for the Paris World

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[449] Karabell 2004, 69.

[450] Taboulet 1968, 96.

[451] Pinet 1894, 89.

Fair in Chapter IV. As leader of the Suez canal enterprise he comes into our spotlight once again as a differentiator of a technocratic international. After several stays in Egypt, Lesseps had worked in The Netherlands (1838), Spain (1839), and Italy (1849), before his career came to a sudden end.[452] During the 1849 French siege of Rome, at the height of Giuseppe Mazzini's struggle for Italian independence, Lesseps fell from grace. Austrians and Frenchmen besieging the city, he had hastily tried to negotiate a compromise; once having secured this compromise, he sped to France to obtain confirmation of the agreement by the French foreign minister. The foreign minister however, whom Lesseps had good ties with, had just stepped down and was succeeded by none other than Alexis de Tocqueville. Tocqueville was of another mind, declared Lesseps' paper null and void, and instead authorised the invasion of Rome. Louis-Napoleon, president of the Second French Republic and soon to be emperor Napoleon III, had Lesseps censured for having negotiated an agreement that undermined the dignity of France. Lesseps resigned to what would turn out a lucrative life as businessman.[453] To fully make sense of Lesseps' role in turning the fate of a canal on the Suez peninsula around, I first show how he appropriated the project from the Saint-Simonians; second, I foreground how expert contestation served as a proxy for political debates on the canal; and third, I examine the 1856 International Commission that generated legitimacy for the project by deflecting political contestation and privileging technical merit instead.

2.1 Appropriation by Lesseps

The 1854 assassination of Abbas I brought Egypt's reactionary turn to a sudden end. Conveniently, his successor Saïd had been Lesseps' close friend during the latter's previous diplomatic post in Egypt. The Ottoman eyalet turned its gaze to Europe once again, and Saïd aimed to revive Muhammad Ali's legacy. Lesseps, remembering Enfantin's pitch for a canal project some time ago, recognised the opportunity. Timing had much improved as well, not least given the 1850 signing of the Clayton-Bulwer Treaty settling British-American tensions over a Nicaragua canal. Reminiscent of Bentham's plans for *Junctiana* (see Chapter II), the treaty bound both parties to never 'obtaining or maintaining' exclusive control over a canal if built, effectively amounting to a guarantee of neutrality. It also stipulated that neither signatory would ever 'occupy, fortify, or colonise' any territory in Central America. Setting a precedent for the possibility of a neutral canal, beneficial to global commerce, the treaty added momentum to the Suez project by mere virtue of popularising the idea of such an enterprise.[454]

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[452] Mitchell 1895.

[453] Lesseps 1849.

[454] Taboulet 1968, 102.

Records on this are ambiguous, but on his way to Egypt Lesseps may have stopped in Lyon to visit François Arlès-Dufour, a fellow World Fair commissioner and mutual friend of his and Enfantin's. Arlès-Dufour had also been involved with the latter's earlier Suez canal project. It is possible that Lesseps obtained documentation from the 1840s project that he then used to pitch the canal to Saïd.[455] Whether or not this is true, however, Lesseps arrived in Egypt with considerable preliminary information. Mobilising his credentials as a former diplomat, he was received as near-royalty—helped of course by the fact that his cousin Eugénie de Montijo was the Empress of France. Lesseps now only needed to sell the idea of a Suez canal to Saïd. Egypt, he said, 'still has the capacity to be a potent force in world affairs, and is still capable of adding a brilliant page to the history of world civilization.'[456] According to Lesseps, Saïd immediately gave him his word. By now it had become clear that the Saint-Simonians were no longer included, and what Arlès-Dufour had once described as 'the most beautiful dream of the rue Monsigny' was lost.[457] As Pilbeam writes, 'the Saint-Simonians had been side-lined, which may in part have been due to his [Enfantin's] own lack of diplomacy or, as Negrelli suggested, to their seven-year delay in not reaching a decision on the canal.'[458]

With a formidable network of high-level contacts, Lesseps had thus managed to secure what Enfantin had not: on 30 November 1854, viceroy Saïd granted Lesseps a land concession that would allow the former to set up a company for the construction of a canal, granting the right to operate for 99 years.[459] Egypt was to receive 15% of the eventual canal's annual net profits, with another 10% going to the founders of the company as listed by Lesseps (including Enfantin), and 75% to shareholders. The concession also granted the right to import all necessary equipment and building materials free from Egyptian taxation. Linant de Bellefonds was named chief engineer. Lesseps immediately wrote to consuls across Europe to inform them of his achievement. Anyone 'preoccupied with questions of civilization and progress', he proclaimed, 'cannot look at a map and not be seized with a powerful desire to make disappear the only obstacle interfering with the flow of the commerce of the world.'[460] Decades later, in a speech welcoming Lesseps to the *Académie Française*, recalling his achievement of obtaining such a grand concession, historian Ernest Renan would recall:

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[455] Taboulet 1968, 81.

[456] Cited in Karabell 2004, 85.

[457] Referring to the former Saint-Simonian headquarters; Taboulet 1968, 102.

[458] Pilbeam 2014, 129.

[459] Huber 2013, 27; Boutros-Ghali/Chlala 1958, 1-9.

[460] Lessep 1883, 172-202.

> You inspired, in this impetuous despot, singular respect. Pleasing you was his supreme goal; he saw but you in the world. The barbarian is still a child, and this friendship was a glass the slightest jealousy could crack. You sensed that; your rich and supple spirit turns up to everything. No-one but the very strong natures know to deal with the barbarians.[461]

Not only does this passage teem with the notion of a French *mission civilisatrice* and a racial hierarchy between France and Egypt. It also betrayed what the realisation of this Saint-Simonian project implied: informal empire, driven and legitimated by the apolitical claim merely to be removing an 'obstacle' to 'the commerce of the world'. As Valeska Huber notes, the concessions were a foot in the door for 'an emerging informal empire, with European firms taking advantage'.[462] At the same time, this was not simply a French imperial project; neither by designation nor by implication. Instead, a claim to the international was its great enabler. Lesseps actively derived authority and action capacity from recursively invoking and enacting—differentiating—the international as a domain of impartiality. He still had quite a few people to please and convince of the project: Napoleon III; the British, whose assent would be vital to the commercial success of the enterprise (given that a Suez canal would drastically shorten the British imperial route to India); and the Ottoman Porte, which legally had the final word about land concessions.

2.2 Expert contestation

An intensely political debate ensued over the choice between a direct route through the isthmus, which could compete with Stephenson's Alexandria-Cairo railroad; or an indirect route via the Nile, benefitting Alexandrian trade. Despite mounting pressure from the Alexandrian merchant lobby favouring the indirect route, Saïd preferred the former to keep the canal at a distance from Egypt's urban power centres, based on the assumption that this would keep European meddling with Egyptian affairs to a minimum. But this political debate largely took place on technical terms. Whether self-declared or approved in their status by a third party, "experts" far and wide fervently debated the canal's technical merit in newspapers, at meetings of scientific associations, at the gentlemen's club, or at the salon. Enfantin epitomised the tendency in a letter to Lesseps: 'We are engineers. Are you and Saïd engineers?'[463] And yet 'the technical debate was merely a proxy'[464]—the real bones of contention were not dredging machines but ownership of and control over the canal.

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[461] Renan 1885, 21.

[462] Huber 2013, 27. See also Todd 2015; Phillips/Sharman 2020; Todd 2021.

[463] Enfantin to Lesseps 1855.

[464] Karabell 2004, 94.

After his 1852 self-coup, the now-emperor Napoleon III became known as a ruler enthralled with *grands projets*. As he declared himself, 'we have immense tracts of uncultivated lands to clear, roads to open, ports to create, rivers to make new, canals to finish, our railway network to complete. These are conquests I am contemplating.'[465] But despite these favourable circumstances, Lesseps faced British resistance—he cared about this because he wanted to avoid the canal to appear as a French imperial intervention. To legitimate the Suez canal as a non-partisan engineering masterpiece with broad public support, Lesseps needed to convincingly convey it as both impartial and international. The process by which he did this can be made sense of as domain differentiation. And so in 1855 Lesseps met with Lord Palmerston, who proved immune to diplomatic attempts at persuasion. The argument against the canal turned on technicality instead—Palmerston did not think, in the words of Lesseps, 'that the canal was technically viable' but also pointed out that 'even if the engineering challenges would somehow be overcome … the opening of a new route to the East would undermine England's position as the dominant power in world trade.' While Palmerston focused on technicality, he was thus also clear about the long-term political implications.

In response, remaining firmly at the level of technical argument, Lesseps gave Palmerston his word that 'an international commission of engineers would shortly be dispatched in order to prove once and for all that the canal and the jetties planned for Port Saïd were feasible.'[466] The problem, for Palmerston as for the public, and more broadly for potential shareholders, was that Lesseps' enterprise very easily appeared as a French imperial manoeuvre. How could it be genuinely "international"? Anticipating such doubts, Lesseps persistently emphasised the canal's international, impartial benefits for humanity and civilisation at large. He did so by means of a highly organised public-relations campaign of commission meetings, surveys, and lobbying across Europe to obtain approval for a Suez canal—a live experiment, as it were, with the legitimating appeal of technocratic internationality.

2.3 An International Commission

The peak of Lesseps's campaign was the 1855 establishment of an International Commission (*Commission Internationale Pour le Percement de l'Isthme des Suez*) composed of thirteen experts from seven countries—excluding Egypt—to examine plans developed by Linant and determine the optimal course of action. Lesseps wanted the Commission to test the accuracy of French and Egyptian precursory schemes, respectively, and settle the quest for the optimal route. As he put it, the commission was 'charged with the duty

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[465] Cited in Bayly 2003, 176.

[466] Lesseps 1875, 221-27; English ed. 1876.

of examining the preparatory surveys of the preliminary scheme, of solving all the problems in science, art, and execution presented by the operation.'[467]

The Commission was essentially a remake of Enfantin's *Société*, and even membership overlapped. But though still exclusively European the group was even more international, including a large number of French, British, Austrian, and Italian engineers but also military officers of the highest ranks. Members were selected by asking ministers of each nation (Austria, Italy, Holland, Germany, Spain, England, France) 'to name the engineer who is the most capable'. A commission 'composed of such men', Lesseps stressed in a letter to the editor of the *Times*, who still harboured reservations about the canal, surely 'ought to remove all doubts, all mistrust, all anxiety, all timidity' among investors and the general public.[468] Who were these experts, and what made their credentials worthy of serving on the Commission? What were their motives for participating, and what did they derive their expert authority from? Below I briefly present profiles of Commission members to provide a sense of the individuals that qualified as international experts at the time.

Table 1 provides an overview of all 13 members of the 1855 International Commission. Three features stand out. First, the fact that members were exclusively white and male aside, expert authority was far from homogeneous. Experts did not share a common type of education or degree: some where formally trained at engineering schools, others through apprenticeships, other still had little knowledge of engineering at all. What is more, commissioners were not simply Europe's top engineers. They had been selected for factors including engineering distinction, but also military-imperial experience, language skills, favourable opinions, or financial backing. Second, the common criterion was instead a sort of international portfolio, tied to a mindset committed to the spread of progress through either military or technical preponderance. Third, although designated "international" in name, the commission was French-dominated. Still the *aspiration* to internationality was emphatic. What is at stake in the context of this thesis, finally, is not why engineering experts were enlisted to build the Suez canal, which is unsurprising, but why the project was legitimised by an international group of experts with the specific composition that it had.

In other words, the project did not build on a straightforward scientific seal of approval. It was legitimated by drawing from expert authority, itself produced in the process of differentiating the international as a domain of impartiality. Technical knowledge was crucial, but no cohesive epistemic community was available: the commission was composed of a wide array of figures, some with technical credential, many without—domain ascription mattered more than epistemic achievement. The

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[467] Lesseps 1876, 183-84.

[468] Lesseps 1876, 183-84.

Member	Nationality	Education	1855 qualification	Experience
Conrad, Frederik Willem (1800–1870)	Dutch	Delft School of Artillery and Engineering (1817 graduate)	Known Dutch canal and railway pioneer	• 1817 engineer in Dutch canal projects • 1825 Provincial Engineer for North Brabant • 1829 engineer for South Holland in Rotterdam • 1847 co-founder *Koninklijk Instituut van Ingenieurs* (KIVI) • 1839-55 Director-Engineer *Hollandsche Ijzeren Spoorweg-Maatschappij* (HIJSM) • 1858-65 represents Egyptian viceroy at the Suez Canal Company
Harris, Edward Alfred John (1808–1888)	British	Royal Naval College 1821–23	Naval commander of imperial credential, diplomat and MP	• standard career with Royal Navy: midshipman 1823 to South America, there until 1827, made Lieutenant in 1828 • 1839–41 commander North America and West Indies • 1872 Knight Commander of the Order of Bath
Jaurès, Charles (1808–1870)	French	French Naval College, Angoulême (1825 graduate)	Military career, imperial distinction	• 1830 marine admiral on French expedition to Algeria • 1844 Morocco • 1852 Egypt • 1855 China
Lentze, Karl (1801–1883)	Prussian	Prussian Surveying Examination 1823	Chief engineer of civil engineering credential in Prussia, experience building bridges and canals	• 1823 enters Prussian civil service as land surveyor • experience building bridges, canals, dykes • 1850 Head of Royal Commission for Bridges • 1859 title of *Geheimer Oberbaurat* • delegate for Prussia and *Norddeutscher Bund* on Suez commission
Lieussou, Jean-Pierre H. Aristide (1815–1858)	French	École Polytechnique (1834 graduate)	Book on the ports of Algeria	• 1843 Secretary Nautical Commission in Algeria • 1846–53 Cartographic Evaluation of Algeria at the Marine Repository of Maps
Linant de Bellefonds, Louis M. A. (1799–1883)	French	None; travelled as mapping novice to Greece, Syria, Palestine, Egypt	Life in Egypt; stakes in Suez project as its chief engineer	• 1818–30 surveying work in the service of Viceroy of Egypt Muhammad Ali • 1822 first visit Isthmus of Suez • 1831 Chief Engineer Public Works, Upper Egypt • 1837 earned title of Bey • 1854 chief engineer of Lesseps' Suez project
Manby, Charles (1804–1884)	British	Engineering apprentice at his father's Staffordshire *Horseley Ironworks* from 1817	Factory builder and Fellow of the Royal Society	• 1823 move to France to install hydrogen gas pipes across Paris for his father's company • 1820s employment by French government to build state-owned tobacco factories • 1838 back in England joined Sir John Ross's *India Steamship Company* • helped Samuel Colt build firearms factory • 1853 named Fellow of the Royal Society • 1856 named London Representative of *Robert Stephenson & Co.*
Meadows Rendel, James (1799–1856)	British	None; worked as surveyor from an early age	Dock design, chain ferry invention, Medal of Honour	• 1822 road construction works across Devon • 1827 builds bridge across Plym estuary, earning medal of Institution of Civil Engineers • 1831 invented the chain ferry • 1852–53 designed docks in Genoa • 1853–55 reported on harbour at Rio de Janeiro • 1854–55 reported on river Elbe for Hamburg senate • directed construction of East Indian and Madras railways • 1855 Medal of Honour at Paris World Fair
Montesino Estrada, Cipriano Segundo (1817–1901)	Spanish	London; École Centrale des Arts et Manufactures, Paris (1837 graduate)	Key role in emerging Spanish engineering profession; Director-General of Public Works at time of commission	• involved in establishing industrial engineering as a profession in Spain, and creation of the Royal Industrial Institute modelled on French Engineering schools • 1841/43 Public Works Officer for Spanish government • 1847 founding member and elected scholar at the *Real de Ciencias Exactas, Físicas y Naturales* • 1854-56 Director-General Public Works for Spanish government
Negrelli, Alois (1799–1858)	Italian	University of Padua, University of Innsbruck (1817 graduate)	Transnational engineer of large-scale public works; prior surveys in Egypt with Enfantin	• Chief engineer *Schweizerische Nordbahn* 1836–46 • railways to Prague, Poland, German states • 1850 President of the International Shipping Commission of Austria • 1852 Austrian Delegate to International Commission for the Central Italian Rail • member of Enfantin's *Société d'Études*
Paleocapa, Pietro (1788–1869)	Italian	University of Padua, Military Academy of Modena	Alpine tunnel engineer of acclaim, political favour as pro-unification activist	• 1817 Venetian Engineers of Water and Streets • 1813 prisoner of war during Napoleonic Wars • 1825 commissioner for Vienna census • 1857 Fréjus Rail Tunnel works
Rigault de Grenouilly, Charles (1807–1873)	French	École Polytechnique (1825 graduate)	Military career, imperial distinction	• 1830 French expedition to Algeria • 1831 participated in forcing of the Tagus • 1843 commanded corvette on China and India Seas station • 1854 served as flag captain during Odessa bombardment in Crimean War • 1857 Second Opium War • 1857 punitive expedition Vietnam
Robinson McClean, John (1813–1873)	British	Belfast Academical Institution, University of Glasgow	Eminent engineer; high status in both engineering and politics	• Co-founder engineering consultancy *McClean & Stileman* • Advisor on Suez Canal to British government • Chairman, Anglo-American Telegraph Company • 1864–65 President of the Institution of Civil Engineers • 1868–73 MP for East Staffordshire

Table 1. Members of the 1855 *International Commission on the Isthmus of Suez.* Data from Oxford Dictionary of National Biography; Who's-Who; Bibliothèque Nationale de France.

internationality of the 1855 commission, in other words, was configured as a claim to impartiality, while in reality it was based on the universalism of white European men favoured by their nations' political elites and with vaguely international credential.

Let me zoom in on a few commissioners. First, born in the county of Tyrol, then still part of the Austrian Empire, Alois Negrelli was raised as the son of a German-speaking mother and an Italian-speaking father. Studying at Padua and Innsbruck, he graduated from the latter in 1817—two years after the Congress of Vienna had granted Switzerland independence.[469] Negrelli went on to work as assistant to the Department of Construction of the city of Innsbruck. Fairly quickly Negrelli earned himself a reputation channelising various Alpine sections of the Rhine. He soon found himself at the centre of Swiss and Austrian engineering attention as builder of Switzerland's first own railway, the *Schweizerische Nordbahn* completed in 1846. Throughout the 1840s he supervised the construction in Austria of railways to Prague, Poland, and the German states; in 1850 he was named President of the International Shipping Commission of Austria; in 1852 Austrian Delegate to an International Commission for the Central Italian Rail. Negrelli had previously met Enfantin, who successfully recruited him for the Suez project and initial surveying works for that purpose in Egypt.[470]

Second, Charles Jaurès was the brother of marine officer Benjamin and later Socialist leader Jean's cousin, 1825 graduate of the French Naval College at Angoulême, and 1830 marine admiral on the French expedition to Algiers. Imperial military expeditions dominated his portfolio: in 1844 to Morocco, 1852 to Egypt, 1855 to Shanghai, and later, after working for the Suez commission, to Indochina.[471] His credentials, in other words, were different from what we might expect from a commission tasked with providing an independent expert audit on the feasibility of a canal: Jaurès was no technical expert in the sense of many of his fellow Commission members. His authority instead extended from military-imperial experience.

Third, 1834 hydrographic engineering graduate at the École Polytechnique, Jean-Pierre Lieussou was promoted to sub-engineer in hydrography in 1839 and finally engineer in 1840. In 1843 he served as secretary of the Nautical Commission in Algeria. Back in France, from 1846 to 1853 he studied the results of that exploration at the Marine Repository of Maps (*Dépôt des Cartes et des Plans de la Marine*), a key institution in the professionalisation and standardisation of imperial cartography at the time.[472] The extensive study culminated in a book on the ports of Algeria, earning him wide acclaim

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[469] Thomson 1990; Leonardi/Riegler in Curli 2022, 113-28.

[470] Schützenhofer 1949; Algardi 1988.

[471] Alba 2017.

[472] See e.g. Chapuis 1999.

in the engineering world.[473] Again, this was a Commission member with fewer engineering credentials than someone like Negrelli, but with a certain standing as someone familiar with the requirements of international public-works projects.

Fourth, John Robinson McClean was the son of a Northern Irish ironmonger. He first attended the Belfast Academical Institution and then briefly studied at the University of Glasgow. Aspiring to be an engineer very early on, his eagerness and talent drove an exemplary career. By the time Lesseps asked him to serve on the Commission, McClean had proven his technical ability as the co-founder of engineering consultancy *McClean & Stileman* with his partner Francis Croughton Stileman. Later in life he would become Advisor on the Suez Canal to the British government as well as Chairman of the Anglo-American Telegraph Company. He was also 1864-65 President of the Institution of Civil Engineers and a 1868-1873 Member of Parliament for East Staffordshire. An eminent engineer, McClean was a commission member with important connections into and popularity within the British civil engineering community.[474]

Fifth, Charles Manby was the son of the founder of Horseley Ironworks at Tipton, Staffordshire, where he trained as engineer from 1817 onwards. In 1823 he worked for his father's French company to install hydrogen gas pipes across Paris, obtaining French fluency. Thereafter he the French government employed his services to create France's state-owned tobacco factories. Back in Britain, he joined Sir John Ross's 1838 India Steamship Company.[475] As that project failed, he helped Samuel Colt to establish a firearms factory. In 1853 he was named Fellow of the Royal Society, presumably giving him the visibility that aroused Lesseps' interest in having him on the Commission. In 1856, the year of the Commission's work, he was also named London representative of locomotive manufacturer *Robert Stephenson & Co.*—and incidentally moved next door to Stephenson himself.[476]

Sixth, born in Devon to surveyor James Rendel and the daughter of architect James Meadows, Jane Rendel, James Meadows Rendel went at an early age to London to work as a surveyor. Around 1822 he moved to Plymouth and initiated road construction works in Devon. In 1827, the construction of a bridge across an estuary of the Plym earned him a medal and the respect of his colleagues at the Institution of Civil Engineers. Once introducing the chain ferry in 1831 made him known outside of England as well, James Meadows Rendel's career went beyond borders. From 1852 to 1853 he designed docks in Genoa; between 1853 and 1855 he reported on a harbour at Rio de Janeiro; between 1854 and 1855 he reported on the river Elbe for senate of

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[473] Lieussou 1850; see Miège 1985; Malverti/Picard 1991; Aïssani/Romera-Lebret/Verdier 2019.

[474] McClean 1864, 151-67; [unknown] 1874.

[475] Ross 1838.

[476] Manby et al. 1857, 479-89; Bailey 2008.

Hamburg; and in India he directed the construction of the East Indian and Madras railways. At the 1855 Paris World Fair he had received a medal of honour—and was subsequently invited to join Lesseps' International Commission.[477]

Finally, Charles Rigault de Grenouilly graduated from the École Polytechnique in 1825, but rather than embarking on the standard engineering route he entered a distinguished military career. In 1830 he participated in the French expedition to Algiers; in 1831 he participated in the forcing of the Tagus; in 1843 he commanded a corvette on the China and India Seas station; in 1854 served as flag captain during the bombardment of Odessa in the Crimean War; and later he went on to serve in the 1857 Second Opium War as well as a punitive expedition to Vietnam authorised by Napoléon III in 1857. Like Jaurès, Grenouilly was a military, non-engineering expert with an imperial portfolio rather than technical credit.[478]

These backgrounds of individual commissioners suggest two points of note. First, the commission was not composed solely of Europe's top engineers. Rather the common denominator was a portfolio that reveals what could be intelligibly grouped up under the label "international" at the time: imperial military experience, having lived abroad for some time, having promoted previous transnational projects, or possessing skills in multiple languages. Again, note that no Egyptian engineer or other representative was part of the Commission. Second, aspirations notwithstanding, most members were French. The categorical reference to internationality, presumably motivated by an expectation of credibility extending from that label, masked a French-dominated reality that was in fact imbued with imperial and financial stakeholder interests. The project did not build, contrary to its claims, on a straightforward scientific seal of approval. In contrast, the Commission was composed of a colourful array of figures, some with technical credential, many without—the label mattered more than the practice.

3. Afterlives of 'ascertained facts'

By 1856, the Commission had finished its report, complete with a detailed description of the canal; a summary of its key findings were translated and published in English and Italian in the same year.[479] The main conclusion was that a direct route was superior to proposals by Talabot, Linant, or Mougel. The report became a centrepiece of the pro-canal campaign. It also placed emphasis on the expert-based superiority of the Commission over the Egyptian government's engineers, Linant and Mougel. The widely circulated English-language edition of 'facts and figures' noted, for example:

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[477] Skempton 2002, 550.

[478] Thomson 1940; Taillemite 2004.

[479] Lesseps 1855; English ed. 1856.

> The scheme of His Highness the Viceroy's engineers, includes a channel 100 *mètres* wide, preceded by a vast flushing basin and protected by an insulated breakwater 500 *mètres* in length. The International Commissioners cannot approve of these propositions. The establishment of a vast water-tight basin in the sea would be very difficult and very expensive. The necessity of flushings is not proved, and their efficacy is doubtful'[480]

The publication's opening 'Statement of Facts' also stressed that the members of the Commission 'have drawn … conclusions, which the scientific world may henceforth look upon as ascertained facts.' Their report 'suffices for the present to answer the expectations of the public, and to remove all doubts which, on grounds of prudence or policy might still be entertained as to the practicability of this vast undertaking. The question from an engineering point of view' had been 'fully solved'.[481] Functionalists, as discussed in Chapter I, may take this at face value: international projects pose complex problems, experts provide the knowledge needed to solve them. Yet again, this is only logical if we think it natural that "the international" is where technical problems are being solved, rather than a domain that is claimed in ways that unequally distribute the authority to define what is and what is not a problem. Lesseps had strategic motives to *use* the approval of those the commission *elevated* to expert status.

Consistent with this he made sure, for example, to pay heed to the British imperial point of view. Stressing the advantages of steam power, a rising technology 'daily tending to supersede the use of sails', he made recommendations such as: 'The great shipping movement in the direction of the East Indies which will take the route by the Red Sea must, more than any other, yield to this general tendency to renounce the use of sails'.[482] Convinced by the document, viceroy Saïd issued a second act of concession, this time explicitly for the long contested direct route. Article 3 of the 1856 *Charter of Concession for a Suez Maritime Canal* explicitly read:

> The Canal, navigable by large vessels, shall be constructed of the depth and width fixed by the scheme of the International Scientific Commission. Conformably with this scheme, it will commence at the Port of Suez; it will pass through the basin of the Amer Lakes and Lake Timsah, and will debouch into the Mediterranean at whatever point in the Gulf of Pelusium may be determined … by the engineers of the Company.[483]

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[480] Lesseps 1856, 144.

[481] Lesseps 1856, 15-18.

[482] Lesseps 1856, 24-25.

[483] In Spencer Price 1873, 42.

This was victory: a litmus test for international expert governance had yielded striking success. And yet—supporting a framework that refrains from assuming expertise to be a successful depoliticiser—contestation continued. Enfantin launched another campaign and lobbied the French imperial court to discredit Lesseps. He enlisted Robert Stephenson, who he knew was opposed to a Suez canal since his prior defection from Enfantin's 1840s surveying works. Stephenson was now a Member of Parliament and was unafraid to declare his grudge against Lesseps in public. Between 1856 and 1857 he emerged as chief expert of the anti-canal campaign.

