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A Conversation on Architecture, Design and the Climate Emergency
with Rania Ghosn, El Hadi Jazairy & Peg Rawes facilitated by **Rodney
Harrison (RH)**

Rania Ghosn (RG) is partner of Design Earth and Associate Professor of Architecture and Urbanism at the Massachusetts Institute of Technology. Her practice engages design as a speculative medium for making visible and public the geographies of the climate crisis. She is founding editor of the journal *New Geographies*, editor of *Landscapes of Energy* (2009), and co-author of *Geographies of Trash* (2015), *Geostories: Another Architecture for the Environment* (2nd ed. 2020), and *The Planet After Geoengineering* (2021).

El Hadi Jazairy (EJ) is partner of Design Earth and Associate Professor of Architecture at University of Michigan Taubman College. He is founding editor of the journal *New Geographies*, editor of *Scales of the Earth* (2011), and co-author of *Geographies of Trash* (Actar, 2015); *Geostories: Another Architecture for the Environment* (2018; 2020); and *The Planet After Geoengineering* (2021).

Peg Rawes (PR) is Professor of Architecture and Philosophy at the Bartlett School of Architecture, UCL. Her teaching and research examine political, technological and ecological architecture and art. Recent publications include: 'Interview: Architectures & practices of care', *The Architectural Review*, 2021; 'Visualising uncertainty and vulnerability', *Life in Time of Coronavirus*, IAS UCL, 2020; editor of *Architectural Relational Ecologies*, 2013, and co-editor, *Poetic Biopolitics: Practices of Relation in Architecture and the Arts*, 2016, which publish architects alongside practitioners in the arts, environmental, human rights, social and medical research.

RH Could you start by telling us about the history and philosophies that underpin your work in Design Earth?

RG The work of Design Earth is built, or engages with, the idea that geographic imagination is key in architecture to address some of the broader systemic questions that are now enclosed by the climate crisis and environmental destruction more broadly. And the way we come at this complex issue is that we put forth the architectural project, as it materialises through drawings, artefacts and texts, to trigger a shift in terms of public communication on the issue of climate change.

So, we begin by making visible what exists, rendering it spatial through drawings, and then beginning to anticipate it through other possible worlds. Worlds that might be reminiscent of the traces of unevenness that has produced this moment to start with, or this condition. And then maybe more transformative moments through which we can begin to imagine otherwise.

EJ We started Design Earth in relation to our conversation with Bruno Latour for the inaugural issue of the journal *New Geographies*, of which we were the founding editors. With colleagues at Harvard GSD Doctor of Design program, we founded the journal to address design questions through the framework of geography. And in our conversation with him, he said, "You architects have to think about two things when we talk about the planet. One is representation and the other is scale. Basically, you have to redesign the earth". We thought, "That's an interesting thing to do!" Basically, this was the premise of the work.

RG *Geographies of Trash*, our first design research publication, was produced at the University of Michigan and made possible through a Research on the City grant. The premise was that urban questions needed to be researched beyond the morphological boundaries of the city to trace ecological systems of operation, maintenance, inputs and outputs in their broader territorial dimension. The initial pitch was if one were to put together all of the landfills in Michigan, that they would together occupy an area roughly the size of Ann Arbor, the city where the University of Michigan is based. So, if you want a city issue, that's a city sized issue.

EJ We were proposing that we had to look at urbanisation within a much bigger framework – at the regional scale of Michigan, at the transcontinental movements and the relationships between Canada and the US and larger planetary dynamics.

RG In the context of such broad flows, the landfill is one accumulation point in waste landscapes, and one that is inevitably bound with frictions, which became another anchor of the conversation. Also, the continued relevance of the work today is that it articulated a methodology that became almost iterative in many of the future

Design Earth projects. So, the book *Geographies of Trash* is organised around a similar logic to the methodology, which is in four parts: construct, represent, project and then assemble.

