Being Curious with Secrecy

Clare Stevens

Elspeth Van Veeren

Brian Rappert

Owen D. Thomas

Being Curious with Secrecy

Abstract

This article contributes to ongoing attempts to broaden out theorizations of secrecy from an intentional and willful act of concealment to a cultural and structural process. We do so by fostering a conversation between secrecy and curiosity. This conversation is enabled through a review of central themes in secrecy studies and curiosity studies, but also through an examination of a collaboration between the science center "We the Curious" and a network of academic researchers. In doing so, this article makes a case for the benefits of paying more attention to curiosity as a means of facilitating a multifaceted understanding of secrecy, and for the benefits of creative and participatory research to foster the (re)theorization of secrecy.

Keywords

Being Curious with Secrecy

Clare Stevens,[1] Elspeth Van Veeren,[2] Brian Rappert,[3] and Owen Thomas[4]

Abstract

This article contributes to ongoing attempts to broaden out theorizations of secrecy from an intentional and willful act of concealment to a cultural and structural process. We do so by fostering a conversation between secrecy and curiosity. This conversation is enabled through a review of central themes in secrecy studies and curiosity studies, but also through an examination of a collaboration between the science center "We the Curious" and a network of academic researchers. In doing so, this article makes a case for the benefits of paying more attention to curiosity as a means of facilitating a multifaceted understanding of secrecy, and for the benefits of creative and participatory research to foster the (re)theorization of secrecy.

Keywords: action research, allure, curiosity studies, framing, ignorance, learning, public engagement, secrecy studies

[1] Clare Stevens is a Teaching Fellow in International Security with the University of Portsmouth. Her research investigates the controversies and politics of defining "cybersecurity," including what those political efforts of definition can teach us more broadly about security, secrecy, and technologies in contemporary international security.

[2] Elspeth Van Veeren is an Associate Professor of Global Politics at the University of Bristol specialising in US security cultures, particularly with relation to the US Global War on Terror and its legacies. Her current research focus is a study of secrecy in relation to the US "shadow wars" and "manhunting," specifically on the role of gender, sexuality, and race as central to secrecy cultures and key to their power. Along with her co-authors, Elspeth is a founding member of SPIN, the Secrecy, Power and Ignorance Research Network at https://secrecyresearch.com/.

[3] Brian Rappert is a Professor of Science, Technology and Public Affairs at the University of Exeter. His latest book, *Performing Deception*, examines learning skills of simulation and dissimulation.

[4] Owen David Thomas is a Senior Lecturer in Politics and International Relations at the University of Exeter and a member of the Secrecy, Power and Ignorance research Network. His current research is on how states and societies seek truth and accountability in the wake of traumatic or controversial events. See https://warningsfromthearchive.exeter.ac.uk

Secrecy deserves attention as an essential feature of social, political and cultural life (Maret 2016). It is a core feature of political order and disorder, constitutive of identities, communities, social relations, practices, economies, flows, stories, knowledges, infrastructures, visualities and materialities (Bok 1982; Dean 2001; Masco 2002; Sedgwick 2008; Paglen 2010; Horn, 2011; Lochrie 2011; Costas and Grey 2016; Van Veeren 2019; Birchall 2021; Walters 2021; Johnson et al. 2022; Van Veeren et al 2023; Kearns 2023). It is crucial, therefore, that societies have a secrecy "literacy," whereby publics understand and debate how secrecy underpins our everyday lives (Bratich and Scott 2016, 3). In this article we advocate for participatory research as a way of generating such debate, and argue that the use of curiosity can facilitate engagement with the nuances of secrecy. We explain some of the benefits (but also the conceptual and practical challenges) of researchers, practitioners and publics working together to understand secrecy.

The implication that societies lack an appreciation of secrecy may seem unconvincing. Culturally speaking, we cannot seem to get enough of secrecy: from investigative journalism to celebrity gossip, from escape rooms to the latest spy thriller, we are avid consumers of secrecy. Well-known secrets provide the basis of politics and government: centuries of political upheaval and development would not be possible without state secrets and intelligence, conspiracies, insurgencies and covert action, the

ballot box, and a right to privacy. Yet there is more to secrecy, of which these examples offer only a narrow understanding.

This understanding of secrecy as secret-keeping, as aligned with Sissela Bok's (1982) definition of secrecy as "information intentionally concealed," is important but insufficient. This conventional understanding of secrecy is limited because it confines our attention to agentic, intentional ideas of a "secret." It reduces secrecy to a strategic tool of statecraft or an instrumental individualized choice (Carson 2016; O'Rourke 2018; Carnegie 2021). Yet as Georg Simmel alluded to, but did not fully expand upon, there is more to secrecy than an intentional and willful act of concealment that occurs at a key and fixed point in time (Simmel 1906; Maret 2021). A focus on intentionality misses the structures and powers that make the appearance and effects of secrets possible and, importantly, distribute it unevenly. Focusing on the secret rather than secrecy, on the act rather than the process, on the substance rather than the flows, cannot produce a full account of the power differentials at work through everyday experiences of secrecy.

Instead, we understand secrecy as (almost) always a phenomenon that reproduces ideas about the good/bad, order/disorder, and that involves cultural and temporal dimensions alongside the more often studied organizational and material ones (Bok 1982; Gusterson 1996; Paglen 2010; Costas and Grey 2016). What this has come to mean for the authors is that

closer attention should also be paid to the ways that structures and secrecy (or secrecies) reproduce one another; how certain individuals and collectives are empowered to know secrets, how others are encouraged to, congruently, look away, and how both are part of what it means to keep and share secrets under different and changing cultural conditions (e.g, Horn 2011).

A cultural and structural-aligned perspective therefore suggests that part of secrecy is how those "not in the know" are both passively and actively enrolled in secret-keeping. In other words, as Thomas Kirsch (2015) argues, the public may be less hungry for information and knowledge (epistophilic) and even display a reluctance or aversion towards it (epistophobic), contrary to common assumptions. Ignorance, like secrecy, is more than willful or strategic agentic behavior to withhold or compartmentalize information (Croissant 2014). Ignorance can be strategic, but it can also be unintentional or dispersed through forms of "administrative evil," as in the case of the tobacco industry's attempts to conceal the harmful effects of smoking (Schiebinger and Proctor 2008; Adams, Balfour, and Nickels 2019). But while ignorance and doubt may be used strategically, as in the case of the efforts of fossil fuel producers and a small group of scientists to sow doubt about human-induced climate change, strategic intentionality (of members of society or of powerful groups) cannot account alone for why climate change did not come to be politically salient for so long (Oreskes and Conway 2011; Norgaard 2012).

Rather, ignorance, like secrecy, can be generated or maintained, particularly as part of reproducing unequal structures of power or "order," whether elite, racial, gendered or sexual (Schiebinger 2005; Mills 2007; Sedgwick 2008; McGoey 2019; Parpart 2013). As recent literature has emphasized, social ignorance is "never only a matter of individual cognitive failure or vice" (Mihai 2022, 966). Pathologizing the individual for their ignorance does not offer the full account of the power differentials at work in contemporary political and social practices. Similarly, as we contend, understanding secrecy and its power necessitates an accounting of how publics or those "not in the know" turn away/are turned away from knowing.