3.1 Settled dust?

Once the commission report was published, despite international expert approval canal politics were far from "solved." This supports my theoretical argument that domain differentiation only ever produces intrinsically fragile claims (Chapter I). From the point of view of rational institutionalism this is puzzling: why spend resources on public-facing expert approval (rather than just internally recruiting experts) if it did not remove doubt, establish certainty, and legitimate the enterprise? And why include military officers and stakeholders in a supposedly independent expert commission? Through the lens of domain differentiation we can view expert authority as more than purely epistemic, serving less straightforward functions with less secure returns. Expert politics was not merely about bringing epistemic resources to bear on technical challenges, but also about obtaining an air of impartiality for a project so as to ensure its actionability. The flip-side of this was expert contestation—often rather imprecisely referred to as the politicisation of expertise—which accompanied all ten years of digging the canal. Whenever political controversies arose, the knee-jerk response was to deflect the conversation back into the realm of technicalities.

In 1857, the British parliament convened to discuss the merits of the Suez project and whether or not Britain should give Lesseps the support he so yearned for. The meeting of parliament took place just as the Sepoy Rebellion had erupted in India. A Suez canal 'would make it possible to send reinforcements to India in half the time' in case of future unrests—Palmerston's opposition started to waver. Stephenson in turn, a contemporary reported, 'would not venture to enter upon the political bearings of the subject … but would confine himself to the engineering capabilities of the scheme.'[484] A British observer recalled in a piece on 'our high road to India' that

> while Lord Palmerston gladly welcomed Robert Stephenson's condemnation of the project from the engineer's point of view, his own opposition … was based entirely on political

[484] Lesseps 1857/58, 87-113; Hansard 1857.

> grounds. With members of Parliament, however, who failed to share the political terrors of the Foreign Secretary, the verdict of the great engineer was a fatal stumbling-block.[485]

This was precisely how expertise could, once more, be deployed to articulate internationality as a claim to impartiality: like the commission, the parliamentary debates too deflected an intensely political question to the realm of technicalities. Denying politics bore the promise of presenting an objective answer—only actually to a different question. The controversy remained unresolved, and British reluctance to back the Suez project continued for another while. On the other side of the Channel, in the meantime, enthusiasm had grown. Unconcerned by British opposition, Lesseps wrote to a friend: 'If every great improvement had to suspended until it was sanctioned by some official authority, the world would be stopped in its tracks, or it would move backward.'[486]

In October 1858, Lesseps announced the floating of 400,000 shares at 500 francs each. Though he had hoped that people all across Europe would be eager to buy shares, strengthening the project's claim to universal benefit, only 23,000 people ended up buying shares—21,000 of whom were French. There was one caveat: the viceroy of Egypt had promised Lesseps to buy any outstanding shares, and so, honouring his word, he indeed acquired the remaining 177,000 shares.[487] Finally in 1859 the Suez Canal Company (SCC) or *Compagnie Universelle du Canal Maritime de Suez* was established in both Paris and Alexandria. Excavation and building works would commence the same year.

3.2 The 'shipyard of civilisation'

By 1859, the purpose of the Commission had been met: expert auditing had justified the project in the eyes of British naysayers and previously hesitant investors across Europe. This aligned well with the premises of Saint-Simonian technocratic internationalism, supposing that once identified, every technical problem had a corresponding technical solution. The jump to *justifying* something, on the basis of its technical feasibility, had been elegantly performed by inscribing the project into the differentiated international: a domain of impartiality. The canal's making was a powerful intervention because it extended from "nowhere": though clearly a private enterprise, on the domain of the technocratic international it could be represented as independent of the partial aims of any particular empire. Such domain-level legitimation represented a quieter, less regulated, entrepreneurial foot in the door for nominally non-imperial influence abroad. Silently, the Suez project escalated Egyptian dependence on European finance, placed a

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[485] Spencer Price 1873, 9.

[486] Bonnet 1951, 301.

[487] Karabell 2004, 151-55.

large territory under European control, and opened the Suez peninsula to European settlers.[488] The result was an "international zone" in a world of empires.

Racial labour hierarchies were deeply inscribed into the canal's making. Excavations lasted a decade and largely made use of Egyptian forced labour, a form of *corvée*.[489] Egyptian *corvée* existed in a legal grey zone at the time. Lesseps had been reluctant to make use of it, not least because this was at the height of the anti-slavery movement in the United States, widely debated in Europe. Public relations costs were potentially high; the issue could and would be used 'as a political weapon in the inter-imperial power game between Britain and France'.[490] But the sheer scale of the canal project rendered *corvée* the most attractive option, particularly to the white man's gaze. In April 1862, the number of such workers peaked at 23,318.[491] Although salaries were paid out, this was unfree labour. While rudimentary tents or blankets were available at times, employees often had to sleep in the open near the excavations, under the assumption that locals 'understood how to live in the desert'.[492] More than 60,000 Egyptian peasants or *fellahin* joined the Suez works. Along with Greek and Sudanese labourers, and labour migrants from across the Arab peninsula, they provided the vast majority of the labour force. Thousands died. Though mechanisation gradually replaced manual labour, this was a slow change as Egyptian labour remained cheaper. A sharp division between Egyptian unskilled labour and European qualified labour characterised the works until the end.[493]

More than once, Lesseps disregarded the Wāli's reservations. This casts doubt on the depth of the friendship that connected Lesseps to Saïd, but also tells us something about the way in which the SCC gradually carved out political authority at the Egyptian government's expense. This already became apparent in the years leading up to the formation of the company. In light of the controversy the project had stirred across Europe, particularly in Britain—an important ally of his superiors in the Ottoman government (the Sublime Porte)—, Saïd expressed some doubts. Lesseps ignored them. Two years later, when excavation progress initially proved much slower than expected, the Sublime Porte got impatient with Saïd. Faced with mounting pressure the Wāli 'officially instructed the Canal Company to cease and desist'.[494] Lesseps immediately met with Napoleon III to secure the emperor's official support and, once obtained, made this publicly known. Faced with such blatant non-compliance, Saïd changed his mind.

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[488] Piquet 2002, 39.

[489] Wilson 1939, 15, 53.

[490] Huber 2013, 28.

[491] Montel 1998, 38-42 in Huber 2013, 28.

[492] Karabell 2004, 192-93.

[493] Piquet 2007, 5.

[494] Karabell 2004, 172-73.

3.3 An international zone

Saïd Pasha passed away on 18 January 1863. On the next day, his nephew Ismail ascended to the throne. In the footsteps of his modernising grandfather Muhammed Ali, Ismail too wanted to dedicate his reign to reform, industry, infrastructure, and other symbols of a Western modernity to which he thought Egypt belonged. At the end of his reign in 1879, after over a decade of heavy spending from the Egyptian budget on railways, canals, irrigation, and the Suez canal, he concluded: 'My country is no longer in Africa; we are now part of Europe.'[495]

Ismail's reign shaped the Suez canal in fundamental ways. In a first bold step, securing public sympathies, he abolished the *corvée*. The extent to which this was a blow to the project reveals its economic reliance on forced labour. Shareholders saw Ismail's decision as a threat; the press responded with doubts about the viability of the undertaking; the value of canal shares dropped. In reply, Lesseps emphasised yet again that the canal was a project that would advance all of humanity, an endeavour that would end and transcend national rivalries. But Ismail had made up his mind and would stand by his decision—even if that meant that he had to find alternative funding sources to support the completion of the canal, which he deemed necessary for a prosperous industrial future for Egypt. Assessing the future of Egyptian cotton trade optimistically (assuming it would remain a stable source of income), Ismail loaned approximately 100 million francs from the German Oppenheim brothers. Interest added, this would end up costing Egypt nearly double. The first of several loans incurred by Ismail, it was the start of the gradual usurpation of Egyptian finances by extended European control.[496]

In the spirit of the Saint-Simonian mission to Europeanise the globe, canal works also entailed European settlement along the canal zone towns, a company hospital, company-owned railways, and company-owned telegraph communication.[497] As Huber writes, 'Canal towns were marked from the outset by a particularly international character'. In 1862 the town of Port Saïd was founded—built on sand that had been dug out to create the canal. A European contemporary described Port Saïd as 'quite a city: we count 1,023 Europeans and 1,578 Arabs, we have restaurants, cafés, tailors and canteens.'[498] By 1886, Port Saïd's population of approximately 15,000 would include around 2,000 Austro-Hungarians, 2,000 French citizens, between 2,500 and 3,000 Italians, up to 2,000 Britons, and about 3,000 Greeks—leaving a small minority of between 3,000 and 4,000 Egyptians. The town followed a European grid-like layout, including a "rue Lesseps", sharply contrasting Arab urban design elsewhere in the region.

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[495] Cited in Scham 2013, 313-18; see Harrison 1995, 53.

[496] Jakes 2020.

[497] See Todd 2011; Phillips/Sharman 2020; Todd 2021.

[498] Berchère 1863, 20 in Huber 2013, 30.

Its service infrastructure of hotels, consulates, and telegraph offices was similarly Eurocentric. Elsewhere too, the canal zone was structured by the implied power hierarchy. In 1864 the governor of Damietta, a region which included lands around Lake Manzala in the canal zone, demanded that fishermen active in the area pay Egyptian taxes. Lesseps rejected this out of hand, treating the fishermen as company employees, given that they had been fishing within the company's canal zone, thus exempting them from taxes. This was a direct infringement on Egypt's semi-sovereignty. Egyptian autonomy, to the extent that its status as an Ottoman eyalet allowed it, was being eroded from within by corporate action—notably at the behest not of a European government, but a nominally international company led by a French private citizen.

At the same time, the Europeanisation of the workforce was swiftly underway. In 1863, tens of thousands of *fellahin* had been working on site, under the supervision of a mere few thousand Europeans, predominantly French. Two years later, the dynamic had shifted considerably: approximately 10,000 Arab employees worked next to now 8,000 Europeans. Still, skilled labour was a domain reserved for the latter group. Having abandoned the *corvée* system, Ismail now provided several thousand "soldiers," a label that essentially applied to 'corvée labor by another name.'[499] The SCC started to behave like a semi-autonomous state in a state—the decrease of *corvée*, in fact, having had the adverse effect of a decrease of Egyptian oversight.[500] A primarily European company (though substantial, Egyptian shares now heavily depended on European finance) backed by one of Europe's great powers had begun to heavily reduce Egyptian autonomy. Essentially, this amounted to the hollowing out of national sovereignty in the technical interest of the project and the company, with the political consequence of rendering Egypt increasingly vulnerable.

Nearing completion of the canal, Lesseps went on another public-relations tour. In 1867, the Second Empire hosted its second World Fair at the Champ de Mars in Paris. Notable guests included Tsar Alexander II of Russia; the Japanese emperor's brother; Kaiser Wilhelm and Otto von Bismarck; Prince Metternich; the Ottoman sultan; and Ismail of Egypt. Egypt's display included two exhibits on the Suez canal, complete with a bas-relief topographical map of the canal zone and a diorama conveying 'an illusion of watching the canal take shape in real time.'[501] It was a spectacle—word spread across Europe that a formidable monument to civilisation was in the process of being erected on the other side of the Mediterranean.

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[499] Karabell 2004, 228-30.

[500] Less Egyptian labour meant less reason for its Egyptian policing, which *corvée* would have guaranteed.

[501] Karabell 2004, 244-45.

4. Anti-expert backlash

In 1869 the Suez canal was inaugurated. A monumental artefact of the technocratic international and a testament to engineering genius opened its floodgates to global commerce. Empress Eugénie herself attended the opening ceremony. A vision had turned reality and was now a thing with concrete legal, economic, imperial implications. Rapid population growth in the canal zone (from 10,000 in 1865 to 34,000 in 1868) gave rise to complex questions about extraterritorial jurisdiction and citizenship in an area essentially governed by a multinational company: which laws should apply to whom was a challenge. Economically, apart from facilitating global commerce the canal's construction has been interpreted as a factor contributing to the Panic of 1873, a major international crisis that culminated in the nineteenth century's Long Depression.[502] In imperial terms, the canal went on to play a key role in speeding up European colonial exploitation of North Africa and South Asia.[503] The canal zone itself would be a place 'where empires observed each other and where imperial interests were concentrated'. Given that 'the question whether the Canal was an imperial Piccadilly or a universal road also had implications for its political configuration', control versus neutrality became a matter of inter-imperial relations between France and Britain.[504]

The Suez canal question raised significant anti-expert backlash. On 26 August 1869 the *Daily Telegraph* declared: 'The Suez Canal should have been constructed with English capital and by English energy; and we, as a nation, have little reason to thank the diplomatic authorities and the scientific experts who kept on assuring us, year after year, that the scheme was an absurdity.'[505] Another commentator, writing for *The Athenaeum* in 1876, expressed similar complaints. The author noted that the use of expert scientific knowledge had actually failed to improve public knowledge of the facts: 'It is a remarkable fact that, up to the present time, we are entirely unacquainted with the details of expenditure on the Canal.'[506] Both expressed a sense of fatigue with expert assessment—disappointment with meagre returns from public trust in and deference to the authority of experts like Robert Stephenson, whose supposedly independent word on the feasibility of the canal had simply not matched reality. Contrary to his 1857 parliamentary speech by the side of a zealous Lord Palmerston, the canal had turned out quite feasible and proved to be a major advantage for British commerce and troop deployment to and from India. Soon enough, three-quarters of canal traffic was British.

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[502] Davies 2018.

[503] MacKenzie writes that some scholars have argued 'that the Partition [of Africa] really begins in 1869 with the opening of the Suez Canal, or at least in 1875 when Disraeli acquired the Khedive's Suez Canal shares (seven-sixteenths of the whole) for Britain.' MacKenzie 1983, 17. See Huber 2013.

[504] Huber 2013, 73.

[505] Cited in Karabell 2004, 281.

[506] Anonymous 1876, 626.

Since at least 1854, it had been stressed that the Canal Company should ensure the international neutrality of the waterway. On the other hand, Napoleon III had provided ample reason to think otherwise, declaring the Suez canal to be France's 'great national work'.[507] But shortly after its inauguration, the 1870 Franco-Prussian War ended in a huge defeat for Napoleon III. An increasingly powerful German state was not what the Emperor had expected, having spent most energy over the years on relations with Britain instead. The British Consul-General in Egypt commented that 'a great opportunity might shortly occur of securing our communications with India by obtaining possession of the Suez Canal, a possession which would, in my opinion, be attended by most important political advantages to her Majesty's Government.'[508]

The Second Empire collapsed, and the French had to give up Alsace and Lorraine. In 1871 the Third Republic was born. The new government under president Adolphe Thiers still embraced industry and progress and remained strongly supportive of the Suez canal. Stock prices recovered. Yet already the "Anglification" of the canal zone had picked up speed. The SCC was still French; but gradually, British interests set the agenda given Britain's reliance on the canal for troop movements to and from India. The company levied a fee of 10 francs 'per passenger and per ton of freight'. But tonnage was not standardised at the time: bureaucratic hurdles mounting, the company noted that 'there were as many different tonnages as there were different maritime nations.' Agreement was needed, and so in 1871 an international commission settled for British tonnage. As Huber notes, 'the adoption of the British ton not only reflected the political hierarchies of the moment but also the Canal's shipping proportions, with British steamers representing the most important share.' Settling for British tonnage 'reflected the global geography of power.'[509]

In the meantime Ismail Pasha had incurred mounting debt. By 1875, Europe's bankers declared Egypt 'on the brink of insolvency.'[510] Ismail's remaining asset were his canal shares. The British prime minister Benjamin Disraeli, Gladstone's successor, saw an opportunity. Word had reached him that the French investment bank *Société Générale* (the former director of which, incidentally, was the arms manufacturer Eugène Schneider who had served as commissioner for the 1855 World Fair) was about to purchase Ismail's shares, which would have meant nearly 100% French ownership of the SCC. Disraeli perceived this as threatening British imperial interests, further facilitating the Third Republic's thriving imperialism across Africa and in Southeast Asia. In a 180-degree turn from decades of fierce British opposition to the canal project, he decided to purchase all

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[507] Napoleon III 1864; cited in Huber 2013, 75.

[508] Anonymous 1876, 433.

[509] Huber 2013, 80.

[510] Karabell 2004, 283.

floated shares. He obtained a loan from Lionel Rothschild, and by November 1875, the British government owned 44% of the SCC, becoming the largest single shareholder.[511] A journalist writing for *The Quarterly Review* in 1876 looked back with sobriety on the international 'political machinery of the Canal':

> French management, polyglot proprietors, a mixture of French and Egyptian jurisdiction, Egyptian sovereignty, Turkish suzerainty, and practically a British and Anglo-Indian traffic, formed a commercial, moral, and political chaos, unprecedented as the work itself. Notwithstanding the large ideas of M. de Lesseps, his honest and earnest desire for the adoption of his Canal by all nations, it was still, even after its opening, as it is now, the property of a French Company, and nothing more.[512]

This reviewer turned the picture upside down, arguing the opposite of what the Saint-Simonians had hoped for: the technocratic international had not brought order and progress, but 'commercial, moral, and political chaos'. Ismail was finally forced to accept an Anglo-Egyptian commission to oversee Egypt's finances being managed by Dual Control. This essentially signified the loss of determining powers over the Egyptian state budget. In 1879, the Ottoman sultan deposed Ismail and replaced him with his son Tawfiq, while Ismail left Egypt for exile in Italy. The Dual Control mandated the sale of the viceroy's rights to 15% of canal profits, allotted as per Saïd's original concessions, to a French bank. Between 1880 and 1881, Arab ministers and generals lead an armed rebellion against Tawfiq, whom they saw as a Dual Control puppet. In response to this, in 1882 the British sent troops and bombarded Alexandria. The canal was seized and Egypt turned into a British protectorate.[513]

5. Conclusion

This chapter has examined the making of the Suez canal in the context of domain differentiation. It advanced the central argument that the 1855 International Commission legitimised the Suez canal project by persistently articulating non-institutionalised technocratic internationality. Domain differentiation in this light is useful because this was not just a story about the power of discourse but also about concrete authority relations that enabled a disruptive material intervention. The double consequence of laying claim to the international as a domain of impartiality, in this case, was concealment (of the canal's imperial role) and action capacity (for the SCC as an international actor).

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[511] Karabell 2004, 283-84.

[512] Anonymous 1876, 433.

[513] Karabell 2004, 284-87.

To empirically corroborate this I zoomed in on the commission's creation in particular. Technocratic appeals to internationality here facilitated a large-scale infrastructure project that actually constituted an aggressive economic and political intervention. Lesseps forged and deployed a notion of internationality, and international expert approval at that, in his campaign to legitimise the Suez canal enterprise in the eyes of international shareholders, doubtful engineers, and suspecting politicians. Domain differentiation could thus figure as deflection, shifting focus from normative legitimacy to technical feasibility. This shift entailed discrediting Egypt's own judgement along with a focus on how an already preferred option could best be carried out, precluding arguably much more controversial questions of whether the canal should be built at all, who should build it, how and along what route it should be built, and who should own it.

Ultimately, the SCC's strategy of taking charge over a vast territory in Egypt as an "international zone" essentially amounted to informal empire 'in a period of yet barely defined colonial expansion, saturated with reformist ideas.'[514] After 1848, the Second Napoleonic Empire turned to informal free trade imperialism, expanding in reach to Algeria and Egypt but also establishing French protectorates in Indochina.[515] A 'belief in the possibility of empire without annexation' took root.[516] This happened 'partly as a result of the direct influence of several Saint-Simonians on Napoleon III' and was above all 'indebted to the keen interest of Saint-Simonians in the global expansion of western trade and industry after 1830'. International capital ventures like the Suez canal boosted the Second Empire commercially and financially. As David Todd has shown, the global share of French exports had risen between 1850 and the 1860s from less than 10% to nearly 15%, while the 'net value of French foreign investments augmented from 0.75 billion francs in 1850 to 13.3 billion in 1870.'[517] Anglo-French inter-imperial relations complicated matters further. Though ultimately the canal fell to the British, the neutrality of the canal remained a lasting concern. The 1888 Constantinople convention, which stipulated that the canal should always remain open and freely navigable simultaneously 'strengthened the rhetoric of the internationality and neutrality of the Canal' but also 'showed the weakness of such international agreements.'[518] The canal zone remained a hub of imperial reach into Europe's expanding overseas territories.[519]

The 1855 International Commission also shows how a claim to the separateness of a domain, on the one hand, and the ability of experts to legitimise a project by

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[514] Piquet 2002, 43.

[515] Todd 2011, 173-178. For the classic argument see Gallagher/Robinson 1953.

[516] Todd 2015, 268.

[517] Todd 2011, 174-175 and 178. See also Regnier 2002.

[518] Huber 2013, 89.

[519] See Huber 2013, 96.

labelling it impartial, on the other, relate co-productively. Political favour and the selection or visibility of experts depend on criteria which are bound to reflect historical context, based on markers of civilisation, imperial power, race, gender, and so on. As Eric Ash has noted, 'the ability to wrangle recognition and favor from powerful patrons, whose political influence and social status could be traded upon to establish or reinforce one's own expert credentials when these were in question, could be at least as important as the possession of technical knowledge itself'.[520] But expertise was a double-edged sword: not unlike in present-day responses to anti-expert backlash with defences of expertise on repeat, the domain-specific legitimation repertoire was limited. This foreshadows a dilemma international cooperation still faces: expert governance requires sustained domain differentiation—which generates stability when it authorises experts as international actors, but also fragility as it offers an easy inroad for delegitimation.

Contrary to its emphatically un-imperial vocabulary, the technocratic international was not opposed to but an enabler of imperial order. This affirms but predates the nexus between imperialism and internationalism that Long and Schmidt famously located in the early-twentieth century birth of IR as a discipline.[521] On the technocratic consensus shared by utilitarians, Saint-Simonians, industrialists, free-trade liberals and functionalists, *experts* deserved a firm place at the helm of society. Lesseps put this vision into practice, mobilising and indeed making experts as powerful legitimisers and facilitators of political projects, not least because in the eyes of technocratic thinkers and practitioners—differentiators of the technocratic international—the point of politics was not maximum legitimacy, but maximum efficiency.

[520] Ash 2010, 11.

[521] Long/Schmidt 2005.

CHAPTER VI

The cable-layers

The International Telegraph Conference, 1865

> 'Although it is true that war is frequently caused by a mere misunderstanding, is it not a fact that the destruction of one of the causes makes it easier for nations to exchange ideas, and brings within their reach this prodigious means of communication, this electric wire which conveys thoughts through space at lightning speed, providing a speedy and unbroken link for the scattered members of the human race?'
>
> — Edouard Drouyn de Lhuys, 1865[522]

In 1837, the first overland electric telegraph line was laid from London to Birmingham. It replaced the optical telegraph system of semaphores with a more efficient and less easily sabotaged means of communication. During the 1840s, lines proliferated and interconnected at dizzying speeds. The new technology was greeted with excitement and enthusiasm among merchants and officers of empire. Upon the 1854 opening of a Calcutta-Bombay line, Governor-General Dalhousie wrote: 'The post takes ten days between the two places. Thus in less than one day the Government made communications which, before the telegraph was, would have occupied a whole *month*— what a political reinforcement is this!'[523] Within Europe, in the meantime, demand for administrative integration had steadily grown: in 1848, Prussia alone had to conclude a total of 15 conventions with other German states just to link Berlin's cables to its own borders. In order to fix uniform standards, the Austro-German Telegraph Union (AGTU) was established in 1849; a French-led Western European Telegraph Union (WETU) followed in 1855. In 1864, the French government invited all countries with a telegraph administration (excluding those, such as Britain, with private telegraph networks) to extend the scope and negotiate international telegraph standards. Twenty countries confirmed their attendance, including the Austrian, Ottoman, and Russian

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[522] Drouyn de Lhuys 1865, 183.

[523] Dalhousie to Couper 1854 in Headrick 1988, 97.

Empires. Representatives gathered in Paris to vote on a proposal, formulated by a Commission of Special Delegates, for a single International Telegraph Union (ITU). The ITU set technical standards including Morse code, instructions for cable operation, tariff rates, accounting rules, pricing units, and maximum word length. The conventions came into effect on 1 January 1866; two years later, a permanent International Bureau in Bern completed the process. The world's first formal international organisation, still in existence today, provided a blueprint that many others followed.

Yet the fact remains that the cables laid across the globe were not simply commercial but fundamentally political projects. For the political imagination they constituted nothing less than a 'revolution in perceptions of the relationship between time and place'[524] making the world look 'small, manageable, tame.'[525] This begs the question: how did a technology that bore such overwhelming promise for imperial governance relate to its regulation by an institution that professed to be apolitical? Domain differentiation is a crucial part of the answer. In this chapter I argue that the ITU articulated and performed technocratic internationality to pursue two main goals: one, a sidelining of diplomatic tensions and cartel rivalries; and two, the locking of an expert mandate into the basic design of international institutions.

The label "international" played an important role in both of these moves. The first general meeting of the conference on 1 March, for example, explained the main reason for the French invitation for an international conference to be a recognition of 'the advantages of the uniformity of the telegraphic regime for international relations,' such that 'France thought it necessary to propose not only to the signatory States of the preceding Conventions, but to all the Powers of Europe, to form a Conference called upon to negotiate a general Treaty.' Chief connotations with matters international, in this context, were uniformity and generality. The ITU's architects—differentiators of the technocratic international—were able to navigate contestation by stressing the *international* significance of telegraph communication, the need for a shared *international* framework to regulate its use, and the pursuit of a public *international* interest the 'general nature' of which, in the phrasing of Article 59 of the 1865 convention, overruled the 'particular arrangements' of its members.[526]

To further substantiate the overarching argument of the thesis, this chapter examines the role of the ITU in generating significant authority for cable entrepreneurs by means of domain differentiation. The ITU is an important case for two reasons: first, it was the world's formal international organisation, thus marking a formative stage in the

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[524] Morus 2000, 462.

[525] Bell 2005, 559; Bell in Chapman/Hume 2021.

[526] ITU 1865, 76.

institutionalisation of international cooperation practices.[527] If domain differentiation can be identified to be at work for a precursor for present-day international institutions, the argument also bears insights about those. Second, the technical management of international telegraph lines was a striking accompaniment of proliferating capitalist and imperial competition for its control; this simultaneity, and the public attention this new technology garnered, made conclusive domain ascription particularly difficult. The 1860s international telegraph regime articulated internationality as a categorical claim to impartiality—but once more the effect (paradoxical only on a face-value conception of expert authority, see Chapter I) was that the domain's supposed insulation from politics facilitated the hierarchies it denied.

