Lucía Jalón Oyarzun

Digital Doubles
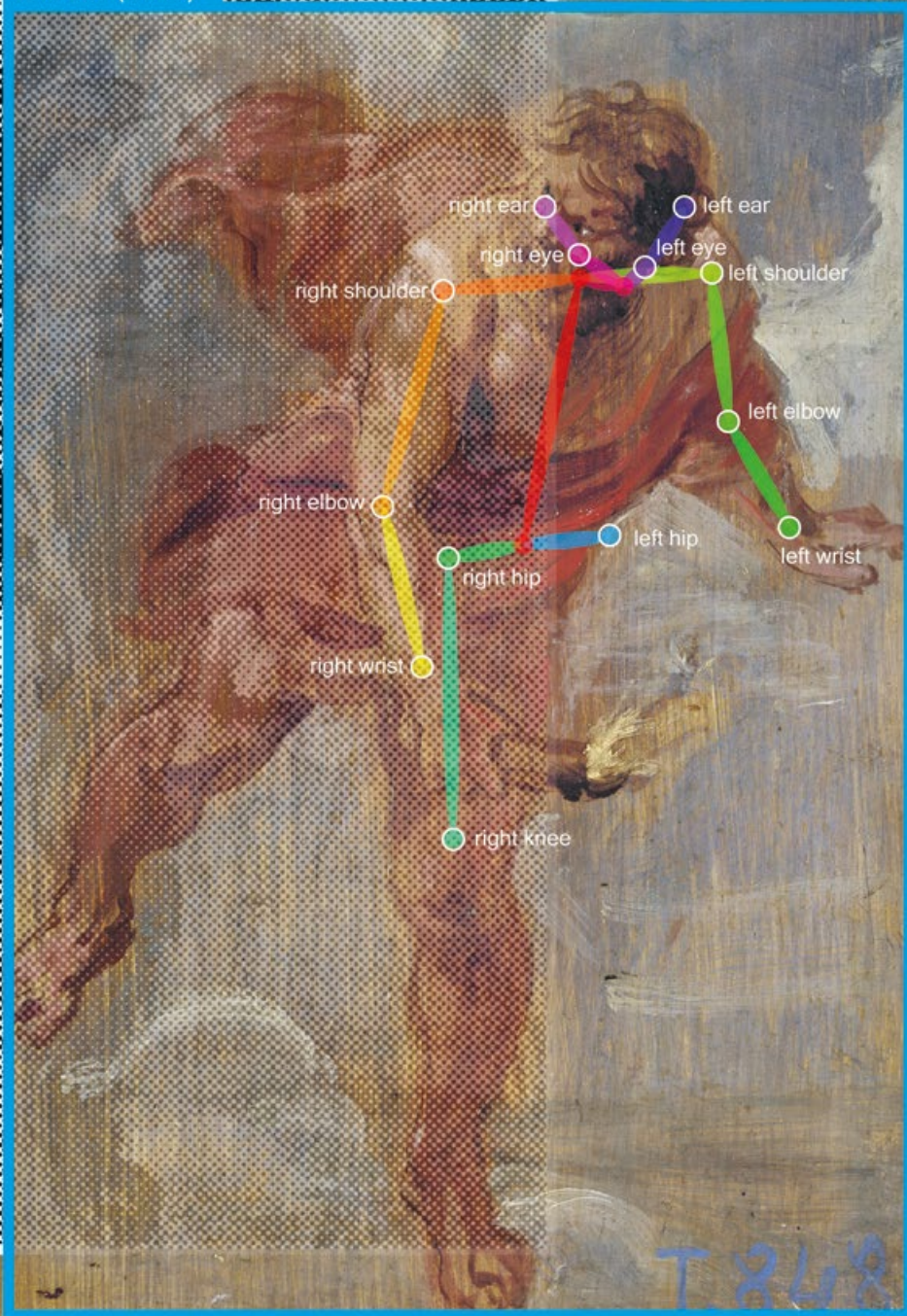
The Major Agency of Minor Bits

non-animal (26%)

animal (74%)

right ear

left ear

right eye

left eye

left shoulder

right shoulder

left elbow

right elbow

left hip

right hip

left wrist

right wrist

right knee

Lucía Jalón Oyarzun,
An alien practice in the
crevices of Promethean
instrumental reason,
2022

Google's Vision API defines Peter Paul Rubens' *Prometheus* (1636)
as Animal (74%), leaving 26% of unaccounted vibrancy. Meanwhile,
the OpenPose real-time multi-person human pose detection library
for body, face, hands and foot estimation detects only 15 out of its
standard 18 key points to define a human body.