In other words, genuine secrecy literacy, or literacy about the multiplicity of secrecies, cannot be confined to agent-centered framings of secrecy. It cannot start by pathologizing publics as passive consumers or passive subjects of official secrecy, in need of "better" education by more knowledgeable experts. In this paper, we attempt to make this shift and demonstrate an approach that focuses more on secrecy in terms of structural effects and processes. As we will show, finding creative means of attending to the everyday elements of secrecy processes shows where people may have agency to resist, and how secrecy can also be emancipatory as much as problematic. Our efforts to do so are rooted in a reciprocal research process. In this, this paper presents a shift from

"receptive" and didactic learning styles to "curious" dialogic ones, both for us as researchers and also in and for our research partners and participants.

As such, curiosity is critically important to our approach. We employ it to facilitate an understanding of the connections between secrecy and ignorance as well as help cultivate cultural and structural perspectives. In particular, curiosity studies is an emerging transdisciplinary area that we consider has fruitful synergies with secrecy studies (Zurn and Shankar 2020; Zurn 2021a, 2021b). Curiosity, we therefore argue, has a core place in the wider conversation about secrecy and power – power to control, to limit, to differentiate, to effect, and to lure. It may even function as a "missing link" in understanding how secrecy and revelation, knowing and unknowing, relate. As Zurn and Shankar (2020, xiii) write in an introductory volume to curiosity studies, "[c]uriosity – as an interest in the new, the foreign, and the forbidden – has long had a bearing on the interpretation of cultural differences and the structure of social inequalities." To date, however, secrecy studies' engagement with curiosity studies has been limited.

How then can we understand the relations between secrecy and curiosity? And, in particular, how can we generate curiosity about secrecy in its more structural overtones? To address these questions, we examine a collaboration between We the Curious (a science center in the southwest of the UK) and the Secrecy, Power, and Ignorance research Network (SPIN) (a thematic grouping of academics most of whom are similarly situated in the

southwest of the UK). As elaborated, within this collaboration, curiosity served as the hook by which we generated public engagement with secrecy, but in a way that moved beyond traditional transmission models of knowledge. In the sections that follow we seek to develop an appreciation of the mediating role of 1) curiosity for encouraging engagement with secrecy and 2) of the *affects of secrecy* and the *secrecy cues* that inspire curiosity, that generate intrigue as a feeling that can lead to curiosity as an orientation and practice.

To do so, this paper sets out a theorization of the relationships between secrecy and curiosity in the next section, before detailing the nature of the collaboration between WtC and SPIN, and analyzing the collaborative activity (*The A-Z of Secrecy and Ignorance*) for its secrecy-curiosity interactions, including some of the challenges.[5] In doing so, this paper makes a case for the benefits of paying more attention to curiosity as a means of facilitating a multifaceted understanding of secrecy, and for the benefits of creative and participatory research on the matter of secrecy. Such an approach, we argue, can "expand understanding of secrecy and its charm across intellectual landscapes, genres, and fault lines" (Maret 2016, 8). The paper concludes by summarizing its findings from the collaborative activity and reflecting on their wider implications.

---

[5] For further details or to access the A-Z activity, contact the correspondence author or visit https://secrecyresearch.com/

Secrecy - Curiosity

In this section, we outline the relationship between secrecy and curiosity in two ways that can expand our theorization of secrecy's role in socio-political order and relations of power, specifically, by moving beyond the agentic-centric idea of secrecy. As noted above, both secrecy and curiosity are often also thought of and treated as an individualized and a-historicized phenomenon. Yet as Zurn and Shankar (2021, 10), Zurn (2021a, 2021b), and Bineth (2023) argue, there is a strong argument to be made for thinking of curiosity as a social phenomenon. Scholars in this emerging literature have made calls to shift conceptions and studies of curiosity away from individualizing and universalizing assumptions, and to "refuse the common presumption that curiosity is an ahistorical, value-neutral human capacity" (Zurn and Shankar 2020, 1). Instead, like secrecy, curiosity is socially, historically, and culturally determined. What it means to be curious in the UK today, for example, is not the same as it was years ago or will be years from now, nor what it means to be curious in other cultural contexts more globally and across times. In the remaining section, we will highlight two additional points regarding the relationship between secrecy and curiosity, along with their contingencies. This will set the stage for our discussion on the collaboration between WtC and SPIN.

Firstly, secrecy is bound to an *affective, socially contingent process* of cultivating curiosity. Within existing studies and popular engagements with

modern forms of secrecy, secrecy is often treated as extraordinary, even scandalous. Secrecy can provoke "obsessive public curiosity," even "indignation in regard to it" (Horn 2011, 18). This is because secrecy is so often assumed to belong to the realm of the unusual and even negative: "the secret [most often] appears exceptional, an exception to the rule that everything should be out in the open" (Dean, 2002, 10; Dean 2001; Birchall 2011). Yet engaging with secrecy through curiosity can also suggest how the act of curiosity is important irrespective of the content of what may be concealed.

This process of cultivating curiosity, and the contexts in which it manifests, underpins other social framings. Susanne Krasmann (2019, 692) argues that secrecy and curiosity are interdependent: "in an imagined world without secrets, there would be no confidentiality or sincerity, no confidence or curiosity." Secrecy and curiosity are thus related in important and mutually productive ways. Dystopian imaginaries capture this interdependence and interplay well. In classic fictions such as Aldous Huxley's *Brave New World* or Yevgeny Zamyatin's *We,* the protagonists" changing attitudes to secrecy are accompanied by seismic shifts in framings, even worlds, where curiosity has been suppressed or even "bred out" of society in order for the secret state to operate with impunity.

Moreover, the interdependence between secrecy and curiosity can be understood to be productive in other ways. Rather than treating secrecy as

akin to a passive antithesis to transparency, openness, or revelation, secrecy studies have increasingly documented the tantalizing "drama" of secrecy, and its play of "concealment and revelation" (Birchall 2011, 135). "This exceptional dimension ... imbues the secret with mystery and importance" (Dean 2002, 10). Georg Simmel (1906, 464-465; Maret 2016) pointed toward this exceptional dimension long ago through his phrase the "charm of secrecy." This charm manifests in many ways including in the not inconsiderable economic activity associated with the sale of secrets and of secrecy (e.g., Jutte 2015), the circulation of gossip and rumors, the consumption of secrecy-themed entertainment, or the pursuit of "revelation" (Rappert, 2010, 2022). Secrecy's mystery, its promises or hints of revelations and exposures therefore might be understood to have the effect itself of being, rather paradoxically, "spectacular" (Bratich, 2006, 2007). Conceiving of something as "secret" therefore also piques interest, curiosity. It can be understood to be associated with an *affect,* as well as having effects (Brennan, 2004; Anderson, 2009).

Secondly, secrecy and curiosity share a *doubleness* (Zurn and Shankar, 2020). On the one hand, curiosity is often a driving force behind investigative journalism and scientific innovation which have vital roles to play in uncovering corrupt political systems, delivering societal benefits, or, even, establishing empathetic and healthy interpersonal relationships (McEvoy et al. 2012). On the other hand, however, curiosity as a form of

ever-uncovering can lead to forms of conspiracy theory cultures which have been and are significantly harmful, even if conspiracy cultures are not always morally negative (Scrivner and Stubberfield 2022). Put simply, a lack of curiosity can sometimes be good. When unchecked, curiosity can become transgressive, morally oblivious and draining (Nowotny 2020). And, of course, as the saying goes, curiosity can "kill cats"; it can be dangerous. For example, curiosity studies scholarship has "diagnosed curiosity's complicity in exoticization and orientalism," especially through colonial travel and imperial collections, where curiosity in early modern Europe was formulated in "its rational, disciplined and masculine guise", as opposed to the feminized equivalents of "gossip, distraction, transgression" (Zurn and Shankar 2020, xx). Here, curiosity would be a curiosity-*about* or a curiosity-*over*, rather than a curiosity-*with* (Zurn 2021b).