To make this argument I ask how and to what effect the international telegraph regime engaged in domain differentiation. The chapter explores each component of this process in action: the use of the label "international"; the agency of differentiators; and the domain-specific legitimation of cable-laying as a political intervention. First, I outline the historical context that led up to the mid-century perception that telegraphy needed to be unified by an international standards regime. Second, again appreciating Headrick's reminder that technological change is not about "things" but about 'the people who developed, manufactured, and controlled these "things"',[528] I contextualise the political undercurrents of telegraph negotiations in the lead-up to 1865. Austro-Prussian competition, French imperial expansion, and tariff revenues were crucial controversies the conference had to tackle. Once elevated to expert status, people with projects could deflect away from these issues and claim that by entering the international domain, telegraphy would be insulated from politics. Third, I show how cable entrepreneurs and regulators continually mobilised and propagated internationality derived from technical expertise. In conclusion, in 1865 the idea of "the international" acted not unlike the rubber enclosing the submarine telegraph's electrical current—an insulating plastic made from violent colonial extraction, protecting an expanding world infrastructure from outside interference. Yet just as a perfect insulator does not exist, and all insulators can become electrically conductive themselves, the differentiation of the technocratic international was never an impermeable claim and remained vulnerable to contestation.

1. Cables before internationality

The history of telegraphy roughly begins once late-eighteenth century optical telegraphy —the mechanical semaphore system—began to prove slow, unreliable, and too easily sabotaged. Advances in electricity, in particular the recognition of electromagnetism by

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[527] The Rhine and Danube River Commissions are earlier international organisations, but in contrast to these the ITU had a permanent Secretariat and a staffed bureaucracy. Yao 2019; Schenk 2021.

[528] Headrick 1988, 23.

Ørsted and Ampère 1819-20, galvanised hopes for an improved means of speedy communication across long distances. In 1837, the first overland electric telegraph line was laid from London to Birmingham; in 1844, the first American line from Washington to Baltimore followed; and in 1845, France inaugurated its first line in turn. During the second half of the 1840s, telegraph lines proliferated, multiplied, and interconnected at dizzying speeds. Not only Western and Central Europe were affected; after a United States scientific mission in 1847 had brought the Morse system to the Ottoman Empire, for example, Sultan Abdul Mejid turned into a great enthusiast and promoter of telegraphy.[529] Relatively soon it became clear that communication across borders via telegraphs required technical standard-setting in order to function smoothly, properly, and without the delays caused by manual signal transcription and re-encoding at each inter-polity border. Modern bureaucracies of European governments issued a demand for cable cooperation. In parallel, however, telegraphy also was driven in large part by corporate interests and imperial expansion: given its forbidding costs, during the mid-nineteenth century telegraph messaging was almost the exclusive preserve of wealthy bankers, military chains of command, and colonial merchants. As a result, each of these was interested in shaping telegraph regulation to their advantage. In this section, I situate the creation of the ITU in each of these two parallel developments in turn, before exploring the argument that they related as mutually reinforcing.

1.1 Cable cooperation

To overcome mounting transmission barriers, the Austro-German Telegraph Union (AGTU) was established in 1849, with a French-led equivalent (WETU) following six years later. In 1865, delegates of Europe's telegraph administrations finally gathered in Paris at the first International Telegraph Conference. Importantly the ITU's purpose as an administrative, treaty-based organisation would be confined to regulation and standard-setting, not unlike the later International Standards Organisation (ISO).[530] Craig Murphy characterises the ITU, along with other 'public international unions' such as the 1874 Universal Postal Union (UPU), as international public systems: 'economically efficient, politically efficient' institutions that are designed so as to be 'extendable to the whole world' with the purpose of creating 'the larger markets in which liberal economic policies would result in improvements in the division of labor'.[531] To Murphy these systems were historically based on Rowland Hill's single-rate penny post and the administrative order of the Prussian *Zollverein*—in the context of this thesis we might add technocratic internationalism as a third pillar.

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[529] By the mid-1870s, the Ottoman telegraph network was the world's fifth-largest. Bektas 2000, 671.

[530] Yates/Murphy 2019.

[531] Murphy 1994, 67.

The origins of the ITU's legal and institutional design lay to a large extent in the German states, modes of cooperation among which had in many ways prefigured later practices of administrative treaty cooperation between separate political communities. In 1830s Prussia, German legal scholars favoured a strong state administration as the path to social progress, giving rise to the division of administrative law into specialised fields from public health to poverty, education to insurance, agriculture to transportation, mining to banking. The 1834 establishment of the Prussian customs union anchored this in the law with a series of administrative orders until 1848. This arrangement invited applying the same principles to alleviating the obstacles impeding telegraph communication across the German states. As Howland writes, 'Pan-German agreements for a railroad authority, a telegraph union, a postal union, and more followed. These were in effect international treaties, although they were confined to German-speaking states and not yet the 'universal' treaties of later decades.'[532] Consistent with this interpretation, Friedrich von Martens' *Traité de Droit International* (1883-87) listed under the heading of 'administration internationale' not only diplomatic rights and practices but also, among other aspects, communication and transportation. This aligns with the observation made in Chapter I that between the 1850s and the 1880s, a wide range of thinkers and practitioners had imbued the international with a specifically technical character.[533]

1.2 Cable competition

Yet alongside these regulatory-administrative developments, fundamentally unequal and exploitative dynamics undergirded the global telegraph enterprise. Cables fuelled one of the most profitable markets of globalising capitalism, characterised by aggressive competition and cartelisation, exacerbated by the imperial demand for cable communication. As Headrick has shown, this development was a basic component of telegraphy from the start—especially in the case of submarine telegraphy. A first submarine cable linked England to France in 1849; another cable connected England and Ireland in 1852; and in 1857 and 1858 two steam ships laid a cable across the Atlantic from Britain to North America. Among the first few messages across this cable was, significantly, 'one cancelling an order for two regiments of troops to be sent from Canada to India, saving the British government £50,000.'[534] The potential was immense, and though the cable broke down soon after its inauguration, it had certainly whetted the appetite of investors and entrepreneurs. Once telegraph cables had helped British troops to respond quickly and brutally to the 1857 Indian Revolt, military advantages became obvious. Schemes for a direct link between Britain and India mushroomed. In 1861,

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[532] Howland 2014, 166.

[533] Martens 1883-87 in Howland 2014, 166. See also Kingsbury et al. 2005; Union Télégraphique 1924.

[534] Headrick 1981, 158.

French entrepreneurs laid a submarine cable to Algiers in the same spirit. One of the first acts, finally, of the 1882 British invasion of Egypt, mentioned at the close of the previous chapter, was to lay a telegraph line from Suez in Egypt to Suakin on the Sudanese coast of the Red Sea.

Additional technological improvements, depending at this early stage on government support and investment particularly in the case of Britain, invigorated the industry further: curb transmission, patented in 1861, 'sharpened the signal by sending a reverse pulse immediately after the main pulse'; from the 1870s, duplex telegraphy doubled line capacity by enabling transmission 'in opposite directions simultaneously over the same line'; and automatic machines such as the siphon recorder reduced the required amount of manual labour. Prices dropped, though telegraphy never became a people's messaging system and certainly did not amount to a 'Victorian internet', contrary to a popular account.[535] Instead, the 1870s saw an expansion of international lines primarily from imperial cores to imperial peripheries, famously laying the basis for what the British Empire proudly inaugurated as its "All-Red Line" by 1902.

The two trends that characterised competition—monopolisation and wartime use—were both British-dominated. The 1860s and 1870s saw a swift consolidation of enterprises, many of which relatively hastily formed ad-hoc companies, into giant monopolies. In 1864 John Pender, Manchester merchant and future cable king, merged the Gutta Percha Co. (manufacturer of the rubber insulating submarine cables) and Glass and Elliott Co. into the Telegraph Construction and Maintenance Co.; in 1866 he acquired substantial shares in the Atlantic Telegraph Co.; and by 1870 he became chairman of the British Indian Submarine Telegraph Co.—only two years later to found the Eastern Telegraph Company. By 1900 Pender's monopoly was massive: of around '190,000 miles of submarine cables in the world' a staggering 'seventy-two percent were British-owned, mostly by Eastern and Associated'.[536]

The wartime use of cables, not contradicting the conventions laid down by the ITU which nowhere stipulated neutrality or immunity at times of international conflict, primarily took the shape of cable-cutting and censorship. National and inter-imperial rivalries quickly overrode the interest of international cooperation, most evident in cable-cutting during the 1898 Spanish-American War and strategic censorship during the Boer War. Most famously perhaps, British ownership of the sole telegraph station in the area played a significant role during the 1898 Fashoda Crisis that marked the apex of Anglo-French inter-imperial tensions.[537] In times of crisis, telecommunications, despite the ITU's organised attempts to instil a contrary tendency, were "politicised" immediately.

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[535] On non-use see Müller/Tworek 2016. For the "Victorian internet" thesis see Standage 1998.

[536] Headrick 1981, 161-162.

[537] Finn/Yang 2009.

1.3 Cable co-production

One easily gets the impression that the history of telegraph communication was essentially divided in two: public regulation on the one hand, private expansion on the other. It is crucial to recognise, however, that these two dimensions not only overlapped but essentially collaborated, one facilitating the other. 'Though owned by private investors,' Headrick notes, 'the cable network of the seventies was no triumph of free enterprise, but the beneficiary of governmental munificence.' In 1870 the British government even nationalised its domestic overland telegraph network, effectively releasing investment capital for submarine cable enterprises. Honouring its obvious imperial interest, it continually subsidised cable companies, paying for instance '£1,100,000 to the Eastern and South African Telegraph Co. to lay the Aden-South Africa cable, and £19,000 a year to the Africa Direct Telegraph Co. for its West African line'.[538] Nineteenth-century technocrats were well aware, as Craig Murphy has pointed out, that 'state action and international cooperation would be needed to build the infrastructure of wider international markets'.[539] State regulation and corporate interest were not in opposition but in alliance.

So on the one hand, telegraph cables were an 'essential part' of Britain's New Imperialism, surging in particular from the 1870s onwards.[540] On Headrick's account they 'served to tie the European empires together.'[541] In this vein we may view technology as a part of socio-technical systems, a 'mix of material and social institutions that cohere around artifacts' making up the units of analysis for the study of the embeddedness of technology in governance.[542] This is a power-political story in which the central actors were telegraph entrepreneurs at ruthless competition with one another, and agents of empire equally vying for avenues to political control of what they saw as the priceless new means of transmitting information from the imperial metropole to the periphery and back. Technology becomes visible in this light primarily as a means of intensifying both interaction and exploitation capacities.[543] Headrick writes that technological innovations lowered the costs of conquest, such that European empires could be 'cheaply obtained'.[544]

Though imperial historians have thus successfully revised triumphalist accounts of industrial progress, historians of technology have since pointed to the limitations of

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[538] Headrick 1981, 162.

[539] Murphy 1994, 32–33.

[540] Nathan 1959; Carter 1969; Gordon 2002; Hearn 2002.

[541] Headrick 1981, 163.

[542] Herrera 2014, 578.

[543] See Buzan/Lawson 2015, ch. 3.

[544] Headrick 1981, 206 and 209.

understanding technology primarily in terms of increased administrative efficiency.[545] Some have complemented this reading by adding to it a focus on the visions of political community it enabled, or its role in conquering nature.[546] Others have criticised its narrow focus on inter-imperial rivalries.[547] Others again highlight that 'imperial rivalry has been overplayed' and that instead capitalist dynamics picking up pace around the middle of the century played a much more significant role.[548] But as Müller has convincingly argued, neither factor on its own can fully explain telegraphic expansion and its effects on politics—imperialism and capitalism underwent fundamentally codependent developments, not least as 'the flow of capital was based on imperial structures'.[549] Money did not flow freely: it crossed only those borders actively rendered more porous than others. A 'global coloniality' underwrote nineteenth-century modernity, and technological developments such as the electromagnetic telegraph, whether submarine or overland, were inextricably bound up with that condition.[550]

This is where the imperial timeline ought to be considered closely related to the emerging fora and institutions of international cooperation through which telegraphs were standardised and regulated. Here a newly invented technological means of communication, outperforming the postal system, ran into technical issues of cross-border transmission: at the inter-polity border (whether between nations, principalities, duchies, or cities) a lack of uniformity slowed down an otherwise exceptionally fast means of communication. Even more pressing was the question of tariff rates: who did one have to pay taxes to when a message was conducted by the cables of not one but two or more nations? First through multiple bilateral treaties, then through multilateral conventions, the telegraph administrations across Central and later Western Europe reached agreements. Demand soon arose to standardise rates across all of Europe and even the world. While certainly beset by inter-imperial and inter-company rivalries, for platforms like the Universal Postal Union (UPU) as much as the ITU it was cooperation, not competition, that ultimately forged the rules, regulations, and standards facilitating the transborder expansion of global communication networks.[551]

Global histories of telegraphy offer ways of reconciling the picture.[552] Simone Müller's remarkable study focuses on actor networks, highlighting the agency of

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[545] Bell 2005, 529; Müller 2016b.

[546] Morus 2000; Bell 2005.

[547] Laborie 2010.

[548] Winseck/Pike 2007.

[549] Müller 2016b, 516.

[550] Conrad and Eckert 2007.

[551] Laborie 2010.

[552] Ahvenainen 1995; John 2010; Wenzlhuemer 2013; Osterhammel 2015, 721; Müller 2016a; Müller 2016b.

telegraph engineers, operators, and entrepreneurs and their social affiliations. These actors 'were inscribed in a distinct form of professional transnationalism' intertwining 'the global, imperial, and national.'[553] Whether principally determined by imperial or capitalist logics, or a combination of both, cable competition depended on the activities of these actors; likewise, the regulatory and standard-setting deliberations, diplomatic gatherings, and interventions of the ITU significantly depended on and responded to the capitalists' economic and political weight. Once we acknowledge this mutuality we can view the telegraphs, with Duncan Bell, not only 'as an incomparable means of control' but also as 'a potent demonstration of the sociotechnical superiority that helped legitimate domination.'[554] Unpacking the link between these two dimensions—technical action capacity and political legitimacy—is the aim of the remainder of this chapter.

2. A domain in self-denial

In 1864, the French Imperial Government in the name of Napoleon III sent out invitations to all European countries—notably not only those already members of AGTU or WETU—to come to Paris for a conference with the aim of settling on international telegraph standards. Twenty countries confirmed their attendance, including the Austrian, Ottoman, and Russian Empires. This was an invitation to the European epicentre of techno-politics: to a technologically advanced, forward-looking, and entirely redesigned Paris after Haussmann's transformation of the overcrowded, dark, disease-ridden city into the airy, grid-like, embellished Paris we know today. Haussmann's designs had included the new Gare de Lyon (1855) and Gare du Nord (1865), a network of boulevards, a new water supply infrastructure, and an extensive sewage system along which the early telegraph lines were being laid too. In a nation ruled by a Saint-Simonian on horseback, Paris was the future. Affirming the spirit, Emperor Alexander II of Russia, the reformer known for the 1861 emancipation of the serfs, wrote shortly before the 1865 Paris conference to Napoleon III:

> The true condition of peace in the world lies not in inactivity, which is impossible, and not in dubious political maneuverings…, *but in practical wisdom, which is necessary in order to reconcile history, this unshakeable behest of the past, with progress*—the law of the present and the future.[555]

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[553] Müller 2016b, 517; emphasis original. See most importantly Müller 2016a.

[554] Bell in Chapman/Hume 2021, 3.

[555] Cited in Zakharova 2006, 596 and Siefert 2014, 22; emphasis added.

This was a pointed statement of the fundamental principles of technocratic internationality, embracing technological reform as a unifier of nations. Alexander II, steeped in the reformist currents of the day, had eloquently summed up a sentiment that strongly resonated with the two supporting pillars of technocratic internationalism: practical wisdom as antonymous to the 'dubious' realm of politics; and progress as a law that naturally unfolded and yet required human action to 'reconcile' it with history.[556]

As we have seen in the previous section, the ITU not only had precedents to emulate and draw institutional and legal legitimacy from—it also had a long-winded history of diplomatic, technical, and geopolitical manoeuvres. Codding's claim that the ITU was 'forced to create its own structure and method of functioning' is thus historically unwarranted at best.[557] Building on recent advances in the history of the ITU, this section characterises its creation not as the solution to a collective action problem but as the bottom line of a political intervention the contours of which had been long-contested. What was the meaning and point of technocratic appeals to the international? The ITU's format, membership, and structure—all attached to the label "international"—ultimately were responses to three mid-century developments in particular: intra-European imperial rivalry; extra-European imperial expansion; and financial interests in tariff revenues.

First, the shape of the ITU by 1865 was in part a response to intra-European imperial rivalry between Prussia and Austria. In the early days of cross-border telegraphic communication, the politics of technical cooperation could sometimes play out as a proxy for inter-imperial rivalry or as a means of keeping imperial expansion in check: especially within Europe. Prussia's ambitions within the German Confederation had been newly growing since at least 1848, and telegraphy made its demand for territorial unification or at least uniformity ever more pressing. Given that Prussia was split into East and West, telegraphic connections between Prussia's main cities required that 'the telegraph wires had per force to cross foreign states': the *prerequisite* for a national network, in the case of Prussia, was an international one.[558] In addition to this administrative incentive, Prussia was also interested in 'forging close relations with other states containing fragmented enclaves of German peoples beginning to claim a common national identity.' Administrative and political objectives mingled, in other words, in driving Prussia's treaty-making activity in the 1840s: a total of fifteen telegraphic treaties were signed between Prussia and other German states in that period alone.[559] This immediately preceded the 1850 creation of AGTU, which came into being as soon as

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[556] See Chapter III.

[557] Codding 1995, 501.

[558] Balbi et al. 2014, 54.

[559] Balbi et al. 2014, 56.

Prussia committed to a telegraphic alliance with the Austrian Empire.[560] This union was a significant political achievement on its own, given fierce debates, since the 1815 creation in Vienna of the German Confederation, over the relative merits of *Kleindeutschland*, a unified Germany under Prussian leadership, versus *Großdeutschland*, a unified Germany under Austrian leadership. As is well-known it took until 1871 for the former solution to prevail—but at the time the latter seemed more likely in light of the immense power of the Habsburgs.[561] The 1862 election of Otto von Bismarck to Prussian Chancellorship, and his immediate renewal of Prussian opposition to Austrian influence over German territories, invigorated the rivalry with Austria.

By the early 1860s the idea that became the ITU was for the most part based on stipulations and agreements already in place under AGTU or WETU provisions.[562] The merger of the two was far from unproblematic however, as it would require a stance by all parties, particularly France, on the German question—even if by proxy of technicalities. As argued previously, the Prussian customs union was an administrative and legal precedent for the cross-border administration of telegraphic communication, thus a potential Prussian-leaning choice for the ITU. On the other hand, Austria was an important geographical and diplomatic conduit to Russia and by extension to the Asian colonies. From the French point of view, there were thus clear incentives to support an Austrian-dominated Central and Eastern European telegraph network. Indeed at an 1855 Berlin Conference telegraphic tensions between France and Prussia became apparent. The French delegate lamented that his proposals had 'encountered insurmountable resistance in the strict mandate that the Prussian Commissioner had received from the Austro-German Union, and by the as yet inadequate organisation of the telegraph service in Germany.'[563] In addition to the obvious technical advantages of establishing standards and uniform rules, this too drove the French to establishing WETU in the aftermath of the Berlin Conference. The ITU's regulations circumvented the touchy subject by firmly staying within the technical terrain of international cables, tariff rates, taxes, rules. Focusing purely on its functional achievements would remove these "backstage" political dynamics from our view.

Second, extra-European imperial expansion contributed to the shape the ITU later assumed. This was the case for the French, Austrian, Ottoman, and Russian Empires. French access to Russian telegraph lines on the way to its new colonies in South East Asia was pivotal for the effective expansion of Napoleon III's newly ambitious empire. Inaugurating nearly one hundred years of French colonial rule in

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[560] Reindl 1993.

[561] Balbi et al. 2014, 59.

[562] Fari 2014.

[563] Cited in Balbi et al. 2014, 63.

Indochina, Cochinchina (present-day South Vietnam) was placed under French rule in 1864; in 1867, Cambodia became a French protectorate. In light of this gradual expansion of French imperial rule in Asia, telegraphic communication required uniformity and standardisation especially in light of the need for the reliable transmission of information between Paris and the colonies.

The French initially wanted to keep Austria out and did not extend an invitation to Austria for the planned 1865 conference. The Swiss urged the French to reconsider and ultimately managed to persuade them to invite Austria, primarily by pointing to previous cross-union agreements that had included the country, such as the 1858 Friedrichshafen agreement: 'Would it not be convenient right now,' Swiss delegate Curchod wrote to his French counterpart, 'to convene the two groups of the Berne and Brussels conventions, as well as that of the Friedrichshafen convention?' Given that all other Friedrichshafen attendees had already been invited, the hint at Austria was obvious.[564] An even more persuasive argument was the Austrian telegraph network as a doorway to the East. As the 1860 telegraphic map (Figure 1) shows, cable access via the Ottoman and Russian Empires to possessions in Asia would have had to cross Austria. For France this was a new concern given its imperial attention had previously focused on Algeria and Mexico; only in the 1860s it turned more forcefully to Indochina.

Louis Curchod, head of the Swiss telegraph service, thus wrote to his French colleague Vougy: 'if we want to extend the principles which will be laid down in the

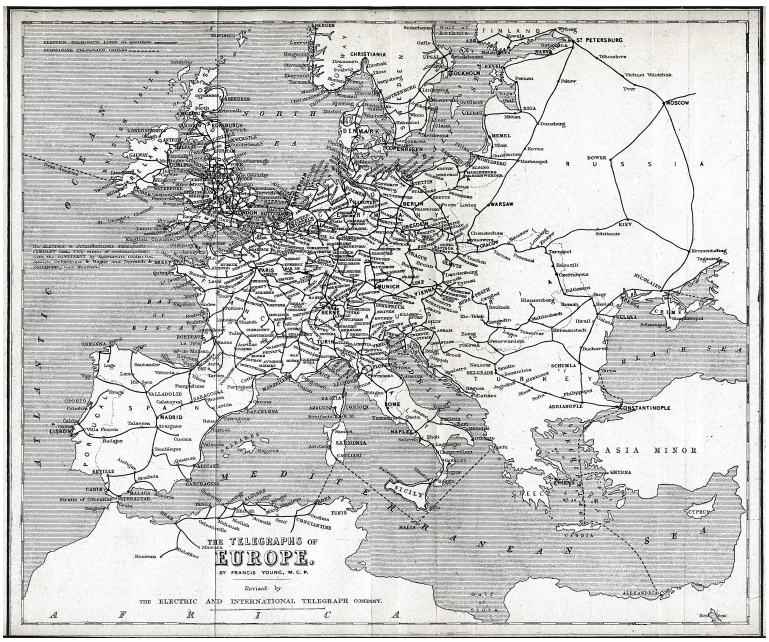


Figure 1. 1860 map of European telegraph cables; Roberts 2012.

[564] Swiss Federal Archives 1864, Letter Curchod-Vougy, Berne 26 September 1864, 502, 429.

general convention for all the European networks and their borders, would it not be fitting to invite the states of Europe's Far East to the conference?[565] Vougy quickly replied that he would discuss the matter with his government in light of the 'very important interests' this touched upon.[566] Europe's Far East, a reference to the Russian and Ottoman Empires, ended up being invited—for the direct benefit, in Curchod's own words, of 'European networks'. Switzerland was clearly eager to mediate in order to have a telegraph network not centred on France, but with Austria as a counterweight and so Switzerland actually at the heart of the European telegraph network projecting to Europe's colonial periphery. The head of the Austrian telegraph administration Karl Brunner outlined his government's position along similar lines:

> We cannot see how a European arrangement *could* take place without the consent of Austria, which not only possesses one of the most extensive telegraphic networks, but also represents, vis-à-vis the states of the West, the administrations of the Orient.[567]

These statements illustrate the politics of France's 1865 invitation: it was far from obvious who was going to be asked to take part in a meeting aimed at creating the world's first international organisation. The selection of invitees required, in contrast, decisions to be made about the relative merits of including some and excluding others. The fact that Ottoman and Russian delegates attended the conference, for example, was based on Austrian and Swiss propositions about imperial telegraphic access. The label "international" played here invoked a distinction between the partiality of empire and the impartiality of international relations. In an 1864 letter in anticipation of the Paris conference, the French telegraph director Vougy wrote to his Swiss counterpart Curchod that, whereas an 1861 law had standardised telegraph rates for France and 'across the whole extent of the Empire', it seemed 'appropriate to the French Administration to let this measure take effect before calling for an *international* meeting, and to appear at this conference fully informed about the opportunity for *international* correspondence that might arise from proposing its adoption by the various European administrations.'[568]

Third, the corporate perspective of private enterprise further supports an interpretation of the ITU as a political intervention. Creating the conditions under which the telegraphic market could expand and prosper was a political choice, and so the ITU was an 'expression of a capitalistic compromise between national states [sic] and big

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[565] Curchod 1864 in Balbi et al. 2014, 93.

[566] Vougy 1864 in Balbi et al. 2014, 94.

[567] Swiss Federal Archives 1864, Brunner to Curchod, Vienna 10 October 1864, 502, 420; emphasis original.

[568] Vougy 1864, SFA 129, 13.VII.64. Author's translation; emphasis added.

business to defend the acquired market position with an implicit cartel and their consequent entry barriers.'[569] Less obviously, the ITU did not merely make the lives of cable companies and rubber manufacturers easier, but also required decisions about tariff revenues in transit countries. For example, the Swiss Federal Council gave its delegates at the 1865 Paris conference clear instructions on its telegraphic national interest: to promote an arrangement whereby 'the highest possible number of international telegraphs crossed Swiss territory and drew in a hefty income from transit tariffs.'[570] Indeed the Federal Council unmistakably stressed that the Paris delegates were to promote 'the most liberal and favourable dispositions for traffic in general' yet never to lose 'sight however of the interests of revenue'.[571] Overall the ITU spurred 'considerable growth in communications between governments and private sectors in Europe and the world at large',[572] as a result 'enabling the spread of telecommunications and, in turn, the international flow of goods and services' and promoting 'the principles of a free market, open trade and comparative advantage'.[573]

International telegraphs thus expanded under conditions of economic and imperial competition on the one hand, and international standard-setting and regulation on the other. These conditions could be presented as separate projects, but as argued in the previous section, they reinforced one another: the gradual sophistication of imperial power through technology was helped by setting international industrial standards. The practices leveraged by the regime drawn up by the ITU's architects in 1865 differentiated the international in a way that (a) authorised technical experts, collaborating with economically invested entrepreneurs, as international actors; and (b) its claim to impartiality, needed to navigate political contestation, depended crucially on maintaining the centrality of experts. The result was a self-reinforcing arrangement whereby experts entered and defined a domain on terms that stabilised their authority within it.

This aligns closely with existing interpretations of mid-nineteenth century international relations. Craig Murphy aptly characterises the ITU and its later fellow traveller the UPU as the fruits of nineteenth-century functionalist efforts to institutionalise technical cooperation in a world of growing transnational interdependence. On his account, the first international organisations both responded to and facilitated industrial change as they helped extend European and imperial markets. By the turn of the twentieth century, the 'trading area that was partly regulated by the Public International Unions extended the continental market to the overseas

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569 Fari in Balbi et al. 2014, 188. On gutta-percha see Tully 2009; Godfrey 2018.

