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The pop-up museum of legal objects project: an experiment in ‘sociolegal design’

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The Pop-Up Museum of Legal Objects project, around which this special issue is based, is an experimental work designed to make sociolegal research visible and tangible through engagement—individual and collaborative, abstract and material—with curated artefacts. It is a ‘pop-up’² in the sense that it took shape on one day for each of two events held at different locations: a workshop held at the British Museum in March 2017 (British Museum event),³ and a stream within the Sociolegal Studies Association annual conference at Newcastle University in April 2017 (SLSA event). Both events originated in a call for researchers to identify an object that resonates with their existing research, and to comment upon it.⁴ Selected participants were then led into a designed research experience centring on ‘found’ and ‘bespoke’ model-making.

Object-based research is a known, albeit not yet widely practiced, strategy among social science and humanities researchers including, increasingly, lawyers; and that strategy is itself part of a wider ‘turn’ among social science and humanities researchers including, increasingly, lawyers, towards material culture (see below). Like other endeavours focusing on legal objects, the Pop-Up Museum of Legal Objects project (hereinafter Pop-Up project) produced a collection of diverse geographical, historical and material origins, from Australia to Canada to Egypt, 1200 BCE to the present day, bark to gold to plastic. What renders the Pop-Up project distinctive among interventions in the ever-deepening legal object landscape is first, that it aims not only to generate new knowledge about objects and about law, but also to transform research behaviours; and second, that it pursues those aims by adopting an design-based, experimental, attitude. It is experimental in the sense that it is ‘based on or making use of experiment’—that is, of ‘a procedure undertaken to make a discovery, test a hypothesis, or demonstrate a known fact’. As such it is ‘tentative and provisional’ and based primarily ‘on experience not authority or conjecture’.⁵ This combination of systematic procedure and openness as to outcome generates a sphere of structured freedom in which imaginative, reflective and therefore, productive, research can flourish.⁶

Sociolegal design

As a sociolegal researcher, I am motivated by a commitment to ‘consistently and permanently address the need to reinterpret law systematically and empirically as a social phenomenon’.⁷ My research at the intersection of law, economics, sociology and development studies has made me increasingly aware of, and frustrated by, the constraints that we face in communicating with, between and beyond our disciplines.⁸ I see those constraints, as well as the real-world problems that they produce and/or fail to resolve, as social phenomena that must be addressed at every stage of the

sociolegal research process, and I have drawn on design—especially graphic and experience design—to find new, strategies for approaching their resolution.

As a designer, I am motivated by an awareness that ‘expert designers have developed a treasure trove’ of ‘sophisticated creative and innovative’ strategies, ‘many of which can be used outside of the confines of the traditional design domain’,⁹ Social designers in particular have sought to disseminate design-based strategies to generate and facilitate social change among ‘diffuse’, non-expert, lay designers.¹⁰ For example, Kees Dorst draws on a range of problem-focused design practices to help non-part designers to generate new frames through which, for example, civil society actors, can explore and innovate in relation to a social problem. Once a possible new frame has been identified, it is activated through a series of propositions following the pattern ‘*If...as if... then*’.¹¹ I have used this process to reframe the field of sociolegal research ‘as if’ it were a social design problem, to be approached through design-based strategies.

What are the implications of approaching sociolegal research through design-based strategies?¹² Social designer Ezio Manzini notes that designers exercise three ‘senses’: they are critical—able to ‘look at the state of things and recognise what cannot or should not be acceptable’; they are creative—able to ‘imagine something that does not yet exist’; and they are practical—able to ‘recognise feasible ways of getting things to happen’.¹³ Designers address these critical, creative and practical senses to their own work, to the community of design practice within which they operate, and beyond to the wider world on which they seek to have an effect. Importantly, designers seek to address these ‘senses’ both simultaneously and with intention. So, for example, design is not about being creative but impractical and/or uncritical; or creative for the sake of it, without deeper intention.

I would argue that these three ‘senses’ are, or at least ought to be, shared by a wide range of other ‘professionals’, including sociolegal researchers. The distinctive features that design/ers can bring to those other professions are (a) the ability to ‘amplify’ and ‘dynamize’ their (already critical, practical and creative) practice/research by ‘making things tangible and visible’ at every stage of the research process;¹⁴ and (b) in an atmosphere of structured freedom. Therefore the propositional frame for working at the intersections of sociolegal research and design becomes: *If* sociolegal research were treated *as if* it were a social design problem *then* it would at every stage be made visible and tangible, structured yet free.

Design offers an extensive range of strategies for making things visible and tangible, including typography, mapping, data visualisation and visual essays,¹⁵ some of which I have deployed in my own sociolegal research. For example, I have used typography to capture variations in the characteristics of some of the disciplines that inform sociolegal research,¹⁶ a collaborative on-site audio publication to explore ideas of community,¹⁷ a visual essay to explore the concept of collections of scholarly writing.¹⁸ But my on-going experimentation, completed solo and/or as a facilitator and provocateur of others, shows model-making to be an especially productive starting point for ‘non-expert’ designers such as sociolegal researchers. And that model-

making proves to be especially powerful when conducted as part of a consciously designed experience, in a space of structured freedom.

This article explores the strategies underlying the Pop-Up project, including the specific roles played by model-making in each event, and the experience design underpinning the project as a whole. Since those methods emerged from my unique experimentation at the intersections of law and design, some elements of that discussion are necessarily more self-referential than one might anticipate for an introduction to a special issue; but participant feedback collected during and after the events are used to widen the perspective throughout. The article concludes with an indication of how such model-making might extend beyond the museum into fieldwork, using an example from my own practice around an ox-hide copper ingot from Cyprus. Again, since that practice is unique, that section is necessarily unusually self-referential.

Making sociolegal research visible and tangible through model-making

Sociolegal model-making, as I envision it, is about using things to make sociolegal research visible and/or tangible. It can be seen as part of the multi-disciplinary phenomenon, widely referred to as the ‘material turn’, which has seen researchers across design, social sciences and humanities focusing their attention on ‘things’. But it has a distinctly pragmatic and hands-on quality.

