"Bomb-cloud atlas" for Rafah,
August 1, 2014 ("Black Friday").
Forensic Architecture, 2014–15.

On Forensic Architecture:
A Conversation with Eyal Weizman

Yve-Alain Bois: Let's begin with how each of us first encountered your work, Eyal. For me, as far as I remember, it was through Julian Stallabrass, who mentioned a lecture you had given in London about the use of postmodern theory by the Israeli army, and who forwarded me the text of this lecture, which you had sent to Iain Boal of Retort. It was hair-raising, for in it you revealed that the writings of Debord, Deleuze, and Guattari were read and debated by a group of officers in search of new methods of urban warfare. I was repelled by the idea of philosophers I admired, who were deeply anti-capitalist, anti-colonialist, and anti-racist, being used in this way. And I was also shocked by the vulnerability of any kind of thought to this kind of cooptation. I immediately proposed that we publish it in *October,* only to find out a few weeks later that it had already been accepted for publication, in a revised version, by *Radical Philosophy.*[1] Then you expanded it further in *Hollow Land.*[2] I'd like to ask you about another follow-up, described by David Cunningham in another issue of *Radical Philosophy;* apparently the text was going to be published in Hebrew in *Theory and Criticism,* an Israeli journal that has a strong, liberal, anti-occupation position.[3] You had to withdraw it because the Israeli army had been given, unbeknownst to you, a version of the text and was requesting that changes be made. Is that right?

Hal Foster: Let me just add that the first work of yours I encountered, Eyal, was your settlement project with Rafi Segal. So saying a little about your trajectory—about how you came to the idea of forensic architecture—would be helpful too.[4]

Eyal Weizman: The issues are related because both the "poststructuralist soldiers" and the settlement architects turned architecture against the city. I'll return

1.   "Walking through Walls: Soldiers as Architects in the Israeli-Palestinian Conflict," *Radical Philosophy* 136 (March–April 2006), pp. 8–22.

2.   Eyal Weizman, *Hollow Land: Israel's Architecture of Occupation* (London: Verso, 2007), chapter 7.

3.   David Cunningham, "Walking into Walls: Academic Freedom, the Israeli Left and the Occupation Within," *Radical Philosophy* 150 (July–August 2008), pp. 67–70.

4.   Rafi Segal and Eyal Weizman, *A Civilian Occupation: The Politics of Israeli Architecture* (Jaffa: Israel Association of United Architects, 2002, destroyed; London: Verso, 2003).

to the soldiers in a second. As Hal said, the path that led to forensic architecture started a few years earlier with another experiment I had undertaken with the human-rights organization B'Tselem. It was a report that sought to incriminate architects for crimes committed on drawing boards—for architectural crimes. This necessitated a close reading of architectural plans to identify moments that generated violence against both the landscape and the people. The larger aim was to see whether we could place architects at the dock of the International Criminal Court (ICC) in The Hague, which at that time had just been inaugurated. We haven't been successful in doing so, but the evidence produced in the process was presented in other legal forums, such as the International Court of Justice (ICJ), in a case against the West Bank wall, as well as in various political frameworks. When Rafi and I extended part of this work into the catalogue *A Civilian Occupation*, a few thousand copies were pulped or burnt by the Israeli architectural association that commissioned it. All this demonstrated to me the potential violence inherent in architecture, the mainstream architectural profession's ignorance of it, and the potential of architectural evidence to tell a different story. So while I attempted to deal with the "slow violence" of architectural construction and planning through the settlement project Hal mentioned, I also became interested in what I might learn, as an architect, from the instantaneous and eruptive dimension of urban warfare.[5] I noticed then that there was a "school of architecture" established within the Israeli military, because I saw that they'd put my settlement study on their reading list. Their use of architectural theories was surprising but not unreasonable. Western militaries, which all through the Cold War spent a lot of time thinking about different kinds of warfare, felt unprepared for dealing with urban environments, which they rightly understood as physically, socially, politically, and technologically complex. And like many in academia they thought they could find in postmodern theories a guide to complexity. The problem was that their aim was to undo it. The theories and the tactics of "swarms maneuver," "inverse geometry," and "moving through walls" like worms in apples, promoted in this "school of architecture," were celebrated as long as the Israeli military was fighting lightly armed teenagers in the refugee camps of the West Bank. But in the first serious deployment of these tactics against a trained enemy, Hezbollah, in 2006, the units run by the officer-philosophers were decimated: Infantry soldiers didn't understand the commands they were given—what their officers meant by orders like "Deconstruct the dynamic rhizome of an enemy's formless arrangement."

Aviv Kohavi was the general who applied these theories in a 2002 attack by ordering his soldiers to walk through walls; he is now one of the contenders for chief of the Israeli army. His sister was and still is one of the edi-

5.   Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge, Mass.: Harvard University Press, 2011).
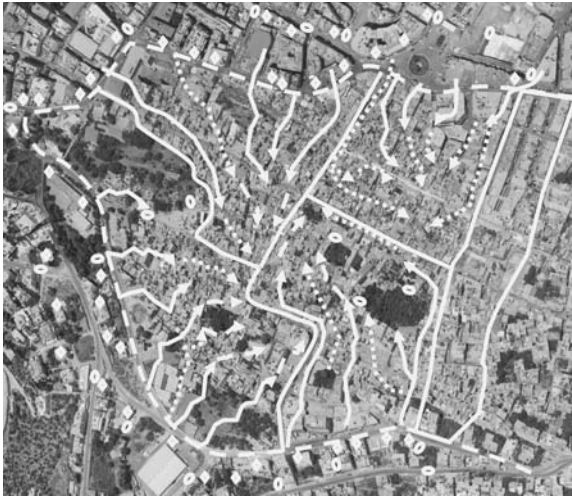
Map showing paths taken by Israeli soldiers through building walls in their 2002 attack on Nablus. Operational Theory Research Institute, 2004.

tors of *Theory and Criticism,* at the time one of the only platforms of the critical Left. When she noticed in 2007 that a Hebrew translation of my article had been commissioned by the journal, she sent it to her brother for a "comment," as if the military didn't have enough presence in the press and needed to write in critical journals as well. Instead of a response I got a threat of a libel suit by a major Israeli-American legal firm. The letter noted three libelous things in the essay—nothing about theory, Deleuze, or Guattari. The first was about the number of casualties; the military had a slightly lower number than the one I had noted. The second was technical; the letter claimed that, contrary to what I suggested, Kohavi didn't cut electricity and water to the refugee camp before breaking through the walls of its houses, which is stupid because of course the water and electrical systems run in the walls. My worst offense, according to them, was that I claimed that the group of theorists was considered left-leaning within the army and was confronting the more traditional occupy-and-control ranks. To be called a leftie seems to be about the worst thing for an Israeli general. My editor asked that I correct those points. I wouldn't, and in fact I wanted to drag Kohavi to court, where I could interview him.

