interview / ANTHONY BRAND

Forensic Architecture: An interview with Lachlan Kermode

Fig. 1 Forensic Architecture (2018). Members of the FA team working in the agency's office at Goldsmith's, University of London [Photograph]

Forensic Architecture is a research agency based at Goldsmiths (University of London), which undertakes advanced spatial and media investigations into alleged cases of state/government violence and persecution, with and on behalf of human rights organisations, media organisations, environmental justice groups, and international prosecutors. The agency was established in 2010 by Eyal Weizman and a collection of fellow architects after realising that their academic work at the Centre for Research Architecture[1] could only go so far: "We needed to place our research in the most difficult situations, the most antagonistic of forms, and make use of it, mobilise it, on behalf of people whose suffering had been ignored" (Weizman 2018: 22).

The practice is effectively a firm of architectural detectives; its work involves meticulously reconstructing past actions and events from trace evidence, ranging from the physical (bullet holes/shells, track marks, residue) to the more fleeting and ephemeral (audio clips, mobile phone footage, and witness accounts). Their first commissions came from several organisations investigating drone strikes,[2] since the targets of these strikes had drifted from vehicles parked on the roadside to buildings in towns and cities: "The evidence [now] had an architectural

dimension, and there were no other organisations providing architectural analysis" (Weizman 2017: 22). One of the key criteria for undertaking a particular project is determined by the agency's mandate that stipulates that there must be an opportunity to develop, disseminate, and employ new technologies or investigative techniques that can be used to gather and present evidence in the service of human rights groups and communities exposed to state violence and persecution. Forensic Architecture has presented its investigations in international courtrooms, truth commissions, parliamentary inquiries, and United Nations assemblies. The agency currently comprises of a group of fifteen full-time researchers—nine architects and six specialists including investigative journalists, software developers, game developers, film-makers, and others—though these numbers fluctuate with the scale and the particular expertise required for each project.

I approached one member of the group, Lachlan Kermode, to learn more about FA. With a background in computer science from Princeton University, Kermode has been handling various full stack platforms and machine learning workflows for the agency since 2018. His academic interests are generally found in and between computer science, infrastructure studies, and cultural and critical theory. I spoke with him at the firm's studio in Goldsmiths on 26 June 2019.

Anthony Brand: *How did you get involved with Forensic Architecture (FA)? Did they come to you or . . .*

Lachlan Kermode: No, so Eyal [Weizman], who's our director, gave a seminar at my undergrad university a couple of years back and I then got in touch with FA and stayed in touch over the course of my research that I was studying in Princeton in the US and [. . .] some of the professors that I worked with there were in touch with FA, so then when I was looking for a place to go after I graduated, I came to FA.

AB: *So presumably then before that seminar this wasn't something you had been thinking about doing or had considered?*

LK: No, but I was interested in finding computer practices that were critical so that was sort of how I came in. And other people have different stories about how they came here—many come from an architectural background so we have a close affiliation with the Architectural Association (the AA), where Eyal did his PhD and then other people come into it from different angles as well.

AB: *What are the sorts of projects that you work on?*

LK: Okay, so the first one that would perhaps be of interest would be Saydnaya. The idea was basically to reconstruct the Saydnaya prison based on interviews with detainees who have been tortured in that prison. The main difficulty in reconstructing this prison was that all of the detainees were blindfolded and disoriented the entire time so that all of the reconstructions had to be done through sound and other sorts of sensory experiences. So many of our investigations involve our architects employing this technique to situate the event or a series of events in 3D space and then map existing media—whether it be photos, videos, testimonies, audio files, satellite imagery, and that sort of thing—using the 3D model as a ground truth basically—placing that media in time and space and then working out how certain bits of media can corroborate other types of media and so on and so forth. Almost any of these investigations [scrolls through the list of projects from the FA website], you can click on and find that sort of thing.