Construct identifies a key question that might be peripheral to contemporary design concern, but core to the organisation of space – be it trash, energy, etc. It is a process of building a vocabulary of alliances with adjacent spatial fields, environmental history, critical geography, history of science and technology, architecture and art, places where responses to these questions have already articulated a spatial vocabulary. *Represent* is the development of the visualisations, diagrams, facts of matter to begin to place dimensions, distances, relations, actors, in formats such as an actor-network diagram or spatial and temporal mappings. And because these systemic questions unfold in multiple sites and a series of nodes once you've explored the black box of technology, we begin to respond to each typological node as conditions that are very situated. So, the geographic embeddedness of each of the sites is of great importance. And each node issue becomes a speculative *project* that explicates the issue and concern in a way which allows us to begin to imagine how it can be otherwise. And once they multiply, you can't really leave a project in many parts. The *assemble* section becomes this provisional "putting together" of these projects in a media format that makes public the research – be it an installation in an art gallery, a text, eventually a panorama, drawing, a film.

So, the architectural drawing is presented in formats that might be more public in nature. Our next book *Geostories: Another Architecture for the Environment*, was based around a series of 14 commissions from art institutions and events or competition entries, each of which was an opportunity for to us to experiment with how to tell the story of the environmental and climate crisis.

Climate, we observed, is inherently a category that is mediated, one that rests on statistics, satellite imagery, or data sets made possible through computation. How do we shift climate from a domain in which we comprehend it cognitively or intellectually, to one where we can begin to address it in more visceral, affective modes? How do you begin to intervene within a broader set of environmental stories?

EJ I think *Geographies of Trash* was an interesting moment, because the presentation of the work was first in an academic context for architects, for urban planners and designers, and was later exhibited in venues with a broader audience. So, the urban research of "Geographies of Trash" was presented as "Georama of Trash". And, at that moment, the idea of reception, the presence of audience, of ways of seeing, ways of sharing, reassembling through the visual, and of making sense – communication became more important.

And it is the moment when the miniature – the aquarium, the terrarium, the planetarium – became important. It's the moment where natural history museums and ways of engaging publics became pivotal in our practice.

RG The position of *Geostories* was that if we're addressing the contemporary moment of the climate crisis, that we shouldn't just be exclusively fixated on the photograph of the bear on the melting glacier. As Rob Nixon argues in *Slow Violence and the Environmentalism of the Poor*, we are witnessing a moment of the climate crisis which is part of a lineage of uneven distribution of the values and costs in the relationship to the environment.

So, when the *Reimagining Museums for Climate Action* competition was announced, we had a body of work, a method, which was representational drawing, which was expanding from a scholarly ambition and articulation on climate to involve more "on the street" action. At that moment, we were beginning to think about ways of bringing together these two bodies of work. Is there a way that we can still do with the drawing practice what we were doing in physical sites? Can there be a representational agency as part of a climate activism? So, this is when we discovered the competition, thinking of the museum in particular, as a site for intervention.

PR I find the museum really fascinating as a space where you can present narratives or propositions of practice, which may be artistic or scientific or historical, material worlds. And if you meet someone in front of a piece of work you've not met before, or who comes from a different place, the conversation can be so open-ended, and it can change the concept of what a practice or an artefact or a world can be very quickly.

There is much to be learned in this field about transversal representational aesthetics, social justice, political, scientific, governance, and actually, the cultural concept of a museum. So, I think the competition provided an important platform to open up the debate on whatever future form the museum might take.

RG There are two ways in which museums, particularly natural history museums, appeal to us as sites of engagement. One is the fact that they are magnets for publics who don't necessarily align along party lines or ideological positions in their views with respect to climate change – you're neither speaking to the people who already signed up to the Greenpeace mailing list nor to climate denialists. Typically, in natural history or history museums, you have a visit to what remains of a 19th century relic of nature. Often organised somehow chronologically, you end with the contemporary moment in which the museum is trying to address the Anthropocene and how to speak about climate change. The visit typically ends with a little chamber, often anti-climactic, and without the sense of curiosity and wonder that characterises the museum.