This libel threat made me realize two things about the place of theory and criticism in a political and anti-colonial struggle, which also became important for the formation of Forensic Architecture. The first is that, to be effective, it's important to name names and to analyze specific situations. Many on the Israeli Left were working only with large abstract categories: ideology critique, formative forces, and superstructures. But state institutions mind this very little. It's important to make critiques simultaneously personal and systemic, which means to add an investigative-journalistic dimension to theoretical work. The second thing is related: Once names are named and specific incidents investigated, living people—more dangerous than dead ones—can do all sorts of things, suing being the least damaging. So to work investigatively or journalistically, one needs, very practically, the legal means

to defend oneself from litigation. These two aspects, the investigative and the legal, later combined in the work we developed on forensics, which we might call counter-forensics, given that we're not working like the police but against them.

Foster: So forensic architecture was in part a move toward the evidentiary. Of course, the poststructuralist theorists coopted by the Israeli army were known for their critiques of representation. How does the forensic turn, your turn toward the evidentiary, fit with those critiques—and with your own theoretical formation? How—in what forms—does truth return here?

Weizman: At present it is no longer enough to critique the politics of representation. I haven't given up on uncertainties, contradictions, ambiguities. Our notion of truth is not positivistic, but one that is pragmatically constructed with all the difficulties of representation. Producing evidence depends on aesthetics, presentation, and representation. We don't approach the law naively, as if courts were benevolent institutions—on the contrary, they are often disposed as instruments of oppression; rather, we understand all moves to be tactical. We also slowly learned how to turn the sensibilities of critical theory toward an auto-critique that helps us navigate the political and legal fields. This is important because we need to learn to mitigate the risks and dangers of complicity and abuse. On the other hand, what we hope to do in relation to the dominating, authoritarian, and sometimes neocolonial states we confront is not critique. I don't critique the Israeli state for killing 2,200 people in Gaza, many of them children, last year. There is no critique of Ríos Montt's Guatemalan army as it destroyed the Ixil Mayas in the western highlands, to name another case we recently worked on. We use evidence as leverage against them and in conjunction with political processes. In fact, the legal process is only as good as the political process it is part of.

Foster: So, put very simply, the forensic turn—away from what, toward what?

Weizman: In the human-rights context, starting in the 1960s and '70s, individual testimonies of survivors became more than sources of information about what happened; they came to be regarded as values of their own. These human-rights sensibilities co-evolved with artistic and documentary representation. An entire cultural/intellectual apparatus became attuned to the complexity of trauma and memory through theory, art, and psychoanalysis. For the human-rights movement, testimony was not only an epistemological necessity—activists didn't speak to people just in order to know what happened. There was much more going on in that encounter: It was a manifestation of compassion that posed individual voices against the arbitrariness of authoritarian states. The so-called era of the witness reshaped sensibilities but also ended up individuating and thus depoliticizing collective situations.[6] Instead of working for political change, we were asked to express empathy with victims. The forensic turn doesn't abandon testimony—I can talk later

6.   See Annette Wieviorka, *The Era of the Witness*, trans. Jared Stark (Ithaca: Cornell University Press, 2006).

about the way architectural modeling becomes a mode of work with witnesses—but essentially it seeks to support more investigative strands in political and human-rights work and open the field of investigation to the materiality of politics. As an architect, I tend to see politics as a process of materialization and mediatization, and to see buildings as political sensors.

Bois: In the small book you co-authored with Thomas Keenan, *Mengele's Skull: The Advent of a Forensic Aesthetic,* you speak about three different historical stages in the evolution of war-crimes investigation, the second stage marking the advent of the witness—a shift from the purely documentary evidence, which governed the first stage, to the voices of the witnesses, with the Eichmann trial.[7]

Weizman: The American prosecutor Robert H. Jackson preferred not to invite Holocaust survivors to give testimony at the Nuremberg trial. He thought they were unreliable and prone to hysteria, and so conducted the trial largely on the basis of the heaps of documents the Allies found before they were destroyed, whereas Gideon Hausner, the Israeli state prosecutor in the Eichmann trial, invited many survivors—too many, according to Arendt, but her account was corrected.

Foster: By whom? By a figure like Shoshana Felman, bringing together psychoanalysis, deconstruction, and testimony?

Weizman: Yes, Felman and also the psychoanalyst Dori Laub.

Foster: So how does forensic architecture turn away from this paradigm?

Weizman: The answer is obviously not to return to a kind of naive and misanthropic science of objective expert analysis, but a militant or activist research that looks at intersections of material and media analysis with new forms of testimony. In user-generated media, for example, testimony

Images produced using photographs of Joseph Mengele and his skull. Richard Helmer, Medico-Legal Institute labs, São Paulo, June 1985. Courtesy of Maja Helmer.

7.   Thomas Keenan and Eyal Weizman, *Mengele's Skull: The Advent of a Forensic Aesthetics* (Frankfurt and Berlin: Portikus and Sternberg Press, 2012).

and evidence are mixed—for example, we listen closely to what videographers say, intentionally or not, as they film. They almost always talk.

Bois: I want to ask about a common point in many of your essays and the *Forensis* catalogue, as well as the lecture you gave in Vancouver.[8] In all of them you present the artist as a kind of seer, as a specialist in visual forms and visual facts: The architect, the photographer, the videographer are people able to see things that scientific experts can't see or don't want to see. And this capability to see comes from the specific knowledge acquired by the artist, enabling him or her to decode visual signs. This notion of the artist as equipped with a greater sensitivity to things is strange coming from you, because it goes back historically to the nineteenth century (for example, it's part of the ideology of the Symbolist movement), and it continues in the discourse of the so-called pioneers of abstraction in the 1910s.

Weizman: There are also strands of connoisseurship in art history that might seem problematically similar, but my point isn't to do with the history of art; it's to do with the means of engaging the various layers of what Tom Keenan and I call "forensic aesthetics," which includes a close attention to image, frame, detail, and so on. In our group, people who come from art, photography, or film schools are incredibly useful. Some of them bring a kind of sensibility and attention that helps us decode images. And there's an art to evidence-making too. It has to be composed, produced, performed . . .

Bois: You write that "Forensic Architecture seeks to . . . employ aesthetics as a way of intensifying the investigation process by augmenting our senses and increasing our sensitivities to space, matter, narrative or images."[9]

Weizman: Yes, seeing is a kind of construction that is also conceptual and culturally conditioned, hence the indispensability of artistic sensibility. Human-rights groups traditionally relied on art to add affect to the investigative process, and implied that the investigative process is too serious for aesthetic practitioners. The court itself is allergic to the work of aesthetics and art because it sees in them the danger of manipulation, emotional or illusionary, that takes the viewer away from supposedly unmediated experience. But it is only through aesthetics that we can both perceive and present. Our understanding of aesthetics is both archaic and contemporary; it refers to material perception, not only to human perception. Material aesthetics doesn't refer to the human sensorium but to the capacity of all material things to sense, to register their proximity to other things and to their environment. At this level, buildings are sensors registering environmental forces or impacts. Material deformation holds information, recording some things and erasing others. Other layers of forensic aesthetics are to do with our reading and interpretation of this data, but reading is never straightfor-

8.   Forensic Architecture, ed., *Forensis: The Architecture of Public Truth* (Berlin: Sternberg Press, 2014).

9.   Eyal Weizman, *Forensic Architecture: Violence at the Threshold of Detectability* (New York: Zone Books, forthcoming Winter 2016).

ward. This happens in the studio or in the lab, where connections and narratives are composed, and in forums like courts, where forensic aesthetics is about the art of presentation.