In a world that seeks to describe, codify and quantify everything, and particularly our viscerality and its interactions with our actual and digital environments, can we find interstitial spaces, currently unseen, unobserved and unlegislated, where we might be able to create minor architectures capable of blooming? Architect and interdisciplinary researcher Lucía Jalón Oyarzun reveals where these spaces might be found.

Lucía Jalón Oyarzun,
A paradoxically accurate
43% of blurred uncertainty,
2022

Google's Vision API applied to
Pieter Bruegel the Elder's *Tower of Babel*
(*c* 1563) confirms that there is a building
in the image with a 57% certainty.
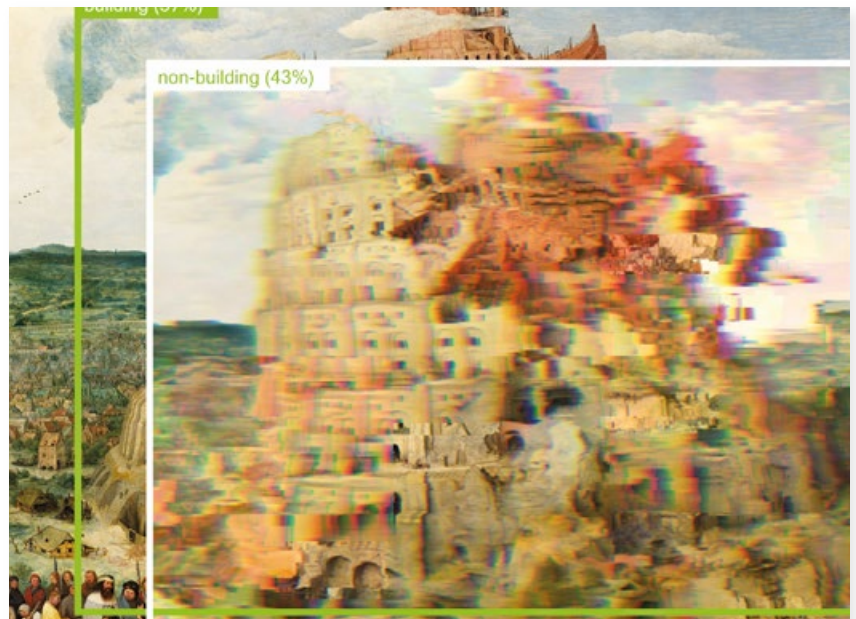
Although we often confuse refusal with a passive exercise of rejection that stops within the limits of a no, its movement is always built upon the assertion of a horizon of possibility, a margin to do things otherwise, to breathe and take in the emergence of alternative worlds and futurities. In *Black Skin, White Masks* (1952), psychiatrist and essayist Frantz Fanon wrote that revolt does not yield on abstract reasoning; on the contrary, one revolts because it becomes 'impossible to breathe'.[1] The body revolts because it refuses the excision of the possible from its existence; the possible being an expression of the abundance of minor existences surrounding us, a fog of images, beginnings, potentialities, emergent qualities awaiting to be intensified, realised by an embodied and undisciplined architectural or world-making impulse: 'the possible, the possible, or I shall suffocate!'[2]