Fig. 2 Forensic Architecture (2016). Reconstructing Saydnaya: A detainee works with Forensic Architecture researchers to recreate elements of the prison [Photograph, Courtesy of FA]

AB: *So how do you, as a non-architect, fit in?*

LK: The research that I do is more along the lines of looking at how we can use software and software techniques to enhance either particular workflows or looking at how computing can be similarly helpful, basically in developing techniques in computing. [. . .] A lot of the stuff we're doing is architectural in terms of modelling things in space and that sort of thing, but it also reaches into a lot of other fields quite quickly in terms of, you know, webscraping or crawling certain web domains or something like that to find certain types of images using a search term. So, this is one recent investigation that we did [points to a project near the top of the FA website] which has been my main work for the past couple of months—was using techniques in computer vision using a machine learning algorithm, basically to analyse certain objects, training that machine learning algorithm to detect a particular type of object in an image, and then deploying that classifier across a range of different places on the web like YouTube, or Twitter, and that sort of thing, in order to automatically discover this type of gas canister, which is called a Triple Chaser gas canister, and then use that in tandem with ongoing human rights accountability efforts to basically discover new images of this gas canister algorithmically.[3]

Fig. 3 Forensic Architecture (2019). Positive Identification: During the process of training a "computer vision" classifier, bounding boxes and "masks" tell the classifier where in the image the Triple-Chaser grenade exists. [Praxis Films, Courtesy of FA]

AB: *FA have developed a pretty diverse portfolio of projects. How do you decide which to pursue and which are beyond your scope, remit, or areas of expertise?*

LK: So the process would be to first do a briefing meeting with Eyal, Christina Varvia [Deputy Director],[4] and the people who are involved in that particular project, to work out what the terms of the project might be. And there are quite specific terms in which an FA project can take place: in the sense that it's not just "something happened and we want to investigate it". There needs to be often like particular media (because a lot of the stuff we do is media based) or a way to develop a new methodology or a methodology that we're already developing that might take place. And then there are various people, researchers work on different investigation at any one time, so it's also a matter of what researchers are available for the particular timeline of a project. Also what the expense of the project would be—we have some funding from the ERC, which is the European Research Council, so the operational costs are covered, but if the project were to involve hiring outside specialists or bringing in a bunch of other people, then how we cover those costs would have to be discussed.

AB: *How do you even work out your fees for something like that?*

LK: Well, we don't have 'fees' in the sense that we don't make any money as an agency, right? The way that we work out the fees is just basically 'are we going to have to hire a fluid dynamics specialist for two months for this project? Yes, we are. What's a fluid dynamicist's day-rate?' That's how much it costs, and then all of the project coordination and the regular costs are covered by the . . .

AB: *European Research Grant*

LK: Exactly, so it's not a 'fee' as in FA are trying to make an income or anything like that.

AB: *So in terms of how you select which projects to take on, it depends, as you say, on the media and opportunities to develop techniques and whatever you happen to be working on at the time.*

LK: Yeah, exactly, so our particular mandate for the ERC is to develop new research techniques in FA that can then be used more broadly. So, there's a practical consideration in the sense of how many researchers we have available [. . .], and then the academic or theoretical consideration is, "is this an opportunity to develop new research techniques?" Because that's technically our academic mandate.

AB: *Okay, so what sort of projects are you working on at the moment? Is the content on the website current?*

LK: No, definitely not. So, some projects last three months, some projects last three years. Basically, and it depends on a whole bunch of external factors and internal factors as well. There's a range of investigations going on at the moment that aren't on the website because they're not finished or because this material may be sensitive or something along those lines. What I'm personally working on is on the website, so can be shown—which is this Triple Chaser thing—but what we saw from it is that using machine learning[5] in human rights research generally can be really useful for accountability efforts, so we're holding a workshop with other human rights organisations such as Amnesty [International], Human Rights Watch, and that sort, to show them this tooling and just work out whether

or not we can use it more collaboratively and cohesively across different contexts.

AB: *So who commissions these sort of things generally then? Because obviously you've got people like Amnesty, and I know there have been journals like the New York Times, but they seem pretty sporadic and random in terms of potential clients who approach you, or rather, clients whose projects you choose to take on.*

LK: Yeah, it's not always that we're approached and asked to take on a project, sometimes we decide to take on a project in conversation with activists on the ground or on the back of a project that we previously did. For example, we did a lot of projects in Israel/Palestine, and there are always new opportunities to extend or refurbish research that we've done. So, for example, this project that was just released, *Conquer and Divide*,[6] is a new project in a certain sense: we've never done an interactive map on this scale before, but it's a continuation of a lot of the work that we've done in Israel/Palestine previously, [. . .] There's definitely a lot of projects that we want to take on that we can't take on [because] they're sensitive to time or something like that.