Foster: The original definition of the aesthetic is to do with perception at large, not art alone, and it presents human subjects as sensors of this perceptual manifold. In forensic architecture it is the world that has become the sensor, and everything is somehow media. Is there a potential problem with this expansive mediation of the perceptual field? It is as though everything might become a representation or medium, everything a media apparatus.

Michel Feher: A problem for whom?

Weizman: I think it's essential for any discussion of political aesthetics to start with materiality, so that we don't get lost in the solipsistic world of the subject or in endless meditations on the spectator; that seems to me to have been privileged in your field in a somewhat analogous way to the witness in the human-rights field. Material aesthetics is the way things relate to one another, because material change depends on all sorts of things around them that these things also record. I don't think there's anything outrageous or controversial about that point: The principle of matter as a strange sensor is the basis of forensic science. Just as a photographic negative records the proximity of objects, other material surfaces, like the surface of this table we are sitting around now, respond, record, and erase—for a certain duration and in variable accuracies—our proximity, our bodily temperature, this teacup, the radiation from that Skype screen, but also, potentially, slower processes like temperature change over the years since the table was first brought here.

Foster: OK, that I get. But to respond to your question, Michel, it's a problem, at least for me, if everything is somehow presented as though it were animate, and, more, as though it were an agent. This leads me to ask what relation forensic architecture has to object-oriented ontology, speculative realism, and vital materialism.

Weizman: We don't need matter to be endowed with spirit to conduct our investigations, though indigenous conceptions of animism were important in turning the environment into a legal subject in the new constitutions of Ecuador and Bolivia, where one can now bring universal-jurisdiction claims for ecocide, thereby somewhat translating the universal principles of human rights to "rights of nature" arguments.[10] Maybe we share with object-oriented ontology the refocusing on materiality, but some of their associated lines of thinking seem to promote the proposition that poetry, in excess of science, is somehow a better way to access the object. I find this romantic and unhelpful.

Bois: I'm very interested in the actual form of your interventions—the use of diagrams, perspective parallax, computer programs, those kinds of things. Some time ago, Robin Kelsey, a historian in photography, looked into the discourse

10.   Paulo Tavares, "Non-Human Rights," *Cabinet* 43 (Fall 2011).

around the nineteenth-century survey photographs of Timothy O'Sullivan, and he noted that there were two camps of argument. For one camp (Peter Galassi at MoMA, among others), those photos belong to art and the tradition of painting, while for the other camp (headed by Rosalind Krauss), they are documents and so belong to the field of the archive. Robin basically said both interpretations are wrong because there is an aesthetic of the archive.

Many images you produce and videos you show are similar to Harun Farocki's, and this makes me wonder if one can speak of a "forensic style." Also, what you call the "face to screen" or "screen to screen" condition of this imaging—is this the source of a kind of stylization in your work? I'm curious about your reappropriation of a language that is so instrumental to technology.

Weizman: Farocki's work on machine vision and operative images opened up the sensibility within which we operate. After the *Forensis* exhibition appeared in Berlin, he also got interested in our work and started working on a film on it just a few months before he died. One of his last emails included a beautiful metaphor regarding the way he thought about starting this film. "Let me take the first step. Instead of designing a film in the way a building is designed, I prefer to build a film in the way birds build a nest." Then he listed the components of investigation that were issues of media forensics and architecture. It included

old images of the Negev desert from the World War I and II eras that we interpreted for a Bedouin land-rights case there. He was interested in the way we started working like archaeologists or building surveyors—looking at material evidence and trying to read backward—and how we increasingly turned to use architecture as a mode of research, building models to compose the relation and navigate between many images located in space. Often architectural models are the only possible way to view the relation between images, especially when it is the relation between thousands of images that needs to be constructed.

Foster: What does that mean in practical terms?

Weizman: In most videos that end up being broadcast in the media, both perpetrator and victim are captured within a single image frame. This is the case in most videos of police brutality since the video recording of Rodney King. But think about it: For every shot that includes a beater and a beaten or a shooter and a shot person, there are many, many more that include only one or the other, or just audio, or contextual elements before and after the incident. These images are never screened, they are trash, their relation to other images and the main incident is not obvious, so it is this relation we seek to compose. We move on from the notion of the archive into another form of arrangement—a more dynamic relation between images—that we refer to as the architectural-image complex. Exploring this photographic space requires spatial navigation between simulated 3-D spaces and images. In practical terms we construct models from images—using extrusion or photogrammetry—and then locate each camera within them, including the viewing angle it is recording at, etc.

One of our investigations for Amnesty International was concerned with reconstructing one day in the horrible 2014 Gaza war. We obtained about seven thousand images and clips. Each image or clip showed something—tanks charging forward, smoke clouds, people fleeing with white flags, wounded people on the roadways, etc. No one image could be understood by itself, and almost none of these images had the metadata intact. To reconstruct events we had to find the time and location of each image, and then place them in a model. We then used the model as a navigational tool and an optical device to move from one image to the next and reconstruct some of what happened as a relation between images.
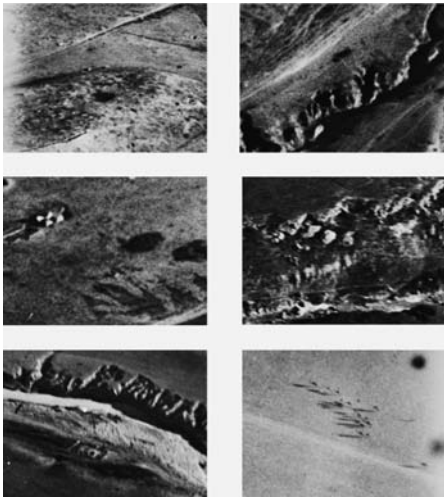
Opposite: Photograph of the Negev Desert taken in 1918 by the Bavarian air force, with frames, added in 2014, highlighting likely traces of Bedouin life. Above: Close-ups of selected areas. Forensic Architecture, 2014.

The reason this was so crucial was that the recent Gaza war took place in a different juridical, political, and technological space than all previous rounds of the conflict. In terms of the law, three months before the war, the Palestinian Authority ratified the Rome status and joined the International Criminal Court—this after huge popular pressure by all sectors of Palestinian society demanding that it do so, and this despite the fact that Israel said that it would view joining the ICC as a "declaration of war," and that the Americans and Europeans threatened to cut funding. Actually, when they joined, none of this happened. So as bombing began and later as Israeli columns started rolling into the strip, people turned on their smartphones, recorded from roofs and out of windows, and uploaded the material online, like messages in a bottle, without knowing who would look at it or even if anyone would. People knew they risked their lives doing this because Israeli open-fire regulations are to shoot to kill anyone aiming a camera at soldiers. In this conflict images were both the means of killing—with optically guided munitions or drones—and the means of documenting and testifying. The latter sources are new forms of testimony, different from the ones for which human-rights researchers had to travel, interview people, and record film. People delivered this kind of testimony on their own terms.