Similarly, it has been shown that numerous social activities such as travel writing, advertising, commemoration, and tourism depend on the production of "public secrecy" in which the validity of such activities rely on the revelation of geopolitical spaces and places as artificially dangerous or benign (Bratich 2006; Mookherjee 2006; Fletcher 2010; 2012; Jester 2023). Such representations often function to obscure, *through revelation*, the current and historic harms linked to practices such as colonialism, patriarchy and capitalism. As a way to foreground opacity, ambiguity and complexity, a

feminist curiosity instead compels us to find ways to be curious-*with* (Zurn, 2021b).

These two synergies between secrecy and curiosity, their affective dimensions and doubleness, allow us in what follows to sketch out an approach to curiosity *with* secrecy that can understand secrecy's power in more structural and diffused arrangements.

Curious Collaborations: Setting the Scene

This section explains how a collaborative, public engagement project was established between two organizations: We the Curious (WtC) and the Secrecy, Power, and Ignorance research Network (SPIN). In so doing, the section shows the relationship between secrecy and curiosity became significant in shaping the project. WtC, formerly known as At-Bristol, is an interactive science center that was established in 2000 with the mission to "make science accessible to all." After 17 years of operations, it found its original mission was no longer a unique vocation. Through audience and community consultation, WtC reimagined its role within the city of Bristol as that of bringing "together science, art, technology, culture and innovation to create positive change for its community and environment and "create a culture of curiosity" (WtC 2020a). SPIN is an academic research network established in March 2018, comprising researchers from Higher Education Institutions across the southwest of the UK and beyond. The aim of the

network is to develop innovative approaches to secrecy studies, from everyday experiences of secrecy and ignorance to encounters with secrecy within national and global issues. SPIN researchers are motivated to create more nuanced understandings of how knowledge is made and unmade in social and political life. This includes a desire to shift framings of secrecy and ignorance away from morally charged connotations as generally negative, suspicious or dangerous. The aim is to encourage consideration of secrecy as connected to broader, structural and societal forces.

As part of its revamped vision to realize a culture of curiosity, WtC undertook a process of redesigning its exhibition and programming spaces in 2019. At the center of these changes, "Project: What If" involved a complete transformation of the foyer and ground floor exhibition spaces with the aim of becoming the first major science center exhibition in the UK inspired by the curiosity of the city's residents. The exhibition was designed around seven questions selected from a collection of over 10,000 questions gathered from visitors and residents of Bristol. A goal in doing so was to share ideas "in different and often surprising ways, embracing art as well as science, while celebrating and cultivating curiosity" (WtC 2020b). Herein, "science" no longer gets presented as a distinctive epistemic practice, so much as placed along a broader array of human practices of curiosity. In that regard, WtC is a "curious" institution in two senses of the word. Science museums are material deposits and embodiments of the different forms that

curiosity has taken in a specific slice of time, while also being designed to provoke and inspire the curiosity of the communities that they serve (Phillips 2019). Furthermore, curiosity as the desire to see and to know is deeply interwoven with modern conceptions of science, broadly construed. As historians of science have highlighted, science is fueled by curiosity (Ball 2013; Livio 2017), but as Zurn and Shankar (2021) point out, this curiosity is culturally and historically situated.

This situated curiosity was formative during a series of meetings held between 2019 and 2020, in which members of WtC and SPIN collaboratively explored how creative hands-on and dialogic activities could help WtC's visitors to explore the multi-layered nature of secrecy. A key element for staff at WtC was to ensure that any activity designed reflected the findings of their own market research: that the majority of visitors wanted an emotional, personal connection with WtC through activities such as getting involved and working together (in other words, more of a social experience). Our objective was to create an activity that would promote interaction among families and other groups, fostering curiosity about secrecy.

The result of the deliberations was a collaborative project titled *The A-Z of Secrecy and Ignorance.* The plan conceived in 2019-20 was to create an initial series of "nested" boxes of activities for visitors to WtC and where each box would be labelled according to a secrecy and ignorance theme and cover a range of different letters of the alphabet, such as Hiding, Invisibility,

Whispering, Confessions (Figure S 1 and 2). Each box would literally and figuratively open up to reveal a series of nested activities to promote interest about the box's themed concept, and to encourage participants to share their thinking with each other and the researchers. As such, the design of the boxes and of the activity was itself intended to exemplify the substantive ideas at hand.

Figure 1: A typical resource box exterior (Credit: We The Curious, September 7, 2021).

Figure 2: Contents of the "Hiding" box (Credit: We The Curious, September 7, 2021).

Despite the difficulties of the formal and informal restrictions placed on movement and interactions due to the COVID pandemic in the UK in 2020, a hands-on and dialogic activity was developed and offered through WtC in the summer of 2021. From the 22 May to the 14 July 2021, six boxes were trialed on the themes of Magic, Invisibility, Silence, Hiding, Pretending, and Secret Codes. Members of the WtC Live Sciences Team (LST) were on-hand during the activities to answer questions, offer guidance, and collect forms, including signed consent forms, at the end of the activity.

The activity itself was run within the John James Theatre of Curiosity, located on the ground floor exhibition space. As part of WtC's aim to make science into a social experience and to create a space "where boundaries are removed between science, art, people and ideas," a Theatre of Curiosity was

included as part of WtC's recent redevelopment (WtC 2020b). Constructed of multi-leveled 3-D cube shapes of bare ply board, it was designed to be highly accessible and open, with moveable seating to create spaces that are intended to welcome different audiences and suit different learning preferences. It is also a curiosity-inspiring space in and of itself. Though well lit, the space is surrounded by a large, darkened room (dark paint on walls and recessed ceilings), with spotlights illuminating individual displays that are arranged all around the central theatre (Figure 3), and with access to the space itself mediated by a maze-like, narrow tunnel entrance before the "big reveal" of the space. In other words, the space itself was aligned with inspiring curiosity through the "allure" of secrecy's play with concealment and revelation, an important and frequent element of architectural spatial language.

Figure 3: Project What If, John James Theatre of Curiosity (Credit: Lisa Whiting Photography and We The Curious, 2020).

Once in situ, and overall, the first phase of the *A-Z of Secrecy and Ignorance* activity resulted in 192 visitors taking part and 40 Visitor Data Sheets containing answers to set discussion questions. LST staff also produced Observation Sheets on their own interactions with audiences. During the second phase, which took place between 15 July and 17 October 2021, modified boxes were returned to the floor alongside new boxes, on the themes of Confessions, Whispering, Evidence and Conspiracy. This second phase resulted in 1,146 visitors engaging with the activity and producing 226 Visitor Data Sheets, alongside LST Observation Sheets.

Generating Curiosity with Secrecy

Following on from the previous overview, this section connects the particulars of the collaboration to an analysis of secrecy-curiosity. It does so by starting with an examination of the basic composition of handling boxes themselves, but progressively expands to consider further aspects of the set of boxes and its wider context.