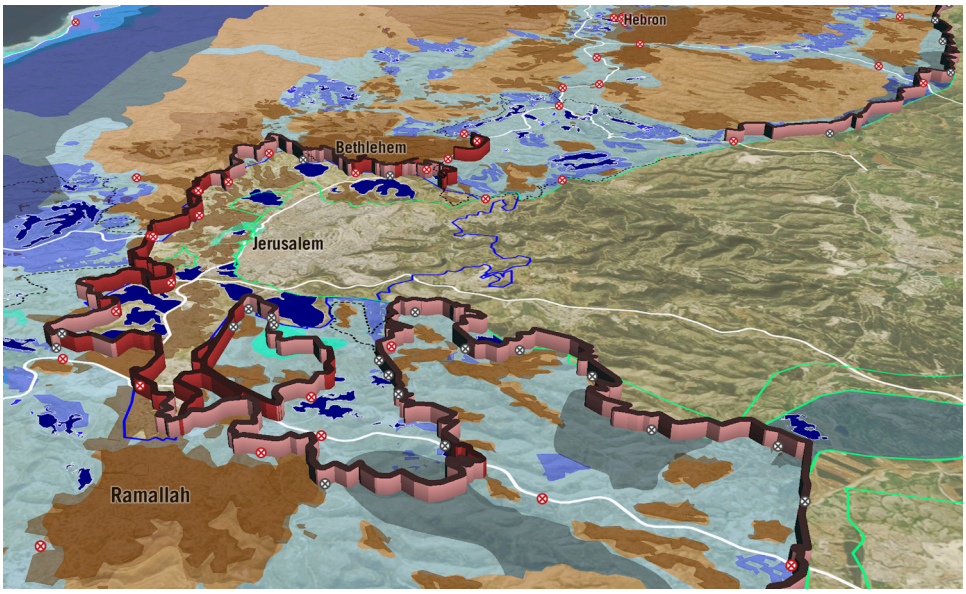

Fig. 4 Forensic Architecture (2019). A still image from the Conquer and Divide platform [Courtesy of FA]

AB: *Do you know, in that case, if there are plans to expand?*

LK: We're sort of expanding at the moment in a certain sense. There are plans to expand as in one of our programmes or prerogatives is to create these forensic techniques [from machine learning and photogrammetry to situated testimony and reenactment] and then allow other people to use them, other organisations, like Human Rights Watch is now creating a digital lab for example and we work in partnership with them. In terms of FA itself expanding, it's a question of resources. Space is a major one: we don't have any space beyond this office—the ERC research grant runs out in 2020 as well, so . . .

AB: A *Syrian military base, a residential tower block in London, a factory in Pakistan, an internet café in Germany . . . Obviously FA have completed quite a few projects in quite a few locations now. Are there any places that are off limits? Or any projects that you wouldn't take on? Other than the ones that are government-funded of course . . .*

LK: Yeah, so that's a key one: government-funded—we don't take any funding from governments or anything like that, and I think (I'm the wrong person to be speaking to about this) the mandate is that all cases investigate state violence or government-initiated violence, or where the government is responsible for violence in some way, so there's a sort of pre-filtering, based on our mandate and the kind of work that we do. I don't think in principle we're opposed to doing work in particular places, or that "we would never do work in this place, and we would never do work in that place" sort of thing. But there are certainly specific conditions around why we would or why we wouldn't do a project. So for example we haven't yet done a project in China, which is not to say that we'd never do a project in China or anything like that, but we wouldn't just want to pick up one day and say "oh, let's do some work on China" or something like that, it would have to be a sort of strong connection with activists on the ground, people that are materially affected on a daily basis by the conditions.

AB: *I imagine there would be certain parties who would have a vested interest in restricting your involvement in a particular project. What are the realistic limitations to what you can do when you get a project in a new site somewhere? How do you even go about finding witnesses for instance?*

LK: Yeah . . . it depends [. . .] in the case of working with a legal organisation, sometimes they'll have witnesses or people that we can interview for a particular project. But not every project requires witnesses, it depends on the terms. [In some cases] it might be coordinated by the collaborating legal organisation. In other cases, for example with the Grenfell [Tower Fire] project, we have different ways of bringing in particular people: there's an organisation called Grenfell United who we're in close contact with, the survivors of the Grenfell tower catastrophe, and we can get in contact with them through that. There isn't any formalised way, it depends on the project and on the terms.

Fig. 5 Forensic Architecture (2018). Grenfell Tower: Early stages of projecting and mapping videos onto the architectural model within the web platform. The toolbars on the bottom and right side of the image show possibilities for interactivity using a timeline and communications data. [Courtesy of FA]

AB: *So how much of this sort of research can you do off-site, by which I mean not necessarily on the ground at the specific physical location of the incident itself?*

LK: Again it depends very much upon the project. In the Saydnaya case, none of that research was done on-site because one of the constraints of the project from the get go was that we don't have access to the Saydnaya premises, so we have to reconstruct what we can entirely offsite. Certainly if we're trying to reconstruct what happened at a certain scene and we can go to that place and do photogrammetry at the place or capture the sort of environment, the conditions, in some way that can be constructive to a digital reconstruction, or the work or labour that we're trying to do, then we'll go to that place and do what we can with it.