The risk undertaken by witnesses in the process of recording places both a political and an ethical obligation on the viewer. Later the production of evidence from this material became a common project between the people uploading, the human-rights groups in Gaza that processed it, Amnesty International, and us. We wanted to give this material as much attention as possible, reading it carefully, to honor the risks taken. To read it we needed to study what was in the frame of the image as well as the relation, the time-space, between the images. To understand the relation, one has to look at *common* elements and triangulate.

*Bois*: You're referring to the cloud piece, right?[11]

Weizman: Yes. Many of the images captured some sky, and almost every bit of sky had a bomb cloud. It was the deadliest day of the war. So the best way to understand the relation between the images—when the metadata on the image is missing or corrupt—was to compare all the shapes of bomb clouds and make a kind of cloud atlas. Because the bomb clouds are unique at any given moment, we could use them as physical clocks to understand the order of images and clips and the time between events. When we saw the same bomb clouds from different perspectives, we could establish the precise location of the bomb. When we managed to establish the exact time-space of a cloud, we could then locate some others through triangulation. In this way the clouds became the metadata missing in the image files.

Bois: Since forensic architecture covers fields that are much larger than architecture, how do you define architecture? Is it a matter of spatiotemporal coordinates? The definition seems very broad.

11.   http://www.forensic-architecture.org/case/rafah-black-friday/.
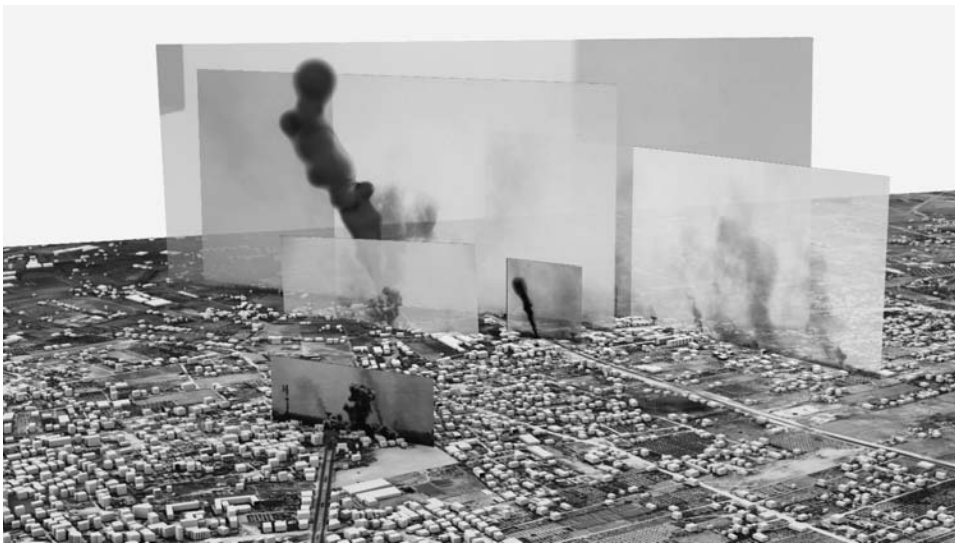
*Architectural-image assemblage from the "bomb-cloud atlas"
for Rafah, August 1, 2014 ("Black Friday"), first stages.
Forensic Architecture for Amnesty International, 2014–15.*
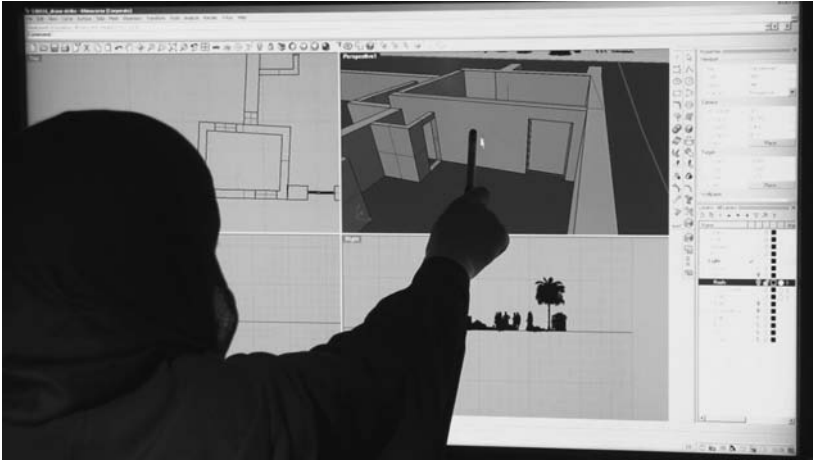
Anonymous witness reconstructing her memory
of a 2010 drone strike in Mir Ali, Pakistan,
using a 3-D model. Forensic Architecture, 2013.

Weizman: In *Hollow Land* I described architecture as a "political plastic"—the product of force-form relations—seeing buildings as the medium through which political and physical forces are slowed into form. This is perhaps analogous to Joseph Beuys's concept of art as a social plastic or social sculpture—hence my term. Forensics poses a fundamental challenge to architecture in demanding its attention to its outer limits. In this sense it is useful to study bomb clouds as architecture. These clouds are themselves a limit-concept of architecture because they reveal something fundamental about it. First, a bomb cloud is composed of vapor and dust from everything that the building was—concrete, plaster, wood, plastic, fabric, drugs, human remains. It is a building in gaseous form. Its life cycle is short—eight to ten minutes—during which time it is undergoing constant transformation. In relation to this soft architecture with a super-fast life cycle, buildings are harder and slower, but they behave in an analogous manner, transforming, mutating, cracking, bending, shearing, as they translate external influences into form.

Bois: Yet you also produce models as props.

Foster: Right. You repurpose the architectural model, the computer software that allows one to fly through space perspectivally, and other devices. You repurpose these instruments to restage events architecturally. You also suggest that

the model can be a mnemonic device, one used, for example, to reconstruct traumatic events.

Weizman: This is a kind of "art of memory" for the digital age. The problem we face when engaging with witnesses is that the closer one gets to the essence of their testimony, to the heart of the most violent incidents, the more elusive their memories become. We help witnesses build digital models from memory and furnish them with whatever objects they can remember, then virtually walk through them. In one occasion we worked with a single witness, a woman who tried to recall the events of a drone strike, helping her to recompose that memory. More recently we worked with several former detainees from Syria, helping them reconstruct a detention center; some were taken there blindfolded, some saw only the floor tiles through a thin sliver under the sacks pulled over their heads, some saw elements that others didn't, and some memorized sounds.

Foster: How does that process of collective memory through a model get one to the reality of the event? Could this aspect of forensic architecture be a version of *Rashomon,* a matter of multiple interpretations that relativize the truth more than clarify it?

Weizman: The contradictions between different accounts are used in a different way than in *Rashomon.* The starting point for every investigation is contradictory statements—initially between the state and the accounts of civilians and then between and within each of these groups. We try to resolve these divergences carefully, but also to record the errors.

Foster: Could the imperative to resolve contradictions into a story be a problem in its own way?