570 Balbi et al. 2014, 98.

571 Swiss Federal Council 1865, SFA, E52, 503.

572 Reinalda 2009, 87.

573 Lee 1996, 59.

dependencies of the European empires.' The telegraph regime did not simply respond to functional needs, but created new sites of regulatory action.[574] Douglas Howland similarly argues that the ITU inaugurated a 'novel form of international order' based on an 'administrative internationalism' that offered a 'striking alternative to the international society of great powers, sovereignty, and forms of imperial domination'.[575] Ellen Ravndal in turn has shown that the ITU's distinctive membership criteria reflected international norms in contrast with imperial or diplomatic norms.[576] The ITU then contributed to a great extent to differentiating the international in a technocratic frame, at a time when this label was still in its semantic infancy.

Existing work thus points to the distinctiveness of the international as delineated against politics. Crucially this was not an accomplishment but a *claim*, for while 'these activities are often referred to as 'technical' or apolitical, they were related to direct government involvement and national interests'.[577] The case of the ITU in this context illustrates the advantages of a domain differentiation lens. Domain differentiation here obscured crucial background conditions—imperial power and the colonial extraction of gutta-percha—that so could escape the self-conception of this modern international institution. But as in the case of the Suez canal, labelling a particular undertaking "international" was only half of the story; domain differentiation is about more than discourse. Zooming in on the individuals involved in the process as differentiators, the next section examines what specific authority relations resulted from it.

3. The Special Commission

Let me now illustrate how domain differentiation authorises distinct actor types at the example of the 1865 Commission of Special Delegates. This group was drawn, again contrary to its self-portrayal, not from a homogeneous pool of telegraph experts but a diverse array of aristocrats, military officers, and entrepreneurs. In the context of this thesis, this confirms a pattern we have already seen at work during the 1851 and 1855 World Fairs as well as the 1855 Suez canal commission. What united these individuals was political favour endowing them with expert status—not expertise as such in the strictly epistemic sense. The ITU experts nevertheless played a key role in securing the international as a domain enveloped in a claim to impartiality, while in fact based on and reinforcing hierarchies of empire and capitalism.[578]

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[574] Murphy 1994, 17, 8, 42-43. See also Boli/Thomas 1999; Iriye 2004; Krajewski 2014.

[575] Howland 2014, 161-162.

[576] Howland 2014; Ravndal 2020.

[577] Reinalda 2009, 91.

[578] Murphy 2004; Howland 2014.

Each country—categorised as "administrations" not states, governments, or nations—sent one or several Plenipotentiary Delegates, distinguished diplomats with Ambassador-Extraordinary status, and one or several Special Delegates. French Minister of Foreign Affairs and patron of the conference Edouard Drouyn de Lhuys declared that 'the nature of the questions attached to a telegraphic treaty demand a detailed examination, as well as technical knowledge' such that 'to prepare the solution of these questions the various Governments would surely want to send special delegates.' On that basis he asked that 'a commission be formed, composed of special delegates, charged with submitting to the Conference a general treaty proposal.'[579] The Special Delegates, significantly just as the plenipotentiaries endowed with diplomatic credential for the duration of the conference, were assigned as technical expert members. Yet in contrast with cases examined previously in this thesis, they were recruited more formally: most Special Delegates simply were the heads of each country's telegraph administration. On the one hand, this reflected the stronger governmental involvement and institutionalisation of running telegraphs as part of national infrastructure networks. On the other hand, we should resist the temptation to conclude that therefore the ITU drew from expertise that rested on firmer foundations. While of course heads of telegraph administrations clearly brought relevant specialist knowledge to the conference, the non-epistemic aspects of their authority to set terms for the international telegraph regime nonetheless matter—excavating them is therefore a central aim of this section.

Paris witnessed 'the coming together of the European "technical elite"'.[580] The extensive powers given to the Special Delegates under this arrangement represented an elevation of telegraph officials to international expert status, and a simultaneous enlargement of the expert mandate. The Special Delegates, not the plenipotentiaries, carried out 'the actual work on the final convention and regulations'. Chaired by French Telegraph Director Viscount de Vougy, the group convened to work out a common framework for tariffs and technical standards. Despite varying numbers of members per delegation, each was given a single vote to pass the convention by a simple majority. Over the course of sixteen sessions between 4 March and 11 April, the Committee drafted a convention which was approved and signed by all 20 participant countries after extensive negotiations lasting until 17 May. The ITU—for now consisting in periodic conferences, adding a permanent International Bureau in Bern three years later—was born.[581] The experts' draft convention emphasised throughout the *international* interest of shared telegraphic standards. The document thus consistently referred to 'la télégraphie internationale', prefacing the need for an international telegraph regime as follows:

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[579] Swiss Federal Archives 1865, no. 109.

[580] Balbi et al. 2014, 101.

[581] ITU 2015, 18-20; ITU 1915.

> [The Special Delegates,] animated by the desire to secure for all telegraph correspondence, exchanged between their respective States, the advantages of a simple and reduced rate, to improve the present conditions of international telegraphy, and to establish a permanent understanding between their States, while retaining their freedom of action for measures which do not concern the whole of the service, have resolved to conclude an Agreement to this effect.[582]

The agreement thus also left leeway to signatories for their own regulations under exceptional circumstances such as warfare. It took over AGTU and WETU articles distinguishing between State, Service, and Private Dispatches, with different limitations and conditions applying to each. Only State and Service Dispatches were permitted, as per Articles 7 through 9, to write in code or secret language, 'whether in its totality or in parts.'[583] Whether private correspondence could use code or secret language depended on each telegraph administration's own rules. Article 19 in turn specified that

> The high Contracting Parties reserve the right to stop the transmission of any private dispatch which would seem to endanger the security of the State, or which would be contrary to the laws of the country, to public order or to good manners … .[584]

A lengthy section of the Convention was in turn devoted to specifying international tariff standards, to which was added a detailed Appendix specifying agreed tariffs per country. For tax purposes, a single state could be subdivided into up to two large territorial divisions; contracting states moreover reserving 'every liberty of action with regard to their professions or their colonies situated outside Europe.'[585] Tax was applied to a dispatch of up to twenty words, and the French franc was set to be the monetary unit for international tariffs. The maximum length of a word was fixed at seven syllables, 'the excess' to be 'counted as a word.'[586]

But who were these newly minted protagonists of the mid-nineteenth century technocratic international? Table 1 provides an overview of all Special Delegates and their individual backgrounds. As the Special Delegates staked their authority on a claim about the scope and principles defining the international, they relied on a range of

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[582] ITU 1865; my translation.

[583] ITU 1865.

[584] ITU 1865, art. 19.

[585] ibid., art. 30.

[586] ibid., art. 33.

different assumptions and subscribed to a range of political commitments. Their common credential was a portfolio of "international" experiences. Uncovering the diversity of claims projected onto the canvas of a distinguishable international is, as outlined in Chapter I, part of the merit of domain differentiation as a lens. Consider how in the 1865 context, all of the Special Delegates firmly believed in the natural necessity of technical cooperation—but their views differed on the question of how pacifying such cooperation would eventually be.

Take French Special Delegate Vougy (1807-1891), who presided over the Special Commission and was the person who had urged Napoleon III to call for an international telegraphic conference in the first place. Vougy had been trained as a military officer, serving from 1827 to 1848, at one time as aide-de-camp to the Minister of War. He had also served as prefect of the Haute Loire and Nièvre and in 1853 was named head of the Telegraph Service by his cousin Jean Gilbert Victor Fialin, Duc de Persigny—'nepotism', as one scholar put it, 'undoubtedly played a role in his selection'.[587] From June 1854 he was Director-General of Telegraph Lines of the French Empire.[588] In 1861, Vougy also oversaw the laying of three international cables to England (Dieppe–New Haven), to Algeria (Port Vendres–Alger), and to Corsica (Toulon–Ajaccio) and signed a convention with the Regency of Tunis for the 'exploitation, by French agents, of the Tunisian network and its linkage with the Algerian telegraphic network.'[589]

Under Vougy's direction, the French telegraph network expanded from 22,919 km to 40,992 km; wires from 59,976 km to 116,437 km; submarine cables starting in 1865 grew to 571 km by 1870; telegraphic bureaux from 364 (1860) to 2,003 (1871); domestic dispatches from 568,365 (1860) to 5,042,302 (1870); international dispatches from 151,885 (1860) to 590,794 (1871). Vougy thus possessed a mix of military distinction, political and imperial esteem and influence, and a record in promoting international telegraphy. He was not merely an apolitical bureaucrat, which not least perception by contemporaries attests to: major newspaper outlets at the time either glorified or demonised him. The *Figaro* wrote that 'for the most part, the developments and improvements of the telegraphic service are due to the intelligence and activity of M. de Vougy.'[590] By contrast, a scathing critic writing for the *Gaulois* claimed that 'M. de Vougy understands nothing, but absolutely nothing, of the telegraphy he directs. He would not be capable of maneuvring an apparatus, nor of explaining what purpose exactly it serves. That, at least, is the current opinion within his administration'.[591] Expert

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[587] Butrica 1986, 43-44.

[588] Belloc 1894, 199.

[589] Cited in Belloc 1894, 228.

[590] Dauriac 1863, 4.

[591] Sarcey 1869, 1.

credential, in other words, was not just unstable across different delegations but also substantively contested. What is more, independence was not tied to claims to impartiality: a conflict of interest was not in the way of giving the ITU an air of international expert status by means of the Special Commission.

Likewise, the Special Delegate of Austria, Karl Friedrich Brunner von Wattenwyl (1823-1914), was Director of Telegraphs in his country at the time—but had earned his reputation primarily as an entomologist. A pioneer in the field of orthopterology—the study of Orthoptera, an order of wing-folding insects that includes grasshoppers, locusts, and crickets—and Professor of Physics in Bern, he was later remembered as 'one of the two greatest Orthopterists of his day', his work being 'an indispensable necessity in the library of the general Orthopterist'. His obituary noted that he was 'the organizer of the telegraph service of Austria' but made no mention of his contribution to the 1865 Paris Convention.[592] The Prussian delegate in turn, Franz von Chauvin (1812-1898), First Lieutenant and later Major of the Prussian Army, had served as Colonel of the Engineering Corps and Head of Battlefield Telegraphy in the Prussian-Danish War just one year prior to the Paris Conference, a service that earned him the Prussian noble title "von."[593] In 1866 he served as Head of Battlefield Telegraphy in the Austro-Prussian War, and in 1884 he published a book titled *Organisation of Electric Telegraphy in Germany for the Purposes of War* in which he described how 'The telegraph network, with its countries-spanning iron meshes and stations, functions like the nervous system of the human body and even surpasses it in terms of speed and diversity.'[594]

It may ultimately seem quite straightforward to gather each country's diplomatic and telegraphic representatives to determine the rules and regulations needed for smooth telecommunication. At some level this can be read as an effective way of reaching politically robust, technically well-informed conventions to regulate international telegraph communication. Technology on this view has inherent problem-solving propensities that are only ever upset by *external* forces. The notion of the politicisation of expertise in this sense unthinkingly suggests that imperial power, aggressive monopolisation, destructive resource extraction, and the violence facilitated by the cable infrastructure are not uses but *abuses* of the telegraphs. Their regulation must therefore be innocent. Yet in fact neither the telegraphs nor their regulation had ever been politically neutral: behind the expert-driven international stage stood powerful corporations vying for their share in the globalising telegraph markets, the imperial weight of Europe's colonising powers. Still, the claim—inscribing the telegraph regime in the domain of the international—was one of internationality as an achievement of

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[592] Rehn 1915, 285-286.

[593] Poten 1903, 469.

[594] Chauvin 1884, 20.

Special delegate	Delegation	Background
Baron von Weber, Max Maria (1822-1881)	Kingdom of Saxony	Director of Railways of the State of Saxony; railway engineer who trained with Brunel and Stephenson; 1876 author of *Nationality and Railway Politics*.
Brändström, n.a. (n.a.)	United Kingdoms of Sweden and Norway	Director-General of Swedish Telegraphs
Brunner von Wattenwyl, Karl Friedrich (1823-1914)	Austrian Empire	Director of Telegraphs; Swiss postmaster and entomologist; known for orthopterology.
Curchod, Louis (1826-1889)	Swiss Confederation	Central Director of Telegraphs; engineer and diplomat; 1849 graduate École Centrale des Arts et Manufactures; 1870-73 Head of Board of Directors of *French Submarine Telegraph Company*.
Daimasio, n.a. (n.a.)	Kingdom of Portugal	Colonel of Artillery, Director-General of Telegraphs
de Hakar, n.a. (n.a.)	Kingdom of Spain	District Inspector
Effendi, Krikor Agathon (1823-1868)	Ottoman Empire	First non-Muslim minister of Ottoman government; studied agriculture in France; worked in Belgium, England; trained at Ottoman Translation Bureau; recruited into Ottoman Telegraph Administration for language skills; General Director of Ottoman Telegraphs 1864-68.
Faber, Peter (1810-1877)	Kingdom of Denmark	Director-General of Telegraph Lines; telegraph engineer and songwriter, remembered primarily for Danish folk songs and amateur photography.
Fassiaux, n.a. (n.a.)	Kingdom of Belgium	Director-General of Railways, Posts and Telegraphs; Railway Union advocate
Gauß, Joseph (1806-1873)	Kingdom of Hannover	Counsellor; engineer in chief of the Hannover railway administration.
Herbet, Charles F.E. (n.a.)	French Empire	State Councillor, Director of Commerce in the Ministry of Foreign Affairs
Jagerschmidt, Charles (1820-1894)	French Empire	Under-Director for Consulates and Commercial Affairs, Ministry of Foreign Affairs; diplomat, 1850-55 French *chargé d'affaires* in Tangiers, Morocco; 1852 initiative for Cape Spartel Lighthouse; 1853 Gibraltar Strait Hydrographic Expedition.
Manos, n.a. (n.a.)	Kingdom of Greece	Head of Section, Ministry of the Interior
Minotto, Giovanni (1803-1869)	Kingdom of Italy	Head of Department, Ministry of Public Works; engineer widely noted in Italy for developing the Minotto apparatus (telegraph equipment), rise to fame as first director of national telegraph administration in 1860s.
Nielsen, n.a. (n.a.)	United Kingdoms of Sweden and Norway	Director-General of Norwegian Telegraphs
Poppen, n.a. (n.a.)	Grand Duchy Baden	Counsellor of the Ministry
Sanz, n.a. (n.a.)	Kingdom of Spain	Director of Telegraphs
Schwerd, Ludwig Emil (n.a.)	Grand Duchy Baden	Inspector of Telegraphs; electrical engineer, patent holder for a lamp (1882) and a telegraph apparatus, later director of *L. E. Schwerd of Carlsruhe*.
Staring, n.a. (n.a.)	Kingdom of the Netherlands	Counsellor, Department of the Interior; military career, First Lieutenant, as which involved in construction Maastricht-Liège canal, thereafter appointed to the Thorbecke government, as which later promoted to first director of the first Dutch telegraph administration. Delegate to Austro-Prussian Telegraph Union and all subsequent ITU conferences.
van Dyck, n.a. (n.a.)	Kingdom of Bavaria	Director of Telegraph Lines
Vinchent, Julien (n.a.)	Kingdom of Belgium	Engineer in Chief, Director of Telegraphs; published on international telegraph tariffs.
Viscount de Vougy, Henri Michon (1807-1891)	French Empire	Director-General of Telegraph Lines; former Military Officer.
von Chauvin, Franz (1812-1898)	Kingdom of Prussia	Lieutenant-Colonel, Director of Telegraphs; military career, First Lieutenant. Signed 1857 Austro-Prussian Telegraph Union Treaty on behalf of Prussia. Head of Battlefield Telegraphy in 1864 Danish-Prussian and 1866 Austro-Prussian War; head of Prussian military telegraph administration; author of 1884 volume on military uses of telegraphy.
von Guerhard, n.a. (n.a.)	Russian Empire	Major General, Engineer and Director of Telegraphs
von Klein, Ludwig (1813-1881)	Kingdom of Württemberg	Director of Telegraphs of the Kingdom of Württemberg; railway engineer.
von Weber, n.a. (n.a.)	Kingdom of Bavaria	Counsellor of the Ministry of Foreign Affairs

Table 1. 1865 Special Delegates. From Bibliothèque Nationale de France; Deutsche Biographie; Dizionario Biografico.

impartiality. The 1865 Special Commission differentiated a domain of *international* taxes, tariffs, correspondence, cables: technicalities all reinforcing "the" international as a domain where impartial standards and regulations reigned supreme.

In this spirit, Belgian Special Delegate Charles Fassiaux argued that infrastructure and communications had 'modified in the most complete fashion, the nature and extent of the relations that exist between the different nations.' Reminiscent of Michel Chevalier's proposals (Chapter III) several decades prior, Fassiaux speculated about a union of railroads which 'like the Metric Union or the Monetary [Union] and the Postal and Telegraphic Union' would advance 'commerce, industry, politics, civilisation'.[595] In the conference's closing remarks of Drouyn de Lhuys, 1865 had marked 'the meeting together of men of the highest rank … who could pool the results of their experience and form a sort of supranational instruction centre.' Such an undertaking would be sure to 'help to overcome the difficulties that could not always be avoided even with the most carefully-designed regulations.'[596] Drouyn de Lhuys explicitly framed the exercise as one in which hurdles to communication could be overcome—a choice that pushed, for instance, economic matters of cable production and legal issues surrounding the establishment and protection of cable routes outside the remit of international cooperation. As if to consecrate the telegraph regime as indeed characteristic of the domain of "the" international, at the International Telegraph Conference in Berlin twenty years later, Norwegian telegraph official Carsten Tank Nielsen applauded 'the first body of a universal international nature.'[597] This narrative still dominates the ITU's own historiography and played a key part in anchoring the organisation's legitimacy in a claim to its ability to represent, and so define, the international.

The ITU not only addressed the technical challenge of developing telegraph standards across borders, but also shaped the institutionalisation of the technocratic international in highly influential ways. This is significant on its own, and to date has not been sufficiently appreciated in histories of international relations. The creation of this international institution, bundling up concrete practices and modes of governance, reflected a certain normalisation of the relations, agents, categories, and objects it required. The ITU is a pivotal case not least for that reason, and once we inspect it not from a functionalist point of view but through the lens of domain differentiation it becomes clearer what was normal and *what was international* according to the 1865 differentiators of the telegraph regime. This sheds new light on questions of membership in international society; the gradual distinction between imperial and

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[595] Fassiaux 1886, 127-129.

[596] Cited in ITU 2015, 25.

[597] ITU 1885.

international criteria and methods of governance; and the legitimation of the technocratic international as a separate domain.

As mentioned, the first international telegraph agreements, initially bundles of bilateral treaties which were successively complemented and finally replaced with multilateral conventions culminating 1865 in Paris, started in Central Europe between Prussia and its neighbours. The Prussian-Austrian Treaty of 1849, soon expanded into the 1850 Austro-German Telegraph Union, went on to become in its broad outlines a model for all subsequent telegraph unions. Howland points out that it not least 'set the example of mandating the use of Morse telegraph apparatus, connecting international lines at borders, establishing tariff zones, and guaranteeing that member states would establish uniform telegraph legislation.'[598] This is crucial given that the ITU in essence was, contrary to Codding's claim that it 'had no prototypes to emulate', a merger of AGTU and WETU.[599] What they had in common was a shared notion of the international significance of telegraph communication, the need for a shared international framework to regulate its use, and a notion of public international interest where, in the phrasing of Article 59 of the 1865 ITU Convention, the 'general nature' of the international overruled the 'particular arrangements' of its members.[600]

Importantly rather than uniting states, the ITU coordinated governments with telegraph administrations: this is why Britain did not join initially and the United States never became a member. Their telegraph lines were in private hands. Membership was thus restricted to countries with nationally governed telegraph networks.[601] Not surprisingly, given this condition, the participants of the 1865 International Telegraph Conference were steeped in national narratives of telegraphy: internationalism constitutively presupposed and required nationalism.[602] And yet, the conference as much as the institution nonetheless claimed to speak on behalf of an internationality based on the involvement of technical specialists. The nationalist bias of its members notwithstanding, its Special Delegates did claim to speak on behalf of science without borders, and did invoke internationality as a claim to impartiality.

4. Conclusion

Presenting the final empirical case study of this thesis, this chapter has substantiated the overall argument made throughout, but also added nuance to the various claims that

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[598] Howland 2014, 167.

[599] Codding 1995, 501.

[600] ITU 1865; Howland 2014, 167; note the language of 'general interest,' which as discussed in Chapters II and III has distinct utilitarian and Saint-Simonian overtones.

[601] Howland 2014, 174.

[602] Herren 2001; Sluga/Clavin 2017.

practitioners of international relations were able to articulate through domain differentiation. Once more, the lens allowed us to take the road less travelled and consider the contributions of a range of individuals all elevated to the status of international experts—but not straightforwardly drawn from a pool of ready-made telegraph specialists. I argued that during the 1865 founding of the ITU, technocratic internationality was articulated and performed to pursue two main goals: to sideline diplomatic tensions and cartel rivalries; and to lock the expert mandate into the basic design of an international institution. I finally added that as in the case of the Suez canal examined in the previous chapter, at the ITU as well domain differentiation had the double effect of concealment and facilitation.

In the aftermath of the 1865 conference, the ITU went on to convene on a regular basis in the capitals of its member countries. What characterised its activity during the last three decades of the nineteenth century was its resolute refusal to become a forum where the intense military and economic rivalries surrounding the technology would be on display. Instead, the institution managed to refine its standards and regulations in spite of those external threats, and remarkably its delegates managed to conclude agreements and make compromises in spite of the considerable tensions between its member governments. This was tied to the ITU's emerging self-understanding, on the one hand, and shifts in its institutional design, on the other. Belgian special delegate Julien Vinchent, who had participated in 1865 as well, was reported to have summed up the ITU spirit at an 1871 conference in Rome as

> the altogether special situation of the telegraphic Administrations which, perhaps as the only ones among all other public services, have the ability to treat those international questions that most matter to them directly. This situation must not be compromised, and therefore, *it must be avoided to exit the purely administrative domain and to embark, in the form of wishes or otherwise, on deliberations which, by their political nature, belong to another order of ideas.*[603]

Modifications to the union's institutional design, in turn, supplemented this self-understanding as the 1875 St. Petersburg conference determined that henceforth ITU conventions would be held by Special Delegates only. What resulted was 'a more precise definition of the conference as "meetings of experts,"' now no longer *avant la lettre* and explicitly defined in the conference proceedings as 'intelligent men, ready to be enlightened by discussion and to modify their opinion according to the considerations that they hear being developed.'[604] The separation of the administrative from the political domain was, then, an intentional feature of the ITU. This also supports a reading of the

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[603] Conférence Télégraphique Internationale de Rome 1871, 247; my translation, emphasis added.

[604] Fari 2014, 184; Conférence Télégraphique Internationale de St Petersburg 1875, 295; my translation.

world's first international organisation as one whose categorical claim to internationality relied on such a separation. When a monument was inaugurated in 1922 to celebrate, with some delay due to the First World War, the first 50 years of the Union, its inscription read: '*Les âmes des peuples sont réunies par l'union télégraphique*.' ('The souls of the people are united by the telegraphic union.') At the inaugural ceremony, French ambassador to the Swiss Federation His Excellency Allizé remembered 17 May 1865 as a 'fecund event for the evolution of human thought and the relations between the peoples.'[605] The President of the Swiss Confederation Robert Haab in turn proclaimed that today 'nearly all cultural states [*Kulturstaaten*] of the world belong as members to this telegraphic union.' He remembered its founders with the words:

> For us and for posterity, [this] masterpiece is, at the same time, the worthy expression of gratitude for the dedicated labour of all the outstanding men who have earned our recognition for the establishment of the World Telegraphic Union [sic] and its development ever since. They have carried out and continue to carry out a civilisational task of the first order. They are the successful promoters of universal culture.[606]

But this chapter has shown that this was not only an imperfect claim that did not map onto the actual role and authority of expert-driven institutions such as the ITU, not least an institutional blueprint for all public international unions. In addition, the administrative claim served to both mask this mismatch and enable the political side of the telegraphic coin. Expert politics during the second half of the nineteenth century was not a separate, innocent endeavour in a world under the influence of aggressive empires and cable capitalists—it was an important legitimator and enabler of that world.

The ITU is a case of technocratic internationality in practice on the one hand, and of the expanding mandate of experts on the other. It is indeed a story that indicates how 'political or ideological circumstances affected the role, self-image and public conception of the "experts"' in the midst of an emerging new 'culture of regulation'. Yet this culture was far from purely regulatory. Instead it makes more sense to think of mid-century technical cooperation across borders as characterised by 'tensions between normative ideals (of technical or scientific rationality) and techno-political and industrial/economic realities'.[607] To conclude this chapter, I revisit the notion of internationality as a claim to impartiality and argue that the above empirical findings warrant going beyond asserting this tension. I argue that it is more promising to understand the technocratic international as a domain that concealed what it facilitated: a

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[605] Union Télégraphique 1922, 239-240.

[606] Union Télégraphique 1922, 241-242.

[607] Balbi/Fickers 2020, 2–4.

double production of concealment and new action capacity. Building on the previous chapter, then, impartiality is not merely an escape or a strategy of deflection, but actually a facilitator of that which it purports to offer an escape from.

The chapter also argued that the creation of the world's first international organisation came about not as a sudden innovation or a rational response to the collective action problem of cross-border telegraph communication. Rather, its inception was the culmination of three important political debates surrounding the intra-European imperial rivalry between Austria and Prussia; the extra-European expansion of the French empire; and the globalisation of capitalism as an incentive structure undergirding the growing cable network. The chapter then inspected the 1865 Commission of Special Delegates for its composition and the background of individual members. On the one hand my analysis adds to the argument of this thesis that expert-based global governance did not emerge on the basis of cohesive, independent, identifiable epistemic communities, but based on social networks and political favour. On the other hand, the ITU differs from the previous case study on the Suez canal in that it concerns the legitimation not of a single undertaking but of an entire technology as such. This is how the ITU was able to mobilise expertise as a political good that could sanction the administration of the cable enterprise. Cable cooperation facilitated cable competition.

Imperial historians tell us that telegraph cables improved imperial control, and that cable infrastructures themselves could function as markers of civilisational status. Global historians emphasise the dense communication networks, growing global connectedness, and the media transformation that telegraph cables stood for. These two stories not only overlap but made each other possible. Craig Murphy has characterised the modern international organisation as 'a new site for what had formerly been a purely domestic conflict over regulation of the economy', adding that '[t]he change to an international forum … would almost always favor social forces depending on international commerce.'[608] If we map this onto the technocratic construction of the international as a domain of impartiality, a picture emerges on which this new site, the 'international forum' that was the ITU, indeed signalled an expanded mandate for experts as a powerful avenue for sanctioning a technology in its entirety, principally by endowing it with impartial status. After all, what better way of giving the expansion of the 'magic wire' free rein than to secure its international accreditation?

