Legal Geography III: Evidence

# Abstract

This report explores scholarship at the interface of geography and law engaging with the concept of evidence. As with the first two reports, this is not a summary of a pre-defined field, but rather a consideration of how ideas of what constitutes evidence have been differentially understood across geographical and cognate studies. The discussion spans work that has considered the formal barriers to the production of evidence at trials, the politics of silencing certain evidential practices and interpretive questions relating to claims of expertise.

# I. Introduction

The aftermath of the shooting down of Malaysian Airlines flight MH17 on 17 July 2014 in eastern Ukraine inverted established protocols of evidence gathering. The initial crash scene, attended by television crews and journalists, showed a scene of devastation where bodies and materials were strewn across the countryside around the village of [Hrabove](https://en.wikipedia.org/wiki/Hrabove%2C_Donetsk_Oblast) in [Donetsk Oblast](https://en.wikipedia.org/wiki/Donetsk_Oblast), Ukraine. Considering the scale of the destruction, international observers suggested that state military involvement would have been required and allegations soon circulated that Russian-backed military groups could have been responsible (Carson, 2014). But where it may be expected that a state or international investigation would gather evidence that could form the basis of a legal trial – and thereby enter the public domain – in this instance it was the public that initiated aspects the evidence gathering. One of the reasons for this inversion was the posting by Ukrainian Interior Minister Aven Avakov of a video that showed a BUK M-1 missile launcher – of the type suspected of responsibility – moving through an urban landscape. Sienkiewicz (2015: 209) describes the short clip:

[…] a road, dimly lit, sits momentarily vacant. Trees rustle in the fore and background. A billboard looms, mostly obscured. Five seconds in, a military truck rolls by, moving left to right. The camera shakes and pans to keep the vehicle on screen. After a quick zoom, the truck exits the frame and the clip, all 13 seconds of it, ends. To the average Facebook user, the video appears amateur and, above all, trivial.

But to other internet users it was far from trivial: the investigative agency Bellingcat corroborated the Avakov video with Google Earth data and CCTV and dashcam feeds, allowing the journey of the missile launcher to be traced from Russian territory into eastern Ukraine and then back again (Bellingcat, 2015). This was a meticulous process of connecting the materiality of the launcher with its distinguishing features (such as an empty missile bay on its return) with the nuances of the Ukrainian and Russian landscape (whether the buildings, street signs, road markings, advertisements or topographic features). Avakov’s purpose for posting the video is not immediately clear, but presumably he would have been aware of the location and nature of the material he was putting online. Sienkiewicz’s (2015) suggestion is that the posting was a deliberate act to enrol open source investigators who would perform the task of corroborating the evidence while broadcasting the subsequent findings to an international audience.

Bellingcat’s work could be taken as an example of the democratisation of evidence production, where the monopoly of sanctioned legal investigators is broken by the availability of open source data. But this would be to overlook the myriad ways in which state and corporate actors have sought to mobilise precisely such crowd sourced intelligence practices to bolster their own narratives and agendas (see Trottier, 2015; Weizman, 2017). Indeed, the Bellingcat investigation cannot be seen as entirely severed from state interests, both due to the funding of its activities (by donors such as the US’s National Endowment for Democracy) and the processes through which its investigations – such as the MH17 materials – are utilised by state actors to justify later criminal investigations (Sienkiewicz, 2015: 218). Rather, the lesson from this case is both broader and more consequential. At the heart of the example of the MH17 investigation is the transformation of seemingly inconsequential materials – the logo on a billboard or the positioning of a spoil heap – into *evidence*. Their digital imprints no longer disjointed pieces of data but through their assembling as a narrative their connections are brought to the fore, thereby shaping public understanding of what took place in eastern Ukraine (Ingram, 2019). Such a process illuminates the necessarily relational nature of evidence, where its existence is a function of its probative capacity, its proposed invocation of an event.