Weizman: The key is to synthesize without losing information. Contradictions, mistakes, and lacunae record something important—often the very effect of violence or the presence of trauma and thus the ultimate truth of the event. Some detainees remembered a corridor in the prison to be two hundred meters long when we knew it was shorter than a third of that. Why did they remember it as longer? What happened along it? There are other such instances when a certain part of the building is blanked out or certain architectural elements, like steel gates, multiply. When we build the model from memory we build it both as we know the building to be and with these unresolvable distortions and blank spaces. The result is not a positivist, reductive synthesis. And whenever, from that great mess of contradictions and unknowables, we are able to put together, with great efforts, a faint fragment of a narrative—not a grand narrative, but something fragile, a construction that is cognizant of the very problem of truth-telling—and say this is what

happened here, the last thing we need is a poststructuralist to kick it in the name of some kind of relativism.

Foster: Touché. Let me try another angle. Is there a forensic or counter-forensic authority that might benefit from a critique, one that would not debilitate it? A generation ago the questioning of ethnographic authority was very generative for the discipline of anthropology, but that auto-critique also made some anthropologists become rather inward, almost self-involved, and, at least in some quarters, the discipline seemed to lose confidence in its own project. Is there a way to make that kind of critique within forensic architecture—and make it productive for you?

Weizman: In *The Least of All Possible Evils* I tried to engage with this question.[12] It was my first text on forensics, and when I read it today it seems to me to be a damning critique of the practice of forensic architecture. The main chapter was titled "Only the Criminal Can Solve the Crime," and it concerns a true story about a CIA-targeted assassin who became the forensic architect who analyzed the ruins of Israel's 2008–09 bombing in Gaza. The text makes a connection between the evolution of forensic architecture and targeted assassinations, no less. Today my position is more nuanced, and I understand the limitations, contradictions, and potential complicities of forensic architecture as inherent to its work, and I see how these dangers increase the more effective one may become. After the 2014 bombing we paradoxically found ourselves in Marc Garlasco's place—as forensic architects analyzing the ruins of yet another Gaza war—though we did things differently, in a more participatory fashion and using social-media testimonies that were delivered on their own terms.[13]

Feher: It would be interesting to fold together a few genealogical lines of forensic architecture, two of which you've already covered, but the third one hasn't appeared yet. The first one involves the turn in human rights from testimony to forensics. However, if you go back to the history of criminal investigations and trials, in fact testimony was always intertwined with some kind of forensics. The turn to testimony in the 1970s, which is really a hypertrophy of testimony, seems to me an exception, one that arises from the intersection of two other oppositions. The first is the beginning of a melancholy despair about macro-political change, which, if not replaced, is at least compensated for by the surge not of human-rights activism so much as humanitarianism. The line is: We can't change the world anymore, but we have to do something for people who are suffering. Horrible, complicated things happen in the world, but it's delusionary and sometimes dangerous to think that you'll find a system that will end them. At least by intervening and doing something—this is

12.   Eyal Weizman, *The Least of All Possible Evils: Humanitarian Violence from Arendt to Gaza* (London: Verso, 2011).

13.   Marc Garlasco served as a military expert for Human Rights Watch from 2003 to 2010, thereafter serving as a civilian-protection officer for the United Nations Assistance Mission in Afghanistan, where he has investigated many human-rights issues.

the Bernard Kouchner brand of humanitarianism—you'll witness the terrible things that happen and can say, "I was there, I saw it, it happened." Then you can reconnect to some kind of human-rights investigation and reparation. That's one opposition, the political versus the humanitarian.

But the 1970s is also the moment of the distinction, or at least the remarking of the distinction, between history and memory. That happens in France in particular. It's very important there because the official history of World War II claimed that everybody was resisting, that the entire country was with de Gaulle and won the war together. The people who went through the war knew very well that wasn't the case, but their memories were basically suppressed, and it was thanks to historians like Robert Paxton that they were finally honored. So we have, on the one hand, the reawakening of suppressed memory versus official history and, on the other, the witness as humanitarian activist versus the political march of history. After that, forensics appears (or rather reappears) because of the hypertrophy of witnessing, a hypertrophy that causes witnessing to be questioned: What did they witness, exactly? Are they just posturing as witnesses? Forensics can make an entry as research that is reliable. That's one line of forensics.

The second line is that of architecture. Why this word *architecture* when Eyal is not building much? First, it's architecture to the extent that you're looking for traces in buildings, traces of bullets, shells, or whatever, treating buildings as witnesses, so it is forensic architecture in that basic sense. Second, if you look at Eyal's recent work, it's more and more about using the tools of architecture—not buildings but models and other devices—in order to rebuild events, to retrieve moments in the past with architectural methods. There is a remarkable difference between these two aspects of forensics. In the first instance, forensics can be opposed to witnessing: People can lie or forget, but buildings don't. In the second instance, however, there is no longer an opposition between human and nonhuman recollection—on the contrary. For in Eyal's use of architectural models you're no longer looking for the little remnant that will tell you the truth; you're using the modeling aspect of architecture, and bringing people into that modeling, in order to activate their memories. All of a sudden you have this synthetic moment where witnessing is brought back through architectural models. So then the analytic separation between forensics and witnessing becomes less clear. That's the way the two lines connect.

The third line you haven't touched on yet has to do with forums, with working for courts (or at least lawyers in courts), because that's the place where human-rights violations are supposedly exposed. But to the extent that courts are compromised or inaccessible you also need other forums. One possible forum, which is where a lot of your work now appears, is the museum and the gallery. Is this an interesting way of creating a forum, or is it a sad sign of defeat—to wit, we didn't win in court, but at least we have a nice show? It raises the issue of what forums forensics is undertaken for.

Bois: Let me add a footnote concerning the tools of architecture. In your lectures, Eyal, you show a lot of clips made from multiple videos gathered on social media, and what you do is synthesize all these different subjective viewpoints into one that is strangely de-subjectivized. You put together these various videos, each with a different viewpoint, and you make sure they coalesce into one. I'm struck by the way in which the most subjective visual component, the point of view, and the parallax that goes with it, is evacuated in constructing the evidence. I'm impressed by the creation of a kind of neutral point of view—one could even speak of a "universal" point of view—in your work on the Gaza attack, the clouds, the explosions. The digital modeling done in the studio enables you to produce a synthesis.

Weizman: I can see why this seems so, Yve-Alain, but our aim was to synthesize witness reconstruction and image analysis within models so as to capture simultaneously the individual points of view, their narratives, and also the relation between them. It is a form of embodied navigation within model space where you walk within the images.

In response to Michel, the architecture in forensic architecture could also be understood as the making of forums. In the context of political violence and war crimes, the forum doesn't necessarily preexist the crime. For evidence to be heard forums need to be constructed. Forums are often established after the evidence, in the same way that the ICTY (International Criminal Tribunal for the former Yugoslavia) was established after evidence of genocide in Bosnia started to emerge.

An example is a project that we called "ground truth," undertaken with the Israeli-Palestinian anti-colonialist organization Zochrot on New Year's Eve 2015.[14] It involved the establishment of a forum within which a civil truth commission took place. We presented the research we had undertaken for the book *The Conflict Shoreline* on the ongoing displacement of the Bedouins at the northern threshold of the desert and the transformation of the environment.[15] There were several legal cases brought against Israeli land grabs, but it was futile to appeal to the courts because in this case the law and the legal system were themselves weaponized against the Bedouins. The state lawyers presented meteorological data purporting to show that it was impossible to cultivate cereals in the desert, hence to make permanent settlements there, hence to have property rights. A truth commission in this context is not about truth-telling; its task is more fundamental—it needs to be about reestablishing the conditions of truth. So the forensic act was the establishment of a forum on the very site of eviction.