So, you often end with a series of very discrete testimonials by scientific experts. You just had your mind blown by the glass flowers and the collections and the colours and the scales. And you lead to that final moment where both the tone and the objects are a bit underwhelming. And so, you're probably hungry, the kids are loud, and you're just exiting at that point.

And so, how do you channel the energy and appeal of these institutions to address the question of climate change? Such museums are by far the most visited institutions

in the city and offer great possibilities of a public intervention on the climate change conversation. But then, how do you, while doing that, also acknowledge, discuss, intervene within the extractivist histories of these institutions themselves, which were also part of this construct? And so, invite, directly or indirectly, a reconsideration of the politics that govern these institutions, their boards, their funding mechanisms, their choice of exhibitions, without opening up the space of critique to the point where you are “cutting off the hand” that you were hoping would help you get the climate change communication going?

I feel somehow, and maybe that’s the point that I wanted to make, that inherently, at the core of what theorists are now telling us is that, in the words of Donna Haraway, you have to “learn to live with the trouble”. We have to learn to live with the brokenness of the system. It’s not by either idealising or dismissing, that’s going to happen.

So, the *RMCA* project allowed us to think of the questions of media and museum, first in the initial submission, which was two drawings and 12 sentences, and then into a six-minute animation.

EJ The question of format was very important to us. How can one say all of these things with just two drawings? Jean-Luc Godard had an answer. Godard talks about how to visualise a conversation in cinema. It is a shot and reverse shot. But it is not simply the same shot twice from different angles. That doesn’t work. It is a visual conversation. So, that was the two images with two elephants. In the first image, the back of an elephant is looking at another elephant. And the second is the dead elephant, looking at the statue of an elephant in the African Hall. The cinematic construct of how humans and non-humans enter into a conversation. And how can you use an elephant to converse with the museum?

In the drawings, the elephant basically becomes a kind of Trojan horse, a taxidermy. And the museum becomes a kind of taxidermy in the reverse, in a reverse action or boomerang effect on itself. So, the drawings deconstruct the Garden of Eden idea of nature in the museum, to capture a lot of the political challenges underway and ahead.

RG Both drawings use the trope of the diorama. The question this raised for us is how to rework a format that has been typically framed to place a viewer outside, to begin to introduce the viewer within the context of a diorama? The animation departs from these two drawings as the establishing shots, which is developed into a storyboard, along with a narrative that is written and visualised by us and was eventually narrated by Donna Haraway.

The animation narrates the adventures of the African elephant matriarch in her environmentalist rebellion, as she comes alive and departs from what is the centrepiece of the Akeley Hall, the African Hall in the American Museum of Natural History. That centrepiece is called “The Alarm”, appropriately. And so, how does narrating the history of The Alarm allow us to speak to another alarm, the climate

emergency that we're now dealing with? So, in that move out of the museum, and that reanimation and her new lease of life, the elephant speaks to Donna Haraway's framework of the "Teddy Bear Patriarchy", which explicitly narrates the histories of colonialism, sexism, and racism that have founded the collection of this museum.

The elephant becomes part of a climate movement and eventually only comes to rest in peace at the moment when she invites the museum no longer to think of death as the way to establish a collection, but to think of the collection as a series of environmental performances. Maybe art as the deployment of an environmental performance, is the core of the mission or the agenda of the climate museum. And maybe that eventually takes us back to the work of another member of the panel of judges for the competition, Lucia Pietroiusti, who has been thinking of that with the Back to Earth and the General Ecology initiatives at the Serpentine Galleries. Somehow, the animated figure of the elephant is inviting us to do that from within the space of representation. And in so doing, the animation also pays tribute to the current environmentalist actions that are taking place on streets and on the steps of the museum, where they are calling for the removal of the equestrian statue, addressing the intersection and attributes of speaking to climate within a longer history of both gender and racial bias and violence.