It is this process of conversion, so central to both law and science’s claims to truth, that is the focus of this third progress report on legal geography. As with work on court materiality (Jeffrey, 2019) or bodies and law (Jeffrey, 2020a), a series of disciplinary perspectives intersect when studying evidence. One starting point would be to consider the formal, legal, question of the geography of evidence as it maps onto jurisdiction. Legal scholars will in the early stages of their tuition be told that evidence is information by which facts tend to be proved (Saks and Thompson, 2003). Any adversarial legal process is a dispute over facts in issue and the different actors within a trial seek to marshal evidence to support their position. In order to regulate the supply of evidence the legal authority applies a law of evidence to regulate the materials, testimony and information that are appropriate for legal deliberation (Keane and McKeown, 2018: 2). Consequently, there is growing work in the field of legal studies tracing how contrasting approaches to the law of evidence, and the very notion of ‘proof’, can be mapped onto the territorialisation of legal regimes (Cheah, 2019). This is particularly significant when considering the distinctions between legal systems led by a professional judiciary versus the use of a lay jury, a schism that shapes questions of admissibility and established barriers to the admission of certain types of evidence (Damaška, 1997). In recent years the imagination of a neat territorial backdrop to laws of evidence has been challenged through the greater institutionalisation of international law, a process that has prompted considerable innovation in the gathering, interpretation and admission of evidence (Freeman, 2018; Wang, 2020).

But in addition to the geography of the law of evidence, evidence has its own geography. Over the past two decades there has been a methodological and epistemological shift in legal geography to embrace qualitative approaches that bring to the fore the processual nature of law (Bennett and Layard, 2015; Braverman, 2014; Delaney, 2015). It is not enough, then, to simply note the differences in doctrinal approaches to admissibility across space we need to think of how questions of place, embodiment and materiality intersect in the conversion of matter or speech into evidence. Such approaches highlight *inter alia* the mundane barriers to the provision of evidence (Gill *et al.*, 2020), the gendered nature of evidence production (Hunter, 1996), and the ways in which settler colonial legal system privilege certain claims to truth (Blomley, 2015; Pahuja, 2011). As with the innovations of international law, we can also trace the role of technological and legal changes in shaping the geographies of evidence, as global financial crime, cybercrime and emerging forensic techniques open new possibilities for where, what and how evidence is performed (Gregory, 2018; Sharp, 2020).

But in addition to these first two approaches, there is a third consideration that needs to be incorporated into this report: that geography *is* evidence. There has been a long association between geographical knowledge and the production of law; nineteenth-century practices of cartography and exploration were bound into the establishment of new forms of colonial authority over landscapes and nature (Livingston, 2010). Hence, when examining the production of evidence we need to consider how geographical knowledge, both environmental and social, becomes the evidential base of legal processes (Brodsky, 2003; De Vorsey, 1980; Morgan and Bull, 2007). This readily strays into a set of debates concerning the implications of closer relationships between geographical inquiry and the evidential demands of legal processes, a set of reflections that intersects with questions relating to the identity and coherence of geography as a professional practice (Kuus, 2020; Ward 2005).

The conversion of matter and speech to evidence is, then, an intentional process that creates hierarchies between the included (on the grounds of its admissibility, presence or claims to expertise) and the excluded. Thinking through this process demands engaging with a wider legal and epistemological question of what constitutes *sufficient* evidence to prove a fact. Unsurprisingly, this is a point of sustained legal deliberation (for example, Calvert, 1959) and becomes a particular concern in trials which either centre on two contrasting testimonies (creating the ‘justice gap’ in rape convictions, see Brown, 2011) or situations where evidence is hard to gather (such as international criminal trials, see da Silva, 2020). This report therefore narrows its focus onto one specific aspect concerning legal geographical debates: the barriers to sufficient evidence. In this sense I am keen to take forward Orzeck and Hae’s (2020) call for a legal geography that is attentive to both the contingencies of (human and non-human) agency and the determining effects of legal structures. Evidence is a scarce resource, but it is a scarcity that is shaped by both its production (barriers to admissibility or financial restrictions to investigative work), the legal process itself (technical questions regarding the presentation of evidence), authority (what counts as meaningful evidence) and interpretation (how are materials or statements understood as relating to the facts in issue). Work examining these elements of scarcity are considered below, under the headings of admissibility, absence, authority and expertise.