Foster: Are these the forums you are using now?

14.   http://zochrot.org/en/gallery/55860.

15.   Eyal Weizman and Fazal Sheikh, *The Conflict Shoreline: Colonization and Climate Change in the Negev Desert* (Göttingen: Steidl, 2015).
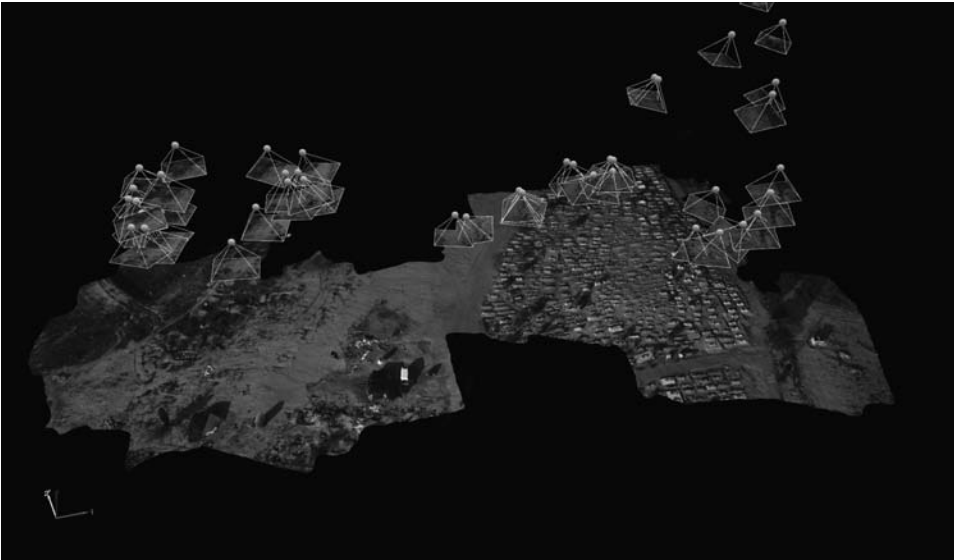
Model showing the locations of photographs taken by a kite-mounted camera in the Negev Desert. Forensic Architecture (Ariel Caine) and Public Lab (Hagit Keysar).

Weizman: *Ground Truth* was an important forum to have established because it needed to present things that the courts won't hear—testimonies and oral traditions that they dismiss as hearsay. But there are various other kinds of forums we address, and because, as Michel suggested, all forums are skewed to some extent, it is important to present the same findings in different ones. Some could be improvised activist meetings, UN assemblies, the public domain via media, or exhibitions. In relation to exhibitions, it was only in *Forensis,* the exhibition Anselm Franke and I curated in Berlin, that we managed to use the material in a very strategic manner. Most other exhibitions we show in are group shows we have very little control of.

Foster: Still, these are spaces and institutions that can be used somehow.

Weizman: Maybe we can think of art institutions in a way analogous to courts. If the gallery is to a certain extent contaminated by its context, funding, and politics, so is the university and so are the courts and the institutions of law. From our perspective we must try to negotiate these problems, without adhering to a religion of the law or of art—that is, with recognition of the limits of each and being realistic about what is possible to achieve with each. To some extent the legal field is a battlefield in which the law can be used as a weapon by both sides—human rights and international law can become mechanisms of violence too. Just as some Israeli soldiers used Deleuze to destroy Palestinian cities and camps, some younger international lawyers

working for the Israeli military's international-law division use the "funda-
mental instability" or "contingency" of the law, its being prone to interpreta-
tion and all sorts of notions that they must have picked up in a "critical legal
studies" course somewhere, as instruments of domination. Their aim is to
make the laws that protect civilians more elastic in order to enable the ongo-
ing perpetration of violence and dispossession.

Bois: Because your work began with issues of settlements and the Israeli occupa-
tion, it has always touched, at least indirectly, on the problem of refugees.
But now this problem has become more central in the work done by
Forensic Architecture. I'm thinking in particular of several essays published
in *Forensis,* such as Lawrence Abu Hamdan's essay about the aural identifica-
tion of asylum seekers, or Charles Heller and Lorenzo Pezzani's investigation
into "the boat left to die."[16] Now, this research was done at the micro level,
which is one of the characteristic strengths of Forensic Architecture. But
given the current scale of the refugee crisis (which has grown exponentially
since 2013, the date of Hamdan's investigation), I'm wondering if Forensic
Architecture is envisioning something at a macro level? In other words, is the
quantitative leap in scale in migration resulting in a qualitative leap in the
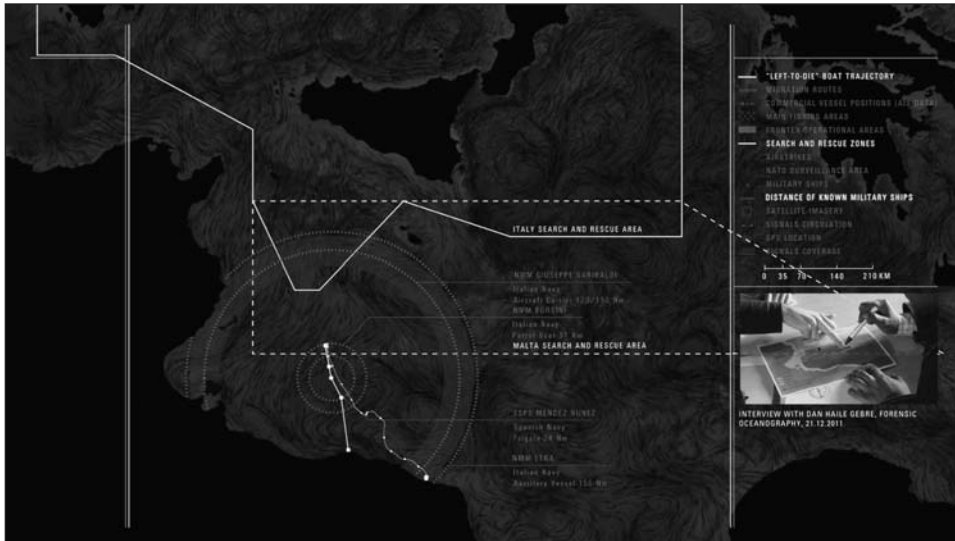thinking of Forensic Architecture?

Weizman: Yes, it is necessary to work across scales and also to look at general pat-
terns and trends on the large scale. This is not about micro-history or about
the *longue durée*; it is about ways to combine those perspectives. If we go down
to the small scale, we hope to find an entry point into understanding larger
processes. For example, when we exposed the effects of a new type of missile
used for drone assassinations—architectural munitions that, because of a
delay in explosion, can penetrate roofs and walls and blast inside rooms deep
within buildings—we also showed how this enabled the spreading of drone
strikes on buildings within cities and across extended geographies.