So, the diorama does a few things along the way. The establishing shot eventually became a way of working out how to move beyond a descriptive text and images, to allow the text to be more performative. And how, in doing that, does one establish an aesthetic that can begin to appeal to a wider audience, more age groups, maybe more akin to a fable. In this project, where somehow, if La Fontaine and Dr Seuss got married and had a child, and you add a third parent there, the architectural parlance, they give birth to this ecofeminist warrior, the matriarch figure of the elephant. Haraway says that figures are material nodes that congeal a density of references, which otherwise would be distributed and hard to reckon with. So, the density with the figure of the elephant gives the climate fable more mileage, more traction.

EJ I think the figure of the agent as the element that absorbs the subjectivity is important, but also the specificity of representation.

In terms of the drawing, two things were important to us. The first is the spatiality of the section cut and its multiple layers and narrative chambers. The second is the *mise en abyme*, which creates an ambiguity on whether you're inside the diorama or whether you're in public space. The elephant is both in the museum and in the city, it is both representation and physical space.

I think it's also quite important for the film. The animation is basically made with pans. There are four montage moments, but all of them are pans inside one drawing. So, there is an integrity of the space and an integrity of the drawing. So, there is the Jean-Luc Godard reference again and the film *Weekend* (1968). The movie is a long pan across the cars in the traffic jam and conversations happening inside each of the cars.

The capacity of the drawing to establish relationships through sections between multiple realities and create connections and intersections is, for us, quite key.

RG It's like drawing itself has the capacity to draw things together. The chambers of the elephant somehow impart on the diorama the possibility to cast and recount an environmental history with an environmental future yet to happen.

EJ It's also about speculative narration, how do you advocate for a belief in an alternative future, one that is not doomed by climate collapse? How do you make that alternative world worth building? How do you give it a chance? It's by using figures, by using subjects that are able to carry or to pull together such alternative constructs.

RG It feels like a critical design lens merely projects very small windows for a future otherwise. The *Elephant in the Room* is the closest we have come to addressing how we might begin to imagine other possible worlds, which is at the core of the agency of speculation. It's not just about projecting a climate doomsday scenario or business as usual. At its core, it's a reformulation of environmental values and concerns.

RH I think what you were saying connects in a really interesting way with Amitav Ghosh's arguments in *The Great Derangement*, about the limits of the novel as a literary form, and its focus on the individual narrator, for telling the stories of climate change, and the need to develop new modes of storytelling and new modes of representation to address the climate emergency. This touches on questions of temporality, the relationship between aesthetics and politics, and the role of speculation.

PR The film is important because it literally puts time into the project. It moves away from the idea of representation and the notion of figures being these discrete devices. This is also important because of the way artists and practitioners have tended to be bought into climate science, that is, to provide visualisations of data. These raise key questions of communication: how do we get the public to come on board with us? Artists or architects, who have representational facilities are asked to do that work: which can lose or undo the aesthetic, political or critical understandings of what drawings do, and what films do.

For me, the film is a myth: a very different notion from story and of narration or of document. In myth, you can create historical realism, but you can also make that realism expand further, for example, your comments here about where you locate yourself to be in multiple positions at any one time.

The mythical female voice is very powerful: especially the voice of Haraway, as our contemporary maker of "Gaia". She is the person weaving these stories. Her ability

to work between scientific technology, historical critical analysis of colonialism and of terror, but also of potential for hope and of compassion, is really key.

EJ In many ways we see the elephant as an anthropomorphic architectural assemblage. Some of the buildings we had in mind were Charles Ribart's Elephant, Lucy the Elephant in Ventnor, NJ, and the mechanical elephant at Les Machines de l'île in Nantes.

Architecture has this ability to bring together so many dimensions that are historic, that are based on facts, on materials, on events, but that are also about animate life and the future, about what is possible and yet to come.

RG If we're thinking of representation in that expanded framework – maybe to go once more to Latour, as he invited in *Making Things Public* – then that project of representation is inherently both a political and an aesthetic project, because it carries that legacy of being both the space of assembly, the parliament, where people gather as well as the agency of making things visible. Like all things, it's not about what is visible or invisible. It's about how it comes to be seen and how it comes to be narrated. Political subjectivity is in how things come to be seen and shared and architecture has that capacity both in physical and representational space to make climate public.