Humans have always collected things, and antiquarians and museum curators have catalogued them since the 1700s.¹⁹ But the analytical power and wider impact of those activities has been challenged and leavened throughout, not only by art historians and other humanities specialists, but also by social scientists. For example, in the 1800s, Karl Marx explored how ‘things’ are, and ought to be, valued—by their utility, commodity, or labour input; in the 1920s anthropologists Bronislaw Malinowski and Marcel Mauss revealed the ‘active and constitutive social role’ played by gifted things, opening the door for philosopher Martin Heidegger to conceptualise things as having meaning ‘only in relation to other objects and persons’, for anthropologist-philosopher Pierre Bourdieu to reveal the role of objects in identity formation, and for sociologist Bruno Latour and others to develop Actor-Network Theory which sees humans and objects as having equal and mutually constitutive agency.²⁰ By the 1980s there was space for Arjun Appadurai ‘to place the “things” themselves at the centre of the debate’ with the suggestion that ‘even though from a theoretical point of view actors encode things with significance, from a methodological point of view it is the things-in-motion that illuminate their human and social context.’²¹ Probably the most radical manifestation of the rise of things has been the development, initially by Graham Harman, of an Object-Oriented Ontology for everything.²² Today the drive to study things ‘is intensifying across the arts, humanities and social sciences’, each bringing ‘their research, archives, methods and pedagogy to bear.’²³ Legal researchers have worked with each of these approaches, from Marx to Appadurai, to explore intersections between law and material culture; and the body of specifically object-centred legal research is rapidly thickening with several significant recent or forthcoming collections.²⁴ At the same time object-based activities are also an increasingly popular tool for teaching substantive material across social sciences,²⁵

including in law;²⁶ while research on file-making by Bruno Latour (Conseil d'Etat) and Cornelia Viseman (Rome and East Germany), and specialist collections such as the National Justice Museum at Nottingham and the Metropolitan Police Crime Museum highlight the extent to which objects have always been at the heart of legal practice.²⁷ So it is now almost unremarkable for a legal researcher to quote Sherry Turkle: 'We think with the objects we love; we love the objects we think with.'²⁸ However, the Pop-Up project appears to be the first to approach the study of things through abstract and concrete model-making, to treat that model-making as a research tool, and to do so with a view to influencing the wider behaviour of participants.

Model-making can, in my view, usefully be divided into three types: modular, found and bespoke.²⁹ What is required is an experimental attitude and some core strategies adopted from experience design, social design, critical industrial design and graphic design. I have experimented with each type of model-making both individually, in relation to my own research into law and inter-communal economic life in Cyprus; and collaboratively, with groups of 5 to 50 researchers each working on their own research topic. That experimentation revealed that all three forms of model-making can play a productive role at any stage in the research process from conceptualisation to data collection and analysis, dissemination and reflection; they can be done at minimal or expanded cost; they can be done individually or collaboratively; and each tends to serve distinctive function, and to be orientated to a distinctive type of enquiry.

The British Museum and SLSA events underlying the Pop-Up project involved a combination of found and bespoke model-making, but modular model-making is briefly introduced here for completeness.

By 'modular model-making' (Figure 1) I mean the use of pre-formed systems, such as Lego blocks or Genuino smart object components, to represent some concrete or abstract aspect(s) of sociolegal research projects. Such systems are designed to allow the non-expert user to easily start and scale up their build—in terms of size, complexity and sophistication—free of that fear-all-too-common-among-sociolegal-researchers: 'I am not creative'. My experimentation with researchers suggests that such modular models tend, at least at the outset, to serve a relatively explanatory function, and to be oriented towards more practical enquiries into 'How'? Here the 'making' consists of picking up and moving pre-fabricated objects in relation to each other, including fitting them together, in order to create a model.³⁰

By 'found model-making' (Figure 2) I mean the abstract or concrete deployment of already-existing things—whether stumbled upon, vernacular or curated; animate or inanimate—to explore some abstract or concrete aspect(s) of a sociolegal phenomenon. This seems to be the most common form of legal engagement with material culture: one originating in an interest in a period, theme, person or concept; and with the object being selected because it makes some aspect of that field of interest visible and tangible. My experimentation with researchers suggests that 'found' models tend, at least at the outset, to serve a more generative function and to be oriented to more critical enquiries into 'Why?' Here the 'making' takes the form of physically pointing at, and commenting on, the object in such a way that it becomes a

model, shedding light on the wider research topic and generating new questions along the way. An object-based commentary—just one of many outcomes that might result from an engagement with material culture³¹—tends to both work from the object outwards to the original fields of interests, and also to produce new fields of interest in the process.

By ‘bespoke model-making’ (Figure 3) I mean the creation of entirely new things, out of whatever material seems appropriate given the research purpose and any practical constraints, to represent some abstract or concrete aspect of sociolegal research project. My experimentation suggests that ‘bespoke’ models tend to serve a more speculative function and to be oriented towards more creative enquiries into ‘What if?’ In this case the ‘making’ is at its most physical, shaping the model from scratch.



Figure 1 Modular model-making. Credit Amanda Perry-Kessarlis



Figure 2 Found model-making. Credit Amanda Perry-Kessariss



Figure 3 Bespoke model-making. Credit Amanda Perry-Kessariss

Found model-making

The first act of Pop-Up project participants was to 'find' an item that had some resonance with their existing research interest and was on display in a public collection. They then produced object-based commentaries, through which they can be seen to have converted the objects into 'models' with which to think through their

existing research ideas, and to generate new ones. In so doing they were engaged in a specific visual methodology (object-based commentary) and from a particular (sociolegal) perspective.

Gillian Rose's influential critical visual methodology (Figure 4) proposes that the meaning of visual materials such as objects is made in four 'sites': audience, circulation, production, and in the object itself; and that each of these sites has three different 'aspects': social, material, technical.³² This typology helps to situate the Pop-Up project among other visual and object-based projects, and each object-based commentary in relation to the others. The project was designed to provoke and facilitate meaning-making (a) about objects in curated online and physical collections (b) by and for sociolegal researchers. So the object-based commentaries in this project were controlled in respect of all 'aspects' of the site of 'audiencing'--the social ('how interpreted? by whom? why?') compositional ('viewing possibilities offered? relation to other [objects]') and technological ('how displayed? where?').

Participants were encouraged to begin working on their commentaries through the methodology proposed by Jules Prown (1982) which addresses the social, material and technical aspects of the remaining three sites of visual interpretation identified by Rose: production, circulation, and the object itself.³³ Prown proposes a three-stage method for reading an object. In terms of Rose's typology, he begins with the 'site of the object', moves outwards to the sites of production and circulation, and does not reflect on the site of audiencing.

Prown's first stage is description, which focuses on 'internal evidence' and asks 'what can be observed in the object itself' upon substantive analysis (e.g. measurements), content analysis (decorations, motifs etc.) and formal analysis of its visual character? The core strategy is to start general, and become progressively more specific. Prown's second stage is deduction, in which the item is handled; and in which sensory, intellectual and emotional engagement are deployed to ask 'what would it be like to use or interact with the object?' or, in the case of a 'representational work' such as a painting, what would it be like 'to be transported into the depicted world'. Here conclusions must be reasonable and commonsensical. This element of the analysis was not fully possible for most participants in the Pop Up Museum of Legal Objects experiment, given that the items were subject to handling restrictions. But it is possible to get a good way towards an equivalent result from close inspection.³⁴

All participants responded positively to the process of producing an object-based commentary. One SLSA participant argued that 'constructing a narrative around' an object was 'crucial' to 'bringing ... theory to life ... in a contemporary setting. In a sense, the object acts as an anchor to reality' and prevents the discussion from 'drift[ing] off in a tide of dry, academic discussion' by 'tethering it to something we can not only see, but feel, approach and assess.' But it goes further, offering 'a point of entry for accessing the same content from different perspectives'; thereby allowing you to 'venture off along myriad ... narratives around and of the object' always from the 'perspective of the shared starting point' (SLSA event). Other participants reported that they found drafting an object-based commentary caused them to reflect on disciplinary divides and research methods. For example participants found it

'freed [them] to interrogate and expand' their 'assumptions', in particular assumptions about 'materiality, law, history; and their relation to techniques and technologies of empire (Museum event); or 'invited [them] to reconsider the objects of legal enquiry and law's relationship with other disciplines,' leading to 'a more nuanced understanding of the research topic and themes' (SLSA event); or triggered a new 'reflect[ion] on the role of materiality', with '[i]deas that came up during the process of drafting the commentary ... now making their way into other pieces of work' (SLSA event).