[608] Murphy 1994, 109.

Conclusion

This thesis began by asking how we should account for the simultaneous emergence of the political vocabulary of internationality and the central role of experts in international cooperation. Developing an approach that combines intellectual history with historical sociology, it then examined this question as a case of *domain differentiation*. The thesis established how from the early to the mid-nineteenth century, various people with projects were able to claim authority by elevating select individuals to expert status and promoting their endeavours as "international" in kind and purpose. In this context, expert status was generated not on a purely epistemic basis, as rationalist-functionalist accounts widely assume, but as a form of social-economic capital: only those embedded in established networks of power, with corresponding political loyalties and financial leverage, were visible and therefore eligible to expert status assignment. Individual chapters on the first World Fairs, the Suez canal, and the International Telegraph Conference suggested that expert-based governance, no less than other methods of external review, was subject to a 'political economy of committee assignments'.[609]

Mid-century technocratic internationalists argued that the international ought to be understood as a domain of impartiality. Scientific and technical experts should have special authority here. This also was to shield transnational infrastructure projects from political capture and public contestation, carving out a sphere where patrons of expertise —both sponsors of knowledge production and gatekeepers for status assignment— could pursue their partial agendas in the guise of impartiality. This arrangement, as scholarship on international organisations in the early twentieth century has powerfully shown, deeply influenced modern global governance.[610] By imagining and enacting the international as a separate space defined by impartiality and its supposed inherent propensity towards stability and peace, nineteenth-century technocrats were thus able to grant technical experts a seat at the table of world politics. While the diplomats and monarchs of old imagined a balance of power based on alliances and trade, a new bourgeois industrial elite was increasingly convinced that industrial and scientific progress, not stopping at the border, was going to be faster than political progress. The former deployed the language of great power politics—the latter of the "international". Great powers vied for political survival and expansion; on the international domain, experts solved technical problems.

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[609] Martin/Mickler 2019.

[610] Morefield 2005; Clavin 2013; Slobodian 2018; Steffek 2021; Martin 2022.

A technocratic worldview gave people with projects the confidence to first undertake large-scale engineering works across borders, and then worry about political implications—extraterritoriality, dispossession, informal empire—later. New domestic elites appealed to the international significance of their projects to pursue their own agendas, relatively unconstrained by what they saw as the outdated world of power politics. This double move—both grasp for authority and deflection of contestation and resistance—was the chief innovation of the "world from nowhere." As this thesis has shown in individual chapters, the claim was naturalised at the first World Fairs in London and Paris; it was used to justify the making of the Suez canal and its attendant extraterritorial international zone; and it spurred on the cable industry at the 1865 International Telegraph Conference. Saint-Simonians, technocratic capitalists, and free-trade liberals all participated in it—but importantly, as has been stressed throughout the thesis, this was not a success story. While professing to pursue world harmony administered by an expert avant-garde, the technocrats turned a blind eye to forces, many of which they themselves had strengthened, in the opposite direction: military-territorial power politics, aggressive nationalism, and imperial expansion.

This thesis has built on burgeoning critical histories in IR, especially on recent work on the nineteenth-century international commissions, international public unions, and the first formal international organisations.[611] With the help of social theories of differentiation and authority, I proposed the notion of domain differentiation as the process by which authority relations result from the social articulation and manifestation of the distinctiveness of a particular domain of human activity. Each chapter of this thesis then examined the rationales and effects of one such articulation: how various technocratic thinkers and practitioners contributed to and benefitted from differentiating the international as a domain of impartiality. But instead of developing a causal-predictive claim about why experts emerged as central actors of international order, the thesis scrutinised the indeterminate processes by which *differentiators* constructed a technocratic international with authorising effects. Studying domain differentiation from their point of view was tied to the methodological contribution of this thesis: a focus on differentiators, as explained in the Introduction and Chapter I, makes it possible to see and pay attention to thinkers and practitioners of international relations that we typically neglect. It thus adds historical granularity to our understanding of IR's master domain.

In this concluding chapter I summarise and reflect upon the contribution of my theoretical argument and my empirical inquiry. In doing so I want to make a number of new points, suggest avenues for further research, but also return from the archives to the present and reframe ongoing debates about the legitimacy of international institutions. A basic dilemma of international politics—one which the thinkers and practitioners studied

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[611] Including Howland 2014; Ince 2018; Yao 2019; Tzouvala 2020; Ravndal 2020.

in this thesis were well aware of—is the tension between aspirations for universality and claims about moral purpose. If we want to appreciate that *ex nihilo nihil fit*, nothing can come from nothing, was the technocratic "world from nowhere" simply a clever argument for why the world should obey European supremacy? Was domain differentiation essentially a rhetorical trick of informal empire and capitalist expansion? These questions attest to how domain differentiation can be unpacked further. This conclusion therefore reflects on three related aspects: it summarises the overall contribution of the thesis; it considers analytical and empirical paths not taken; and it explains how this allows us to reframe ongoing debates about international institutions and expertise. I close by flagging limitations and suggesting future research avenues.

1. Overall contribution

This thesis started from an intellectual history of technocratic conceptions of world order that paralleled the genesis of "international" as a powerful part of the vocabulary of modern world politics. At the heart of this development, I argued, was a preoccupation with the relationship between natural order and reform. Thinkers North and South of the Channel speculated in different ways about the potentials of reshaping a world that was naturally given: could intervening upon nature, they asked, be understood as a natural act itself? Or did humanity have to act against nature? The answer had profound consequences for justifications of transnational intervention. The anti-colonial Bentham was able to propose technical projects—legislation, architecture, canal-digging—as a way of distributing utility in equal measure across the world. His French contemporary Saint-Simon likewise developed technocratic blueprints for world harmony through leadership by scientists, based on what he considered a benevolent attitude of altruistically making the globe more European. Both Bentham and Saint-Simon denaturalised the international, I argued, as a precondition for claiming its meaning and standing as a separate domain. Reception of both thinkers in the next generation, particularly by Chevalier and Mill, then expanded on the moral purpose of the international before re-naturalising it as a now fixed, sealed entity with normative characteristics built in as determinate features. The result was a strong, widely resonating technocratic claim to the international as a domain of impartiality.

From the point of view of transnational enterprise, this was an incredibly attractive suggestion. The structure of technocratic international argument, to paraphrase Martti Koskenniemi,[612] here legitimised transnational enterprise—extending from Europe—as an autonomous authority that was both less dependent on the state (both financially and in terms of labour) and harder to contest because it positioned itself as impartial, simply following technical expert advice. How entrepreneurs and their

[612] Koskenniemi 1989; see Payk/Priemel 2021.

experts put such domain ascription to transformative and disruptive use was the focus of the second half of the thesis. The World Fairs featured in this story both as moments of domain performance and as steps in the emergence of international commissioners as domain-specific actors. I argued that the first World Fairs in London and Paris performed the "world from nowhere"—represented and evaluated by impartial commissioners—as both natural fact and spiritual experience of modernity. This enabled and popularised a view of the international as a differentiated domain spearheaded by private entrepreneurs and technical experts. Industry was elevated as a quasi-religious testament to human genius and will, capable of overpowering nature. The term "industry", it is worth recalling, was understood broadly as a marker of distinction between the industrious and the idle. At the World Fairs, this informed the division of the world into different spheres of productivity. But as a whole, the experience of the World Fairs was one of escape and insulation from political capture: though heads of state were involved in fair ritual, and while the fairs unmistakably were grand celebrations of State and Empire, they were also silent on the obvious political implications of the world order they conveyed. The fairs were spectacles in which judgement by impartial commissioners and jurors of the world's finest products, inventions, and works of art implied that the order of objects on display simply reflected nature: an already reshaped, already reformed world was re-naturalised as given.

The World Fairs thus symbolically *consecrated* the internationality-impartiality nexus as part of natural order; and they *classified* the world in terms of industrial productivity. This arrangement had a specific purpose exceeding curation, display, and performance. Beyond aesthetics, the reasons for hosting a fair included the creation of markets, on the one hand, and pacification at home and abroad, on the other. Trade was envisioned as a capitalist reply to the threat of political accountability; politics appearing as a threat to be averted or managed by forces external to the sphere of partisan contestation. A specific actor type became central to carrying out this division: international commissioners, drawn from among capitalists, merchants, scientists, engineers. Their elevation as *international* juries of the productive capabilities of the world was significant. Their implied authority was that of setting terms for the diffusion of an industrial-technocratic worldview as impartial.

The Suez canal, taken up at the same time as the World Fairs but completed a decade later, was a majorly disruptive technical intervention with lasting consequences for the place of Egypt in the global economy.[613] To understand its role in mid-century domain differentiation, I first examined the canal's growing appeal as an idea and its transformation from imperial fantasy to international project. What was, I asked, the point of appeals to the international in the context of justifying and legitimising the Suez

[613] Jakes 2020.

canal? I zoomed in on the role of Ferdinand de Lesseps as a transnationally connected diplomat-turned-entrepreneur who skilfully rode the waves of mid-nineteenth century industrial capitalism and globalising finance, speaking the language not of the imperial state or of power politics, but the language of internationality and impartiality. Securing Egyptian land concessions represented a foot in the door for 'an emerging informal empire'.[614] But the Suez canal, I have argued in this part of the thesis, was not simply a French imperial project; neither by designation nor by implication. Instead, a claim to the international was its great concealer and enabler.

Lesseps actively cultivated authority and action capacity by recursively invoking and enacting—differentiating—the international as a domain of impartiality. It was a powerful intervention because it extended from "nowhere": though clearly a private enterprise, the Suez canal could now in this light be understood as not serving any particular state's partial glory. Such domain-level legitimation represented a quieter, less regulated, entrepreneurial entry point for nominally non-imperial influence abroad. Silently, the Suez project escalated Egyptian dependence on European finance and placed the peninsula under European control as an "international zone". Domain differentiation shows how the Suez canal was transformed from an imperial vision to a *grand projet* labelled international; what the role of experts was for this transformation; and why as a result experts reaffirmed their central mandate on the domain of the international.

My final empirical study of a transnational intervention legitimised by technocratic international arguments examined the 1865 International Telegraph Conference. The creation of the world's first formal international organisation, I argued, came about not as a sudden innovation or a rational response to the collective action problem of cross-border telegraph communication. Rather the process reflected a culmination of three overlapping political debates surrounding Austro-Prussian rivalry; French imperial expansion; and the globalisation of capitalism as an incentive structure undergirding the growing cable network. In this historical context, the telegraph conference was crucial to the institutionalisation of methods and actors of technocratic international order. My analysis focused on the Commission of Special Delegates as a site where *differentiators* collectively spoke on behalf of international telegraphy. On the one hand, this case supported the argument that expertise was not mobilised as a purely epistemic resource, but as social-economic capital the value of which derived from social networks and political favour. On the other hand, the ITU concerned the legitimation not of a single intervention but of a technology in its entirety.

Based on these findings, the case of the ITU prompted me to specify the consequences of domain-specific claims. Two points are of note. First, the Special Delegates could afford to be silent on inter-state tensions and cartel rivalries, sidelining

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[614] Huber 2013, 27.

them although their decisions had consequences for both. Second, the design, structure, and membership of the ITU not only locked expertise as a practice into modern international order but reflected political choices about the inclusion of some and the exclusion of others. The 'international forum' the ITU represented secured an expanded mandate for experts in international cooperation as a powerful avenue to sanctioning and naturalising a technology, and so endowing it with neutral, impartial status. The Special Delegates were able to use their credential to render cables a natural phenomenon that had to be managed. The expansion of the "magic wire" was given free rein by virtue of international accreditation.

2. Paths not taken

Imagining the international is always for someone and for some purpose. We may have analytical reasons to hold its features constant, or assume away the standpoint of actors who claim authority over it, but the parochial position is always irreducibly there. These propositions have direct historical-sociological implications—if the contours of the international are established to serve particular ends, then there is no single international at any given point in time. Yet in light of that multiplicity, rather than surveying a host of competing historical claims to internationality, my argument required decisions about where to draw the line. So let me here briefly give reasons for (a) why I decided to tell the history of internationality in a technocratic frame; and (b) why I confined my study of technocratic thought and practice to engineering and commerce in particular.

First, as outlined in Chapter I, many non-technocratic claims to the international may come to mind: socialist, feminist, liberal, conservative, anticolonial understandings of what the international ought to be, and particularly who ought to count as authoritative actors within it, may be thought of as alternative attempts at domain differentiation. The history of internationalism in its various forms is, in good part, a history of such attempts.[615] To include these in this thesis I could have contrasted elite with popular strategies of social positioning through domain differentiation. The 1864 International Workingmen's Association, founded while Suez canal building works were in full swing and just a year before the creation of the ITU, can be read as such an alternative claim. This too entailed labelling, actor authorisation, and the legitimation of a particular kind of political intervention. As Karl Marx himself subversively argued in his inaugural address to the association, the working class had a 'duty to master themselves the mysteries of international politics' and to reclaim 'the simple laws or morals and justice, which ought to govern the relations of private individuals, as the rules paramount of the intercourse of nations.'[616] Reflecting on the First International four years later he

[615] See Clavin/Sluga 2016.

[616] Marx 1864.

added: 'Nothing but an international bond of the working classes can ever ensure their definitive triumph.'[617]

Attending to elite and popular claims to internationality, while aspiring to a reasonable degree of comprehensiveness in both, would have exceeded the scope of this dissertation. Still it is interesting to note how technocratic arguments cut across ideological divides—as Steffek pointed out recently, 'praise for expert administration has not been associated with any distinct political ideology.'[618] This is why a focus on technocracy can reveal surprising commonalities: consider how Chevalier *and* Marx wanted to cast internationality in as an anti-political sphere where bonds between nations could be formed on the path of technological progress, with a preference for civil society over state interests. What this entailed, and whose interests this would eventually privilege, differed fundamentally—but the structure of argument was strikingly similar. In short, alternative claims to the international offer an exciting avenue of future research along the argumentative and methodological lines introduced in this thesis.

Second, another choice had to be made regarding the particular type of technocratic theories and practice this thesis would highlight, and those other types it would not. Technocrats come in all shapes and sizes: diplomats and bureaucrats, lawyers, bankers, statisticians, city-planners can all be technocratic actors in political contexts.[619] I chose mainly to focus on engineers, for both empirical and theoretical reasons. Empirically, existing scholarship on depoliticisation and expertise in international affairs has focussed on international lawyers or the staff of international organisations.[620] Shedding light on an under-explored type of actor should thus enrich this literature from a new point of view. Theoretically, the chief reason to consider engineers is the fact that most political theories of technocracy gave engineering a prominent role. As we have seen, engineering was central to Bentham's proposals for *Junctiana*, Saint-Simon's railway mania, and Chevalier's *Système de la Méditerranée* (whereas John Stuart Mill considered bureaucracy more important than machinery). Added to this, a considerable number of technocrats involved in nineteenth-century international politics, from Joseph Paxton to Henry Cole, from Michel Chevalier to Ferdinand de Lesseps, had originally been trained as engineers. More generally, studying and tracing the role of engineers in the making of modernity is an obvious choice: engineers were fundamental to the making of global industrial capitalism. They not only designed and oversaw the building of large-scale transnational infrastructure from canals to railroads, from bridges to telegraph cables; as veritable 'standardisation entrepreneurs' they also heavily determined the scope and

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[617] Marx 1868, 329.

[618] Steffek 2021, 13; see Bickerton/Invernizzi Accetti 2021.

[619] See, respectively, Lauren 1976; Koskenniemi 1998; Clavin 2014; Tooze 2001.

[620] Koskenniemi 1998; Littoz-Monnet 2017; Maertens/Louis 2021; Hoffmann 2021.

shape of interdependence.[621] Their centrality to the material underpinnings of the international imagination has as yet been under-explored by IR scholars. This exploration should entail both a tracing of actual engineers at work in gigantic transnational projects, and the reconstruction of the history of the technocratic fascination with engineers as the avant-garde of a new world order—indeed of 'the concept of the engineer as laborer for mankind, the technician as harmonizer of peoples'.[622] Though leaving out alternative types of technocratic ideas and practices, here my thesis makes a contribution.

3. Reframing international cooperation

International organisations, international law, and the web of intergovernmental and non-governmental transnational entities collectively referred to as "global governance" are widely characterised as having expert status or expert credibility. Scholars routinely ascribe an 'expert authority' to international organisations and sketch a picture that is casually alluded to but rarely explained further. 'The expert status', in the words of a recent contribution, 'that prominent IOs have achieved through their mandate and track record … enhances their influence in transnational policy debates.'[623] My account specifies this by attending to the historical generation and performance of such expert status: not, as is typically done, by looking for the validity of internationally deployed expertise and so starting from a tacit acceptance of the claim of international organisations and others to having access to superior knowledge—authority of straightforwardly epistemic origin—but instead by looking for the historical changes to which a twinning of internationality and impartiality responded.

So in what novel ways does my thesis help us understand international cooperation? My findings speak to disciplinary debates on expertise, on the one hand, and to broader public debates on 'legitimacy crises' of global governance, on the other. First, domain differentiation and its methodological emphasis on *differentiators* offers a reframing of how to study experts in IR. Extant contributions typically take one of two avenues. Some take experts' claims to epistemic superiority at face-value and study how their respective epistemic authority gets translated into policy prescriptions; how it gets contested by competing knowledge claims; or how it reproduces hierarchies of local versus global knowledge. Others instead deconstruct expertise as a form of political authority and examine performances of epistemic superiority in struggles for control over the terms of political contestation, resource allocation, legal interpretation, trade agreements, credit ratings, and so on. The former puts experts into view as actors in a

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[621] Yates/Murphy 2021, 10; see Picon 2004.

[622] Mazower 2012, 184.

[623] Broome/Homolar/Kranke 2018, 518-19. See Barnett/Finnemore 2004; Ecker-Ehrhardt 2012; Kramarz/Momani 2013.

policy process the functionality of which is to be understood and empirically examined; the latter instead sees experts as in a co-productive relationship with their knowledge and, specifically, objects of governance.

Domain differentiation reframes this by putting the order of analysis on its head: to understand how expertise maintains its centrality in global governance I started not by examining the validity of expert credential, or the formation of expert professions. Instead I studied how experts could be viewed as authoritative in the first place, on a domain that first had to be conceptually expressed and made meaningful. Historical attention to the nineteenth century was crucial to this, given that this was a time when the word "international" had only just been invented. New, modern actors of international relations—transnational capitalists and engineers in particular—saw the opportunity to deploy this label to generate legitimacy and autonomy for their border-crossing mega-projects, from canals to railways and telegraph cables. Paralleling the internationalisation of finance and banking, this private enterprise-driven domain of technical interventions with deeply political—especially imperial—implications and promise was thus able to carve out its own authoritative domain, labelled "international".

Explaining the centrality of expertise in international affairs through the lens of domain differentiation does more than gesture at "the politics" of expertise. First, expertise on my account does not only depoliticise[624] but generates political authority once it gets recognised as a privileged practice within the limits of a given domain. Second, the transnational training, deployment, and self-understanding of experts explains part of their special role in international affairs. Expertise and the nineteenth-century impartial international were historically coproduced—expertise acted as a modality 'that constitutes the field and is constituted by the field', involving 'boundary-negotiating practices and the construction of authority'.[625] Domain differentiation held their nexus constant. Inversely, expertise is a central parameter of contestation. This is the implication when we argue that a 'technocratic bias in the justification' of international authority makes international institutions 'vulnerable'.[626] Third, the lens of domain differentiation foregrounds historical contingency and asks: who speaks for "the" international, when, and how? Technical and scientific experts were able to do so in one particular way, given their ability to certify internationality as impartial.

Second, my research sheds new light on the backlash against an alienating expert elite faced by international institutions today. There is a general understanding, recently exacerbated by debates surrounding climate change and responses to the COVID-19

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[624] See Louis/Maertens 2021.

[625] Kunz/Prügl/Thompson 2019, 26.

[626] Zürn 2018, 63.

pandemic, that international institutions confront 'crises of legitimacy'.[627] I turned to history to better understand what exactly the dilemma consists in, who exactly "the experts" empirically are, and what the point of conjoining internationality with impartiality was in the first place. In this context my inquiry has corroborated what Science and Technology Studies has insisted on for quite some time:[628] expert knowledge gets produced under political conditions, and the necessarily partial selection of experts implies that their use typically serves parochial interests.[629] Contrary to functionalist premises, but also contrary to knee-jerk defences of expertise issued whenever backlash makes an appearance, it is not immune to ideological capture.[630] My thesis adds historical depth to this, but also nuance. In the nineteenth century, the point of mobilising experts was not simply to conceal political motives, but simultaneously to gain action capacity: expert accreditation was a powerful lubricant for the bourgeoisie beyond borders. To obtain it, entrepreneurs could not just pick an expert at will to scientifically corroborate their plans—they needed to cultivate this resource themselves and elevate specific people to expert status. Only later did cohesive epistemic communities become visible as well-matched and easily identified pools of policy experts.

In light of this, we need to be careful about how we conceptualise expertise. Experts, whether lawyers, bankers, medical doctors, or engineers, possess a status set that includes but is not limited to epistemic capital. Only in combination with the resources and contacts required to work and appear as an expert can one, politically and internationally speaking, be an expert. Cultivating these resources and contacts, as well as a transnational environment in which these can flourish and proliferate, constitutes an interest experts have. Acknowledging both returns the burden of proof to accounts that assume that, but do not explain how, substantive expertise grants authority. It also necessitates a shift in scholarly intent from securing the reliability of expert credential to examining the material conditions and political purposes of knowledge production and use. Through the lens of domain differentiation, IR can make sense of expertise as part of attempts to endow international actors and institutions with legitimacy and the capacity to act: not as straightforward input in the governance process, but as a contested modality of political power with its own set of interests.

When claims to impartiality lend the authority to carry out invasive political and economic interventions—historically including dispossession, extraterritoriality, and

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[627] Gök/Mehmetcik 2022.

[628] Key texts in STS on this topic include Latour 1987; Haraway 1991. On domain construction as 'worldmaking' based on claims to scientific standing see Goodman 1978; Hacking 1999; Jasanoff 2015.

[629] Sending 2015; Kennedy 2016; Allan 2018. See Boswell 2009; Friedman 2019; Pamuk 2022.

[630] For recent critiques of functionalism see Littoz-Monnet 2017; Louis/Maertens 2021; Steffek 2021.

broadly practices of informal empire[631]—this may well be an unintended consequence: we have no reason to assume that experts typically plan to put their knowledge to malicious use. It is not least precisely an innocence and detachment from normative preferences that experts base their identity on, often as much to themselves as to their audiences. But their contribution makes intelligible an international domain that looks as though it was totally separate from politics: whether the politics of an entrepreneur aiming to inspire the confidence of future investors, or the politics of racial and imperial labour hierarchies. Experts lend support through the language of their methods: their reports and recommendations speak as they categorise, classify, and certify that which they 'purport merely to reflect'. Yet while the measurements, graphs, and reports that experts speak through appear 'to travel, friction free, above subjective ways of knowing the world,' they bely 'the politics of their production.'[632]

3. Limitations and future avenues

This thesis has focussed on a technocratic claim in the early to mid-nineteenth century to what the international is and, based on this claim, who should have the authority to lend legitimacy to what kinds of intervention. I conceptualised this as a case of domain differentiation, and then studied the process with the help of intellectual history and historical sociology. In this vein the thesis contributes a burgeoning literature in IR on the constitution of global order in the nineteenth century; and on the role of international commissions, public unions, and organisations in navigating a world structured by imperial hierarchies of capital, trade, and labour. At the same time it speaks to a well-established literature on international institutions, to which it offers a historically grounded reframing of protracted questions of legitimacy.

In the process the thesis has left some important questions unanswered, and some important aspects untouched. I have already gestured to some of these above when discussing the scope of the inquiry. Before closing, let me in turn identify two resulting, important limits of my findings. First of all, the thesis is methodologically Eurocentric in its selection of thinkers and sources. As a result my findings cannot be assumed to apply to non-European contexts. But the setup is not unintentional: the nineteenth century was a time marked by European empires vying for control over resource extraction, for territorial expansion, and for colonial settlements; while in Europe itself nationalism, industrialisation, and urban impoverishment all provided the context in which social and political theorists became deeply concerned with questions of social reform, the distribution of wealth, and international cooperation. My thesis centred around European thinkers and practitioners who wrote and acted in this context

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631 Ince 2018; Tzouvala 2020; Jakes 2020; Khalili 2020; Todd 2021.

632 Peevers 2018, 312-313. See also Latour 1987.

with a shared taste for technocratic social order. The international ramifications of that inclination received most of my attention, and undoubtedly many other thinkers and practitioners thus fell by the wayside. I did not in much detail attend, for example, to the "receiving end" of interventions justified by the internationality-impartiality nexus. Nor did I contextualise my argument by including technocratic or anti-technocratic debates outside Europe's capitals or in non-European languages. The topic certainly deserves further development along these lines, but that is a task not of a single study but for the wider scholarly community and a future continuation of the present project.

Second, the deeply gendered character of the technocratic thought and practices featured in this thesis is notable, to say the least. It will hardly be surprising that there is a connection between the technology-centred world of mid-nineteenth century engineers and capitalists, and white male elite attitudes, homosocial careers, and gendered performances of authority. To fully capture the masculinity of technocratic internationalism, much work still remains to be done. This goes beyond the scope of the project at hand, but a comprehensive treatment of technocratic international thought and practice would need to account for this dimension. One way of doing so would be to refrain from foregrounding a particular profession as the site of analysis, as I have done in the case of engineering, given the well-known entrance barriers women faced in accessing the modern professions. Instead, paralleling the inclusion of a wider range of genres as sources for the history of international thought as a response to methodological sexism, we would do just as well to reconsider the criteria we use to consider an actor as worthy or unworthy of historical attention.[633]

Examining the intellectual and practical points of contact between internationality and impartiality in the way pursued in this thesis, finally, offers opportunities for future research. The technocratic mode of international authority was so powerful, I argued, because it represented a form of domain differentiation. The move to "the international" here followed the much broader hope to escape the muddied waters of politics. During the later decades of the nineteenth and the early decades of the twentieth century, however, the politicisation of international projects was much harder to avoid given the intensified brutal competition of the New Imperialism, peaking around the time of the 1884-85 Berlin Conference. During this period, expertise arguably underwent a shift from individual experts as embodied authoritative voices to expert methods presented as speaking "for themselves". This change in emphasis can be observed from the 1860s, especially in the internationalisation of medical expertise at the International Sanitary Conferences and the 1863 founding of the International

[633] Owens/Rietzler 2021; on methodological inclusion see Morefield 2017; Vergerio 2019; Wallenius 2019.