This principle of reading the macro from the micro also guided the
Mediterranean-migration study that Heller and Pezzani undertook. They've
sought to unpack the political tangle of actors, states, smuggling networks,
and the various maritime borders that refugees cross by looking at a single
case of death at sea. But they also map the larger geopolitical condition. This
group works very closely with Michel . . .

Feher: The remarkable potential of forensic work is exemplified in "the boat left to
die" of Pezzani and Heller. What you see unfolding in a twenty-minute film
posted on Forensic Architecture's website is the complexity of a situation: A
boat with refugees is leaving Libya at the same moment that NATO boats are
besieging Libya in an attempt to overthrow Gaddafi.[17] And they're overthrow-
ing Gaddafi in the name of humanitarianism and human rights; their interven-

16.   http://www.forensic-architecture.org/case/left-die-boat/.

17.   http://www.forensic-architecture.org/case/left-die-boat/.

*Map analyzing migrant routes and search-and-rescue
areas in the Mediterranean Sea. Forensic Architecture
(Charles Heller and Lorenzo Pezzani), 2014.*

tion is allegedly a humanitarian one, as the Gaddafi army is about to launch a massacre in Benghazi. The justification of the intervention is to save lives, yet the people who are fleeing the war are, for the most part, not Libyan but either Eritrean—people who've fled Eritrea's extremely violent regime—or migrant workers who are associated with the Gaddafi regime because they've been residing in Libya. And so they have to leave once the Gaddafi regime is in danger. This entangled situation gets even more entangled when the NATO boats and planes, in order not to be distracted from their humanitarian intervention, let about eighty people die in the boat.

Once you've made the case that these people were left to die by NATO, where do you build your forum to expose the crime? First you go to France, because the NATO boat was in fact French. And in France the complaint is rejected basically on the basis that the military denied it all; "The French navy is not guilty of malign neglect because the French navy says so" was basically the argument of the French judge, evidence to the contrary notwithstanding. So then you go to the next step, which is the European court. But if it is rejected there, what do you do? You get to the point where you make a film; that's how you can expose things, and so we are back to the gallery/museum quandary.

However, in response to this impasse, what Lorenzo and Charles, along with other activists, are currently developing is something quite different from a forum. It's not only about trying to relay the call for help coming from refugee boats, but about helping them out, guiding them out, directly. Lorenzo and Charles, once again along with other activists, are making a phone number available to asylum seekers trying to cross the Mediterranean. Even more importantly, and more dangerously, they are contemplating the possibility of guiding those boats so that they can avoid the patrols that are trying to prevent them from getting into European territorial waters. Because once you're within territorial waters, the law says you have to be escorted to the shores of Greece or Italy. So, basically, Frontex and now NATO boats are patrolling the Mediterranean to intercept the refugee boats before they cross the line, so that they can be pushed back and given to the so-called transit countries such as Morocco, and now Turkey, that have a deal with Europe to bring back the refugees to the non-EU sides of the Mediterranean.[18] In short, activism moves from exposing a crime to waging an actual battle, and you have a morphing of forensic architecture where it's no longer about a forum; it's about using the tools of architecture in order to wage a kind of war, or at least a counter-war.

Foster: It becomes not a melancholic science but a proactive intervention. Can you say more about the ways in which you envision forensic architecture along these lines?

Weizman: There is a shift to predictive forensics, turning the direction of analysis from the past to the future, so to speak. Prediction is usually a security or financial matter; militaries do predictive forensics when they use preemption to target suspects. They look for patterns of people's behavior in space and time—movement along specific routes, telephone calls to specific numbers, congregation in particular religious buildings—which are considered indications of impending movements, indications that set up targeting and enable killing. Our work with data—migration data, as with the ocean team, or in warfare—seeks to look at emergent risks for civilians, but we don't act on the basis of certainty. We developed a software—Pattrn—that is designed as a crowd-sourcing device that allows activists to upload geo-tagged information and then map out relations between discrete events, identifying patterns and trends. Before one can work with crowd-sourced data it is necessary to develop the means to safeguard the anonymity of both the participants and the data. The problem of human rights is no longer about information scarcity but about managing abundance. As the stack of hay is getting higher we're no longer looking for needles but at the disposition of the stack. For example, logging in data on thousands of drone strikes in Pakistan since 2004, we could see that from a certain date, sometime around 2009, the most common target stopped being cars and started being domestic buildings, and that this went hand in hand with an increase in civilian casualties. So we

18.   Frontex is a European Union agency that coordinates European border management.

could identify a relation between a shift in the pattern of targeting and the new missiles that enabled it. Such revelations are important because patterns show where people might most likely be targeted or—if you are a sea migrant—intercepted. Patterns analysis is what opens evidentiary techniques to be used tactically or operationally.

Bois: So you return to the issue of probability that was the beginning of forensic science, as you point out in the introduction to your forthcoming Zone book, referring to Ian Hacking.[19] I'd like to know more about this software. To which groups do you provide it, and how?