The object-based commentaries for the Museum event were presented in eight rooms on three different floors of the building. Conditions were variable: sometimes brightly lit, sometimes gloomy; sometimes in silence, sometimes with tourists and school children stopping to listen and/or creating enough noise that presenters had to shout. One participant remarked that it was 'great to be able to refer directly to the tangible object, not only to ground my ideas but also to contextualise the object amongst the others with which it was displayed'; another that it was '[d]aunting because of the "public" aspect, but also really brought alive the object to speak with it physically present.'

The third and final stage of Prown's method is speculation. Here '[w]hat is desired is as much creative imagining as possible, the free association of ideas and perceptions tempered only, and then not too quickly, by the analyst's common sense and judgment as to what is even vaguely plausible'.³⁵ The Pop-Up experience was designed to 'dynamise and amplify' this aspect of the commentary by encouraging participants to make it visible and tangible through a sequence of solo and collaborative acts of bespoke model-making, all further dynamised and amplified by being documented and shared online.

		Aspect		
		Social	Material	Technical
Site	Audience	Interpreted by sociolegal researchers; using sociolegal criteria, for sociolegal research.	Viewed as part of a curated collection.	Displayed online and physically.
	Production	Open	Open	Open
	Circulation	Open	Open	Open
	Object itself	Open	Open	Open

Figure 4 Project constraints within Rose's (adapted) typology of visual methods³⁶

Bespoke model-making

Bespoke model-making involves ‘embodied making’ to create wholly new objects. ‘Embodied making’ refers to ‘the processes of making in materials’, or to ‘experiences when making artefacts or engaging in other creative activities with materials’. Here ‘embodied’ refers to ‘a perspective on experiences as a unity of cognitive and bodily processes’.³⁷ It is about thinking about and through making, and my individual and collaborative experiments suggest that, among other things, it activates the legal ‘unconscious’.³⁸

Participants in the Pop-Up project made a range of bespoke models depending on the event. Participants in the Museum event made (a) alone, and in advance of the event, physical traces of object-based commentaries for distribution to other participants during the event; (b) communally, and during the event, representations of their chosen objects to display communally and then take home as a memento. Participants in the SLSA event made, alone and before the event, representations of their chosen objects to display communally.

Trace of commentary

Museum event participants were asked to create a trace of their commentary for distribution to their, as yet unknown, collaborators. The intentions were to engage participants materially, and therefore deeply, both with their objects and with their audience; in so doing to trigger an additional level of investment from them in the event as a collaborative experience; and to generate a lasting visible and tangible expression of that collaborative experience. Participants engaged wholeheartedly and creatively with this, their first, and potentially nerve-wracking modelling task. One remarked ‘I spent a week on mine and it really changed the way I thought about the object and about my research.’ Another observed that the process was ‘productive in unexpected ways, particularly in terms of the engagement with different (actually and potentially useful) materials’, and in the sense that they ‘had not thought of my legal research as being so readily interpretable in material form.’

As some of the papers in this special collection explain, the traces came in all shapes, sizes and materials and with a wide range of intentions (Figure 5): grains of rice in a jar, a papier maché figure, a miniature set of notes-to-self, an image of the sound wave produced by saying the name of the object, paper incised in a delicate pattern, a handmade flower. They were distributed during or at the end of each presentation, each time generating that all too rarely heard phrase in academia, ‘thank you’, a smile, and a moment of awe; and they continue to serve as a permanent memento of the day (Figure 6).

Representation of object

The second modelling task for the British Museum event was communal and occurred at the end of the day in the Great Court (along side a reflection questionnaire). Participants modelled their chosen objects in black, yellow and/or red fimo modelling clay and placed them on the designed display mat to form the first physical manifestation of the Pop-Up Museum of Legal Objects (Figure 7). Many

reported that it was fun. One enjoyed the fact that clay modelling ‘allows for tactile engagement with the object’, another that they ‘love the feeling of doing research with our hands’. Others noted that it created a reflective, almost therapeutic, space: ‘wonderful—exactly what I needed to do after all that talking and listening’; a chance ‘to let all the information sink in and process’ and spot ‘links and distinctions between such disparate objects’; ‘making and bringing together the models made tangible those connections and commonalities’ into a ‘sort of material manifestation of the dialogue that we have taken part in’; a ‘different form of collaboration’; and ‘helpful for...identifying the core of my interest in the object that I chose.’ Finally one participant observed that clay modelling ‘gives a sense of personalization of ownership of an aspect of the selected object.’ On returning home after the event participants baked the models they had made to stabilise them, forming a second physical memento of the day.

Likewise, most SLSA participants got much from the process of making a model of their chosen object in advance of the event, with several choosing to document and share their making process via social media. One described it as ‘a particularly enlightening activity’ because it facilitated a ‘“hands-on” physical relationship with the model-making materials,’ forced a ‘confrontation’ with ‘the limitations of the original object (in particular its inability to represent a dynamic process); and allowed/caused the researched to be ‘guided’ by ‘knowledge of the research process but also – to a degree – open to intuition as [they] worked with the materials.’ Just as participants in the Museum event referred to their curated objects during their presentations, so SLSA event participants referred both to their original chosen objects and to their models throughout their presentations, adopting a range of approaches to both—some more metaphorical others more literal (Figure 8). Sometimes the objects and models offered the perfect way to illustrate or summarise a legal point the presenters had already wanted to make; sometimes the objects and models generated new avenues of inquiry. In every case the presence of the model, displayed on the mat with all the others, seemed to offer different, more open, points of contact for all present.



Figure 5 Introducing a trace, British Museum. Credit Amanda Perry-Kessaris



Figure 6 Traces collected at home. Credit Amanda Perry-Kessaris



Figure 7 Collaborative making, Great Court, British Museum. Credit Amanda Perry-Kessaris



Figure 8 Presenting with a model, SLSA event, Newcastle. Credit Amanda Perry-Kessaris

Designing the Pop-Up Museum of Legal Objects experience

There exists a growing number of arts-based projects on legal themes that pay close attention to the experience of participants, including, for example, ‘In the Shadow of the State’³⁹ and ‘Voices of the Court’.⁴⁰ However, the Pop-Up Museum of Legal Objects may well be the first example of conscious legal event experience design. The emergent field of event experience design draws on user experience (UX) design of digital interfaces, product design and service design (e.g. shopping, tourism and government); but it is concerned with the design of events such as festivals, exhibitions and pop-ups. Event experience design goes beyond curatorial acts of, for

example, organizing the presentation of objects and information about them. Crucially, experience design focuses on generating emotional, intellectual and/or behavioural change among event participants.⁴¹ In the case of the Pop-Up project, the rather ambitious intention was to change the emotions, thinking and behaviour of socio-legal researchers before, during and after the events. The following paragraphs detail the core design-based strategies through which the two Pop-Up events were converted into an object-based research experience.