# II. Admissibility

At the heart of a judicial process facts are in dispute and the role of the trial is to provide a setting in which evidence may be presented and weighed (either by lay observers, a judicial panel, injured parties or community representatives) resulting in a judgement. This rather schematic account of law supports Jasenoff’s (2012: 191) practical point that “the ultimate goal of courts is the attainable one of dispensing justice, not the impossible one of finding objective truth.” In order to function, courts use laws of evidence in order to manage rules concerning the gathering, storing and presentation of evidence within trials (Calvert, 1959). The overriding purpose of such rules is to ensure due process with the objective that trials meet fundamental standards of fairness and justice (Freeman, 2018). But claims of standardisation should not be mistaken for any clear agreement as to the nature of appropriate evidence: laws of evidence vary across time and space and have often developed in an *ad hoc* fashion to respond to legal precedent, shifting moral contexts and the changing nature of potential – digital, forensic or environmental – evidential material (Wang, 2020). Unsurprisingly, then, questions of procedure, admissibility and evidential weight have become key concerns at the interface of legal studies and geographical research.

Despite differences, a central role of all laws of evidence is setting the process through which evidence may be admitted to the legal process. Usually it is the responsibility of the presiding judge as to whether a piece of evidence may be considered on the basis of whether or not it is relevant to the facts of the case (Guthrie *et al.*, 2000). There is considerable legal debate as to how ‘relevance’ is defined as it is a term that by necessity reflects an individual judgement as to the connections between the evidential material and the facts in dispute (for a discussion see Cross and Tapper, 2010). In legal terms, relevance is assessed through the “probative potential of an item of information to support or negate the existence of a fact of consequence” (Damaška, 1997: 55) and debates concerning admissibility are aired at pre-trial hearings and through prosecutorial reports. As many studies have revealed: this is by no means a technical exercise in classifying the value of available materials (see Gallai, 1999). The experience of the availability of new types of evidence to prosecuting authorities is instructive, such as the case in the 1980s of DNA identification in US courts. As Blair (1990: 859-860) outlines, this process involved the corroboration of this new technique with existing scientific methods:

The court identified several factors that could help establish the reliability of scientific evidence with no established “track record” in litigation. These factors included the relationship of the new technique to more established modes of scientific analysis, the nonjudicial uses to which the technique is put, the existence of a specialized body of literature dealing with the technique, and the frequency with which the technique leads to erroneous results.

The judgement here rests on the connection between DNA evidence and ‘established science’. As I will discuss later in the paper, this relies upon a particular imagination of science and reliability, structured around the credentials of peer-review, scholarly recognition and prior achievement (Good, 2003). Thus the issue of admissibility, and the wider question of the presence or absence of evidence, illuminates the fraught process through which materials stake a claim to evidential status while the selection of evidence can reify unequal relations between participants in a legal process.

There are many different justifications offered for the inadmissibility of evidence. One justification for restrictions to admissibility lies in the increasing use of a jury within legal procedures (in common law), a process that has been argued to foster “a paternalistic and protective attitude, excluding relevant evidence such as hearsay evidence, evidence of character, and the opinion evidence of non-experts on the basis that lay persons might overvalue its weight and importance, or even treat it as conclusive” (Keane and McKeown, 2018: 3). The restriction concerning admissibility reveals a curious ambiguity, whereby trial by jury is enshrined from its early medieval roots as a bulwark against excessive power of the sovereign, but the jury’s absence of legal training acts as justification for sovereign control over the presentation of evidential materials (Linebaugh, 2008). Evidence in these circumstances must be legally ‘relevant’ while also publicly persuasive.

There are a number of practices of translation – or interpretation – that scholars have identified in this process of proving relevance. The first is the need for expert evidence to be presented in such a way as to be intelligible to the judge. In her account of the changing use of digital evidence in international law Freeman (2018: 320) notes the increasing use of ‘demonstrative evidence’ including diagrams, maps, drawings, graphs, animation, simulations, and models, which act as “information to help the judges better understand the evidence, [it is] not evidence per se.” As a second stage of interpretation, Morgan and Bull (2007: 44) note in relation to the use of forensic geoscience evidence that while the judge will decide the admissibility of evidence “it is the jury, that body of lay persons (who are not necessarily conversant with scientific theory or even jargon), who must be led through the intricacies of geoforensics (or any other scientific discipline) pertinent to the case.” Citing Kirk (1974:2) they go on to emphasise the significance of interpretation in the case of physical evidence, arguing that such evidence “cannot be wrong; it cannot perjure itself; it cannot be wholly absent. Only in its interpretation can there be error. Only human failure to find, study and understand it can diminish its value” (Morgan and Bull, 2007: 52).