Committee of the Red Cross: here, public health statistics became a central bone of contention for an emerging concept of evidence-based expert governance.[634]

In later decades, statisticians, new encyclopedists, and early information scientists again altered the conditions of possibility for international expertise.[635] In 1910, for example, the Belgian lawyers and internationalists Paul Otlet and Henri La Fontaine created the *Mundaneum*: a register, eventually containing over 12 million index cards and files, that was to physically store all the world's information. The project was part of Otlet's broader ambitions for a 'world city' including an International Museum, an International Library, an International Catalogue, and more.[636] H. G. Wells speculated along similar lines in his 1936-38 proposals for a 'World Brain'.[637] All of this raises new questions for future research: did changing methods of expertise change the extent of its authority? Did the ways in which expertise was mobilised in international affairs vary by the political salience of the issue at hand, or rather by the degree of its institutionalisation? And how did, in the last third of the nineteenth century, the transferral of agency and responsibility from expert individuals to expert methods affect the contestability of the international?

Theorising the role of experts in international relations as the outcome of a historical process of domain differentiation allowed me to make visible aspects of both expertise and "the international" that have not received sufficient attention thus far. It helped shift the focus from the validity of individual experts' credential and the ways in which the use of expert knowledge in global governance can be protected, monitored, or held accountable, to their contribution to and interest in making the domain that authorises them. It also allowed me to put the role of actor interests and audience construction centre-stage. In doing so, I proposed a rethinking of the way in which IR scholarship approaches both expertise and the international. The "point-zero" international is predicated on a hope for real impartiality, mobilising a degree of epistemic elitism that severely complicates international legitimation and authority. This is the problem that plagues international organisations to this day: the tension between *capacity*, increased through the mobilisation of epistemic capital, and *legitimacy*, curtailed whenever claims to impartiality mask the political character of international interventions. Then as now, this tension has provoked anti-expert backlash, further deepening the gulf between technocracy and democracy. The future of global governance, multilateralism, and international cooperation depends on better understanding and reimagining this relationship.

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[634] Huber 2006; White forthcoming.

[635] On statistics see Porter 1996; Tooze 2001; Porter 2004.

[636] Wright 2014.

[637] Wells 1938; Bell 2018.

Bibliography

Primary sources

Anonymous (1851a). *Aunt Busy-Bee's The Fine Crystal Palace the Prince Built*. London: Dean and Son.

Anonymous (1851b). "The Approaching Festival of All Nations'." *The Family Herald: A Domestic Magazine of Useful Information and Amusement* 9, 12–13.

Anonymous (1852). *Tallis's History and Description of the Crystal Palace, and the Exhibition of the World's Industry in 1851*, 2 vols. London: John Tallis & Co.

Anonymous (1853). *Mittheilungen über die Industrieausstellung aller Völker zu London im Jahre 1851*. 3 vols. Vienna: K. K. Hof- und Staatsdruckerei.

Anonymous (1861). "An Exhibition of the Society of Arts." *Mechanics' Magazine,* April 12, 243-44.

Anonymous (1862a). "Close of the Exhibition—Its Failure." *Bee-Hive,* November 1.

Anonymous (1862b). "At the Great Exhibition." *Cornhill Magazine* 5.

Anonymous (1862c). "The International Exhibition: Its Purposes and Prospects." *Blackwood's Edinburgh Magazine* 91, 473-78.

Anonymous (1863). *Archives diplomatiques: recueil de diplomatie et d'histoire*. Paris: Amyot.

Anonymous (1867). *Guide officiel à l'Exposition universelle de 1867: vade-mecum du visiteur*. Paris: Dentu.

Anonymous (1868). *Grand Album de l'Exposition Universelle 1867: 150 Dessins par les premiers artistes de la France et de l'Étranger*. Paris: Michel Lévy Frères.

Anonymous (1869). *La Télégraphie à l'Exposition Universelle de 1867*. Paris: Imprimerie Impériale.

Anonymous (1874). "Obituary. John Robinson McClean, Former President and Vice-President, MP, FRS, 1813-1873." *Minutes of the Proceedings of the Institution of Civil Engineers* 38: 287-291.

Anonymous (1875). *Archives diplomatiques: recueil de diplomatie et d'histoire*. Paris: Amyot.

Anonymous (1876a). "The great canal at Suez." *The Athenaeum* 2532, 6 May.

Anonymous (1876b). "The Suez Canal an International Highway." *The Quarterly Review*, October.

Anonymous (1880). *Annuaire statistique, administratif, industriel et judiciaire du département des Hautes-Pyrénées*. Paris: Bagnères.

Arnoux, Jean-Jacques (ed.) (1856). *Le Travail universel: Revue complète des œuvres de l'art et de l'industrie exposées à Paris en 1855*. Paris: Aux Bureaux de la Patrie.

Babbage, Charles (1851). *The Exposition of 1851; or, Views of the Industry, the Science, and the Government of England*. London: John Murray.

Belloc, Alexis (1894). *La télégraphie historique: Depuis les temps les plus reculés jusqu'à nos jours*. 2nd ed. Paris: Firmin-Didot.

Belly, Felix (1866). "Paris, 25 août 1866." *La Presse*, 25 August 1866. Paris: Bibliothèque Nationale de France.

Bentham, Jeremy (1776). *A Fragment on Government*. In J. H. Burns and H. L. A. Hart (eds.) (1977). *The Collected Works of Jeremy Bentham: A Comment on the Commentaries and A Fragment on Government*. Oxford: Oxford University Press.

(1780). *An Introduction to the Principles of Morals and Legislation*. Ed. 1970 by J. H. Burns and H. L. A. Hart. London.

(1782). "Essay on the Influence of Time and Place in Matters of Legislation." In John Bowring (ed.) (1843). *The Works of Jeremy Bentham, vol. I (Principles of Morals and Legislation, Fragment on Government, Civil Code, Penal Law)*. Edinburgh: W. Tait.

(1789). *Principles of International Law*. In John Bowring (ed.) (1843). *The Works of Jeremy Bentham, vol. 2 (Judicial Procedure, Anarchical Fallacies, works on Taxation)*. Edinburgh: W. Tait.

Benton, Philip (1877). "De l'effet des réductions de tarifs sur le trafic télégraphique international. Réponse aux arguments de M. Vinchent." *Journal Télégraphique* 25 August 1877, Berne, 639-643.

Berchère, Narcisse (1863). *Le désert de Suez: cinq mois dans l'isthme*. Paris: Hetzel.

Booth, Arthur John (1871). *Saint-Simon and Saint-Simonism: A Chapter in the History of Socialism in France*. London: Longmans, Green, Reader, and Dyer.

Bowring, John (1840). *Report on the Prussian Commercial Union. Addressed to the Rt. Hon. Lord Viscount Palmerston*. London: Parliamentary Papers.

Brougham, Henry (1803). *An Enquiry into the Colonial Policy of the European Powers*. 2 vols. Edinburgh: Longman.

Brown, Samuel (1864). "On the Metric System of Weights and Measures, and its proposed Adoption in this Country." *The Assurance Magazine, and Journal of the Institute of Actuaries 11*(5): 263-279.

Buck, E. C. (1886). "The Utility of Exhibitions to India." *Asiatic Quarterly Review* 2.

Calonne, Alphonse de (1855). *Exposition universelle de 1855*. Paris.

Chauvin, Franz von (1884). *Organisation der elektrischen Telegraphie in Deutschland für die Zwecke des Krieges*. Berlin.

Chevalier, Michel (1830). "Loi des 80,000 hommes. La France et l'Angleterre", *Le Globe*, 8 December 1830. Reprinted in *Religion Saint-Simonienne. Politique Européenne.* Paris: Bibliothèque Nationale de France.

(1830). "L'intervention." *Le Globe*, 17 December 1830. Reprinted in ibid. (1831). *Religion Saint-Simonienne. Politique Européenne*. Paris: Bibliothèque Nationale de France.

(1831). "Alger." *Le Globe*, 10 November 1831. Reprinted in ibid. (1831). *Religion Saint-Simonienne. Politique Européenne*. Paris: Bibliothèque Nationale de France, pp. 119-27.

(1832). *Politique industrielle. Système de la Méditerranée. Articles extraits du Globe.* Paris: Aux Bureaux du Globe.

(1836). *Lettres sur l'Amérique du Nord.* 2 vols. Paris: Gosselin.

(1837). "Lettres sur le Mexique", *Journal des Débats*, 20 July, 1 Aug., 7 Aug. and 15 Aug. 1837.

(1838). "De Saint Simon et de son École." *Journal des Débats*, 6 January 1838.

(1840). *L'Europe et la Chine, l'Occident et l'Orient, Extrait de la Revue des Deux Mondes.* Paris: H. Fournier et Co.

(1843). *L'isthme de Panama: Examen historique et géographique des différentes directions suivant lesquelles on pourrait le percer et des moyens a y employer; suivi d'un aperçu sur l'isthme de Suez.* Paris: Librairie de Charles Gosselin.

(1846-1847). "Des mines d'argent et d'or du Nouveau Monde", *Revue des Deux Mondes*, 16 (1846), pp. 980-1035 and 17 (1847), pp. 5-51.

(1842-1850). *Cours d'Économie Politique*, 3 vols. Paris: Collège de France.

(1851b). *L'exposition universelle de Londres considérée sous les rapports philosophique, technique, commercial et administratif, au point de vue français : aperçu philosophique, lettres écrites de Londres.* Paris: L. Mathias. Bibliothèque Nationale de France, Département Littérature et Art, V-34658.

(1851c). *Le Mexique: Extrait de l'Encyclopédie du XIXe siècle.* Paris: De Maulde et Renou.

(1851a). *La science mise à la portée de toutes les intelligences. Le désir du bien-être est légitime; il peut obtenir satisfaction; mais sous quelles conditions? Discours d'ouverture du cours d'économie politique au Collège de France.* Paris: L. Mathias.

(1855). "Exposition universelle." *Journal des Débats* 5 May.

(1862). *L'Industrie Moderne, ses Progrès et les Conditions de sa Puissance (Exposition Universelle de 1862).* Paris: J. Claye.

(1862). *L'Expédition du Mexique. Extrait de la Revue des Deux Mondes. Livraisons des 1er et 15 avril 1862.* Paris: E. Dentu. Bibliothèque Nationale de France, 8-LH4-561.

(1865). *Discours sur l'Algérie.* Paris: C. Lahure.

(1866). *La Guerre et la Crise Européenne*. Paris: Garnier Frères.

(1867). *La Constitution de l'Angleterre. Extrait de la Revue des Deux Mondes, livraison du 1er décembre 1867*. Paris: Revue des Deux Mondes.

(ed.) (1868). *Rapports du Jury International.* 10 vols. Paris: Didron.

(1869). "Discours de MM. Chevalier, Fréderic Passy du R.P. Hyacinthe 24 juin 1869." In Loyson, Hyacinthe. *Bibliothèque de la Paix*. Paris: Ligue Internationale et Permanente de la Paix, pp. 2-34.

(1873). *Du Droit International, de ses Vicissitudes et de ses Échecs dans le Temps Présent*. Paris: Revue des Deux Mondes. Bibliothèque Nationale.

Cobden, Richard (1867). *Political Writings*. 2 vols. London: Ridgway.

Cole, Henry (1852-60). "Reductions in the French Tariff." *Henry Cole Papers, Miscellanies, Volume 10, 1852–1860*. London: National Art Library, fols. 60b – 61.

(1849-51). "Appendix." In J. Forbes Royle, *Papers Referring to the Proposed Contributions from India for the Industrial Exhibition of 1851*. London: National Art Library.

(1852). "Lecture XX. 2nd series. December 1, 1852. On the International Results of the Exhibition of 1851." In *Fifty Years of Public Work of Sir Henry Cole, K.C.B., Accounted for in his Deeds, Speeches and Writings, vol. 2*. London: George Bell and Sons.

(1852-53). "On the International Results of the Great Exhibition." In *Lectures on the Results of the Great Exhibition, Delivered before the Society of Arts, Manufactures and Commerce, vol. 2*. London: David Bogue.

(1867) "Testimony of Sir Henry Cole." In *Reports on the Paris Universal Exposition, 1867, Volume I: Reports by Executive Commissioner; with Appendices*. London: Hansard Parliamentary Debates 1868-69.

Colin, Auguste (1846). *Compagnie de l'isthme de Suez*. Paris: P. Renouard/Bibliothèque National de France.

Constant, Benjamin (1813). *De l'Esprit de Conquête et de l'Usurpation*. Ed. Ephraïm Harpaz. 1986. Paris: Flammarion.

Couly, Placide (1855). *1855 Exposition Universelle: Hymne aux Étrangers*. Paris: Bibliothèque Nationale de France.

Darjou, Alfred (1855). *À l'exposition nouvelle*. Paris: Voisvenel.

Dauriac, Philippe (1863). No title. *Figaro,* 915, 22 November, 1-4. Paris.

(1864). *La télégraphie électrique: son histoire précise, anecdotique et pittoresque et ses applications … suivie d'un guide de l'expéditeur de dépêches*. Paris: Achille Faure.

De Maistre, Joseph (1797). *Considerations on France*. Ed. trans. Richard A. Lebrun (1994), Cambridge Texts in the History of Political Thought. Cambridge: Cambridge University Press.

D'Hauterive, Alexandre Maurice Blanc de Lanautte Comte (1800). *De l'état de la France à la fin de l'an VIII*. Paris: Henrics.

Dickens, Charles (1853). "The Noble Savage." *Household Words* 7, 337–39.

Drew, William A. (1852). *Glimpses and Gatherings, During a Voyage and Visit to London and the Great Exhibition, in the Summer of 1851*. Augusta: Homan and Manley.

Ducuing, François (ed.) (1867). *L'Exposition Universelle de 1867 Illlustrée. Publication Internationale autorisée par la Commission Impériale*, 2 vols. Paris: Commission Impériale.

Eden, Frederick (1823). *Historical Sketch of the International Policy of Modern Europe*. London: John Murray.

Enfantin, Barthélémy-Prosper (1843). *Colonisation de l'Algérie*. Paris: P. Bertrand.

(1844). "Carte de l'isthme de Suez." *Collection Enfantin*. Paris: Bibliothèque Nationale de France.

Engels, Friedrich (1886 [1878]). *Herrn Eugen Dühring's Umwälzung der Wissenschaft*. Zürich: J. Schabelitz.

Everett, Alexander Hill (1822). *Europe or a General Survey of the Present Situation of the Principal Powers; with Conjectures on their Future Prospects. By a Citizen of the United States*. Boston: Cummings and Hilliard.

Exposition Universelle (1855). *Exposition universelle de 1855: Explication des ouvrages de peinture, sculpture, gravure, lithographie, et architecture, des artistes vivants étrangers et français*. Paris: Palais des Beaux-Arts.

Fergusson, James (1857). *Address on a National Gallery of Architectural Art*. London.

Figuier, Louis (1884). *Les Nouvelles Conquêtes de la Science: Isthmes et Canaux*. Paris: Marpon & Flammarion.

Forster, William (1851). *The Closing of the Great Exhibition or, England's Mission to All Nations: A Discourse*. London: John Cassell.

Fournier, Vidal (1855). "Exposition universelle de 1855." *Revue de l'Industrie*, Paris: Tinterlin.

Gatterer, Johann Christoph (1767). *Allgemeine Historische Bibliothek*. 10 vols. Halle: Gebauer.

Great Exhibition (1851). *Great Exhibition of the Works of Industry of All Nations, 1851. Official Descriptive and Illustrated Catalogue*. London: W. Clowes and Sons.

Heeren, A. H. L. (1817). *Handbuch der Geschichte des europäischen Staatensystems und seiner Kolonien von der Entdeckung beider Indien bis zur Errichtung des französischen Kaiserthrones*. Wien.

Helix (1850). "The Industrial Exhibition of 1851." *Westminster and Foreign Quarterly Review*, April.

Hugonnet, Ferdinand (1860). *Français et Arabes en Algérie*. Paris: F. Sartorius.

ITU (1865). "Convention télégraphique internationale." Geneva: Historical Archives of the International Telecommunication Union.

(1885). "Documents of the International Telegraph Conference (Berlin, 1885)". Geneva: Historical Archives of the International Telecommunication Union.

(1915). *L'Union Télégraphique Internationale (1865–1915)*. Berne: Bureau International de l'Union Télégraphique.

Jocelyn, Albert H. (1856). "Government map of Nicaragua: from the latest surveys ordered by President Patricio Rivas and Genl. William Walker; executed under the supervision of the Señor Fermín Ferrer, Governor of the Western Department." New York: A.H. Jocelyn.

Le Play, Fréderic (1869). *Rapport sur l'exposition universelle de 1867 à Paris: précis des opérations et listes des collaborateurs avec un appendice sur l'avenir des expositions, la statistique des opérations, les documents officiels et le plan de l'exposition*. Paris: Imprimerie Impériale.

Lesseps, Ferdinand de (1849). *Ma mission á Rome mai 1849: mémoire présenté au Conseil d'État*. Paris: Giraud.

(1855). Enfantin to Lesseps, February 10, 1855, 7835 *Fonds Enfantin*.

(1856). *Percement de l'isthme de Suez: rapport et projet de la Commission Internationale*. Paris: Bureau de l'Isthme de Suez.

(1856). "Statement of Facts." In *New Facts and Figures relative to the Isthmus of Suez Canal*. London: Effingham Wilson.

(1875). *Lettres, journal et documents pour servir á l'histoire du canal de Suez: 1854–1855–1856*. Paris: Librairie Académique Didier.

(1883). *Recollections of Forty Years*. 2011 ed., transl. C. B. Pitman. Cambridge: Cambridge University Press.

(1885). *Discours prononcés dans la séance publique tenue par l'Académie Française pour la réception de M. de Lesseps*. Paris: Institut de France.

Lieussou, Aristide (1850). *Études sur les Ports de l'Algérie*. Paris: Dupont.

Linant de Bellefonds, Louis Maurice Adolphe (1872-73). *Mémoires sur les principaux travaux d'utilité publique exécutés en Égypte depuis la plus haute antiquité jusqu'à nos jours*. Paris: Arthus Bertrand.

Loudun, Eugène [Eugene Balleyguier] (1855). *Exposition universelle des beaux-arts: Le Salon de 1855*. Paris: Ledoyen.

Manby, Charles, Robert Stephenson et al. (1857). "Manby Testimonial. Charles Manby, FRS, Secretary to the Institution of Civil Engineers, 1839-1859." *Minutes of the Proceedings of the Institution of Civil Engineers* 16: 479–489.

Mantz, Paul (1855). "Salon de 1855." *La Revue Française* 2.

Marx, Karl and Friedrich Engels (1848). "The Communist Manifesto." In David McLellan (ed.), *Karl Marx: Selected Writings* (Oxford: Oxford University Press, 1977), 221–47.

Marx, Karl (1864). *Inaugural Address of the International Workingmen's Association. Prepared at the Request of the Public Meeting in the St. Martin's Hall, Long Acre, London, on the 28th. September 1864, at which the Association was Founded*. London.

(1868). "The Fourth Annual Report." In *Documents of the First International, 1866-1868*. Moscow: Progress.

McClean, John Robinson (1864). "Presidential address of John Robinson McClean." *Minutes of the Proceedings of the Institution of Civil Engineers* 23: 151-167.

Minich, Serafino Raffaele (1869). "Commemorazione di Giovanni Minotto (1803-1869)." Venice: Istituto Veneto.

Mill, John Stuart (1838). "Bentham." In: John M. Robson (ed.) (1985). *The Collected Works of John Stuart Mill, Volume X - Essays on Ethics, Religion, and Society (Utilitarianism)*. Toronto: University of Toronto Press.

(1859). "A Few Words on Non-Intervention." In: John M. Robson (ed.) (1963). *The Collected Works of John Stuart Mill, Volume XXI - Essays on Equality, Law, and Education (Subjection of Women)* from *Dissertations and Discussions,* III (1867). Toronto: University of Toronto Press.

(1861). "Considerations on Representative Government." In John M. Robson (ed.) (1977). *The Collected Works of John Stuart Mill, Volume XIX - Essays on Politics and Society Part 2 (Considerations on Rep. Govt.)*. Toronto: University of Toronto Press.

(1873). "Nature", in: *Three Essays on Religion*, (ed. Helen Taylor). London: Longmans, Green, Reader, and Dyer. From: John M. Robson (1963), *The Collected Works of John Stuart Mill, Volume X - Essays on Ethics, Religion, and Society (Utilitarianism)* [1833], Toronto: University of Toronto Press.

Mirbeau, Octave (1895). "Pourquoi des Expositions?" *Les Annales Politiques et Literaires*, 29 December, 407-8. Originally published in *Revue des Deux Mondes*.

Mitchell, Henry (1895). "Viscount Ferdinand De Lesseps." *Proceedings of the American Academy of Arts and Sciences* 31: 370-384.

Multatuli [Eduard Douwes Dekker] (1860). *Max Havelaar, of De Koffij-veilingen der Nederlandsche Handel-Maatschappij*. Amsterdam: J. de Ruyter.

Napoleon III (1860). *Discours, messages et proclamations de Napoléon III, Empereur des Français: 1849–1860*. Paris: Mirecourt.

(1864). *Discours de son Altesse Impériale le Prince Napoléon. Banquet de l'isthme de Suez, 11 février 1864*. Paris: E. Dentu.

Noblemaire, Gustave (1905). "La vie et les travaux de M. Charles Didion." In *Hommes et Choses de Chemins de Fer*. Paris: Dupont.

Pardon, George Frederick (ed.) (1862). *A Guide to the International Exhibition; with Plans of the Building, An Account of its Rise, Progress and Completion and Notices of its Principal Contents.* London: Warne & Routledge.

Peisse, Louis (1855). "Beaux-Arts: Exposition Universelle." *Le Constitutionnel,* 25 May 1855.

Pinet, Gaston (1894). "L'École Polytechnique et les Saint-Simoniens." *Revue de Paris*, May 15.

Pradt, Dominique de (1823). *Parallele de la puissance anglaise et russe relativement a l'Europe*, 2nd edn. Paris.

Prince Napoleon (1857). *Rapport sur l'exposition universelle de 1855*. Paris: Imprimerie Impériale.

Raynal, Guillaume Thomas (1770-80). *Histoire philosophique et politique des établissements et du commerce des Européens dans les deux Indes.* 4 vols. Geneva.

Rehn, James A. G. (1915). "Obituary. Carl Brunner von Wattenwyl." *Entomological News and Proceedings of the Entomological Section of the Academy of Natural Sciences of Philadelphia* 26(6): 285-288.

Renan, E. (1885). *Discours prononcés dans la séance publique tenue par l'Académie Française pour la réception de M. de Lesseps.* Paris: Institut de France.

Ringnalda, W. (1902). *De Rijkstelegraaf in Nederland: hare opkomst en ontwikkeling.* Amsterdam: Scheltema & Holkema.

Robinson, Moncure (1880). "Obituary Notice of Michel Chevalier." *Proceedings of the American Philosophical Society 19*(107): 28-37.

Rochenoire, Julien de la (1855). *Le Salon de 1855 apprécié a sa juste valeur.* Paris: Martinon.

Ross, Sir John (1838). *On Communication to India, in Large Steam-ships, by the Cape of Good Hope: Printed by Order of the India Steam-ship Company, and addressed to the British public.* London: Smith & Elder.

Saint-Simon, Henri Comte de (1802). "Lettres d'un habitant de Genève à ses contemporains." In *Œuvres Complètes de Saint-Simon*, 4 vols., edited by Juliette Grange, Pierre Musso, Philippe Régnier, and Frank Yonnet (Paris: Presses Universitaires de France, 2012) (*OCSS*), vol. 1, 101-28.

(1808). "Introduction Aux Travaux Scientifiques du Dix-Neuvième Siècle." In *OCSS*, vol. 1, 231-301, 367-426.

(1813). "Mémoire sur la science de l'homme." In *OCSS*, vol. 2, 1069-1231.

(1814). "De la Réorganisation de la Société Européenne, ou De la Nécessité et des Moyens de Rassembler les Peuples de l'Europe en un Seul Corps Politique, en Conservant à Chacun son Indépendance Nationale." In *OCSS*, vol. 2, 1233-1297.

(1817-1818). "L'Industrie, ou Discussions Politiques, Morales et Philosophiques. Dans l'intérêt de tous les hommes livrés à des travaux utiles et indépendans." In *OCSS*, vol. 2, 1417-1728.

(1821). "Du Système Industriel." In *OCSS*, vol. 3, 2323-2632 and *OCSS*, vol. 4, 2753-2791.

(1823-1824). "Catéchisme des Industriels." In *OCSS*, vol. 4, 2861-3016.

(1825). "Nouveau Christianisme. Dialogues Entre un Conservateur et un Novateur." In *OCSS*, vol. 4, 3167-3226.

Sarcey, Francisque (1869). "Qu'on le nomme au sénat." *Le Gaulois* 420, 29 August, 1.

Spencer Price, John (1873). *The Early History of the Suez Canal*. London: LSE Selected Pamphlets.

Stephenson, Roberts (1851). *The Great Exhibition; Its Palace, And its Principal Contents with Notices of the Public Buildings of the Metropolis, Places of Amusement, etc*. London: Routledge.

Thackeray, William M. (1846). *Notes of a Journey from Cornhill to Grand Cairo, by Way of Lisbon, Athens, Constantinople, and Jerusalem: Performed in the Steamers of the Peninsular and Oriental Company*. London: Chapman and Hall.

The Economist (1851a). "The Exhibition – The Crystal Palace." *The Economist* 4 January, 4-6.

(1851b). "Some Moral Aspects of the Great Exhibition." *The Economist* 17 May, 531-32.

(1851c). "The End of the Exhibition." *The Economist* 18 October, 1147.

The Spectator (1865). "Carl Maria von Weber." 15 April, 16.

Tchikhatchev, Petr Aleksandrovitch (1880). *Espagne, Algérie et Tunisie. Lettres à Michel Chevalier*. Paris: J.-B. Baillière.

Tocqueville, Alexis de (1835). *Democracy in America*. Transl. Henry Reeve. London: Saunders & Otley.

Tresca, Henri-Édouard (1855). *Visite à l'exposition universelle de Paris, en 1855*. Paris: Hachette.

Union Télégraphique (1922). "Inauguration du monument commémoratif de la fondation de l'Union télégraphique." *Journal Télégraphique*. Berne: Bureau International de l'Union Télégraphique, 238–244.

(1924). "La Télégraphie internationale avant la création de l'Union télégraphique." *Journal Télégraphique*. Berne: Bureau International de l'Union Télégraphique, 205–226.

Vignon, Claude (1855). *Exposition Universelle de 1855: Beaux Arts*. Paris: Auguste Fontaine.

Weber, Max Maria von (1866). "Der Pfadfinder des Meeres." *Die Gartenlaube* 49-50, 765-66, 783-85.

Weill, Georges (1896). *L'école saint-simonienne: son histoire, son influence jusqu'à nos jours*. Paris: F. Alcan.

Whewell, William (1852). *Lectures on the Results of the Great Exhibition, delivered before the Society of Arts, Manufactures, and Commerce, at the suggestion of H.R.H. Prince Albert, President of the Society*. London: David Bogue.

Willis, Henry Parker (1901). *A History of the Latin Monetary Union: A Study of International Monetary Action*. Chicago: University of Chicago Press.

Secondary sources

Abbenhuis, Maartje Maria (2013). "A Most Useful Tool for Diplomacy and Statecraft: Neutrality and Europe in the 'Long' Nineteenth Century, 1815–1914." *The International History Review* 35(1): 1-22.