Curious Boxes

To begin, playing with the matters of secrecy, concealment, and revelation, each activity box was designed such that it was "nested" (Figure 2). Visitors would need to literally and figuratively open up each layer of activity to reveal new questions, objects and prompts to promote and sustain interest about the box's themed concept. Initially, opening the largest box, revealed not only the theme, but three additional boxes inside labelled "1," "2," and "3," a Visitor Data Sheet, pencil, information about SPIN, and larger items, such as an "invisibility cloak" or masks. Each box and sub-boxes contained written instructions and questions, alongside laminated photos and smaller objects, and with groups encouraged to make their way through to the final box labelled "3," answering the questions on the sheet, which they returned to the LST at the end of the activity.

Each box was specifically designed to promote curiosity and facilitate learning, following a three-part rationale utilized by WtC:

Sub-box 1: "Spark" introduced the theme for instance, by asking participants to define, illustrate, or identify an example of the theme; e.g. "Where do you go to hide? When do you go there? What object represents hiding?"

Sub-box 2: "Sustain" asked visitors to undertake a first-hand problem-solving, exploratory and productive activity (Hutt 1981), for instance, through acting it out or crafting physical examples with supplied materials. This typically involved "secrecy-work" associated with revealing or concealing information (e.g, writing message with UV pens) inquiring What is your ideal hiding place like? Use your boxes and the things inside to imagine a hiding place. What are the important things about it? Draw a picture or write a description.

Sub-box 3: "Deepen" prompted visitors to assess their experiences, for instance, by reflecting on how they felt, how they assessed the appropriateness of a given action, asking: Can you hide on your own or do you need other people? Look at the pictures in this box. Do they all show somebody or something hiding?

The design of the boxes went beyond traditional museum displays aimed at didactic information conveyance (Endersby 1997). Rather, visitors were asked to metaphorically and physically unpack their contents. They did so by combining a structured sequence of activities (in this the boxes differed from most of the adjacent ground floor displays and exhibitions) with the opportunity for visitors to undertake their own exploration in order to foster learning.

Therefore, through combining first-hand problem-solving, exploratory and productive activities with reflection, and interpretation, the activity sought to treat visitors' experiences as valued ways of knowing. From the beginning, the project anticipated that while adults might guide children by explaining the meaning of certain themes, the inclusion of hands-on tasks

and experiential reflection would engage adults and children alike (many adults could be seen donning the disguising masks and fake ears from the boxes, for example). In positioning adults' experiences as relevant, and in some instances scripting tasks that needed to be done together between multiple visitors, the aim was to promote reciprocal (often inter-generational) curiosity-driven interactions that supported learning (Kamolpattana et al. 2015), something that was particularly helpful in navigating some of the more complex concepts, such as Evidence. Feedback from the LST Observation Sheets indicated that while children could relate the box content to their everyday experiences, full family participation (e.g., adults working with children) provided the basis for more extensive engagement by children. Rather than viewing these visitors as passive consumers, or passive subjects, of secrecy processes, the creative materials were thus designed with the intention of informing but also *being informed by* the ways that visitors engaged with the materials.

Curious Themes

While the themes of the boxes addressed topics meant to be familiar with visitors, they also sought to bring to bear theoretically informed appreciations of secrecy-ignorance topics that would complement visitors' everyday understandings. Our aim was to provoke an engagement with a theoretical or conceptual topic without overdetermining the outcome – to

provoke but not to foreclose – as a commitment to our own curiosity about secrecy-ignorance. In some cases, this desire to engage visitors was made even more complicated because of the difficulty of identifying objects-instructions that could encapsulate the relevant theme and also be sensitive to age and educational levels.

For instance, the purpose of the Evidence box was to provoke visitors to consider how contrasting representations (or exposures) of an event can produce and obscure alternative understandings of causality. In other words, we wanted to explore how the revelation of different evidence might encourage participants to think alternatively about what and why something has happened. More specifically, in the case of the Evidence box, visitors were asked to explain what was happening in an initial image from the first box (Figure 4a). Each subsequent box then presented an additional part of the same image, widening the frame, such that they might change the interpretation (Figure 4b).

Figure 4a: The first reveal of the photo used for the Evidence box (original photo credit Aaron Vincent Elkaim for The Learning Network, *New York Times*, 2021)

Figure 4b: The full revealed photo used for the final nested installment of the Evidence box (credit: Aaron Vincent Elkaim for The Learning Network, *New York Times*, 2021. Original

caption: "Mr. Harris taking a quick ice bath while skating with, from left, Max Harris, who is 14, Tyler Ganton, Julian Ganton").

Our aim was therefore to encourage participants to play with ideas of responsibility and causality for the actions depicted and to reflect on how this may be influenced by the selective showing/withholding of (visual) information and "evidence." For instance, could the image be explained by looking at the actions or presumed immediate intentions of a single important person or persons in the image? Or was the environment important instead? In more academic terms, we were interested in exploring 1) the so-called structure/agency debate: what can and should be explained through an individualist focus on key actors and their supposed free choices, desires, and capacities to act. And 2) the effect of (visual) "framing" and how different frames evidence explanations differently and therefore might affect their own interpretations, choices and actions (Van Veeren 2011).

When participants had only the first image (Figure 4a), some tried to make sense of what was going on by speculating on the dispositional/agentic explanations for the semi-submerged man. Some participants, for instance, used the observation that he was not wearing clothes to decide that this was a deliberate act. Others used his facial expressions to suggest that he was unhappy with the situation, perhaps suggesting this was an accident. Several decided that there was something wrong with the man and

responded "Is he drunk?" "Insanity!" Yet when given the additional boxes that gave another representation of the event (Figure 4b), participants often changed their minds to explain the event in terms of structural/situational features: the social relationships and cultural practices that were indicated in the wider image. The second box, which showed another using a camera, prompted suggestions that the semi-submerged man was "doing it for clout" (e.g., as part of a wider social practice of achieving fame or popularity through stunts). Once the third box was opened, many participants retold the story as "ice hockey gone wrong!" and the basic social rules and cultures of playing sport. The man was retrieving a hockey puck - perhaps because he lost it in the first place; perhaps because he lost the hockey game.

In other words, the simple-seeming picture (of a Toronto jogger who stopped to assist some hockey players) enabled curiosity about the selective framing of information as part of discussions of evidence and what counts as evidence as well as curiosity about individual-agentic as well as structural explanations for choices made. It also sought to prompt curiosity, and therefore explicit reflection, on how we come to know what we think we know, and that 'evidence' may not speak for itself so plainly. Reflecting research from SPIN members, the box generated debate as to how the interpretation of secrecy is often more reflective of the social values of those that attempt to uncover the truth, rather than the content of the secret itself (Thomas 2017; Kearns 2023).

Curious Objects

Given the themes of this collection, the selection of objects faced certain challenges. Firstly, in natural science museums, displayed objects are often valued for their unfamiliarity (because they are exotic-seeming or from unfamiliar cultures) or scarcity (because they are rare or old or extinct). Instead of promoting an object-directed learning, the aim of this collection was to promote object-enabled interaction (in-line with Hutt 1981), which we sought to achieve through familiar objects made "strange"; making everyday objects interesting. On the one hand, the objects needed to be familiar enough to visitors in order for them to be readily useable within the parameters of visitors' limited time with and dedication to the collection. On the other hand, the objects needed to support consideration of some extra-ordinary or stretching themes. In other words, everyday objects were chosen for their capacities to promote curiosity about secrecy-ignorance.