Studies of international law, a field that has constituted a laboratory for evidential innovation, have highlighted how new types of evidence have required particular emphasis on authentication in the process of establishing admissibility. One example is Freeman’s (2018) account of the twin investigations into the 2005 Beirut explosion that killed the former Prime Minister of Lebanon Rafic Hariri: one a United Nations inquiry that sought to gather witness testimony and analyse the forensics around the incident, and a local police investigation that examined cell phone records to trace activity around Hariri. The findings of the latter investigation established Hariri had been followed in the months and days leading up to the explosion and the nature of the communications could point to a hierarchy within the group. At the time such analysis of call data records coupled with geolocation data was new, and expert evidence was called by the Prosecution to explain how cellular signal and cell tower sites are used to geolocate the cell phone user. Here we see the relational nature of evidence, where the relevance of phone data becomes apparent through its narration by experts to the judiciary (Freeman, 2018: 313). Hence by considering questions of admissibility scholars have illuminated the relational nature of evidence: its relevance is often secured through the corroboration, or explanation, provided by other forms of evidence.

# III. Absence

The presence or absence of evidence is not simply a consequence of admissibility rules. Recent scholarship in legal geography and elsewhere has involved a methodological turn towards an empirical engagement with the unfolding of legal procedures as material and embodied enterprises (Cuomo and Brickell, 2019; Gill and Good, 2019; Jeffrey 2020b). This diverse body of work, influenced variously by the postmodern sociology of de Sousa Santos (1987), the materialist and ethnographic perspective offered by Latour (2010) or Butler’s (2011) approach to performativity, seeks to foreground the ways in which attention to the actual unfolding of legal processes illuminates hitherto overlooked barriers to the fulfilment of justice. A recent powerful example is provided by Gill *et al.* (2020) in their study of asylum appeals hearings in Europe, work that illustrates how the arrangement of legal proceedings – the compilation of evidence, the spatial organisation of the hearings and the arrangement of who can speak when – shapes the outcomes of cases and the attitudes of participants as to whether justice has been served. Evidence lies at the heart of these deliberations, and it is worth quoting their findings at length:

Many of the hearings we observed turned on documentary evidence, and we became aware of a diverse and contested spatial political economy of the assembling of evidence to support asylum claims. Many times, apparently crucial pieces of documentary evidence - letters, photographs, certified copies of documents and medical or educational certificates - were reported as missing or partial: lost, spoiled, mislaid, untranslated, incomplete or is understood. So pronounced was this issue in the UK that considerable time was spent deciphering what was missing or included in judges’ and lawyers’ documents. Of 240 normal hearings, we calculate that 9% of time was devoted to such discussions. Many cases that experienced these issues were also adjourned, illustrating the agency of documentary evidence in absentia: of 48 adjournments we saw, 22 were because documentary evidence was missing. (Gill *et al.*, 2020: 13)

Here we see what can be understood as the mundane administration of law entering into the substantive process of achieving justice. In particular, this account speaks of the considerable time costs connected to the poor administration of evidence, increasing the possibility of rushed decisions at a later date or exhaustion amongst trial participants, which itself can evoke negative public perceptions (see Grunstein and Banerjee, 2007).

We could consider many legal scenarios where the absence of evidence limits the possibility of trial justice. Amongst other factors, witness intimidation (O’Flaherty and Sethi, 2010), the fear of revisiting traumatic events (Brounéus, 2008) or the destruction of incriminating material (Domańska, 2020) all contribute to the possibility of insufficient evidence to pursue a criminal trial. One area where there is increasing attention to evidential insufficiency relates to the prosecution of international crimes, where territorial jurisdiction of evidence gathering practices places limits on international investigative agencies. In relation to crimes against humanity we have seen many examples in recent years of alleged perpetrators blocking the gathering of potential evidence either by failing to guarantee the security of officials, destroying crime scenes, or withdrawing from multilateral legal agreements, such as the 1998 Rome Statute of the International Criminal Court (see Jones, 2015; Morrissey, 2017). In addition, research is beginning to trace the challenges posed by new practices of global financial criminality and cybercrime for the collection of evidence, where crime is both dematerialised though electronic transactions and communication though remaining obdurately wedded to the territorial jurisdiction of states, with varying approaches to laws of investigation and evidence (see Blažič and Klobučar 2020).