Abbott, Andrew (1995). "Things of boundaries." *Social Research 62*(4): 857-882.

Abi-Mershed, Osama (2010). *Apostles of Modernity: Saint-Simonians and the Civilizing Mission in Algeria*. Redwood City: Stanford University Press.

Adas, Michael (1997). "A Field Matures: Technology, Science, and Western Colonialism," *Technology and Culture* 38, pp. 478–87.

Adler-Nissen, Rebecca (ed.) (2012). *Bourdieu in International Relations*. London: Routledge.

Aïssani, Djamil, Pauline Romera-Lebret, and Norbert Verdier (2019). "Introduction: Plaidoyer pour une histoire des sciences et des techniques en Algérie au XIXe siècle par la présence polytechnicienne." *Bulletin de la Sabix* 64: 7-27.

Alba, Jean-Baptiste (2017). *Amiral Charles Jaurès, homme de courage et de cœur*. Paris: Panthéon.

Albert, Mathias, Barry Buzan, and Michael Zürn (eds.) (2013). *Bringing Sociology to International Relations: World Politics as Differentiation Theory*. Cambridge: Cambridge University Press.

Albert, Mathias (2016). *A Theory of World Politics*. Cambridge: Cambridge University Press.

Alexander, Jefrey C. (2006). "Cultural Pragmatics: Social Performance between Ritual and Strategy." In Jefrey C. Alexander, Bernhard Giesen and Jason L. Mast (eds.). *Social Performance: Symbolic Action, Cultural Pragmatics, and Ritual*, 29–90. Cambridge: Cambridge University Press.

Algardi, Zara O. (1988). *Luigi Negrelli, l'Europa, il canale di Suez*. Florence: F. Le Monnier.

Allan, Bentley B. (2017). "Producing the climate: States, scientists, and the constitution of global governance objects." *International Organization 71*(1): 131-162.

(2018a). *Scientific Cosmology and International Orders*. Cambridge: Cambridge University Press.

(2018b). "From subjects to objects: Knowledge in International Relations theory." *European Journal of International Relations 24*(4): 841-864.

Anceau, Eric (2008). *Napoléon III: Un Saint-Simon à cheval*. Paris: Tallandier.

Anderson, Matthew S. (1966). *The Eastern Question, 1774-1923: A study in international relations*. London: Macmillan.

Anderson Trapp, Frank (1965). "The Universal Exhibition of 1855." *The Burlington Magazine 107*(747): 300-305.

Arendt, Hannah (1958), *The Human Condition*, 1998 ed. Chicago: Chicago University Press.

Armenteros, Carolina (2011). *The French Idea of History: Joseph de Maistre and His Heirs, 1794–1854*. Ithaca: Cornell University Press.

Armenteros, Carolina, and Richard Lebrun (2011). *Joseph de Maistre and his European Readers: From Friedrich von Gentz to Isaiah Berlin*. Leiden: Brill.

Armitage, David (2004). "The fifty years' rift: intellectual history and international relations." *Modern Intellectual History 1*(1): 97-109.

(2011). "Globalizing Jeremy Bentham." *History of Political Thought 32*(1): 63-82.

(2013). *Foundations of Modern International Thought*. Cambridge: Cambridge University Press.

Auerbach, Jeffrey A. (1999). *The Great Exhibition of 1851: A Nation on Display*. New Haven: Yale University Press.

Auerbach, Jeffrey A. and Peter Hoffenberg (eds.) (2008). *Britain, the Empire, and the World at the Great Exhibition of 1851*. Hampshire: Ashgate.

Austin, John L. (1961). "The Meaning of a Word." Reprinted in *Philosophical Papers*. Oxford: Oxford University Press.

Axelrad Cahan, Jean (2019). "National identity and the limits of constructivism in international relations theory: A case study of the Suez Canal." *Nations and Nationalism 25*(2): 479-498.

Babelon, Jean-Pierre, Myriam Bacha, and Béatrice de Andia (eds.) (2005). *Les expositions universelles à Paris de 1855 à 1937*. Paris: Action artistique de la ville de Paris.

Baele, Stephane J. and Thierry Balzacq (2022). "International rituals: An analytical framework and its theoretical repertoires." *Review of International Studies 48*(1): 1-23.

Bailey, Michael R. (ed.) (2008). *Biographical Dictionary of Civil Engineers in Great Britain and Ireland. Vol. 2: 1830–1890*. London: Thomas Telford.

Balbi, Gabriele and Andreas Fickers (eds.) (2020). *History of the International Telecommunication Union (ITU): Transnational Techno-Diplomacy from the Telegraph to the Internet*. Basel: De Gruyter.

Balbi, Gabriele, Simone Fari, Giuseppe Richeri, and Spartaco Calvo (2014). *Network Neutrality: Switzerland's Role in the Genesis of the Telegraph Union, 1855-1875*. Bern: Peter Lang.

Barnett, Michael, and Martha Finnemore (2004). *Rules for the World*. Ithaca: Cornell University Press.

Basaran, Tugba, and Christian Olsson (2018). "Becoming international: On symbolic capital, conversion and privilege." *Millennium 46*(2): 96-118.

Bayly, Christopher A. (2004). *The Birth of the Modern World, 1780-1914: Global Connections and Comparisons*. Oxford: Blackwell.

Bayly, Martin J. (2016). *Taming the Imperial Imagination*. Cambridge: Cambridge University Press.

Bektas, Yakup (2000). "The Sultan's Messenger: Cultural Constructions of Ottoman Telegraphy, 1847-1880." *Technology and Culture 41*(4): 669-696.

Béland, Daniel, and Mitchell A. Orenstein (2013). "International organizations as policy actors: An ideational approach." *Global Social Policy 13*(2): 125-43.

Belhoste, Bruno, and Konstantinos Chatzis (2007). "From technical corps to technocratic power: French state engineers and their professional and cultural universe in the first half of the 19th century." *History and Technology 23*(3): 209-225.

Bell, Duncan S. A. (2002). "Language, legitimacy, and the project of critique." *Alternatives 27*(3): 327-350.

(2005). "Dissolving Distance: Technology, Space, and Empire in British Political Thought, 1770–1900." *The Journal of Modern History 77*(3): 523-62.

(2007). *Victorian Visions of Global Order: Empire and International Relations in Nineteenth-Century Political Thought*. Cambridge: Cambridge University Press.

(2010). "John Stuart Mill on Colonies." *Political Theory* 38(1): 34-64.

(2016). *Reordering the World*. Princeton: Princeton University Press.

(2018). "Founding the world state: HG Wells on empire and the English-speaking peoples." *International Studies Quarterly 62*(4): 867-79.

Bellet, Michel (2009). "On the utilitarian roots of Saint-Simonism: From Bentham to Saint-Simon." *History of Economic Ideas 17*(2): 41-63.

Bickerton, Christopher J. and Carlo Invernizzi Accetti (2021). *Technopopulism: The New Logic of Democratic Politics*. New York: Oxford University Press.

Bigo, Didier (2011). "Pierre Bourdieu and international relations: Power of practices, practices of power." *International Political Sociology 5*(3): 225-258.

Blanchard, Marcel (1933). "Le journal de Michel Chevalier." *Revue Historique 171*(1): 115-142.

Bonin, Hubert (2010). "Suez and Panama: two canals, two systems, a common geopolitical issue." In ibid., *History of the Suez Canal Company, 1858-2008*. Geneva: Librairie Droz, 293-302.

Bonnet, George Edgar (1951). *Ferdinand de Lesseps: Le Diplomate, le Créateur de Suez*. Paris: Plon.

Bosma, Ulbe (2005). "Het cultuurstelsel en zijn buitenlandse ondernemers: Java tussen oud en nieuw kolonialisme." *Tijdschrift voor Sociale en Economische Geschiedenis 2*(2): 3-28.

Boswell, Christina (2009). *The Political Uses of Expert Knowledge: Immigration Policy and Social Research*. Cambridge: Cambridge University Press.

Bourdieu, Pierre (1977). "Sur le pouvoir symbolique." *Annales. Histoire, Sciences Sociales* 32(3): 405-411.

(1985). "The social space and the genesis of groups." *Social Science Information 24*(2): 195-220.

(1991). *Language and Symbolic Power*. Cambridge: Harvard University Press.

(1993). *The Field of Cultural Production: Essays on Art and Literatur*e. Cambridge: Polity.

Boutros-Ghali, Boutros Y. and Joseph Chlala (1958). *Le Canal de Suez, 1854-1957*. Cairo: Société Égyptienne de Droit International.

Braudel, Fernand (1972). *The Mediterranean and the Mediterranean world in the age of Philip II. Vol. 1*. New York: Harper & Row.

Breckenridge, Carol A. (1989). "The Aesthetics and Politics of Colonial Collecting: India at World's Fairs." *Comparative Studies in Society and History 31*(2): 195–216.

Brennan, Jason (2016). *Against Democracy*. Princeton: Princeton University Press.

Breton, Yves (1991). "Michel Chevalier, 1806-1879: entre le saint-simonisme et le libéralisme." In Yves Breton and Michel Lutfalla (eds.). *L'Économie politique en France au XIXe siècle*. Paris.

Bright, Philip (ed.) (1930). *The Diaries of John Bright*. London: Cassell.

Broome, André and Leonard Seabrooke (2012). "Seeing like an International Organisation." *New Political Economy 17*(1): 1-16.

Broome, André, Alexandra Homolar and Matthias Kranke (2018). "Bad science: International organizations and the indirect power of global benchmarking." *European Journal of International Relations 24*(3): 514-39.

Burleigh, Nina (2007). *Mirage: Napoleon's Scientists and the Unveiling of Egypt*. New York: Harper.

Butrica, Andrew J. (1986). *From inspecteur to ingénieur: telegraphy and the genesis of electrical engineering in France, 1845-1881*. PhD thesis. Ann Arbor: Iowa State University.

Buzan, Barry, and George Lawson (2015). *The Global Transformation: History, Modernity and the Making of International Relations*. Cambridge: Cambridge University Press.

Buzan, Barry, and Mathias Albert (2010). "Differentiation: A sociological approach to international relations theory." *European Journal of International Relations 16*(3): 315-337.

Cabanès, Jean-Louis, and Vincent Laisney (2015). *L'Année 1855. La littérature à l'âge de l'exposition universelle*. Paris: Garnier.

Caillé, Jacques (1951). *Charles Jagerschmidt: Chargé d'Affaires de France au Maroc (1820-1894)*. Paris: Larose.

Cameron, Rondo E. (1953). "The Crédit Mobilier and the economic development of Europe." *Journal of Political Economy 61*(6): 461-488.

Carvalho, Benjamin de, Julia Costa López, and Halvard Leira (eds.) (2021). *Routledge Handbook of Historical International Relations*. London: Routledge.

Cattani, Gino, Simone Ferriani, and Paul D. Allison (2014). "Insiders, outsiders, and the struggle for consecration in cultural fields: A core-periphery perspective." *American Sociological Review 79*(2): 258-281.

Çelik, Zeynep (1992). *Displaying the Orient. Architecture of Islam at Nineteenth-Century World Fairs*. Berkeley: University of California Press.

Cello, Lorenzo (2021). "Jeremy Bentham's vision of international order." *Cambridge Review of International Affairs 34*(1): 1-19.

Chandler Jr., Alfred D. (1977). *The Visible Hand: The Managerial Revolution in American Business*. Cambridge: Harvard University Press.

Chandler, Arthur (1986). "Fanfare for the New Empire: The Paris Exposition Universelle of 1855." *World's Fair 6*(2): 11-16.

Chapman, Anne and Natalie Hume (eds.) (2021). *Coding and Representation from the Nineteenth Century to the Present: Scrambled Messages*. London: Routledge.

Chapuis, Olivier (1999). *A la Mer comme au Ciel: Beautemps-Beaupré et la Naissance de l'Hydrographie Moderne (1700–1850)*. Paris: Presses de l'Université Paris-Sorbonne.

Clavin, Patricia (2013). *Securing the World Economy: The Reinvention of the League of Nations, 1920-1946*. Oxford: Oxford University Press.

Clavin, Patricia and Glenda Sluga (eds.) *Internationalisms: A Twentieth-Century History*. Cambridge: Cambridge University Press.

Clayton, Lawrence A. (1987). "The Nicaragua Canal in the Nineteenth Century: Prelude to American Empire in the Caribbean." *Journal of Latin American Studies 19*(2): 323-352.

Codding, George A. (1995). "The International Telecommunications Union: 130 Years of Telecommunications Regulation." *Denver Journal of International Law and Policy 23*(3): 501-512.

Coilly, Nathalie, and Philippe Régnier (2006). *Le siècle des saint-simoniens: du nouveau christianisme au canal de Suez*. Paris: Bibliothèque Nationale de France.

Cohn, Bernard S. (1996). "The Transformation of Objects into Artifacts, Antiquities, and Art in Nineteenth-Century India." In *Colonialism and Its Forms of Knowledge: The British in India*, New Jersey: Princeton University Press, 76–105.

Colla, Elliott (2007). *Conflicted Antiquities: Egyptology, Egyptomania, Egyptian Modernity*. Durham: Duke University Press.

Collini, Stefan, Donald Winch, and John Burrow (1983). *That Noble Science of Politics: A Study in Nineteenth-Century Intellectual History*. Cambridge: Cambridge University Press.

Collins, Harry and Robert Evans (2017). *Why Democracies Need Science*. London: John Wiley & Sons.

Cooper, Sandi E. (1991). *Patriotic Pacifism: Waging War on War in Europe, 1815-1914*. Oxford: Oxford University Press.

Costa López, Julia (2020). "Political authority in international relations: revisiting the medieval debate." *International Organization 74*(2): 222-252.

Cot, Annie L. (2014). "Jeremy Bentham's Spanish American utopia." In José Luís Cardoso, Maria Cristina Marcuzzo, María Eugenia Romero Sotelo (eds.). *Economic Development and Global Crisis: The Latin American Economy in Historical Perspective*. London: Routledge.

Cox, Robert (1981). "Social Forces, States and World Orders: Beyond International Relations Theory." *Millennium 10*(2): 126-55.

Creyghton, Camille (2018). "Impartiality, Objectivity, and Political Engagement in Nineteenth-Century French Historiography: Monod and the Dreyfus Affair." *History of Humanities 3*(2): 279-302.

Cunningham, Michele (2001). *Mexico and the Foreign Policy of Napoleon III*. Basingstoke: Palgrave.

Curli, Barbara (ed.) (2022). *Italy and the Suez Canal, from the Mid-nineteenth Century to the Cold War: A Mediterranean History*. London: Palgrave Macmillan.

Davies, Hannah C. (2018). *Transatlantic Speculations: Globalization and the Panics of 1873*. New York: Columbia University Press.

Davies, Helen M. (2016). *Emile and Isaac Pereire: Bankers, Socialists and Sephardic Jews in Nineteenth-Century France*. Manchester: Manchester University Press.

Davies, Thomas (2021). "L'International: The World's First International Journal and the Possibilities and Limits of International Studies." *International Studies Perspectives 22*(4): 509-527.

Davis Cross, Mai'a K. (2007). *The European Diplomatic Corps: Diplomats and International Cooperation from Westphalia to Maastricht*. London: Palgrave Macmillan.

(2013). "Rethinking epistemic communities twenty years later." *Review of International Studies 39*(1): 137-60.

Dejung, Christof, David Motadel and Jürgen Osterhammel (eds.) (2019). *The Global Bourgeoisie: The Rise of the Middle Classes in the Age of Empire*. Princeton: Princeton University Press.

Delaporte, Guillemette (1985). "L'Exposition universelle de 1855 à Paris: confrontations de cultures et prises de conscience." *L'Ecrit-voir* 6: 5-10.

Démy, Adolphe (1907). *Essai historique sur les expositions universelles de Paris*. Paris: Picard.

Diesbach, Ghislain de (2009). *Ferdinand de Lesseps*. Paris: Perrin.

Donnelly, Jack (2012). "The differentiation of international societies: An approach to structural international theory." *European Journal of International Relations 18*(1): 151-176.

Drayton, Richard (2000). *Nature's Government: Science, Imperial Britain and the 'Improvement' of the World*. New Haven: Yale University Press.

Drolet, Michael (2008). "Industry, Class and Society: A Historiographic Reinterpretation of Michel Chevalier." *English Historical Review 123*(504): 1229-1271.

(2015). "A nineteenth-century Mediterranean union: Michel Chevalier's *Système de la Méditerranée*." *Mediterranean Historical Review 30*(2): 147-168.

(2018a). "Nature, Science and the Environment in Nineteenth-Century French Political Economy: the case of Michel Chevalier (1805-1879)." *Modern Intellectual History 15*(3): 711-745.

(2018b). "Michel Chevalier: Visionary of Modern Europe?" *Books & Ideas*, Paris: Collège de France. Accessed 31 August 2020 at https://booksandideas.net/Michel-Chevalier-Visionary-of-Modern-Europe.html.

Duroselle, Jean-Baptiste (1956). "Michel Chevalier saint-simonien." *Revue Historique 215*(2): 233-266.

Eckardt, Hans Wilhelm (1984). "Hamburg und die Weltausstellung in Paris 1855." *Zeitschrift des Vereins für Hamburgische Geschichte* 70: 179-206.

Ecker-Ehrhardt, Matthias (2012). "Cosmopolitan politicization: How perceptions of interdependence foster citizens' expectations in international institutions." *European Journal of International Relations 18*(3): 481-508.

Edgar-Bonnet, George (1951). *Ferdinand de Lesseps, vol. 1: Le Diplomate, le créateur de Suez*. Paris: Plon.

Einaudi, Luca (2001). *Money and Politics: European Monetary Unification and the International Gold Standard (1865-1873)*. Oxford: Oxford University Press.

Emerit, Marcel (1941). *Les Saint-Simoniens en Algérie*. Paris: Les Belles Lettres.

Engelmann, Stephen G. (2008). "Mill, Bentham, and the Art and Science of Government." *Revue d'Études Benthamiennes* 4: 1-24.

Fay, Charles Ryle (1951). *Palace of Industry, 1851: A Study of the Great Exhibition and its Fruits*. Cambridge: Cambridge University Press.

Figeac, Jean-François (2012). "La géopolitique orientale des saint-simoniens." *Cahiers de la Méditerranée* (85): 251-268.

Frankel, Oz (1999). "Scenes of commission: Royal commissions of inquiry and the culture of social investigation in early Victorian Britain." *The European Legacy 4*(6): 20-41.

Friedman, Jeffrey (2019). *Power Without Knowledge: A Critique of Technocracy*. Oxford: Oxford University Press.

Foucault, Michel (1991 [1977]). *Discipline and Punish: The Birth of the Prison*. London: Penguin.

Gallagher, John, and Ronald Robinson (1953). "The imperialism of free trade." *The Economic History Review 6*(1): 1-15.

Getachew, Adom (2019). *Worldmaking After Empire: The Rise and Fall of Self-Determination*. Princeton: Princeton University Press.

Geyer, Martin H. and Johannes Paulmann (2001). *The Mechanics of Internationalism*. Oxford: Oxford University Press.

Godfrey, Helen (2018). *Submarine Telegraphy and the Hunt for Gutta Percha: Challenge and Opportunity in a Global Trade*. Leiden: Brill.

Goodman, Nelson (1978). *Ways of Worldmaking*. Indianapolis: Hackett.

Gök, Gonca Oğuz and Hakan Mehmetcik (eds.) (2021). *The Crises of Legitimacy in Global Governance*. London: Routledge.

Gollwitzer, Heinz (1972-82). *Geschichte des weltpolitischen Denkens*. 2 vols. Göttingen: Vandenhoeck & Ruprecht.

Greenhalgh, Paul (1988). *Ephemeral Vistas: a history of the Expositions Universelles, great exhibitions and world's fairs, 1851–1939*. Manchester: Manchester University Press.

Guérard, Albert (1943). *Napoleon III*. Cambridge: Harvard University Press.

Haas, Peter M. (1992). "Introduction: epistemic communities and international policy coordination." *International Organization 46*(1): 1-35.

(2004). "When Does Power Listen to Truth? A Constructivist Approach to the Policy Process." *Journal of European Public Policy 11*(4): 569–92.

(2014). "Ideas, experts and governance." In Ambrus, Monika, Karin Arts, Ellen Hey, and Helena Raulus (eds.). *The Role of 'Experts' in International and European Decision-Making Processes: Advisors, Decision Makers or Irrelevant Actors?* Cambridge: Cambridge University Press.

Hacking, Ian (1999). *The Social Construction of What?* Cambridge: Harvard University Press.

Haines, Barbara (1978). "The Inter-Relations between Social, Biological, and Medical Thought, 1750-1850: Saint-Simon and Comte." *The British Journal for the History of Science 11*(1): 19-35.

Hall, Stephen (2001). "The persistent spectre: natural law, international order and the limits of legal positivism." *European Journal of International Law 12*(2): 269-307.

Haraway, Donna (1991). *Simians, Cyborgs, and Women: The Reinvention of Nature*. 2013 ed. London: Routledge.

Harcourt, Freda (2006). *Flagships of Imperialism: The P&O Company and the Politics of Empire from its Origins to 1867*. Manchester: Manchester University Press.

Harrison, Robert T. (1995). *Gladstone's Imperialism in Egypt: Techniques of Domination*. Westport: Greenwood.

Harvey, David (2005). *The New Imperialism*. Oxford: Oxford University Press.

Hayek, Friedrich A. (1952). *The Counter-Revolution of Science: Studies on the Abuse of Reason*. Glencoe: Free Press.

Hazareesingh, Sudhir (2000). "A Saint-Simonian in the Republic: Eugène Pelletan and the ideological transformation of nineteenth-century French republicanism." *Journal of Political Ideologies 5*(1): 55-79.

(2001). *Intellectual Founders of the Republic: Five Studies in Nineteenth-Century French Political Thought*. Oxford: Oxford University Press.

(2004). *The Saint-Napoleon*. Cambridge: Harvard University Press.

(2014). *From Subject to Citizen: The Second Empire and the Emergence of Modern French Democracy*. Princeton: Princeton University Press.

Headrick, Daniel R. (1981). *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*. Oxford: Oxford University Press.

(1988). *The Tentacles of Progress: Technology Transfer in the Age of Imperialism, 1850-1940*. Oxford: Oxford University Press.

Heiskanen, Jaakko (2021). "Found in translation: the global constitution of the modern international order." *International Theory 13*(2): 231-259.

Herrera, Geoffrey L. (2003). "Technology and International Systems." *Millennium: Journal of International Studies 32*(3): 559-593.

Herrera, Jose Maria (2018). "The Rise and Fall of a Speculative Bubble: Geostrategic Concerns, Public Debate and the Promotion of an American Trans-Oceanic Canal in the 1820s." *American Nineteenth Century History 19*(2): 131-158.

Heyting, W. (1970). "Saint-Simonisme in Nederland 1830-1840: G. Fr. J. van den Bergh en G. W. van der Voo". *Low Countries Historical Review 85*(3): 315-336.

Hobhouse, Christopher (1937). *1851 and the Crystal Palace*. London: John Murray.

Hobsbawm, Eric (1962). *The Age of Revolution: Europe, 1789-1848*. London: Weidenfeld & Nicolson.

Hodge, Joseph Morgan (2007). *Triumph of the Expert: Agrarian Doctrines of Development and the Legacies of British Colonialism*. Athens: Ohio University Press.

Hoffenberg, Peter H. (2001). *An Empire on Display: English, Indian, and Australasian Exhibitions from the Crystal Palace to the Great War*. Berkeley: University of California Press.

Hoffmann, Alvina (2021). *Human rights struggles in a transnational field of power: tracing transversal lines between UN special rapporteurs, spokespersons of Crimean Tatars and the Sámi people*. PhD thesis, London: King's College.

Hoffmann, Stefan-Ludwig (2003). "Democracy and associations in the long nineteenth century: Toward a transnational perspective." *The Journal of Modern History* 75(2): 269-299.

Howland, Douglas (2015). "An alternative mode of international order: The international administrative union in the nineteenth century." *Review of International Studies 41*(1): 161-83.

Huber, Valeska (2006) "The unification of the globe by disease? The international sanitary conferences on cholera, 1851–1894." *The Historical Journal 49*(2): 453-76.

(2012). "Connecting colonial seas: the 'international colonisation' of Port Said and the Suez Canal during and after the First World War." *European Review of History 19*(1): 141-61.

(2013). *Channelling Mobilities: Migration and Globalisation in the Suez Canal Region and Beyond, 1869-1914*. Cambridge: Cambridge University Press.

Hughes, Thomas P. (1979). "The Electrification of America: The System Builders." *Technology and Culture 20*(1): 124-161.

Humbert, Jean-Marcel (1975). *L'Égyptomanie à Paris, 1775–1825*. Doctoral thesis, Université Paris-Sorbonne.

(1984). "Actualité de l'Égyptomanie." *Revue de l'Histoire des Religions 201*(1): 106-108.

Hurrell, Andrew (2007). *On Global Order: Power, Values, and the Constitution of International Society*. Oxford: Oxford University Press.

Ince, Onur Ulas (2018). *Colonial capitalism and the dilemmas of liberalism*. Oxford: Oxford University Press.

Inkster, Ian (1983). "Introduction: Aspects of the History of Science and Science Culture in Britain, 1780 – 1850 and Beyond." In Ian Inkster and Jack Morrell (eds.), *Metropolis and Province: Science in British Culture, 1780 –1850*, London: Hutchinson, 11-54.

Isabella, Maurizio (2009). *Risorgimento in Exile: Italian Émigrés and the Liberal International in the post-Napoleonic Era*. Oxford: Oxford University Press.

Isay, Raymond (1937). *Panorama des Expositions Universelles*. Paris: Gallimard.

Jakes, Aaron G. (2020). *Egypt's Occupation: Colonial Economism and the Crises of Capitalism*. Palo Alto: Stanford University Press.

Janis, Mark W. (1984). "Jeremy Bentham and the Fashioning of 'International Law'." *The American Journal of International Law 78*(2): 405-418.

Jasanoff, Sheila (1990). *The Fifth Branch: Science Advisers as Policymakers*. Cambridge: Harvard University Press.

(ed.) (2004). *States of Knowledge: The Co-Production of Science and Social Order*. London: Routledge.

(ed.) (2015). *Dreamscapes of Modernity: Sociotechnical Imaginaries and the Fabrication of Power*. Chicago: Chicago University Press.

Jennings, Jeremy (2006). "Democracy before Tocqueville: Michel Chevalier's America." *The Review of Politics, 68*: 398-427.

Jocelyn, Albert H. (1856). "Government map of Nicaragua: from the latest surveys ordered by President Patricio Rivas and Genl. William Walker; executed under the supervision of the Señor Fermín Ferrer, Governor of the Western Department." New York: A.H. Jocelyn. From: *Item G4850 1856 .G6*, Library of Congress Geography and Map Division, Washington, D.C.

Jupille, Joseph Henri, Walter Mattli, and Duncan Snidal (2013). *Institutional Choice and Global Commerce*. Cambridge: Cambridge University Press.