Secondly, based on experiences with the collection and well as past WtC activities, and in-line with existing research (Paris 2002), the incorporation of objects within the activities of the box was deemed of critical importance for promoting sustained visitor group engagement. Thus, design attention needed to be paid to what participants were *doing;* the activity needed to be hands-on and appealing. During the second phase of the project, a review of the objects was conducted. For example, a "magic

cloak" was added to the Invisibility box to allow visitors to act out being invisible together. And yet, while objects were sought that would be of interest to WtC visitors (and, in particular, children) and therefore to promote curiosity about the secrecy-ignorance themes, engagement with the objects was not the end in itself. In other words, the objects were meant to support an enjoyable visitor experience (through dressing up, building structures, etc.) but without simply being done for their entertainment value. Curiosity about the objects themselves was not the intent.

Thirdly, added to the points above were concerns specifically related to the interests of SPIN researchers. We wanted to minimize "iconic" or even "exotic" objects of secrecy that would reproduce the "exciting," exceptional and often state-centric accounts of secrecy in public conversations, such as, for example as present in the collection of objects displayed at the International Spy Museum (ISM) in Washington DC, where pens with micro-cameras and invisible ink loom large. Instead, we sought to examine how members of the public might be drawn in to think about secrecy and ignorance in relation to the everyday and from a "bottom-up" perspective. Second, again in contrast to the ISM, it was also less about "revealing the secret" and more about working with secrecy itself and with curiosity about secrecy in order to generate new ways of thinking about the power of secrecy and ignorance in contemporary life. The overall goal was thus to understand how these processes (secrecy for curiosity and curiosity for

secrecy) could connect our everyday lives, lived experiences and wider political and social (dis)orderings, which is in line with Enloe (2004) and Zurn (2021b).

Finally, and interconnected with the above point, the objects contained within activity boxes were intended to prompt visitors to be curious about their own experiences and to treat these experiences as valued ways that secrecy and ignorance feature in their daily lives. And yet, in the case of secrecy, asking visitors (and especially accompanied children) to consider and articulate why they keep secrets raised concerns about inadvertently encouraging visitors to disclose personal secrets, which aside from the safety concerns, was not the intent of the activity.[6] In the second phase of the collection, we responded to some of the identified concerns along these lines, by choosing objects that would help to make this distinction clear and therefore *limiting* the kind of information presented and collected in "staying with secrecy." For instance, in relation to the "Confessions" box, a Worry Doll of the Guatemalan tradition (Figure 5) was chosen to inspire curiosity about secrecy rather than secrets, and included this accompanying text:

> Worry dolls are small, hand-made dolls that originate from Guatemala. According to legend, Guatemalan children tell their worries to the Worry Dolls, placing them under their pillow when they go to bed at night. Is there anything that you would like to confess? Whisper your confession to the worry doll. Don't worry! You don't need to tell anyone else today. The worry doll will keep it secret for you.

---

[6] Among other implications, traces of any confessed secret that raised child wellbeing concerns would impose institutional duties on WtC to act in relation to those concerns; a duty that would be highly difficult to follow-through in practice within a large public venue and given the way in which research material were processed.

In other words, the choice to include a Worry Doll in the box was a deliberate one; taken both in relation to a need to refrain from asking visitors to confess in the presence of others as well as to ensure no material traces remained of their confessions. Instead of seeking to record the confessions, the box instructions asked visitors to write down how it *felt* to confess and thereby to get curious about this secrecy practice.

Figure 5: Guatemalan Worry Doll, used in the Confessions box (Credit: We The Curious, September 7, 2021).

Curious Labeling

There are two aspects of labeling that we wish to draw attention in relation to curiosity. The first related to how to spark curiosity. Initially, the

boxes were designed in such a way that they did not have any external features indicating their content themes (other than age and number of participant thresholds). This plainness is particularly worthy of note given the ground floor space around the boxes and Theatre of Curiosity was saturated with visual, auditory and tactical stimuli (Figure 3). The absence of indicators of the themes was motivated, in part, by a desire on the part of the Project Team to generate engagement across a range of themes, rather than by interest or prior familiarity. For example, we did not want participants to gravitate to an "exciting" theme like Invisibility for which they might be "primed" to be more curious, and thus neglect "Evidence" for being less intuitively relatable. However, in some initial sessions, it proved difficult to attract visitors to the box collection. In response, the boxes were all similarly decorated with "TOP SECRET" stickers and markings (Figure 1). These add-ons functioned as a kind of wrapping – visually announcing the presence of something noteworthy inside, but not divulging its content. This labeling proved to be a strategic means for the Project Team to generate curiosity by playing on cultural predispositions to see this as exciting and engage visitors, even while recognizing that it was reproducing the tropes of secrecy (as alluring and affective because of its charged associations) that the researchers wanted to move beyond.

The second aspect related to how to reward curiosity. As explained in the visitor information and consent form, the goal of visitors' engagement

with the interactive boxes was to invite them "to become research partners in this project." However, because the types of activities prompted by the boxes (drawing, pretending, etc.) were similar to the kinds of activities that visitors undertook elsewhere in WtC, a concern was that it would not be apparent to onlookers (i.e. potential participants for the collection) that some visitors were participating in formal research, or that the everyday reflections sought from visitors were valid data (a point we return to below). In part, in order to mark such participation, stickers stating "I did Research Today" were offered to those visitors that gave permission for their Visitor Data Sheets to be available for research.

The Limitations of Curiosity

If there were two areas of the curiosity-secrecy-ignorance relationship that were the subject of the most significant discussion and, ultimately, limitations when it came to designing and delivering the A-Z, it was 1) what could be included and 2) working with pre-existing conceptions of what research, learning and knowing/unknowing looks like. While the latter is addressed below, in this first instance, this section turns to what was included and not included - for example, what we as WtC-SPIN collaborators thought was appropriate to be curious about in the context of a discussions of secrecy and ignorance and in a science museum space.

Curious Absences

For different reasons, three possible themes were either adjusted or set aside: Silence, Confession and Conspiracy. In the case of the Silence box, an initial choice was made to feature an image to prompt discussion of the recent UK Windrush political scandal[7] and the role of cultural silence - whether as individual or collective acts - in sustaining structural forms of racialized power – a SPIN area of research (Thomas 2016). Following feedback from visitors within the first week of delivery who considered the Windrush example "too adult" for their family, the initial choice was revised by including new supporting texts in order to support adults within the group to facilitate the discussion with younger family members. Our position was that rather than contribute to ongoing cultural silence and therefore ignorance about the scandal as well as ignorance about ignorance, that we needed to continue to find ways to encourage curiosity about this difficult part of UK history.

Second, the Confession box had to be revised. Initially, again in keeping with the subject matter expertise and research interests of SPIN, our initial plan was to inspire curiosity about the choices faced by LGTBQ+ community members to either stay silent and keep their sexuality a secret, or to "confess/profess" and "come out of the closet" in order, again, to

---

[7]   That scandal relates to British government efforts to detain, deport, and otherwise deny state services to individuals (mainly from the Caribbean) born as British subjects, but that came to live in the UK prior to 1973.

encourage discussions of the cultural and structural reasons why individuals might make these choices. After an extended discussion, this approach was put to one side in favor of the worry dolls (discussed above) for several reasons: 1) the risk of encouraging poor and ill-informed conversations about sexuality; 2) the challenge of discussions of sexuality within families, including those with young children; 3) the risk of re-stigmatizing sexualities through association with "confession" due to the negative association of the word confession itself. In other words, given the limitations of the activity, it did not feel appropriate to inspire curiosity about sexuality in this context. Overall, it does signal the importance of ongoing explorations, discussions and responses to perceptions of what is "appropriate" and "exhibitable" within museum spaces about sexuality, and a presumption that British audiences can be reluctant to discuss sex and gender, or that LGBTQ issues are still considered to have some social taboo as these end up reinforcing many of the socially prevalent assumptions that social research has tried to understand and challenge (Nelson 2020). This leads back to point raised above: a lack of curiosity can be good in some contexts.