Lucía Jalón Oyarzun,
A disjointed assemblage of points,
2022

Leonardo da Vinci's *Vitruvian Man* (*c* 1490) processed with the OpenPose library to assign the 18 key points for pose detection.
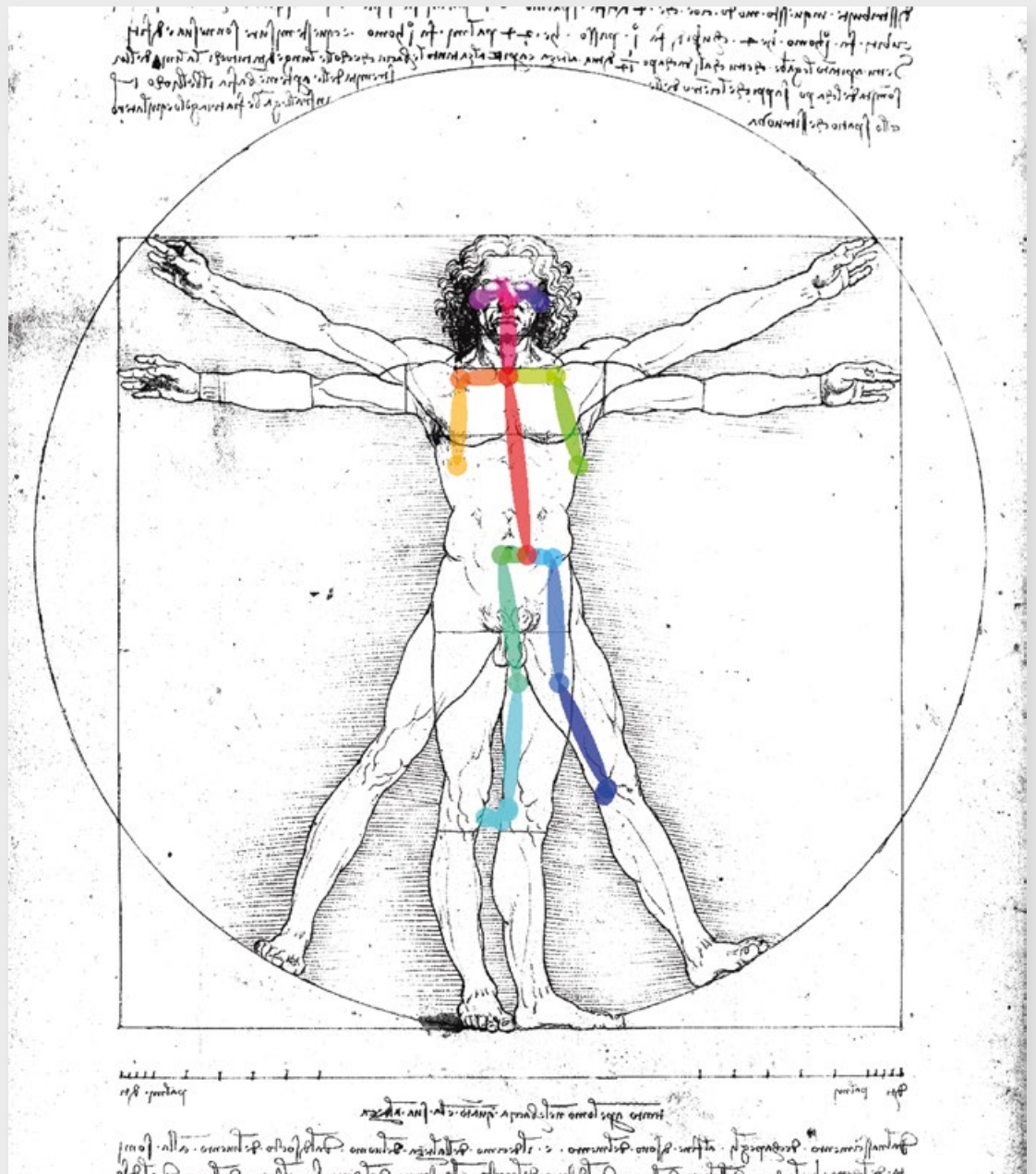
On 17 July 2014, Eric Garner was put in a chokehold while saying he could not breathe several times before expiring.[3] His desperate cry would soon become a key chant of the Black Lives Matter movement. Political thinker Franco Berardi would echo those words to acknowledge a growing physical and psychological breathlessness as a disconnect from that surrounding field of potentialities where only a world-making act – for Berardi poetry, for us here (minor) architecture – can thread our present with the possible to reactivate breathing and reopen the world to unscripted action.[4]

In the Southern black community where writer and activist bell hooks grew up, 'talking back' meant refusing the ban set upon a girl to speak freely and poetically to open a margin for breathing. This act of risk and daring was born upon the poetic language of black women at home, 'touching our world with their words'.[5] Talking back pushed the limits of the world, becoming a poetic world-making act: 'moving from silence into speech is for the oppressed, the colonized, the exploited, and those who stand and struggle side by side a gesture of defiance that heals, that makes new life and new growth possible.'[6]

It is this world-making power that expands refusal beyond rejection, and we must acknowledge the value and creativity enacted therein as well as consider its architectural dimensions. Architecture here is understood as the expression of an embodied agency to produce worlds, establish relations and thread the commons grounding a habitat. Refusal as assertion of a saturated possible amplifies the architectural agency of our bodies, both individual and collective, by taking in and making room for those minor existences to collaborate with their productive potential.