Empathy and narrative

The first strategy, and constant touchstone, in designing experiences is to identify (with) the intended participants, initially through a process borrowed from service design known as ‘empathy mapping’.⁴² This entails enumerating the everyday sensory experiences of a typical participant—that is, what they generally think, feel, say and do; what kinds of ‘pains’ they are prone to experiencing, and what kinds of ‘gains’ the experience you are designing might be able to generate. This process can draw on a range of resources from survey data to common sense. For example, as an experienced member of the sociolegal community I might surmise that sociolegal researchers generally tend to think and speak of legal phenomena as based in a combination of text and social interaction, and to do their own research primarily internally and alone, and (yet?) to feel that in so doing they are part of a wider and unknown sociolegal community (past, present and future);⁴³ and that as such they are open to ‘pains’ of loneliness, abstraction and path-dependence and to ‘gains’ in the form of feelings of openness, experimentalism and camaraderie.

The second core strategy of experience design is to generate a narrative that will give coherence and meaning to the experience from the perspectives of the intended participants. Here ‘narrative’ connotes both a substantive theme and the mode(s) by which it operates. The narrative motivating the Pop-Up project was ‘making socio-legal research tangible and visible’—it was the focal theme and the mechanism by which the theme was realised.

Third, the key components of the experience, whether occurring before, during or after the events, must be chosen and structured⁴⁴ so that they supported the overall narrative. In the case of the Pop-Up project, support for the narrative of making things visible and tangible⁴⁵ began well in advance of the British Museum and SLSA events. I designed a large format laminated display mat;⁴⁶ an illustrated, foldable guide to the day; an online repository for the Pop-Up Museum to be added over time; and a slide show display of objects for projection at the main meeting point of the SLSA event. Meanwhile participants not only prepared their commentary (see Found model-making above), but also made, for the Museum event, a simple ‘trace’ of that commentary for distribution to other participants, and for the SLSA event, a model of their chosen object (see Bespoke model-making above).

It was important to the emotional, intellectual and behavioural change targets of the Pop up project that participants experience making things visible and tangible both individually and collaboratively. So the events themselves began and ended with a communal act of making: shaping into a booklet the guide designed for the day

(Figure 9) and displaying the models on the mat (Figure 10 and 11). As anticipated, the physical process of folding and tearing the event guide generated remarkable effects among participants: laughter, intrigue, sharing, humility and delight. One SLSA participant observed that ‘being asked to fold the programs helped, as it felt as though we were also constructing the fixed documentary presentation of our objects’ and prompted consideration of how ‘certain objects are selected, curated, documented and presented’. Another felt that ‘the booklet was something you actually wanted to take home with you – not just because of its size, colour and personal relevance, but also I think because we had sat and built them together.’

The fourth lesson from experience design is that the nature of these components and their sequencing should be calibrated in advance using a strategy borrowed from service design known as emotional mapping to take account of how the participants will feel—relatively positive or negative—at each stage of the experience.⁴⁷ Here the emphasis is on identifying and ensuring a reasonable trajectory of emotion, bearing in mind that, although wild emotional swings may not be productive, there will be a need for period of lull and contrast. So, for example, both the Museum event and the SLSA event began with the restful communal acts of folding the guides (Figure 9), followed by relatively fraught/passive, acts of presenting and listening to object-based commentaries, and ending with the final communal act of (making and/or) displaying the models together on the mat (Figures 10 and 11). The SLSA event ended with the mat, guides and models being transferred to the central conference meeting area to sit alongside a slideshow of the objects which had been playing throughout the conference (Figures 12 and 13). One participant noted that it was ‘nice to have a tangible trace of the presentations’ so that, ‘unlike most conventional presentations, ... they didn’t simply disappear after the relevant session was over’; another that it ‘led to a fruitful discussion with other delegates’ about how ‘incorporating images of models into our research data might aid understanding and enable the creation of previously unarticulated constructions of the research process.’

Appreciation for each element of each event was indicated multiple times, by most participants. For example, one SLSA participant reflected that completing the feedback form triggered an appreciation of the number of ‘contextual elements’ that had been ‘added to structure the production and presentation of our commentaries’, that this was in ‘such contrast to a standard conference paper’ which tends to ‘exist[] almost entirely in isolation’, that this had been ‘very helpful in doing the writing and presenting’ and that it prompted a strong ‘engage[ment] in the project’s rationale.’

Barriers to engagement

Finally, experience design reminds us that the achievement of the overarching aims, as well as any intermediate ‘gains’ from each component of the experience, are always subject to the constraint of emotional, intellectual and behavioural barriers to engagement. The categories of barriers are general to all humans, including event participants, and are well summarised by Maslow’s (1943) hierarchy of basic physical, emotional and intellectual needs.⁴⁸ But the fulfilment of those needs—the nature of the barriers and the methods of overcoming them—is often specific to each participant.

Although there is much value in the creative spaces that such sensations can conjure up, embarrassment is a general barrier to engagement. Making things visible and tangible in a public space is bound to feel at least somewhat awkward for most. For example I had to face the possibility that I would be barred on security grounds from bringing the large-scale display mat into the museum. But more important is the fact that museums are not neutral spaces, and to some they feel actively unwelcoming, *per se* and everyday. Hence the existence of Museum Detox, a movement led by senior Black and Minority Ethnic (BAME) museum professionals dedicated to make museums more open to and representative of the people that they are expected to serve, not least by the power of their signature #Museumdetoxflash,⁴⁹ and the Disability Cooperative Network for Museums was formed by museum professionals to convert museums into enabling environments in every respect.⁵⁰ Likewise, making things visible and tangible in an academic environment can open up new points of access. For example, one highlight of the SLSA event was the observation by an audience member that, as a PhD student with dyslexia, she found a spontaneous use of clay models to explain relationships between law and trust to be revelatory. But academic environments too are often specifically socially and physically disabling and exclusionary. So, for example, for the SLSA event applications were welcomed from those who were unable to attend in person.

Finally, the digital media were used in part to maximise access to, and the impact of, the project. All the objects from across the events came together online via social media and the Pop-Up museum of legal objects website was both meaningful and provocative for several participants: one participant suggested that the online pop-up museum offered a 'different framing of the museum collection'; another participant was caused to dwell on 'the need for all researchers to be reflexive about power dynamics and to be mindful of their role in co-constructing the research environment'; and a third observed that 'it really creates a sense of a project within which all these diverse objects are participating' so that 'what might have been a footnote to my own research instead becomes a proper part of the wider project'. Snippets of each presentation were live tweeted and embedded in an explanatory blog post for each event. One SLSA event participant observed that this 'demonstrated that researchers may, when necessary, adopt a more flexible approach'; and another that it probably 'reached a number of people who weren't able to come to the sessions.'