# IV. Authority

Extending beyond the material question of the presence or absence of evidence, geographers have investigated how the paternalistic nature of admissibility rules is part of a wider structure of power within the operation of law. There is an established asymmetry written into criminal procedures between the prosecuting authority (with control over investigative functions) and the defendant (unable to insert evidence into legal proceedings as the trial unfolds). This hierarchy is stretched in situations – such as indigenous rights claims – where there is a fundamental dispute as to the terms of justice. In examining the early stages of the Wet’suwet’en and Gitxsan peoples land claim dispute with the Canadian government, Sparke (2005: 14) cites Satsan, a Wet’suwet’en chief, who interpreted the legal process as fundamentally uneven: “we were entering a game in which we had no involvement whatsoever with the putting together of that game, the making up of the rules, in the appointment of referees or umpires.”

It is this structural inequality that underpins Blomley’s (2015) later account of the same status of lands question, where the authorities in British Columbia were seeking to transfer land under Aboriginal title to a reduced area held as a form of ‘fee simple’ (permanent and absolute tenure of land in a freehold tenure). In doing so, Blomley argues the Canadian legal system ‘bracketed’ certain modes of land ownership, and in this case the concept of property as an individually-held asset, setting alternative – collective, non-transferable – relationships between bodies and land outside of the adjudication of law. This form of inadmissibility “entails the drawing of a boundary that marks an inside, that is detached or disentangled from that now identified as outside” (Blomley, 2015: 169). The suggestion is that the prime purpose of the treaty negotiations is stabilising a property regime, as opposed to confronting the injustices of a “grudging and asymmetric exercise conducted on the terms set by a powerful settler society” (Blomley, 2015: 175).

Through these examples we see the ‘bracketing’ of certain social and cultural norms within the operation of law, in so doing reifying asymmetrical cultural and legal norms. A similar exercise of authority has been identified in work that has illuminated the gendered nature of evidence production, where patriarchal and masculinist norms are reified within trials. For example feminist legal scholarship has argued that evidence laws, and therefore the production and treatment of evidence, operate “systematically to the advantage of men and the disadvantage of women” (Hunter, 1996: 127). For example, when discussing the admissibility of previous sexual or violent conduct, Hunter (1999: 132) exposes the historic differences in treatment between complainant and defendant:

[r]esearch for this Article uncovered little discussion and few examples of the possibility that a rape complainant's sexual history might be excluded on the ground that it was more prejudicial than probative. By way of contrast, judges have excluded evidence of the male defendant’s sexual history in rape cases and evidence of the history of violence in domestic murder cases on grounds of prejudice, even though this evidence might be highly relevant in establishing the defendant’s state of mind.

The sense of “judicial sympathy for allegedly violent men and presumptively sexually active women” (Hunter, 1996: 133) is reflected beyond the technical procedures of evidence law and enters qualitative accounts of trial experiences. For example, there is a considerable literature examining the retraumatising effects of giving testimony in cases of sexual violence, where male defence lawyers or defendants can launch invasive cross-examination and force survivors to relive their experiences (for analysis see Kebbell, et al. 2003). In their examination of the trials after the conflict in Bosnia and Herzegovina, Jeffrey and Jakala (2014: 664) connect this sense of retraumatisation to the theatricality of court spaces where the practice of testifying was described by one witness as a form of ‘exposure’ “where their credibility was under scrutiny both during the trial process and later within their local communities, as word spread that they had been to the Court.” Research has found that the implications of such social and psychological harm is such that evidence is not forthcoming and sexual violence is therefore under-reported and while experiencing low conviction rates (Coundouriotis, 2013).