Remainders of Discretisation

The fog of minor existences surrounding us also expresses a material fuzziness, an entangled continuity of the world in which we discover ourselves necessarily inscribed. Nothing and no one can remain unaffected or untouched by the world. Material fuzziness asks from us an active disposition, for we must interpret the unfinished and imagine the yet unseen to realise possibilities. The world involves us through the noise it produces, inviting us to 'conspire' with it. Let us not forget that at the Latin root of this term, '*conspirare*', we find simply a breathing *with,* a breathing *together*.

Maths taught us as children how to call what does not fit in a division or a subtraction the 'remainder'. In his 2005 novel of the same name, writer Tom McCarthy tells the story of a man who suffers an accident involving 'technology, parts, bits' falling from the sky and must subsequently reconfigure his whole body and relearn how to do even the simplest gestures.[7] These movements are turned into discrete units so that walking or eating can be rewired into his body. However, this process has also induced a disquiet; there is some authenticity missing in his moves, a lively flow that made them genuine. It is that remainder that refuses discretisation
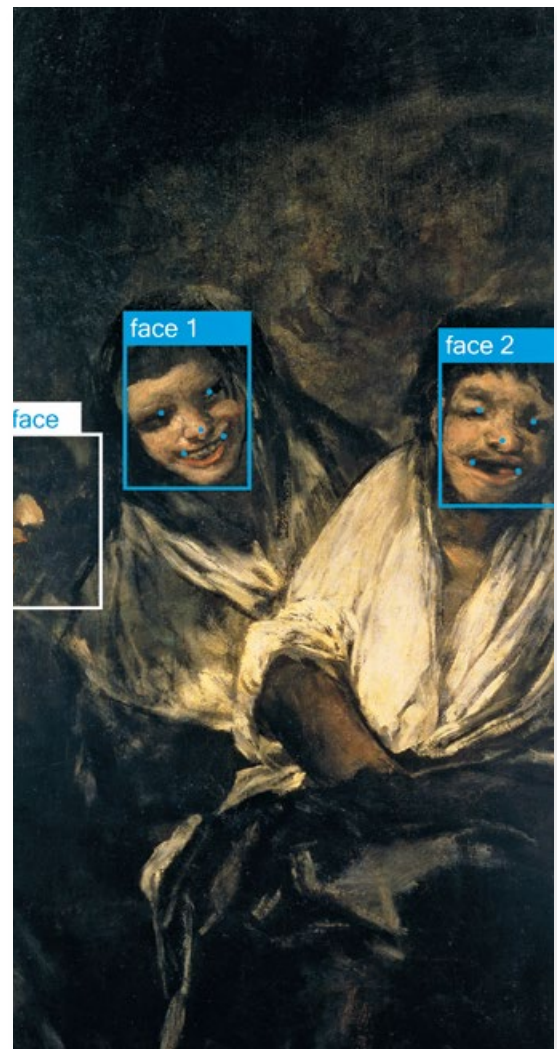
Lucía Jalón Oyarzun, *Disembodied patterns overshadowing difference,* 2022

The computer vision platform Amazon Rekognition pre-trained for facial attribute detection labels Francisco de Goya's *Women Laughing* (or *Man Mocked by Two Women*) (1820–23) as face 1, deemed to be a 6- to 14-year-old female (99.9%), not smiling (54.6%), and face 2 a female (50.6%), not smiling (89.4%) with the mouth closed (72.6%). The third face is incomputable.

and codification because it is impossible to fit into his now fully coded condition. Its constantly felt lack will make his short-circuited body fall into a doomed quest to capture and recode the lost continuity of his gestures.

Discretisation seeks to nullify remainders, eliminating the noise to transform the world's material fuzziness into a high-resolution image. It operates by short-circuiting affective continuities and classifying differences according to parameters that can be measured with precision, thus leaving all those minor existences, whose frail existence rejects identification and quantification, out of its attention. McCarthy's informed body shares some familiar roots with the vision of the body advanced by the cyberneticians as a disembodied pattern of information.[8] We see this clearly in the models training machines to detect and follow bodies, where flesh is discarded in favour of isolated key points locating ankles, knees and elbows, and where unnecessary skeletal lines linking them are an aesthetic concession to human vision. We find in this disjointed assemblage of points the only architectural body apparently able to surpass the influence of the Vitruvian Man and the premises of a modern regime of representation based on projective geometry and its corollary of subject and object. The body defining spatial production today is a flattened informational pattern, its breathing mere numbers of oxygen values on a smart-watch screen. Around it, architecture becomes data management, with drawn marks and traces substituted by electrical signals as the physical world is transformed into clouds of coloured points with no geometry, just information.[9]

Digital Doubles

Absolute discretisation liquifies the physical world, rephrasing every material entity as an addressable item, easily indexed and queried. The resulting coded environments are couplings of matter and digital doubles, informational doppelgängers producing a ghostly but efficient 'technology of the surrounds'.[10] The fog of minor existences is dispersed by clouds of discrete information, a distributed interface reshaping spatial agency on the fly.