Figure 9 Folding guides, Great Court, British Museum. Credit Amanda Perry-Kessarlis.



Figure 10 Display, Great Court, British Museum. Credit Amanda Perry-Kessarlis



Figure 11 SLSA event models in the conference room, Newcastle. Credit Amanda Perry-Kessararis



Figure 12 SLSA event models in main meeting space, Newcastle. Credit Amanda Perry-Kessararis

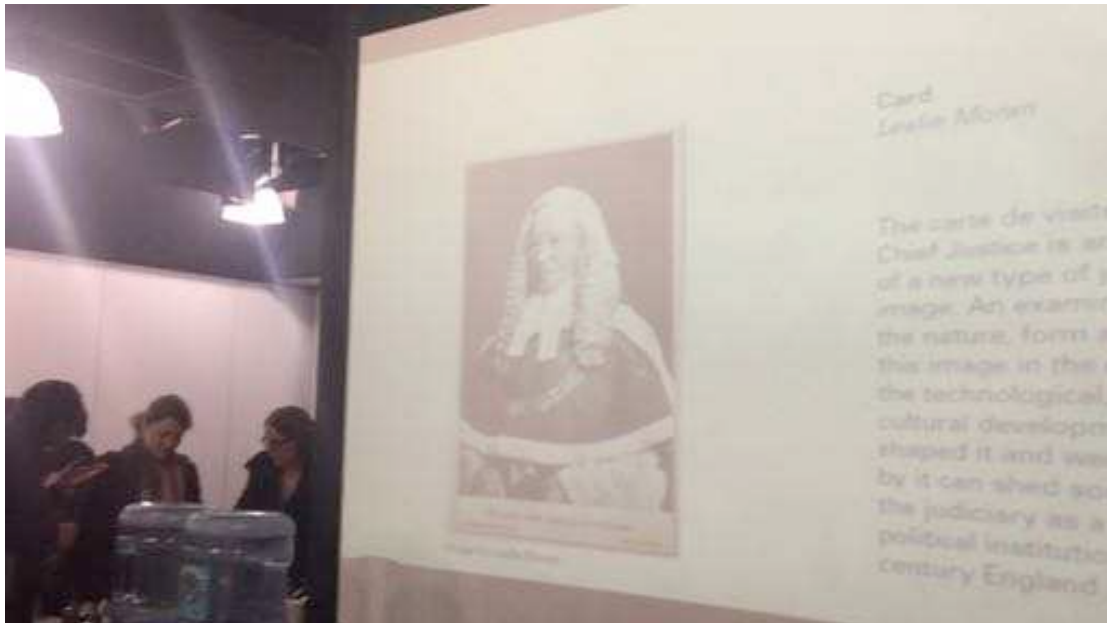


Figure 13 SLSA event slideshow in main meeting space, Newcastle. Credit Amanda Perry-Kessararis.

Process case study: the ox-hide copper ingot

In this penultimate section I will reinforce the Pop-Up Museum of Legal Objects process by setting it out in its entirety in relation to one object—that which I myself presented as part of the Museum event (Figure 14); and suggest possible extensions to that process by explaining how I have since taken the model-making that I began within the Pop-Up project onwards into fieldwork in Cyprus.⁵¹

The object in question is a 37 kilo ox-hide ingot made of raw blister copper (Figure 15).⁵² It is named for its distinctive and organic shape, which was a standard format for transportation in the Mediterranean 3.5 thousand years ago (around 1200 BCE). It could be carried across the back of one person or in the hands of two people, and it was easy to stack in a ship's hold. Although Cyprus was known for its copper and curatorial notes indicate that this particular ingot was found in Cyprus, we cannot be certain of where any such ingots originated, or what patterns of trade they represent.⁵³

For me this ingot is a vibrant material inspiration for my research into law and contemporary economic interactions between Greek Cypriots and Turkish Cypriots. Cypriot inter-communal trust has been under periodic and rising stress through Ottoman and British colonial times. In post-independence 1963 there was enough violence to prompt the UN to establish an (on-going) peacekeeping mission. And in 1974 Greek-backed attempted military coup triggered an invasion by Turkey. Cypriots have been culturally, socially, politically, militarily, physically and economically divided ever since.⁵⁴ In the last decade restrictions on the movement of people and goods have been eased somewhat. Turkish Cypriot and Greek Cypriot economic actors (producers, distributors, consumers, traders) have begun to interact across the divide, prompting open and compelling speculation as to the actual and potential dividends to the Island from inter-communal economic activity and, ultimately, reunification.⁵⁵ My research focuses on how law does/might support these

economic interactions, in particular by nurturing, and at least not undermining, inter-personal trust.

In this ingot I see both what has been lost, and what is possible for economic life in Cyprus. Its organic, symmetrical and radial shape implies economically-relevant themes such as pragmatic standardization, collaborative networks and mobility. Its carunculated surface suggests an ancient history; but one that has, like inter-communal Cypriot economic life, been on pause, ever since this ingot was buried for safe-keeping near the village of Engomi around 1200 BCE. Its material capacity for redeployment through smashing and smelting into new forms speaks of econo-socio-legal transformation. Presented in a glass museum display case, it references the helpful/harmful preservation of, and reverence for, histories; the painful and positive memories they harbour; and their power to facilitate/destroy inter-communal economic life and reconciliation.

How can we activate the ideas suspended behind the curatorial glass? We could cast a prosaic gaze over the modern copper industry in Cyprus: a factory-based affair that lives at Skouriotissa,⁵⁶ the world's oldest copper mine which was run without benefit to colonial Cyprus⁵⁷ which today is operated by Hellenic Copper Mines⁵⁸, whose logo is a man carrying an ancient ingot on his back. The mine is squashed between the UN peacekeeping force UNFICYP Sector 1 HQ San Martin Camp on the one hand, and the buffer zone that divides Cyprus on the other. Just the other side of the buffer zone, in the Turkish Cypriot-majority north of the island, around the ruins of the ancient kingdom of Soli, lie the remains of a light railway and pier through which the island-wide international metal trade once flowed, and around which the sea ran red with copper dust (Figure 16). But those days are gone.

Instead I chose a curatorial gaze, this time visiting the Cyprus Museum in Nicosia, where I spied a cornucopia of miniature, palm-sized, ox-hide copper ingots that were circulated in Cyprus contemporaneously with the full size versions (Figure 17).⁵⁹ These miniatures were originally understood by archaeologists to be a form of currency⁶⁰ referencing the use of cattle as a unit of account,⁶¹ but it was later concluded that they were in fact votive offerings.⁶² Both of these interpretations resonate with my purposes, so I have made a set of miniature modern replicas⁶³ as embodiments of both memories of, and hopes for, econosociolegal pasts and futures (Figure 18). For it seems to be in these binaries that inter-communal trust can form, in support of which law ought in turn to be deployed.