AB: *So for instance, with the Saydnaya project, how do you even know, once you've got this thing and you've put it all together, that it's accurate?*

LK: We don't, for sure, what we produced from the Saydnaya project is a . . .

AB: *Best guess?*

LK: Yeah, it's a forensic reconstruction of Saydnaya. I mean that's always what forensics is in a sense, it's always a best guess of what happens—none of these are 100 per cent for sure.

AB: *So when the work here gets used in court by the UN or whoever, someone could simply refute it and say "oh well, it's digitally doctored (use basically the Photoshop argument) and you could easily have just done anything you like with it"?*

LK: Yeah, exactly, they can do that . . . and they do, as they understand it.

AB: *Yeah, so how do you get people to take it seriously?*

LK: By presenting it in a serious and convincing way.

AB: *. . . sure . . . (?)*

LK: [laughs] Are you familiar with Bellingcat's work?[7] Bellingcat is another open-source investigative agency which was started by a guy called Elliot Higgins, who was just sitting on his computer at home, threading together a bunch of different things that happened online. There's no prior legitimacy, I mean, now Bellingcat has developed a sort of reputation for open-source investigations, so there's a certain legitimacy that comes with their name . . .

AB: *Yeah, as you guys have with this kudos that's now associated with FA.*

LK: Right, but there's nothing there from the get-go, right? The first post was just someone who sat on their computer and decided that all of these things made sense together, showed how they made sense together, and that was the legitimacy in itself.

AB*: What would you say to people like myself—architectural academics—could be doing to further assist with the work of FA?*

LK: So one of the things we're keen to do, or to try and do, is collaboratively working on software called open-source, which is where there's lots of contributors from lots of different places and various different backgrounds, and that sort of thing—so to the extent that it is possible, we are trying to make more of our research open-source, [. . . so that's something potential] collaborators or outside independent researchers can do in order to help and assist with all of that . . .

Another would be just sharing these investigations in your lectures and seminars. Generally pointing people to us if they're interested in that sort of work. We have a range of academic events [such as seminars and lectures at international institutions including the University of Birzeit (Palestine), Cornell (New York) and Concordia (Montreal)], as well, mostly in London [the AA and Goldsmith's], but sometimes in other places as well—exhibitions and that sort of thing—so keep an ear out for those when they occur.[8]

AB: *Okay, that's everything, thank you.*

REFERENCES

Weizman, E. (2017). *Forensic architecture: Violence at the threshold of detectability*. New York, NY: Zone Books.

Weizman, E. (2018). Forensic architecture. Interview by Linsey Young. *Turner Prize, 18,* 9-28.

ENDNOTES

1 https://www.gold.ac.uk/architecture/

2 These included commissions from Ben Emmerson (UN Special Rapporteur on Human Rights and Counter Terrorism) for a report presented at the UN General Assembly, Shahzad Akbar (Pakistani human rights lawyer) for evidence presented at the UK Court of Appeal, and a collaborative investigation with the UK-based Bureau of Investigative Journalism.

3 An installation of the Triple Chaser investigation was exhibited as part of the *Whitney Biennial 2019* at the Whitney Museum of American Art in New York (17 May-22 September 2019): https://whitney.org/exhibitions/2019-Biennial?section=22#exhibition-artworks

4 As Deputy Director, Varvia coordinates projects, assembles teams, and oversees the research and development of new methodologies. She is also a member of the Technology Advisory Board for the International Criminal Court. (https://forensic-architecture.org/about/team/member/christina-varvia).

5 Machine learning is a process whereby a computer algorithm is able to process digital data (images, numbers, clicks, etc.) and use that data to refine and redefine the results based on the perceived level of accuracy, so that it is improving each step of the way. One example might be the way that website advertising can be targeted to align with your likely interests based on previous search history, or recommendations from Amazon and Netflix. Typically machine learning is employed when there is a massive data set that would be prohibitively large for a human to work through.

6 https://conquer-and-divide.btselem.org/

7 https://www.bellingcat.com/

8 A list of FA events including exhibitions, lectures, seminars, and screenings can be found on their website: https://forensic-architecture.org/programme/events