Weizman: We submitted Pattrn to the ICC, and now we are beginning to work with it with MSF (Doctors without Borders), Amnesty, and UNESCO, as well as smaller groups. The ICC is considering opening proceedings against Israel for the Gaza war and needs pattern analysis to determine if violations were "widespread and systematic"—one of the threshold conditions for their involvement. Early discussions with MSF and UNESCO are about identifying future vulnerabilities. Predictive forensics is still a very basic tool, providing only very schematic indications, but it's another dial on the dashboard of operations.
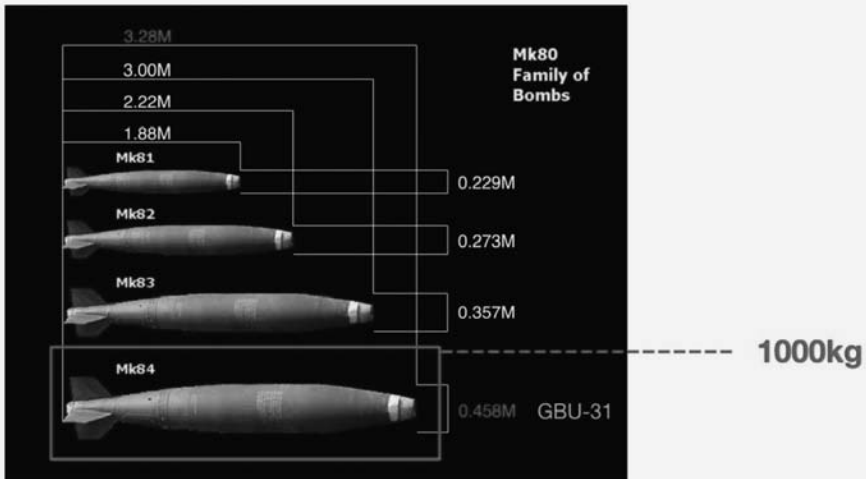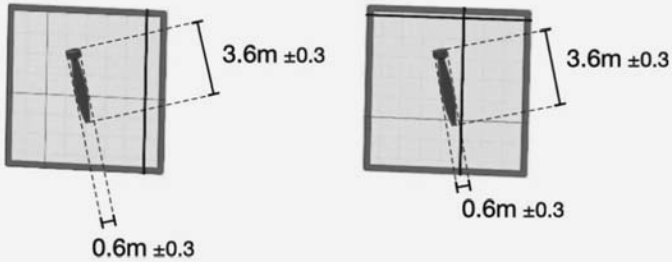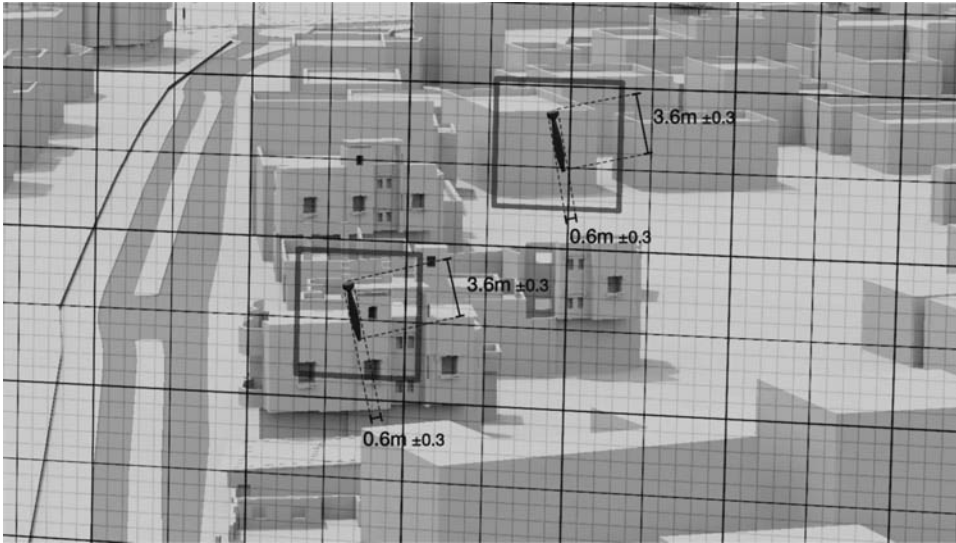
19.   See Ian Hacking, "Comment: In Praise of the Diversity of Probabilities," *Statistical Science* 5, no. 4 (November 1990), pp. 450–54. See also Ian Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference* (Cambridge: Cambridge University Press, 1975).
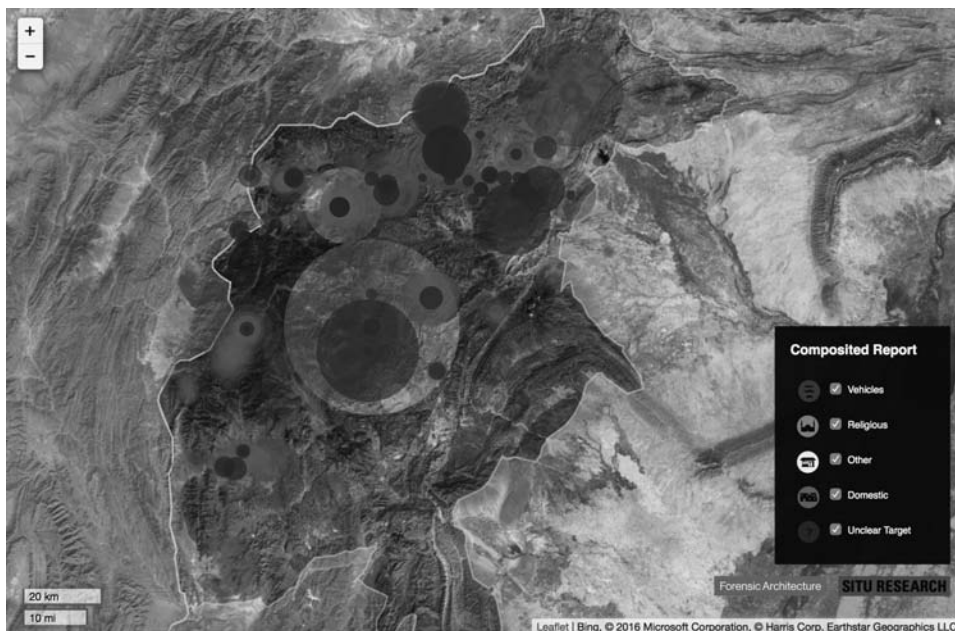
Map showing categories and locations of targets struck by drones in South Waziristan, Pakistan. Forensic Architecture in collaboration with Situ Research for the Bureau of Investigative Journalism, 2014.
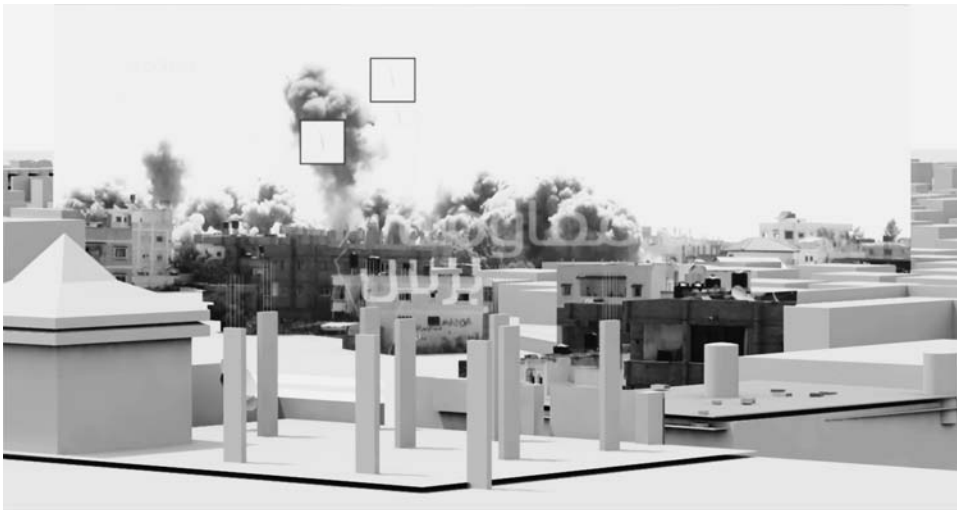
Video analysis of munitions dropped by the Israeli army in Rafah, August 1, 2014 ("Black Friday"). Forensic Architecture with Amnesty International, 2014–15.

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Mk83

0.357M

Mk84

0.458M GBU-31

Mk80
Family of
Bombs

1000kg

Feher: To wrap up, maybe you can mention how you see forensic architecture as part of a larger political strategy about civil action.

Weizman: Our investigative and sometime legal work is always undertaken in support of civil action. In relation to Palestine it also means support for civil initiatives such as BDS (Boycott, Divestment, and Sanctions). Convincing people to support the boycott of Israel depends on many things, including investigative work that can expose violations and the international companies that benefit from it. We work to identify munitions that killed civilians to support such public action. On one occasion our research was presented by a US congresswoman in an attempt to ban the export of arms to Israel under the Leahy law. It didn't succeed, of course, though this was the first time such a motion was brought to the House. We learned that it's not enough to address an academic context or a general "public domain," and that to become political we need to think about available civil tools and institutions that can exercise political leverage. This is always tactical, part of a long-term struggle. In this context we're not arguing with or critiquing the occupation. We're trying to find ways to confront it.