I distributed these mini-ingots to collaborators as 'traces' of my commentary during the Museum event (Figure 19). But I have also used them to help to uncover and tell the story of law, economy and trust during field work in Cyprus—working them into interviews (Figure 20), and staging them in key locations (Figure 21). These extensions into model-making out of the museum and beyond academic environments have highlighted to me the representational work that can be done by model-making.⁶⁴

Bruno Latour has observed that a focus on objects can 'bring together two different meanings' of 'representation'. Within the Pop-Up project, the focus on legal objects did indeed 'bring together' both dimensions of 'representation' as predicted by Latour.

The first meaning, 'well known in schools of law and political science, designates the ways to gather the legitimate people around some issue.' In this context 'a representation is said to be faithful if the right procedures have been followed'; and the effect is that 'a sort of place, sometimes a circle, which might be called an assembly, a gathering, a meeting, a council' is drawn. In the Pop-Up project each participant made a representation about law and about an object through the (structured freedom of) the designed sequence of tasks (presenting, making, distributing according to what Latour calls the 'proper procedure'), thereby generating a series of circles or gatherings. In the second meaning observed by Latour, 'well known in science and in technology', a representation '*represents* what is the object of concern to the eyes and ears of those who have been assembled around it.' In this context a representation 'is said to be good if the matters at hand have been accurately portrayed'; and the effect is to 'bring[] *into* this newly created locus a topic, a concern, an issue, a *topos*.'⁶⁵ In the Pop-up project, each representation was brought into the circle or gathering in the form of a visible and tangible object representing the representation, whether in a curated or traditional academic space. During my extension work in interviews and site visits I found that this double representation was intensified: interviewees and I collaborated in using the traces and other models (representations) to represent their representations about possible relations between law, trust and economy.

Whether in a museum, an academic setting or beyond, I know that model-making has added a new and productive dimension to my research process: at once focusing attention, and opening up creative analytical, empirical and normative space. But my understanding of and ability to communicate about that new dimension remains constrained, to be addressed through further experimentation, literature review and reflection.



Figure 14 Presenting the copper ingot, British Museum. Credit Luis Eslava



Figure 15 [a,b,c to be displayed next to each other] Getting to know the ingot. Credit Amanda Perry-Kessararis



Figure 16 Disused copper transport system, Soli, Cyprus. Credit Amanda Perry-Kessaris



Figure 17 Miniature ingots, Cyprus Museum, Nicosia. Credit Amanda Perry-Kessaris



Figure 18 Making the ox-hide ingot traces. Credit Amanda Perry-Kessaris



Figure 19 Distributing ingot traces, British Museum. Credit Amanda Perry-Kessaris



Figure 20 Collaboratively deploying ingot trace in an interview, Nicosia. Credit Amanda Perry-Kessararis



Figure 21 Staging ingot traces at St Hilarion, Cyprus. Credit Amanda Perry-Kessararis

Conclusion

For me, the Pop-Up Museum of Legal Objects is an on-going experiment that forms part of my personal exploration of the proposition: *If* sociolegal research were treated *as if* it were a social design problem *then* it would be made visible and tangible at every stage, in an atmosphere of structured freedom. And that proposition is just one component of my wider enquiry into the potential for design to improve communication, openness, agility and future-focus in sociolegal research.

This project adds weight to my evolving awareness that there is something to be gained from making things visible and tangible at every stage of the research process, including conceptualisation, data collection, data analysis, dissemination

and reflection;⁶⁶ that the use of model-making at any stage in the research process produces positive spill-over effects into every other stage; and that there is merit in continuing to develop my sociolegal design manifesto in progress (Figure 22). For each participant and each contributor to this special issue, the Pop-Up Museum of legal objects no doubt means something more, something less and/or something entirely different. And that is exactly as it should be.

be	:	ask	:	to	:	make
practical	:	how	:	explain	:	modular
critical	:	why	:	generate	:	found
creative	:	what if	:	speculate	:	bespoke

Figure 22: Sociolegal design manifesto in progress

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² For a survey of the increasingly diluted and commercialised concept of pop-ups see Kira Cocrane 'Why pop-ups are everywhere' *The Guardian* 12 October 2010. Available at <https://www.theguardian.com/lifeandstyle/2010/oct/12/pop-up-temporary-shops-restaurants>.

³ Details of the entire process for each event, including video footage, can be found at A Perry-Kessaris (2017) 'Sociolegal model making 7: object-based commentary in a curated space' Blog Post. April 8 2017. Approaching the Econosociolegal. Available at <http://wp.me/p7a9DX-CI> and A Perry-Kessaris (2017) 'Sociolegal model making 8: Pop-Up Museum of Legal Objects'. Blog Post. April 8 2017. Approaching the Econosociolegal. Available at <http://wp.me/p7a9DX-Hj>

⁴ Both events were attended by faculty and doctoral students from UK and Canadian institutions who responded to open calls for participation.

⁵ Concise Oxford Dictionary 9th edition.

⁶ For an extended discussion of the role of creativity in research and learning see Alison James and Stephen D. Brookfield *Engaging Imagination: Helping students become creative and reflective thinkers* Jossey-Bass. Thanks to Jackie Gulland for this reference.

⁷ Roger M. B. Cotterrell (1998) 'Why must legal ideas be interpreted sociologically?' *J. Law Soc.* 25:171–92, p. 183.

⁸ A Perry-Kessaris (2014) 'The case for a visualized economic sociology of legal development' 67 *Current Legal Problems* 169-98.

⁹ Kees Dorst, Lucy Kaldor, Lucy Klippan, Rodger Watson (2016) *Designing for the Common Good* Amsterdam: BIS Publishers, p.3

¹⁰ E Manzini (2015) *Design, When Everybody Designs* MIT Press, p. 37.

¹¹ Kees Dorst *Frame Innovation: Create new thinking by design* MIT Press, Chapter 4.

¹² Christopher Frayling has observed that research can be done 'through', 'into' or 'for' design. I am proposing that sociolegal research can be done through design. C Frayling (1993) *Research in Art and Design 1:1 Royal College of Art Research Papers* 1.

¹³ E Manzini (2015) *Design, When Everybody Designs* MIT Press at p. 31

¹⁴ E Manzini (2015) *Design, When Everybody Designs* MIT Press at p.121.