# V. Expertise

As we have seen, evidence in law does not pre-exist the legal deliberation: it is forged through contestation over its relevance and weight. Where this process involves recourse to technical, scientific or specialist information experts are required to interpret the meaning of a piece of evidence to either the judiciary or jury by explaining how scientific data relates to the facts in issue. The recourse to expertise poses an initial challenge since – as with many extra-legal circumstances – there is no universally-accepted accreditation for what constitutes expertise. As Keane and McKeown (2018: 583) lament the absence in the context of the UK justice system of “ any scheme of compulsory accreditation or registration for expert witnesses” or “practical training for judges and practitioners in understanding expert evidence and assessing its likely reliability”. It falls on judges to assess whether a witness has sufficient credentials to perform the function of expert witness and inevitably this judgement is questioned by legal representatives on the opposing side, either at the pre-trial or trial stages.

Once selected as a suitable ‘expert’, attention turns to the question of interpretation: specifically how scientific data is narrated as evidence (see Good, 2003). At the heart of this second stage of deliberation is the beguiling concept of forensics, a term that has its roots in the Latin *forensis*, to mean in open court or public, but in generally usage refers to the use of scientific methods to provide information about crime (Weizman, 2017: 65; Sharp, 2020: 7). Geographers have sought to utilise forensics in studying, *inter alia*, retail location (Brodsky, 2003), geoscience (Morgan and Bull, 2007), historical geography (De Vorsey, 1980) and feminist geopolitics (Sharp, 2020). But despite the common adoption of the term we see a divergence in understandings of forensics within geographical research. For Brodsky (2003: 250) forensic geography constitutes a technical exercise comprising research “focused on a specific case in which an opinion by an expert witness is needed.” In this sense forensics points to the instrumental transfer of geographical knowledge and expertise from the academic realm into legal disputes.

In contrast, critical and narrative accounts of the incorporation of forensic approaches foreground the almost oppositional arenas of forensic evidence production from the field of peer reviewed science. Rather than judgement of an interpretation lying with other experts, the role of the forensic scientist is to curate evidence that will be persuasive within a legal setting. For Morgan and Bull (2007: 44) the practice of forensic geoscience rests on “personal opinions” which are not peer-reviewed but rather “are judged on general public understanding and acceptance (by judge and jury) in a court of law.” Most recently, Sharp (2020) has drawn on the concept of forensics to assess the interplay of bodies, materials and representation in the unfolding of geopolitics. For Sharp(2020: 10) forensics is a style of analysis that holds together that which is often considered separate: not least critical analysis of representation with considerations of embodiment and more-than-human agencies. In these circumstances forensics is helpful in “finding new possibilities for feminist understandings of the ways in which bodies and other materialities are caught up in geopolitics.”

Alongside scholarly uses of the term forensics, there has also been an increase in legal and criminological investigations of the role, approaches and implications of forensic science. Some trace this interest to the prominence of forensic science within popular culture, not least the rise in popularity in 19th Century Europe and North America of Sherlock Holmes, the fictional detective created by Arthur Conan Doyle (see Harrington, 2007; Morgan and Bull, 2007). Conan Doyle’s stories tap into the late-nineteenth-century fascination with crime and “the developing field of forensic science, drawing the reader into a model of investigation that closely resembles medical diagnosis as they play up the sensational melodrama in the crimes that they feature” (Harrington, 2007: 367). There is a seductive certainty in this approach to criminality and law, where the truth is often singular, the path to its uncover linear and the final outcome uncontested.

Jasanoff (1998: 716) illuminated precisely this problem in her exploration of the relationship between scientific and legal evidence, where she argues that the dynamics of litigation “obscure the complexity of the translations by which samples, artefacts, recordings or pictures become evidence.” This complexity is illustrated through the example of DNA fingerprinting and in particular in the knowledge controversies surrounding the use of DNA evidence in identifying perpetrators of crime. Jasanoff’s arguments emphaise the significance of visualisation to acts of scientific translation, where the expert needs to render technical evidence in a way that may be visualised by judge and jury:

The expert witness and the examining lawyer collaborate to instruct, cajole, and rhetorically retrain the fact-finder’s eyesight, with greater or lesser success, to ‘see’ DNA and so, by metonymic transfer of meaning, to perceive the truth whole (Jasenoff, 1998: 720)

Scientific evidence – in the court room as it is in the laboratory or seminar room – thus became the site of disagreement with contrasting assertions as to the implications of the presence of DNA. Consequently Jasanoff (2012: 190) suggests the experience with DNA evidence reveals courts as better for “articulating than for definitively resolving deconstructive questions about scientific evidence.”