Kahlert, Torsten (2019). "Pioneers in international administration: a prosopography of the directors of the League of Nations secretariat." *New Global Studies 13*(2): 190-227.

Kaiser, Wolfram, and Johan W. Schot (2014). *Writing the Rules for Europe: Experts, Cartels and International Organizations*. New York: Palgrave Macmillan.

Karabell, Zachary (2003). *Parting the Desert: The Creation of the Suez Canal*. New York City: Knopf.

Kauppi, Niilo, and Mikael R. Madsen (2014). "Fields of global governance: how transnational power elites can make global governance intelligible." *International Political Sociology 8*(3): 324-330.

Keene, Edward (2002). *Beyond the Anarchical Society: Grotius, Colonialism and Order in World Politics*. Cambridge: Cambridge University Press.

(2007). "A case study of the construction of international hierarchy: British treaty-making against the slave trade in the early nineteenth century." *International Organization 61*(2): 311-339.

(2013a). "Social status, social closure and the idea of Europe as a 'normative power'." *European Journal of International Relations 19*(4): 939-956.

(2013b). "The naming of powers." *Cooperation and Conflict 48*(2): 268-282.

(2013c). "International hierarchy and the origins of the modern practice of intervention." *Review of International Studies 39*(5): 1077-1090.

(2014). "Where should we look for modern international thought?" In: Hutchings, Kimberly, Jens Bartelson, Edward Keene, Lea Ypi, Helen M. Kinsella, and David Armitage (2014). "Critical Exchange: Foundations of modern international theory." *Contemporary Political Theory 13*(4): 397-402.

(2017). "International intellectual history and International Relations: contexts, canons and mediocrities." *International Relations* 31(3): 341-356.

Kennedy, David (2016). *A World of Struggle: How Power, Law, and Expertise Shape Global Political Economy*. Princeton: Princeton University Press.

Kennedy, Paul M. (1971). "Imperial cable communications and strategy, 1870-1914." *The English Historical Review 86*(341): 728-752.

Kessler, Oliver (2012). "World society, social differentiation and time." *International Political Sociology 6*(1): 77-94.

Khalili, Laleh (2021). *Sinews of War and Trade: Shipping and Capitalism in the Arabian Peninsula*. London: Verso.

Koolman, Gary (1971). "Say's Conception of the Role of the Entrepreneur." *Economica 38*(151): 269-286.

Koremenos, Barbara, Charles Lipson, and Duncan Snidal (2001). "The rational design of international institutions." *International Organization 55*(4): 761-99.

Koskenniemi, Martti (2001). *The Gentle Civilizer of Nations: The Rise and Fall of International Law 1870–1960*. Cambridge: Cambridge University Press.

(2006 [1989]). *From Apology to Utopia: The Structure of International Legal Argument*. Cambridge: Cambridge University Press.

Kramarz, Teresa, and Bessma Momani (2013). "The World Bank as Knowledge Bank: Analyzing the Limits of a Legitimate Global Knowledge Actor." *Review of Policy Research 30*(4): 409-31.

Kranke, Mathias (2022). "Exclusive expertise: the boundary work of international organizations." *Review of International Political Economy 29*(2): 453-476.

Krasner, Stephen D. (ed.) (1983). *International Regimes*. Ithaca: Cornell University Press.

Kunz, Rahel, Elisabeth Prügl, and Hayley Thompson (2019). "Gender expertise in global governance: Contesting the boundaries of a field." *European Journal of Politics and Gender 2*(1): 23-40.

Kustermans, Jorg, and Rikkert Horemans (2022). "Four conceptions of authority in International Relations." *International Organization 76*(1): 204-228.

Kustermans, Jorg, Ted Svensson, Julia Costa López, Tracey Blasenheim, and Alvina Hoffmann (2022). "Ritual and authority in world politics." *Cambridge Review of International Affairs 35*(1): 2-30.

Latour, Bruno (1987). *Science in Action: How to Follow Scientists and Engineers Through Society*. Cambridge: Harvard University Press.

Lauren, Paul Gordon (1976). *Diplomats and Bureaucrats: The First Institutional Responses to Twentieth-Century Diplomacy in France and Germany*. Stanford: Hoover Institution Press.

Leary, David E. (1982). "The fate and influence of John Stuart Mill's proposed science of ethology." *Journal of the History of Ideas 43*(1): 153-62.

Lees, Nicholas (2012). "The dimensions of the divide: vertical differentiation, international inequality and North–South stratification in international relations theory." *Cambridge Review of International Affairs 25*(2): 209-30.

Leira, Halvard (2019). "The emergence of foreign policy." *International Studies Quarterly* 63(1): 187-98.

Lintsen, H. W. (1993). *Geschiedenis van de techniek in Nederland*. Vol. 4, Zutphen: Walburg Pers.

Littoz-Monnet, Annabelle (2017). *The Politics of Expertise in International Organizations*. London: Routledge.

Long, David and Brian C. Schmidt (eds). (2005). *Imperialism and Internationalism in the Discipline of International Relations*. Albany: State University of New York Press.

Louis, Marieke and Lucile Maertens (2021). *Why International Organizations Hate Politics: Depoliticizing the World*. London: Routledge.

Maasen, Sabine and Peter Weingart (eds.) (2005). *Democratization of Expertise? Exploring Novel Forms of Scientific Advice in Political Decision-Making*. Berlin: Springer.

Macfie, Alexander L. (2014). *The Eastern Question 1774-1923*. London: Routledge.

MacKenzie, John M. (1983). *The Partition of Africa*. London: Routledge.

Mainardi, Patricia (1987). *Art and Politics of the Second Empire: The Universal Expositions of 1855 and 1867*. New Haven: Yale University Press.

Majluf, Natalia (1997). "'Ce-n'est-pas-le-Perou' or the Failure of Authenticity: Marginal Cosmopolitans at the Paris Universal Exhibition of 1855." *Critical Inquiry 23*(4): 868-893.

Mälksoo, Maria (2020). "A ritual approach to deterrence: I am, therefore I deter." *European Journal of International Relations 27*(1): 53-78.

Malverti, Xavier, and Aleth Picard (1991). "Algeria: Military genius and civic design (1830–70)." *Planning Perspective 6*(2): 207-234.

Marjanen, Jani, and Ruben Ros (2022). "International: From Legal to Civic Discourse and beyond in the Nineteenth Century." In Pasi Ihalainen and Antero Holmila (eds). *Nationalism and Internationalism Intertwined: A European History of Concepts Beyond the Nation State*. New York: Berghahn, 60-85.

Marlowe, John (1971). *Perfidious Albion: The Origins of Anglo-French Rivalry in the Levant*. London: Elek.

Marsden, Ben, and Crosbie Smith (2004). *Engineering Empires: A Cultural History of Technology in Nineteenth-Century Britain*. Berlin: Springer.

Martin, Jamie (2022). *The Meddlers: Sovereignty, Empire, and the Birth of Global Economic Governance*. Cambridge: Harvard University Press.

Martin, Lisa L. and Beth A. Simmons (1998). "Theories and empirical studies of international institutions." *International Organization 52*(4): 729-57.

Martin, Shane, and Tim A. Mickler (2019). "Committee assignments: Theories, causes and consequences." *Parliamentary Affairs 72*(1): 77-98.

Mazower, Mark (2012). *Governing the World: The History of an Idea*. London: Penguin.

McClintock, Anne (1995). *Imperial Leather: Race, Gender and Sexuality in the Colonial Contest*. New York: Routledge.

Ménard, Elton (2014). *Ménilmontant to Montplaisir: A Study of Michel Chevalier and Saint-Simonism*. Doctoral thesis, Mount Saint Vincent University.

Meyer, William B. (2016). *The Progressive Environmental Prometheans*. London: Palgrave Macmillan.

Miège, Jean-Louis (1985). "Algiers: Colonial Metropolis (1830–1961)." In Ross, Robert J. and Gerard J. Telkamp (eds.). *Colonial Cities*. Dordrecht: Springer, 171-179.

Milza, Pierre (2006). *Napoléon III*. Paris: Tempus.

Mishra, Pankaj (2017). *Age of Anger*. London: Penguin.

Mitchell, Timothy (1989). "The World as Exhibition." *Comparative Studies in Society and History* 31: 217–36.

(2002). *Rule of Experts: Egypt, Techno-Politics, Modernity*. Berkeley: University of California Press.

Mitzen, Jennifer (2013). *Power in Concert: The Nineteenth-Century Origins of Global Governance*. Chicago: Chicago University Press.

Montel, Nathalie (1998). *Le Chantier du Canal de Suez (1859-1869): Une Histoire des Pratiques Techniques*. Paris: Presses des Ponts et Chaussées.

Morefield, Jeanne (2005). *Covenants Without Swords: Idealist Liberalism and the Spirit of Empire*. Princeton: Princeton University Press.

(2014). *Empires Without Imperialism: Anglo-American Decline and the Politic of Deflection*. Oxford: Oxford University Press.

(2017). "Urgent History: The Sovereignty Debates and Political Theory's Lost Voices." *Political Theory 45*(2): 164-91.

Morsy, Magali (ed.) (1989). *Les Saint-simoniens et l'orient: vers la modernité*. Aix-en-Provence: Edisud.

Morus, Iwan Rhys (2000). "'The nervous system of Britain': space, time and the electric telegraph in the Victorian age." *The British Journal for the History of Science 33*(4): 455-75.

Muirhead, Russell (2014). *The Promise of Party in a Polarized Age*. Cambridge: Harvard University Press.

Müller, Simone M. (2016a). *Wiring the World: The Social and Cultural Creation of Global Telegraph Networks*. New York: Columbia University Press.

(2016b). "From Cabling the Atlantic to Wiring the World: A Review Essay on the 150th Anniversary of the Atlantic Telegraph Cable of 1866." *Technology and Culture 57*(3): 507-26.

Müller, Simone M. and Heidi J. S. Tworek (2016). "Imagined use as a category of analysis: new approaches to the history of technology." *History and Technology 32*(6): 105-19.

Murphy, Craig N. (1994). *International Organization and Industrial Change: Global Governance since 1850*. Cambridge: Polity.

(2000). "Global Governance: Poorly Done and Poorly Understood." *International Affairs 76*(4): 789-803.

(2014). "Global governance over the long haul." *International Studies Quarterly 58*(1): 216-218.

Murphy, Margueritte (2010). "Becoming Cosmopolitan: Viewing and Reviewing the 1855 Exposition Universelle in Paris." *Nineteenth-Century Contexts 32*(1): 31-46.

(2012). *Material Figures: Political Economy, Commercial Culture, and the Aesthetic Sensibility of Charles Baudelaire*. Leiden: Brill.

Murphy, Michael P. (2011). *Envisioning Romantic Political Economy: The Formative Years of Michel Chevalier (1806-1879)*. Doctoral thesis, University of California: Santa Cruz.

Musso, Pierre (2006). *La religion du monde industriel*. Paris: L'Aube.

(ed.) (2008). *Le Saint-Simonisme, L'Europe et la Méditerranée*. Paris: Houilles.

Naylor, Tristen (2018). *Social Closure and International Society: Status Groups from the Family of Civilised Nations to the G20*. London: Routledge.

(2022). "Social closure and the reproduction of stratified international order." *International Relations 36*(1): 23-39.

Nexon, Daniel H. (2009). *The Struggle for Power in Early Modern Europe*. Princeton: Princeton University Press.

Orford, Ann (2011). *International Authority and the Responsibility to Protect*. Cambridge: Cambridge University Press.

Osterhammel, Jürgen (2009). *Die Verwandlung der Welt: Eine Geschichte des 19. Jahrhunderts*. Munich: C.H. Beck.

Owens, Patricia (2015). *Economy of Force: Counterinsurgency and the Historical Rise of the Social*. Cambridge: Cambridge University Press.

Owens, Patricia and Katharina Rietzler (eds.) (2021). *Women's International Thought: A New History*. Cambridge: Cambridge University Press.

Pamuk, Zeynep (2021). *Politics and Expertise: How to use Science in a Democratic Society*. Princeton: Princeton University Press.

Payk, Marcus M. and Kim Christian Priemel (eds.) (2021). *Crafting the International Order: Practitioners and Practices of International Law Since c. 1800*. Oxford: Oxford University Press.

Pedersen, Susan (2015). *The Guardians: The League of Nations and the Crisis of Empire*. Oxford: Oxford University Press.

Peevers, Charlotte (2018). "Liberal Internationalism, Radical Transformation and the Making of World Orders." *European Journal of International Law* 29(1): 303-22.

Peters, Tom F. (1996). *Building the Nineteenth Century*. Cambridge: MIT Press.

Phillips, Andrew and Jason C. Sharman (2020). *Outsourcing Empire: How Company-States Made the Modern World*. Princeton: Princeton University Press.

Picon, Antoine (2004). "Engineers and engineering history: Problems and perspectives." *History and Technology 20*(4): 421-436.

(2007). "French engineers and social thought, 18–20th centuries: An archeology of technocratic ideals." *History and Technology 23*(3): 197-208.

(2017). "Universal Expositions, Utopias, and Architecture." In Martin Bressani and Christina Contandriopoulos (eds.), *Companion to the History of Architecture*, vol. 3, Oxford: John Wiley & Sons, 346-62.

Pilbeam, Pamela M. (2014). *Saint-Simonians in Nineteenth-Century France: From Free Love to Algeria*. London: Springer.

Piquet, Caroline (2002). "La Compagnie universelle du canal maritime de Suez en Égypte: concession rime-t-elle avec colonisation ou modernisation?" *Entreprises et Histoire* 4: 38-53.

(2007). "An international company in Egypt: Suez, 1856-1956." *European Business History Association*, draft paper, Frankfurt: EBHA.

Pitts, Jennifer (2003). "Legislator of the world? A rereading of Bentham on colonies." *Political Theory 31*(2): 200-234.

(2005). *A Turn to Empire: The Rise of Imperial Liberalism in Britain and France*. Princeton: Princeton University Press.

Plum, Werner (1975). *Weltausstellungen im 19. Jahrhundert: Schauspiele des sozio-kulturellen Wandels*. Bonn: Friedrich-Ebert-Stiftung.

Pointon, Marcia (1981). "'From the Midst of Warfare and its Incidents to the Peaceful Scenes of Home': The Exposition Universelle of 1855." *Journal of European Studies 11*(4): 233-261.

Poisson, Georges (2005). "1855: France's First International Exhibition." *Revue du Souvenir Napoléonien* 457.

Porter, Theodore M. (1996). *Trust in Numbers*. Princeton: Princeton University Press.

(2004). *Karl Pearson: The Scientific Life in a Statistical Age*. Princeton: Princeton University Press.

Pouliot, Vincent (2016). *International Pecking Orders: The Politics and Practice of Multilateral Diplomacy*. Cambridge: Cambridge University Press.

(2021). "Global governance in the age of epistemic authority." *International Theory 13*(1): 144-56.

Price, Roger (2001). *The French Second Empire: An Anatomy of Political Power*. Cambridge: Cambridge University Press.

Ravndal, Ellen Jenny (2020). "Colonies, semi-sovereigns, and great powers: IGO membership debates and the transition of the international system." *Review of International Studies 46*(2): 278-98.

Reedy, W. Jay (1994). "The historical imaginary of social science in post-Revolutionary France: Bonald, Saint-Simon, Comte." *History of the Human Sciences 7*(1): 1-26.

Reinalda, Bob (2009). *Routledge History of International Organizations: From 1815 to the Present Day*. London: Routledge.

Reindl, Josef (1993). *Der Deutsch-Österreichische Telegraphenverein und die Entwicklung des Deutschen Telegraphenwesens 1850–1871*. Frankfurt am Main: Peter Lang.

Régnier, Philippe (ed.) (2002). *Études Saint-Simoniennes*. Lyon: Presses Universitaires.

Ringmar, Erik (1992). "The Ritual/Performance Problem in Foreign Policy Analysis: European Diplomats at the Chinese Court." *International Studies Quarterly 36*(3): 245-270.

Roberts, Steven (2012). "Distant Writing: A History of the Telegraph Companies in Britain between 1838 and 1868." 1860 map of European telegraphs; originally from Francis Young (1860). *The Telegraphs of Europe*. London: Electric & International Telegraph Company.

Rosenberg, Emily S. (ed.) (2012). *A World Connecting*. Cambridge: Harvard University Press.

Rosenberg, Justin (1994). "The International Imagination: IR Theory and 'Classic Social Analysis'." *Millennium 23*(1): 85-108.

Rossier, Thierry (2019). "Prosopography, networks, life course sequences, and so on. Quantifying with or beyond Bourdieu?" *Bulletin of Sociological Methodology 144*(1): 6-39.

Roth, Ralf and Günter Dinhobl (eds.) (2008). *Across the Borders: Financing the World's Railways in the Nineteenth and Twentieth Centuries*. London: Ashgate.

Sánchez Hormigo, Alfonso (2004). "Économie politique et romantisme: la pensée saint-simonienne en Espagne." In Musso (ed.). *L'Actualité du Saint-Simonisme*. Paris: Presses Universitaires de France.

Savoye, Antoine and Frédéric Audren (2008). *Frédéric LePlay et ses élèves. Naissance de l'ingénieur social*. Paris: Presses de l'École des Mines.

Schaffer, Simon, Lissa Roberts, Kapil Raj, and James Delbourgo (2009). *The Brokered World: Go-betweens and Global Intelligence, 1770-1820*. Sagamore Beach: Science History Publications.

Scham, Sandra A. (2013). "The making and unmaking of European Cairo." *Journal of Eastern Mediterranean Archaeology and Heritage Studies 1*(4): 313-318.

Schefer, Christian (1939). *La Grande pensée de Napoléon III: les origines de l'expédition du Mexique (1858-1862)*. Paris: Rivière.

Schenk, Joep (2021). *The Rhine and European Security in the Long Nineteenth Century: Making Lifelines from Frontlines*. London: Routledge.

Schmitt, Stéphane (2009). "From Physiology to Classification: Comparative Anatomy and Vicq d'Azyr's Plan of Reform for Life Sciences and Medicine (1774–1794)." *Science in Context 22*(2): 145-193.

Schofield, Philip (2006). *Utility and Democracy: The Political Thought of Jeremy Bentham*. Oxford: Oxford University Press.

Schot, Johan, Hans Buiter, and Irene Anastasiadou (2011). "The dynamics of transnational railway governance in Europe during the long nineteenth century." *History and Technology 27*(3): 265-289.

Schroeder-Gudehus, Brigitte and Anne Rasmussen (1992). *Les Fastes du Progres: Le guide des Expositions universelles, 1851– 1992*. Paris: Flammarion.

Schultz, Bart, and Georgios Varouxakis, (eds.) (2005). *Utilitarianism and Empire*. London: Lexington.

Schützenhofer, Viktor (1949). "Alois Negrelli, sein Leben und sein Werk." *Blätter für Technikgeschichte*: 36-54.

Sending, Ole Jacob (2015). *The Politics of Expertise: Competing for Authority in Global Governance*. Ann Arbor: University of Michigan Press.

Shears, Jonathon (ed.) (2017). *The Great Exhibition, 1851: A Sourcebook*. Manchester: Manchester University Press.

Skempton, Sir Alec (ed.) (2002). *A Biographical Dictionary of Civil Engineers in Great Britain and Ireland. Volume 1: 1500-1830*. London: Thomas Telford.

Slobodian, Quinn (2018). *Globalists*. Cambridge: Harvard University Press.

Sluga, Glenda (2013). *Internationalism in the Age of Nationalism*. Philadelphia: University of Pennsylvania Press.

(2015). "Turning international: Foundations of modern international thought and new paradigms for intellectual history." *History of European Ideas* 41(1): 103-115.

(2021). *The Invention of International Order*. Princeton: Princeton University Press.

Solé, Robert (1997). *L'Égypte, Passion Française*. Paris: Le Seuil.

Steffek, Jens (2021). *International Organization as Technocratic Utopia*. Oxford: Oxford University Press.

Steiner, Philippe (1998). "Production, répartition, et passion de l'égalité: l'économie politique de Michel Chevalier." *Revue Européenne des Sciences Sociales 36*(110): 97-119.

Steinmetz, George (2007). *The Devil's Handwriting: Precoloniality and the German Colonial State in Qingdao, Samoa, and Southwest Africa*. Chicago: Chicago University Press.

Suganami, Hidemi (1978). "A Note on the Origin of the Word 'International'." *Review of International Studies 4*(3): 226-232.

Swedberg, Richard (1994). "Saint-Simon's vision of a united Europe." *Archives Européennes de Sociologie/ European Journal of Sociology 35*(1): 145-169.

Taboulet, Georges (1968). "Aux origines du canal de Suez. Le conflit entre F. de Lesseps et les Saint-Simoniens." *Revue Historique 240*(1): 89-114.

Taillemite, Etienne (2004). "Un amiral-ministre polytechnicien, Rigault de Genouilly." *Bulletin de la Sabix*, 35: 5-20.

Tallberg, Jonas, Karin Bäckstrand, and Jan Aart Scholte (eds.) (2018). *Legitimacy in Global Governance: Sources, Processes, and Consequences*. Oxford: Oxford University Press.

Thomson, David (1990). *Europe Since Napoleon*. London: Penguin.

Thomson, R. Stanley (1940). "The Diplomacy of Imperialism: France and Spain in Cochin China, 1858-63." *The Journal of Modern History 12*(3): 334-356.

Todd, David (2011). "A French imperial meridian, 1814–1870." *Past and Present 210*(1): 155-186.

(2015). "Transnational projects of empire in France, c. 1815-c. 1870." *Modern Intellectual History 12*(2): 265-293.

(2021). *A Velvet Empire: French Informal Imperialism in the Nineteenth Century*. Princeton: Princeton University Press.

Tooze, J. Adam. (2001). *Statistics and the German State, 1900-1945: The Making of Modern Economic Knowledge*. Cambridge: Cambridge University Press.

Tully, James (ed.) (1988). *Meaning and Context: Quentin Skinner and his Critics*. Princeton: Princeton University Press.

(2008). *Public Philosophy in a New Key*. 2 vols. Cambridge: Cambridge University Press.

Tully, John (2009). "A Victorian ecological disaster: Imperialism, the telegraph, and gutta-percha." *Journal of World History 20*(4): 559-579.

Tzouvala, Ntina (2020). *Capitalism as Civilisation: A History of International Law*. Cambridge: Cambridge University Press.

Van der Pijl, Kees (1984). *The Making of an Atlantic Ruling Class*. London: Verso.

Varouxakis, Georgios (2013). *Liberty Abroad: J. S. Mill on International Relations*. Cambridge: Cambridge University Press.

(2019). "The Godfather of "Occidentality": Auguste Comte and the Idea of "The West"." *Modern Intellectual History* 16(2): 411-441.

Veldink, J. G. (1970). *W. C. H. Staring, 1808-1877, geoloog en landbouwkundige*. PhD thesis, Wageningen: Landbouwpublicaties.

Vergerio, Claire (2019). "Context, reception, and the study of great thinkers in international relations." *International Theory 11*(1): 110-137.

Villumsen Berling Trine and Christian Bueger (eds.) (2015). *Security Expertise: Practice, Power, Responsibility*. London: Routledge.

Walch, Jean (1970). "Michel Chevalier et la puissance productive du travail." *Économies et Sociétés 4*(66): 1155-1171.

(1975). *Michel Chevalier économiste saint-simonien, 1806-1879*. Paris: Librairie Philosophique J. Vrin.

Wallenius, Tomas (2019). "The case for a history of global legal practices." *European Journal of International Relations 25*(1): 108-30.

Wallerstein, Immanuel (1995). *Historical Capitalism* with *Capitalist Civilization*. London: Verso.

Waltz, Kenneth N. (1979). *Theory of International Politics*. New York: McGraw-Hill.

Watanabe-O'Kelly, Helen (2021). *Projecting Imperial Power: New Nineteenth Century Emperors and the Public Sphere*. Oxford: Oxford University Press.

Welch, Cheryl B. (2011). "Social science from the French Revolution to positivism." In Gareth Stedman Jones and Gregory Claeys (eds.). *The Cambridge History of Nineteenth-Century Political Thought*. Cambridge: Cambridge University Press, 171-199.

Wells, H. G. (1938). *World Brain*. Garden City: Doubleday, Duran & Co.

Wesemael, Pieter van (2001). *Architecture of Instruction and Delight: A Socio-historical Analysis of World Exhibitions as a Didactic Phenomenon (1798–1851–1970)*. Rotterdam: 010.

Whatmore, Richard (2000). *Republicanism and the French Revolution: An Intellectual History of Jean-Baptiste Say's Political Economy*. Oxford: Oxford University Press.

White, Alexandre I. R. (forthcoming in 2023). *Epidemic Orientalism: Race, Capital, and the Governance of Infectious Disease*. Palo Alto: Stanford University Press.

Wielenga, Friso (2012). *Geschiedenis van Nederland: Van de Opstand tot heden*. Amsterdam: Boom.

Wilentz, Sean (ed.) (1999). *Rites of Power: Symbolism, Ritual and Politics since the Middle Ages*. Philadelphia: University of Pennsylvania Press.

Williford, Miriam (1970). "Utilitarian Design for the New World: Bentham's Plan for a Nicaraguan Canal." *The Americas 27*(1): 75-85.

Wilson, Arnold T. (1939). *The Suez Canal: Its Past, Present, and Future*. Oxford: Oxford University Press.

Wilson, Bee (2011). "Counter-revolutionary thought." In: Gareth Stedman Jones and Gregory Claeys (eds.). *The Cambridge History of Nineteenth-Century Political Thought*. Cambridge: Cambridge University Press, 9-38.

Wright, Alex (2014). *Cataloging the World: Paul Otlet and the Birth of the Information Age*. New York: Oxford University Press.

Yao, Joanne (2019). "'Conquest from barbarism': The Danube Commission, international order and the control of nature as a Standard of Civilization." *European Journal of International Relations 25*(2): 335-359.

Yates, JoAnne and Craig N. Murphy (2019). *Engineering Rules: Global Standard Setting Since 1880*. Baltimore: Johns Hopkins University Press.

Zarakol, Ayşe (ed.) (2017). *Hierarchies in World Politics*. Cambridge: Cambridge University Press.

Zimmer, Oliver (2013). *A Contested Nation: History, Memory and Nationalism in Switzerland, 1761-1891*. Cambridge: Cambridge University Press.

Zouache, Abdallah (2009). "Socialism, Liberalism and Inequality: The Colonial Economics of the Saint-Simonians in 19th-Century Algeria." *Review of Social Economy 67*(4): 431-456.

(2015). "Le projet colonial saint-simonien: *L'Algérie* d'Enfantin." In: Bouchet, Thomas, Vincent Bourdeau, Edward Castleton, Ludovic Frobert, Francois Jarrige (eds.). *Quand les socialistes inventaient l'avenir: Presse, théories et expériences*. Paris: La Découverte, 217-225.

Zürn, Michael (2018). *A Theory of Global Governance: Authority, Legitimacy, and Contestation*. Oxford: Oxford University Press.