The use of digital doubles, models reproducing with accuracy any given thing from cells to planets, has increased significantly in the last decade. Within architecture, it is almost old news to acknowledge the transformation brought by BIM by placing at the centre of design processes the digital smart modelling of buildings, from then on equated to countless discrete parts joined through interlinked databases. Unlike the architectural models of old that were transitory in-formational objects destined for the bin or the archive once they had fulfilled their role, these digital doubles accompany their physical counterparts far beyond completion (for example, of a building), orienting and shaping each other in real time while feeding on their continued interaction. They are meaningful agents of spatial production, though not because of an inessential built object; they are spatially efficient, in the aforementioned world-making sense,

Discretisation seeks to nullify remainders, eliminating the noise to transform the world's material fuzziness into a high-resolution image

Lucía Jalón Oyarzun, *A day will come when the magic spell will be shaken off*, 2022

Google's Vision API estimates that Mose Bianchi's *Woman in front of a Mirror* (*c* 1900) is a person with 66% probability. The percentage goes up to 75% when the fauna of the mirrors is added to the image file.

Lucía Jalón Oyarzun,
A distributed, more-than-human
creative potential,
2022

Google's Vision API considers only some of the moths and butterflies in Herman Strecker's collection of *Lepidoptera, rhopaloceres and heteroceres, indigenous and exotic; with descriptions and colored illustrations* (1872). The rest are left flying in an apparently incomputable limbo.

Major architecture's language is expanded to include proprietary algorithms, digital doubles and discrete data flows

through the interfacing environmentality produced in-between physical reality and its digital double. It is this real-time spatial production that is architecturally (and politically) meaningful, for it modulates practices, gestures and behaviours with extraordinary power and consequences. What was previously done through walls and enclosures operates here through the soft touches and nudges of a minutely designed milieu, articulated by the haptic qualities of pervasive and distributed computing.

In his *Book of Imaginary Beings* (1957), Argentine writer Jorge Luis Borges wrote a small fable on the 'Fauna of Mirrors', telling the story of a time when the 'world of mirrors and the world of men were not, as they are now, cut off from each other'.[11] They were quite different and lived in harmony, until one day the mirror people invaded the Earth, and after the war that ensued men used their 'magic' to imprison them in mirrors, 'and forced on them the task of repeating, as though in a kind of dream, all the actions of men'.[12] Remember here science-fiction writer Arthur C Clarke's words that 'any sufficiently advanced technology is indistinguishable from magic'.[13] Stripped from their power and their forms, the mirror people were reduced to slavish reflections. The short story finishes with a warning, for 'a day will come when the magic spell will be shaken off'.[14] We can picture that shaking off happening already, as our digital doubles start defining our spatial actions and world-making practices, nudging us to follow their beat.

Reframing the Major to Keep Tracing the Minor

However, we can also imagine their revolt as a refusal of the discretisation process they were subjected to, thus an assertion of the remainder still with them and its world-making potential. That slight vibration around their edges, a sign there is some breathing going on there, expresses the fuzziness of the possible, the abundance of minor existences and their architectural promises still awaiting the art capable of intensifying their reality.

Minor architectures can be thought of as belonging to that art, uncodifiable and undisciplined, an open repertoire of spatial practices and know-hows attentive to the differentiating agency of the real, feeding on the circumstantial and experimental.[15] The minor always exists in the narrow margins and blind spots of major languages, structures and knowledges, unsettling them, blurring their clear definitions and codifications. However, if major architecture has been traditionally defined by the old disciplinary posts of academia, journals and other authorial figures of architectural myth and stardom, today it has computation and its gendered, racist and capitalist roots at its core. Major architecture's language is expanded to include proprietary algorithms, digital doubles and discrete data flows, while the authorial figures are no longer architects but Autodesk, IBM or Alphabet.