The focus on visualisation of forensic data is also at the heart of Weizman’s (2017) approach to the study of evidence. Weizman is interested in the multiple ways in which visual materials bear witness to past violence and the corresponding question as to how this testimony can be brought into legal deliberation. In considering the visual traces of violent acts – pictures of the aftermath of assassinations, aerial photographs of troop movements or images of the architecture of the holocaust – Weizman introduces the notion of the ‘threshold of detectability’ to draw attention to the role of image resolution in setting the parameters of the detail that may be captured in photographic evidence.

Unlike the randomly disturbed grains of analogue photography, digital images, such as satellite images, are divided into a grid of equal square units, or pixels. The grid filters reality like a sieve or fishing net. Objects larger than the grid are captured and retained. Smaller ones pass through and disappear. Objects close to the size of the pixel are in a special threshold condition: whether they are captured or not depends on the relative skill, or luck, of the fisherman and the fish (Weizman, 2017: 27)

This sense of the arbitrariness of detectability returns the discussion to the significance of interpretation: that such material does not equate to a positivist imagination of a graspable external world that is unproblematically portrayed in visual imagery. Instead it reminds us of the painstaking work required to create evidential narratives by piecing together available imagery with corroboration from witness testimony. While this is reminiscent of our starting point of the MH17 investigation by Bellingcat, Weizman (2017: 30) is keen to emphasise how the threshold of detectability is differentially situated depending on what part is played in the violence. He uses the example of US drone assassinations in the ‘war on terror’ to illustrate how visual reach of the perpetrator is asymmetric to the resources available to the investigator:

The visual spectrum between the high resolution used for killing and the low resolution available for monitoring the killing is the space exploited by deniers. The practice of counter forensics […] has to engage a condition of structural inequality in access to vision, signals and knowledge, and to find ways to operate close to and under the threshold of detectability.

In identifying the structural inequalities inherent in the collation of evidence we are reminded once more of the latent politics of evidence production: where unequal access to data allows the erasure of violence while rules of admissibility shape its presence within subsequent legal proceedings (see also Gregory, 2018).

# VI. Conclusion

My three progress reports have not been ‘about’ legal geography as a sub-discipline. There already exists a fine and expansive set of writings that probe the limits and purpose of this nebulous and plurally-understood field of inquiry and practice (Braverman *et al.* 2014; Delaney, 2015, 2016, 2017; Robinson and Graham, 2018). Instead, I have sought to explore the interface of geographical writing with cognate disciplines around three aspects of legal systems: court space, the enrolment of bodies in law and, in this final report, to trace historical and emerging work on the legal geographies of evidence. This has been a set of discussions that foreground the significance of the structural characteristics of trial justice and in particular issues of admissibility. Such debates illustrate the necessarily relational nature of evidence: it comes into being through its relevance to the legal case, its persuasiveness is matter of interpretation forged through its connection to the facts of issue (relevance) and its characteristics in relationship with other evidence (authentication and corroboration). But far from being a technical adjudication, the research reviewed here highlights how enduring landscapes of power stemming from (in the cases reviewed here) colonial and patriarchal histories shape the admissibility and availability of evidence.

There is a timeliness to these considerations. Currently we are seeing a disequilibrium at work: as the public availability of evidential material increases, the opportunities to seek legal redress are reduced. As has been reported, the swathes of unfiltered data in social media accounts, online investigative agencies and mapping applications is democratising the practice of investigation, where narratives around significant global events can be assembled using investigative skills and internet access. But this requires spaces of deliberation where such material can be assessed and considered using agreed rules and norms. It is, after all, material that bolsters Holocaust denial as much as it reveals hidden mass atrocities. It is here that we see an imbalance: just as there is a growth in public intelligence gathering, the recording of crime on social media and the rise in forensic techniques, so does the possibility of adjudication in court become more remote. From withdrawal from the International Criminal Court through to restricted funding for trial justice across the globe, we are seeing both an expansion in interest in employing legal norms and contraction of the democratic participation in trial processes. In the gaps created we see the extra-judicial deliberation of evidence, an arena where justice is not necessarily seen to be done.

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