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- ¹⁵ See for example Ellen Lupton (2010) *Thinking with Type* Princeton Architectural Press; Edward R. Tufte (1990) *Envisioning Information* Graphics Press; Denis Wood (2013) *Everything Sings: Maps for a narrative atlas* Los Angeles: Stiglio; and John Berger (1972) *Ways of Seeing* Penguin.
- ¹⁶ A Perry-Kessarar (2014) 'The case for a visualized economic sociology of legal development' 67 *Current Legal Problems* 169-98.
- ¹⁷ A Perry-Kessarar (2016) 'EXCHANGE'. Blog Post February 16 2016. Approaching the Econosoiological. Available at <http://wp.me/s7a9DX-exchange>
- ¹⁸ Perry-Kessarar A (2016) 'Collecting value/valuing collecting' 3:3 *London Review of International Law* 121-4.
- ¹⁹ See for example, N MacGregor *A History of the World in 100 Objects* Penguin and the accompanying BBC podcast series available at <http://www.bbc.co.uk/programmes/b00nrtd2/episodes/downloads>.
- ²⁰ Leonie Hannan and Sarah Longair (2017) *History through Material Culture* Manchester University Press, Chapter 1.
- ²¹ Arjun Appadurai (ed.) (1986) *The Social Life of Things: Commodities in cultural perspective*. CUP; cited in Leonie Hannan and Sarah Longair (2017) *History through Material Culture* Manchester University Press, p. 24.
- ²² See G Harman (forthcoming 2018) *Object-Oriented Ontology: A new theory of Everything* Penguin. Thanks to Lucy Finchett-Maddock for this point.
- ²³ F Candlin and R Guins eds. (2009) 'Introducing objects' in *The Object Reader* Routledge. See also *Reading Things*, Neil Cummings, Sight Works Vol.3, Chance Books, London (1993), *The Language of Things*, Deyan Sudjic, Penguin, London (2008); *Thing Theory*, Bill Brown (2001): <http://faculty.virginia.edu/theorygroup/docs/brown.thing-theory.2001.pdf> . Online expanding object-oriented collections include 'Object Lessons' Available at <objectobjectobjects.com>; the Objects section of 99 Percent invisible 99pi.org, and 'The Things that make us' <https://twitter.com/ThingsMakeUs>
- ²⁴ See for example J Hohman and D Joyce (forthcoming 2017) *Objects of International Law* Oxford University Press; and M Chiam, L Eslava, G R Painter, R Parfitt and C Peevers 2017 5:1:1 *London Review of International Law* Special Issue on History, Anthropology and the Archive of International Law.
- ²⁵ Lydia Morgan (2017) 'Understanding Dworkin through art: object-based learning and law' *The Law Teacher*, DOI: 10.1080/03069400.2017.1279437; UCL Teaching and Learning Portal Object-Based Learning Guides and Case Studies; Blunsdon, K. Reed, N. McNeil, S. McEachern, 'Experiential Learning in Social Science Theory: An Investigation of the Relationship between Student Enjoyment and Learning' (2003) 22(1) *Higher Education Research and Development*; Joe Cain, 'Practical Concerns when Implementing Object-Based Teaching in Higher Education' (2010) 3 *University Museums and Collections Journal*; Cynthia Carter Ching, James A. Levin, Jeanine Parisi, 'Perspectives on Artifacts in Physical and Virtual Learning Environments' (American Educational Research Association Symposium, Chicago, 22 April 2003); P.J. Corfield, 'Hobbling Around with the Burden of Easily Forgotten Information' *The Times Higher* (London, 25 September 2008); Helen Chatterjee, 'Staying Essential: Articulating the value of OBL' (2008) 14 *University Museums and Collections Journal*; Helen Chatterjee, 'Object-Based Learning in Higher Education: The pedagogical power of museums' (2011) 3 *University Museums and Collections*

Journal; Helen Chatterjee and Rosalind Duhs, 'OBL in Higher Education' (2010) CETLD Learning at the Interface Conference Proceedings; Denisse Marie De Leon, 'Museums in the Classroom: Preservation Virginia's John Marshall House Trunk' (VCU Thesis and Dissertation, 2010); and Rosalind Duhs, 'Introduction to Object Based Learning' University College London.

²⁶ For example, at Kent Law School modular and found model-making and other object-based activities are offered to postgraduate taught students, and are required for postgraduate research students. See for example Perry-Kessarais A 'The Origins of the Legal Treasure Project' (2013) Blog post. *Approaching the econosociolegal* <https://econosociolegal.wordpress.com/2013/04/03/legal-treasures-tours/>

²⁷ Bruno Latour (2010) *The Making of Law: An Ethnography of the Conseil d'État*. Translated by Marina Brillman and Alain Pottage, revised by the author. Cambridge: Polity; Cornelia Viseman (2008) *Files* Stanford University Press. Thanks for Les Moran for this point.

²⁸ Sherry Turkle (ed.) *Evocative Objects: Things we think with* (Cambridge, MA: MIT Press, 2007), p.5 cited in Leonie Hannan and Sarah Longair (2017) *History through Material Culture* Manchester University Press, p.1.

²⁹ A Perry-Kessarais (2017) 'Sociolegal model-making 10: Towards a taxonomy'. Video. Available at <https://vimeo.com/217682782>

³⁰ For examples of modular model-making in action, including video footage, see A Perry-Kessarais (2016) 'Sociolegal model making 1: Decision' Blog post July 15, 2016. *Approaching the econosociolegal*. Available at <http://wp.me/p7a9DX-e> and A Perry-Kessarais (2016) 'Sociolegal model-making 4: Discussion'. Blog post September 22 2016. *Approaching the econosociolegal*. Available at <http://wp.me/p7a9DX-7>

³¹ See Leonie Hannan and Sarah Longair (2017) *History through Material Culture* Manchester University Press.

³² G Rose (2016) *Visual Methodologies: An introduction to researching with visual materials* Sage. Rose speaks of the 'sites' of audiencing, of production, of circulation and of the image itself; and the technological, compositional and social 'modalities' pp. 25-47.

³³ For additional practical information on every aspect of object-based research, including handling and analysis, see Hannan and Longair (2017) *History through Material Culture* Manchester University Press.

³⁴ For an example of full handling process see A Perry-Kessarais (2016) 'STANDARD'. Blog Post February 16, 2016. *Approaching the econosociolegal*. Available at <http://wp.me/s7a9DX-standard> and A Perry-Kessarais (2016) 'How to read an object' Blog Post April 4, 2016. *Approaching the econosociolegal*. Available at <http://wp.me/p7a9DX-s>

³⁵ Prown, J. D. 'Mind in Matter: An introduction to material culture theory and method' 17:1 *Winterthur Portfolio* (Spring 1982) pp. 1-19 at p. 10

³⁶ G Rose (2016) *Visual Methodologies: An introduction to researching with visual materials* Sage. Rose speaks of the 'sites' of audiencing, of production, of circulation and of the image itself; and the technological, compositional and social 'modalities' pp. 25-47. See also Hooper-Greenhill, E. (2000) *Museums and the interpretation of visual culture*. London: Routledge.

³⁷ Marte S. Gulliksen, Catharine Dishke-Hondzel, Tellervo Härkki and Pirita Seitamaa-Hakkarainen (2016) 'Embodied Making and Design Learning' 9:1 *Form Akademisk* Special Issue from the Learn X Design-conference DRS/CUMULUS, Chicago 2015. P. 1 citing Rosch, E., Thompson, E., & Varela, F. J. (1991). *The embodied mind: Cognitive science and human experience*. Boston, MA: MIT Press and Nilsson, F. (2013). Knowledge in the making. On production and communication of knowledge in the material practices of architecture. *FORMakademisk*, 6(2), 1–13.

³⁸ Maria Aristodemou (2014) *Law, Psychoanalysis, Society*, Routledge; Peter Goodrich (1995) *Oedipus Lex: Psychoanalysis, History, Law*, University of California Press.