Third, and finally, we set aside an attempt to conceive of a Conspiracy box in this time period. While conspiracies and conspiracy theories are a vital component of understanding current politics as much as history, and the role of secrecy and ignorance in society (Harambam et al. 2021), our decision not to include it nonetheless provides insight into the curiosity-secrecy-

ignorance relationship. A primary difficulty was finding accessible examples and objects. One way we identified for achieving relevancy was to use conspiracies affecting children. For instance, beliefs and practices around the existence of Father Christmas (Santa Claus) was one candidate. However, even with appropriate age requirements, a box that fostered consideration of Father Christmas as a conspiracy raised concerns: aside from "spoiling" a cherished holiday tradition for a number of younger visitors, there were concerns within the Project Team about possible effects on other visitors and as well as future potential visitors. These concerns included making assumptions about the cultural and religious orientations and knowledges of WtC visitors.

Similarly, if Father Christmas was an example of a generally accepted form of cultural simulation that is difficult to discuss because of the widespread complicity with it, then other examples of conspiracies were assessed as problematic because of the anticipated contestation. As previously noted, the box collection was introduced during the COVID19 pandemic, a time in which the origins and responses to the virus provoked many theories commonly dubbed as conspiratorial. Inclusion of such theories as discussion material within the collection raised concerns about how to reconcile the intent to make visitors feel valued with the importance of challenging what the Project Team judged to be misperceptions with the conventional roles of a science center, as well as the risks of reinforcing

certain conspiracy theories by drawing attention to them. In the end, demands associated to the Conspiracy theme meant the box was not produced.

Curious Research

In the second instance of limitations to curiosity, designing questions, prompts and activities that encouraged visitors to shift from "receptive" and didactic learning styles to "curious" dialogic ones about secrecy, was a significant challenge. First, the project was openly framed as a research project, in part to invite visitors to rethink what research looks like as well as for research ethics and data gathering reasons. As such, the delivery of the activity involved undertaking ritualized forms of actions that drove home a sense that the activity was in the realm of "science": visitors first listened to an explanation of the collection from LST members, they were given sheets that included background information about the WtC-SPIN collaboration, they were asked to give permission for their completed Visitor Sheet to be used as data, and they were rewarded with a research-sticker on their ethical assent. As gauged by LST members, taking part in research was rated as a source of excitement for some visitors and heightened curiosity, and informed the decision to provide them with the badges (as discussed above).

On the counterproductive side though, taking part in research also led some visitors to question whether they had completed the tasks to the level and quality they imagined necessary. As reported by some LST members, the desire to properly partake in the research led some visitor groups to search for the "correct answer" for each task rather than respond in the manner they saw as fit, positioning the researchers as the "authority" of their own interpretations. In such ways while the collection might not have sought to base itself on traditional appeals to authority in that it asked visitors to voice their views, the status of the collection was nevertheless underpinned at times by certain conceptions of authority in science. This underpinning both enabled and delimited visitors' interactions. In other words, the framing of the activity as research was in and of itself a challenge to a "curious mindset" orientation of the project.

In a second way, the focus on research as a knowledge making/unmaking practice confounded the project. A long running thread of criticism of science museums and centers is that they position themselves as conveyers of definitive and objective truths (Bud 1995). As elaborated in the previous sections, the composition and delivery of the box activities in keeping with WtC's reframing was not motivated by a desire to disseminate definitive facts or principles. Nor did it seek to portray an idealized version of social research. Instead of laying down partitions between legitimate and other forms of knowledge through gauging visitors' comprehension of

dispensed facts, the activity was designed intentionally to solicit thoughts and feelings from visitors about the secrecy and ignorance topics through a structured process of inquiry. This was a novel approach for many visitors, for members of the LST, and indeed for the project team itself. Though the form of the project evolved to include answer sheets in order to capture visitor responses, arguably this "data" was not the data that proved most useful for the project. Instead, the significance of the research aspect of the activity derived not so much from the data captured from the written records visitors filled in, but from the mutual experience for Project Team members and visitors of feeling like all were contributing to an ongoing dialogue; a dialogue about the nature of knowledge itself and how to inspire curiosity about how knowledge is made and unmade.

In other words, the process itself of designing a project, redesigning it, delivering it as well as the reactions by all involved became the most interesting and relevant "data" for understanding curiosity, secrecy, and ignorance. Our experience would suggest that those interested in incorporating "explorations of uncertainty in knowledge" (Kiefer 2021, 123) act mindfully in regard to this pressure to "operationalize" and "data-fy" a project to align with conventional conceptualizations of curiosity.

Conclusion

The previous sections recounted the iterative process of developing, launching and revising a box collection as part of an academic-science center collaboration. Rather than taking the links between secrecy, ignorance and curiosity as implicit, the project described in this paper intentionally sought to assess, inspire and foster curiosity *with* secrecy. In particular, it was the affects of secrecy and secrecy cues, the ways in which the center and activity created a "feeling" or "energy" of secrecy (Brennan 2004; Anderson 2009) or hinted at the presence of secrets, that were central to generating curiosity about everyday and structural forms of secrecy. This process involved the creation of activity boxes to generate curiosity with secrecy, using a three-part structure. The boxes used a selection of ordinary objects that were interactive, avoided personal disclosure, and allowed an exploration of secrecy in everyday life. The paper also acknowledged the limitations of project, such as considerations around sensitivity, negative effects, and traditional conceptions of science.

As such, we have made three contributions with this project: First, given that the relationship between secrecy and curiosity has hardly been explored, the first contribution of this paper has been a conceptual one, drawing out and highlighting the useful synergies between secrecy studies and curiosity studies. We have argued that the synergies between curiosity and secrecy can facilitate an analytical and methodological shift for

researchers interested in understanding secrecy's structural and cultural dynamics. We posit that such an approach is necessary for secrecy literacy. Furthermore, the paper's exhortation to be curious *with* rather than curious *over* helps address a tendency in other disciplinary approaches to approaching secrecy, ignorance and conspiracies simply as morally negative problems to be solved, rather than as processes deeply implicated with each other. As this iteration of participatory research hopefully demonstrated, *curiosity with* prompted more inductive approaches to understanding secrecy and ignorance in more multifaceted and structuralized ways.

Second, the practical contribution of the paper has been to offer the account of the travails of translating research questions about secrecy, ignorance and curiosity into a practical activity tailored for the audience of a science center. Despite the difficulties that the article has outlined, the "trial and error" nature of an engagement such as this were arguably the most productive part of the experience for both the WtC practitioners and for the SPIN researchers. While the activity was envisioned by the researchers as an opportunity for data collection from visitors, it was the ongoing and iterative processes of *thinking with* the practitioners that in many respects provided the most insights for the researchers.[8] This included the challenges of

---

[8] Maret (2021, 20-21) for an excellent treatment of what it means to think with or think together in teaching secrecy, drawing on the work of Elizabeth Kamarck Minnich who describes the benefits of *thinking together* about challenging topics in ways that are "exploratory, suggestive; it does not prove anything, or finally arrive anywhere." This chimes as a way to solicit curiosity about topics like secrecy and ignorance, and make them newly meaningful.

designing programs for audiences that would include families and young children, and in working through the iterative process over the different phases many of the researchers found they were also working through the rationales and conceptual lacunae of their own research topics, providing clarity but also creative expression. Meanwhile, the activity also helped WtC understand the needs of their audience better as a result of running the activities, for example in seeing how important adult interlocutors can be for facilitating engagement.