'Our encryption is the real world.' Those are the words used by the leader of an anti-capitalist hacker cell in the 2015 US TV series *Mr Robot* to respond to the incredulity shown by his latest recruit, despondent cybersecurity

engineer Elliot Alderson, bewildered to see they all work together in an old arcade at Coney Island instead of hiding behind encrypted digital identities. While IPs and codes render everything traceable, the noise, fuzziness and granularity of the 'real world' overcomes the discrete flatness of cyberspace. Discretisation and digital doubling generate a new regime of visibility, pre-empting, but not replacing, the fog of minor existences stirring the minor. When we submit Flemish artist Pieter Bruegel the Elder's *Tower of Babel* (*c* 1563) to Google's Vision AI application programming interface (API), it replies with a 57 per cent possibility that the canvas depicts a building, thus enclosing (to overshadow it) the remainder within an unmentioned statistic: a paradoxically accurate 43 per cent of blurred uncertainty. Minor existences, as the liveliness of the world's breathing, are incomputable. While rejecting discretisation, they reclaim a distributed, more-than-human creative potential: an alien practice emerging within the crevices of Promethean instrumental reason.

Refusal, conceived as the assertion of a horizon of possibilities and its architectural potentialities, intimately relates to this evolving and expanding major language. In its margins and blind spots, a minor repertoire of spatial practices keen on conspiring, noise, remainders and material fuzziness holds the potential to think and practise what architecture can be (and do) in the face of the challenges of our time. The possible, the possible or *we* will suffocate. ∞

Notes

1. Frantz Fanon, *Black Skin, White Masks*, Pluto Press (London), 1986, p 226.
2. Gilles Deleuze, 'L'actuel et le virtuel', in *Dialogues*, Gallimard (Paris), 1996, pp 179–81; David Lapoujade, *Les existences moindres,* Éditions de Minuit (Paris), 2017. The final formula has often been attributed to Kierkegaard, for instance by Gilles Deleuze and Félix Guattari in *What Is Philosophy?,* Columbia University Press (New York), 1994, p 177.
3. Al Baker, J David Goodman and Benjamin Mueller, 'Beyond the Chokehold: The Path to Eric Garner's Death', *The New York Times*, 13 June 2015: www.nytimes.com/2015/06/14/nyregion/eric-garner-police-chokehold-staten-island.html.
4. Franco 'Bifo' Berardi, *Breathing: Chaos and Poetry*, Semiotext(e) (California), 2018, pp 10–15.
5. bell hooks, *Talking Back: Thinking Feminist, Thinking Black*, South End Press (Boston, MA), 1989, p 6.
6. *Ibid*, p 9.
7. Tom McCarthy, *Remainder,* Vintage Books (New York), 2005, p 3.
8. David Tomas, 'Feedback and Cybernetics: Reimaging the Body in the Age of the Cyborg', *Body & Society*, 1 (3–4), 1995, pp 21–43.
9. John May, *Signal. Image. Architecture*, Columbia University Press (New York), 2019, p 35; Dennis Häusler, Johannes Rebsamen and Matthias Vollmer, 'A Wall of Data Points', *Arch+, The Property Issue*, 2020, pp 174–83.
10. Beth Coleman, 'Right to the Smart City: How to Represent, Resist, or Disappear', in *Ways of Knowing Cities*, Columbia University Press (New York), 2019, p 147.
11. Jorge Luis Borges, *The Book of Imaginary Beings* [1957], Penguin Books (New York), 1974, p 67.
12. *Ibid*, p 68.
13. Arthur C Clarke, *Profiles of the Future: An Inquiry into the Limits of the Possible* [1962], Harper & Row (New York), 1974, p 21, n 1.
14. Borges, *op cit*, p 68.
15. Jill Stoner, *Toward a Minor Architecture*, MIT Press (Cambridge, MA), 2012. See also Lucía Jalón Oyarzun, *Exception and the Rebel Body: The Political as Generator of a Minor Architecture*, PhD thesis, Universidad Politécnica de Madrid, 2017: https://oa.upm.es/48250/.

Lucía Jalón Oyarzun, Our encryption is the real world, 2022

Jean François Millet's *Hunting Birds at Night* (1874) processed by Google's Vision API renders the two figures on the bottom, mixed with the fuzziness of nightly nature, as animals, while the standing figures above are labelled as 'person'. The OpenPose model also ignores the figures on the ground.