³⁹ 'In the Shadow of the State' was a collaboration between Dublin-based Sarah Browne and Jesse Jones 'exploring statehood from the perspective of the female body' through 'a series of participatory live events in historically resonant spaces', as well as 'objects of cultural significance, activated through highly improvised and sonically driven performance'. <<https://www.artangel.org.uk/project/in-the-shadow-of-the-state>>

⁴⁰ 'Karaoke Court' was a work by Singapore-based Jack Tan which saw participants to 'resolve their disputes by singing karaoke in front of an audience who will decide who wins'. Available at <<http://www.jacktan.net>>.

⁴¹ This emergent field lacks an established literature, drawing instead on material from a wide variety of other fields from branding to psychology. This section of the article draws heavily on a slides, activities and discussion during a course on Designing Narratives for Event Experiences run by Pigalle Tavvakoli at London College of Communication, which itself is influenced by a course on Experience Design Tavvakoli runs together with Susanne Buck at Central Saint Martins.

⁴² For a generic empathy mapping diagram see Roberson J (2014) 'How to use empathy maps to make better services'. Blog post. Innovation labs. April 25, 2014. Available at <<http://www.innovationlabs.org.uk/2014/04/25/empathy-maps>>

⁴³ Interviews may appear external and communal but it does not take much thought to unravel that impression.

⁴⁴ The experience narrative must, like any narrative, be given a structure—linear, circular and non-linear being the most common European and Anglo-centric forms; and stories within stories being more common middle-eastern and Asian form (for example Ramayana and 1001 nights). While the Museum event had a circular structure beginning and ending with sociolegal researchers at home considering their own and then every-one's physical traces; the Newcastle narrative was more linear. The Pop-Up project as a whole can be thought of as containing multiple, sometimes overlapping, stories.

⁴⁵ The British Museum and SLSA events were each initiated with an open call for applications in which an item was chosen from a digitally and physically accessible collection (the British Museum only in the case of the Museum event), and a series of questions were briefly answered. The questions were: What is your chosen item? What is your current research question? How could you use your chosen item to answer your current research question? What research benefits / limitations might be associated with using museum collections in this way?

⁴⁶ A note to anyone wanting to reproduce this experiment: I would suggest printing on cloth instead as it can be folded and is therefore more discretely portable.

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- ⁴⁷ An illustrated example of emotional mapping generated for the National Institute for Health Research can be seen at the Better Services By Design Available at <<http://www.bsbd.org.uk/cards/emotional-mapping>>
- ⁴⁸ A H Maslow 'A Theory of Human Motivation' 50 *Psychological Review* 370-396.
- ⁴⁹ Founder Sara Wajid uses the term 'shy activists' to describe many of their members—among them emerging photographer Kadije Saye, whose life was taken by the June 2017 Grenfell Tower fire. S Wajid 'Shy Activists' Presentation at Museum Next conference, Rotterdam, June 27 2017.
- ⁵⁰ Disability Cooperative Network for Museums. Available at <https://www.musedcn.org.uk/about/>
- ⁵¹ See also A Perry-Kessarlis (2017) 'Showing sociolegal design as work in progress' Blog Post May 11 2017. Approaching the econosociolegal. Available at <http://wp.me/p7a9DX-KB>
- ⁵² See Van Lokeren (2000) 'Experimental reconstruction of the casting of copper 'oxhide' ingots' *Antiquity* 74 (2000): 275-6. See also Giunlia-Mair, V. Kassianidou, and G. Papasavvas (2007) in P. P. Betancourt and S. C. Ferrence *Metallurgy: Understanding how, learning why: Studies in honour of James D. Muhly*. INSTAP Academic Press: Philadelphia.
- ⁵³ H. Gale and Z. A. Stos-Gale 'Oxhide Copper Ingots in Crete and Cyprus and the Bronze Age Metals Trade' *The Annual of the British School at Athens* Vol. 81 (1986) 81-100; and J D Muhly 'The Copper Ox-Hide Ingots and the Bronze Age Metals Trade' 39:1 *Iraq* (Spring, 1977) 73-82.
- ⁵⁴ J. Kerr-Lindsay *The Cyprus Problem: What everyone needs to know* OUP.
- ⁵⁵ F. Mullen, A. Apostolides and M. Besin (2014) *The Cyprus Peace Dividend Revisited: A productivity and sectoral approach*. Nicosia: Prio Cyprus Centre.
- ⁵⁶ To see the copper mine today visit Hadjioannou (2016) 'Skouriotissa Copper Mine'. Video. Available at: <https://youtu.be/eTQjE1G7PWl> (Accessed February 22).
- ⁵⁷ D Christodoulou (1992) *Inside the Cyprus Miracle: The labours of an embattled mini-economy*. Minnesota Mediterranean and East European Monographs. Minneapolis: University of Minnesota, p. 79.
- ⁵⁸ See Hellenic Copper Mines (2015). Video. 'Video about Hellenic Copper Mine in Cyprus'. Available at: <https://youtu.be/KGmm8pAta3l> (Accessed 22 February 2017).
- ⁵⁹ Kaiser (2013) *Copper Oxhide Ingot Marks: A database and comparative analysis* Thesis Presented to the Faculty of the Graduate School of Cornell University In Partial Fulfilment of the Requirements for the Degree of Master of Archaeology, p. 7.
- ⁶⁰ J. D. Muhly (1977) 'The copper ox-hide ingots and the Bronze Age metals trade' 39:1 *Iraq* 73-82, p. 81
- ⁶¹ Einzig (1966) 'Ox and Base Metal Currencies in Greece' *Primitive Money: In its Ethnological, Historical and Economic Aspects* Chapter 10 Pergamon Press, p. 200. See also Yahalom-Macka, E. Galilic, I. Segald, A. Eliyahu-Behara, E. Boaretto, S. Shilstein, I. Finkelstein (2014) 'New insights into Levantine copper trade: analysis of ingots from the Bronze and Iron Ages in Israel' *Journal of Archaeological*

Science 45 (2014) 159 – 177 and Liard (2010) ‘Le cuivre chypriote et La crète Les régions d’importation des lingots peau-de-bœuf’ 49:1 *Revue archéologique* 47-65.

⁶² Kaiser (2013) *Copper Oxhide Ingot Marks: A database and comparative analysis* Thesis Presented to the Faculty of the Graduate School of Cornell University In Partial Fulfilment of the Requirements for the Degree of Master of Archaeology.

⁶³ A Perry-Kessarlis ‘In pursuit of the ox-hide copper ingot’ Blog Post March 3 2017. Approaching the econosociolegal. Available at <http://wp.me/p7a9DX-qv>

⁶⁴ See further A Perry-Kessarlis (2016) ‘Sociolegal model-making 6: Place-holding’ Blog post December 19 2016. Approaching the econosociolegal. Available at <http://wp.me/p7a9DX-oT>.

⁶⁵ B Latour ‘From Realpolitik to Dingpolitik or How to Make Things Public’ in Alan Scott, Kate Nash and Anna Marie Smith eds. 2009 *New Critical Writings in Political Sociology* Ashgate Publishing p. 521.

⁶⁶ This series of short films on Sociolegal model making provides indicative examples: <https://vimeo.com/album/4228144>