Third, we documented the various secrecy affects and cues that were mobilized, including through generating curious spaces, curious boxes, curious objects, etc. as well as the limits of curiosity associated with the SPIN-WtC *A-Z of Secrecy and Ignorance*.

In doing so, our account has sought to highlight some of the assumptions, rationales, and experiences associated with the collection, thereby bringing to attention the choices and contingencies associated with this collaboration. The collaboration between SPIN and WtC was aligned with some feminist thinkers who have advocated being curious - *with* rather than curious-*about* secrecy. Instead of encouraging the pursuit of "the answer" and a focus on "the secret," our aim instead was, as Clare Birchall (2011) encourages, "to stay with the secret" and focus on secrecy.

Despite this ambition, this article also sought to examine how science center programming can draw on, challenge and perpetuate relations of

authority, and adapt to explore the politics of knowledge itself. We identified ways in which the box collection was not only *about* secrecy and realized *through* secrecy. More than this, because of the decisions taken about its design and composition by us as collaborators, it also *entailed* forms of secrecy. Designing activities that can offer a shared space for talking about the invisible, the secret, and the unknown ended up reproducing some of the dynamics that researchers had wished to examine or challenge. In this regard the article offers a further contribution to a long running attempts to be self-reflexive about public engagement with science (Irwin 2014).

Overall, we invite others to consider exploring the interconnections between secrecy, ignorance and curiosity, their profound *doubleness*, as productive future lines of thought and investigation.

References

Adams, Guy B., Danny L. Balfour, and Ashley E. Nickels. 2019. *Unmasking Administrative Evil.* 5th Edition. London: Routledge.

Anderson, Ben. 2009. "Affective Atmospheres." *Emotion, Space and Society* 2, no.2: 77-81. https://doi.org/10.1016/j.emospa.2009.08.005

Ball, Philip. 2013.*Curiosity: How Science Became Interested in Everything*. Chicago: University of Chicago Press.

Bineth, Ariel. 2023. "Towards a Sociology of Curiosity: Theoretical and Empirical Consideration of the Epistemic Drive Notion." *Theory and Society* 52: 119-144. https://doi.org/10.1007/s11186-021-09464-y

Birchall, Clare. 2011. "Introduction to 'Secrecy and Transparency' The Politics of Opacity and Openness." *Theory, Culture & Society* 28, no.7-8: 7-25.

Birchall, Clare. 2021. *Radical Secrecy*. Minneapolis: University of Minnesota Press.

Bok, Sissela. 1982. *Secrets: On the Ethics of Concealment and Revelation*. New York: Pantheon.

Bratich, Jack. 2006. "Public Secrecy and Immanent Security: A Strategic Analysis." *Cultural Studies* 20, no.4-5: 493-511. https://doi.org/10.1080/09502380600708937

_____. 2007. "Popular Secrecy and Occultural Studies." *Cultural Studies* 21, no.1: 42-58. https://doi.org/10.1080/09502380601046956

Bratich, Jack and Craig Scott. 2021. "Revealing Challenges of Teaching Secrecy." *Secrecy and Society* 2 no. 2. https://doi.org/10.31979/2377-6188.2021.020203

Brennan, Teresa. 2004.*The Transmission of Affect*. Ithaca: Cornell University Press.

Bud, Robert. 1995. "Science, Meaning and Myth in the Museum." *Public Understanding of Science* 4: 1-16.

Carnegie, Allison. 2021. "Secrecy in International Relations and Foreign policy." *Annual Review of Political Science* 24: 213-233.

Carson, Austin. 2018. *Secret Wars. Covert Conflict in International Politics*. Princeton: Princeton University Press.

Costas, Jana and Christopher Grey. 2016. *Secrecy at Work: The Hidden Architecture of Organizational Life*. Stanford: Stanford University Press.

Croissant, Jennifer L. 2014. "Agnotology: Ignorance and Absence or Towards a Sociology of Things That Aren't There." *Social Epistemology* 28, no.1, 4-25.

Dean, Jodi. 2001. "Publicity's Secret." *Political Theory* 29.5: 624-650.

_____. 2002. *Publicity's Secret: How Technoculture Capitalizes on Democracy*. Ithaca: Cornell University Press.

Endersby, Jim. 1997. "The Evolving Museum." *Public Understanding of Science* 6, no.2: 185-206.

Enloe, Cynthia. 2004. *The Curious Feminist: Searching for Women in a New Age of Empire*. Oakland: University of California Press.

Gusterson, Hugh. 1996. *Nuclear Rites: A Weapons Laboratory at the End of the Cold War*. Oakland: University of California Press.

Harambam, Jaron; Kamile Grusauskaite and Lars de Wildt. 2022. "Poly-truth, or the Limits of Pluralism: Popular Debates on Conspiracy Theories in a Post-truth Era." *Public Understanding of Science* 31 no.6: 784-798.

Horn, Eva. 2011. "Logics of Political Secrecy." *Theory, Culture & Society* 28, no.7-8: 103-122.

Hutt, Corinne. 1981. "Toward a Taxonomy and Conceptual Model of Play." In *Advances in Child Development and Behavior*, edited by Hayne W. Reese and L.P. Lipsitt, 251-298. New York, NY: Plenum.

Irwin, Alan. 2014. "From Deficit to Democracy (re-visited)." *Public Understanding of Science* 23, no.1: 71-76.

Jester, Natalie. 2023. "Accessible, Transparent, Progressive: Conceptualising the Militarisation of Digital Space through the Social Media Presence of Arms Manufacturers." *Millennium: Journal of International Studies* February 27.

Johnson, Jamie M., Victoria M. Basham, and Owen D. Thomas. 2022 "Ordering Disorder: The Making of World Politics" *Review of International Studies* 48, no.4: 607-625.

Kamolpattana, Supara; Ganigar Chen, Pichai Sonchaeng, Clare Wilkinson, Neil Willey and Karen Bultitude. 2015. "Thai Visitors' Expectations and Experiences of Explainer Interaction Within a Science Museum Context." *Public Understanding of Science* 24, no.1: 69-85.

Kearns, Oliver 2023. *The Covert Colour Line: The Racialised Politics of Western State Intelligence*. London: Pluto.

Kiefer, Mitchell. 2021. "Re-basing Scientific Authority: Anthropocene Narratives in the Carnegie Natural History Museum." *Science as Culture* 30, no.1: 117-139.

Kirsch, Thomas G. 2015. "Secrecy and the Epistemophilic Other." In *Regimes of Ignorance: Anthropological Perspectives on the Production and Reproduction of Non-knowledge*, edited by Roy Dilley and Thomas G. Kirsch, 188-208. New York: Berghahn.

Krasmann, Susanne. 2019. "Secrecy and the force of truth: countering post-truth regimes." *Cultural Studies* 33, no.4: 690-710.

Learning Network. 2021. "What's Going On in This Picture?" *New York Times,* January 11. Updated January 14, 2021. https://www.nytimes.com/2021/01/10/learning/whats-going-on-in-this-picture-jan-11-2021.html

Lochrie, Karma. 2011. *Covert Operations: The Medieval Uses of Secrecy*. Philadelphia: University of Pennsylvania Press.

Livio, Mario. 2017. *Why?: What Makes Us Curious*. New York: Simon and Schuster.

McEvoy, Phil, D. Baker, R. Plant, K. Hylton, and W. Mansell. 2012. "Empathic Curiosity: Resolving Goal Conflicts That Generate Emotional Distress." *Journal of Psychiatric and Mental Health Nursing* 20: 273-278.

McGoey, Linsey. 2019. *The Unknowers: How Strategic Ignorance Rules the World*. London: Bloomsbury Publishing.

Maret, Susan. 2016. "The Charm of Secrecy: Secrecy and Society as Secrecy Studies." *Secrecy and Society* 1, no.1: 1. https://doi.org/10.31979/2377-6188.2016.010101

_____. 2021. "Concealing in the Public Interest, or Why We Must Teach Secrecy." *Secrecy and Society* 2, no. 2. https://doi.org/10.31979/2377-6188.2021.020201

Masco, Joseph. 2002. "Lie Detectors: On Secrets and Hypersecurity in Los Alamos." *Public Culture* 14, no.3: 441-467. https://www.muse.jhu.edu/article/26302

Mihai, Micheala. 2022. "Foundational Moments, Representative Claims and the Ecology of Social Ignorance." *Political Studies* 70, no.4: 962–982.

Mills, Charles. 2007. "White Ignorance." In *Race and Epistemologies of Ignorance.* Edited by Shannon Sullivan and Nancy Tuana, 26-31. Albany, NY: Suny Press.

Mookherjee, Nayanika 2006. "'Remembering to Forget': Public Secrecy and Memory of Sexual Violence in the Bangladesh War of 1971." *Journal of the Royal Anthropological Institute* 12, no. 2, 433-450.

Nelson, Rosie. 2020. "Questioning Identities/Shifting Identities: The Impact of Researching Sex and Gender on a Researcher's LGBT+ Identity." *Qualitative Research* 20, 6: 910-926.

Nowotny, Helga. 2020. "Afterword." In *Curiosity Studies: A New Ecology of Knowledge,* edited by Perry Zurn and Arjun Shankar, 269-290. Minneapolis: University of Minnesota Press.

Norgaard, Kari Marie. 2012. "Climate Denial and the Construction of Innocence: Reproducing Transnational Environmental Privilege in the Face of Climate Change." *Race, Gender & Class* 19, no. 1/2: 80–103.

O'Rourke, Lindsey A. 2018. *Covert Regime Change*. Ithaca: Cornell University Press.

Oreskes, Naomi, and Erik M. Conway. 2011. *Merchants of Doubt*. Bloomsbury Publishing USA.

Paglen, Trevor 2010. "Goatsucker: Toward a Spatial Theory of State Secrecy." *Environment and Planning D: Society and Space* 28, no.5: 759-771.

Paris, Scott G. eds. 2002. *Perspectives on Object-centered Learning in Museums*. Mahwah, NJ: Lawrence Erlbaum Associates.

Parpart, Jane L. 2013. "Choosing Silence: Rethinking Voice, Agency and Women's Empowerment." In *Secrecy and Silence in the Research Process*. Edited by Róisín Ryan-Flood and Rosalind Gill, 34-48. London: Routledge.

Phillips, Ruth B. 2019. "Making Fun" of the Museum: Multi-disciplinarity, Holism, and the "Return of Curiosity." *Museum and Society* 17, no. 3: 316-341.

Rappert, Brian. 2010. "Revealing and Concealing Secrets in Research: The Potential for the Absent." *Qualitative Research* 10, no. 5: 571-587.

_____. 2022. *Performing Deception: Learning, Skill and the Art of Conjuring*. Cambridge: Open Book Publishers.

Schiebinger, Londa, and Proctor, Robert N., eds. 2008. *Agnotology: the Making and Unmaking of Ignorance*. Stanford: Stanford University Press.

Schiebinger, Londa. 2005. "Agnotology and Exotic Abortifacients: The Cultural Production of Ignorance in the Eighteenth-century Atlantic World." *Proceedings of the American Philosophical Society* 149, no.3: 316-343. https://www.jstor.org/stable/4598938

Scrivner, Coltan, and Joseph M. Stubbersfield. 2022. *Curious About Threats: Morbid Curiosity and Interest in Conspiracy Theories*. OSF Preprints. https://osf.io/7fubx

Sedgwick, Eve Kosofsky. 2008 [1990]. *Epistemology of the Closet*. Oakland: University of California Press.

Simmel, Georg. 1906. "The Sociology of Secrecy and of Secret Societies." *American Journal of Sociology* 11, no.4: 441-498. https://www.jstor.org/stable/2762562

Stampnitzky, Lisa. 2020. "Truth and Consequences? Reconceptualizing the Politics of Exposure." *Security Dialogue* 51 no.6: 597-613. https://doi.org/10.1177/0967010620904576

Thomas, Owen D. 2016 "Blind to Complicity? Official Truth and the Hidden Role of Methods" In: *Exploring Complicity.* Edited by Michael Neu, Robin Dunford and Afxentis Afxentiou. 161-178. Washington, D.C.: Rowman and Littlefield.

Thomas, Owen D. 2017. "Good Faith and (dis) Honest Mistakes? Learning from Britain's Iraq War Inquiry." *Politics* 37, no. 4: 371-385. https://doi.org/10.1177/0263395716688488

Van Veeren, Elspeth. 2011. "Captured by the Camera's Eye: Guantanamo and the Shifting Frame of the Global War on Terror." *Review of International Relations* 37 no.4: 1721-1749. https://doi.org/10.1017/S0260210510001208

Van Veeren, Elspeth. 2019. "Secrecy's Subjects: Special Operators in the US Shadow War." *European Journal of International Security* 4 no.3: 386-414. https://doi.org/10.1017/eis.2019.20

Van Veeren, Elspeth; Clare Stevens, Tim Duroux and Amaha Senu. 2023. "Tunnel, Maze, Layer: Beyond Containment Understandings of the Politics of Secrecy." Working paper. Copy with the author.

Walters, William. 2020. "Everyday Secrecy: Oral History and the Social Life of a Top-secret Weapons Research Establishment During the Cold War." *Security Dialogue* 51 no.1: 60-76. https://doi.org/10.1177/0967010619887850

Walters, William. 2021. *State Secrecy and Security: Refiguring the Covert Imaginary*. London: Routledge.

WtC. 2020a. "Revolutionary New Scientific Research Space 'Open City Lab' to Open in Bristol's We the Curious." February 14. https://www.wethecurious.org/news/opencitylab

WtC. 2020b. "'John James Theatre of Curiosity' to open in Bristol's We The Curious." February 14. https://www.wethecurious.org/news/john-james-theatre-of-curiosity

Zurn, Perry, and Arjun Shankar, eds. 2020. *Curiosity Studies: A New Ecology of Knowledge.* Minneapolis: University of Minnesota Press.

Zurn, Perry. 2021a. *Curiosity and Power: The Politics of Inquiry*. Minneapolis: University of Minnesota Press.

_____. 2021b. "Feminist Curiosity." *Philosophy Compass* 16, no.9: https://doi.org/10.1111/phc3.12761