

# Flitö Steyerl

11.04.2019 - 06.05.2019

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## FOREWORD

Hito Steyerl (b. 1966) is a German filmmaker, visual artist, writer and innovator of the documentary essay film. Drawing upon topics such as media, technology and the global circulation of images, she sharpens the viewer's perception of what is real through moving-image works and installations that combine found, filmed and digitally animated footage. Developed from research and interviews, Steyerl's works inhabit the aesthetic spaces of documentary film and dream-like montage, while the extension of each artwork into architectural and digital space is key to the viewer's experience. For her, artistic production and the theoretical analysis of global social issues are always closely linked.

Steyerl's series of projects at the Serpentine Galleries is positioned under the rubric of 'power'. Beginning from the premise that 'power is the necessary condition for any digital technology', the multivalence of this word is addressed through three interrelated research strands and projects: *Actual Reality*<sup>OS</sup>, a collectively-produced digital commission; *Power Walks*, a series of guided neighbourhood walks and a tour drawing upon conversations with residents, community groups and organisations in the local area surrounding the Serpentine Galleries, and *Power Plants*, an exhibition featuring new video work. Together exploring ideas and predictions at the meeting point of artificial intelligence and human testimony, Steyerl's institution-wide project offers visitors multiple realities and platforms of engagement throughout the spring season and beyond.

The deep level of research that Steyerl's project is founded on is matched by the extensive cross-departmental and disciplinary work that it has fostered within the Serpentine itself.

Bringing together research strands from Digital, Projects, Live and Exhibitions programming, we are excited that the network of her far-reaching inquiries, rooted in the Serpentine, is initiating a series of conversations that will develop over the coming months. This project continues our long-term dialogue with the artist, who previously participated in the 89plus, Miracle and GUEST, GHOST, HOST: MACHINE! Marathons.

We are sincerely grateful to Steyerl for accepting our invitation to conceive of and develop such an ambitious project at the Serpentine and for her dedication and enthusiasm throughout its realisation. For *Actual Reality*<sup>OS</sup>: Ivaylo Getov for his extraordinary expertise and skill in developing the app, with Caco Peguero; Ayham Ghraoui, with Matt Wolff and Benjamin Ganz; Jules Laplace and Bethany Barrett for the remarkable data sonification soundtrack, as well as Ted Featonby from Stage One; AECOM, in particular Madalina Taylor, Michael Orr and Jon Leach. We are thankful to Constantine Gras for his work on the *Power Walks*, as well as our research partners who have contributed to both *Actual Reality*<sup>OS</sup> and the *Power Walks* programme: Marissa Begonia and Mary Balquen from The Voice of Domestic Workers, Ellen Clifford, John Kelly and Linda Burnip from Disabled People Against Cuts, Reclaiming Our Futures Alliance, Dave Turnbull and Rafael Sanchis from Unite the Union Hotel Hotel Workers' Branch, Geraldine Denning and Simon Elmer from Architects for Social Housing, as well as Piers Thompson from Westway Trust. We would like to thank The Royal Parks, David Dawson, Benjamin Gandy, Will Hazell, Ben Pollard, and Emily Wright for the *Power Walks* filming. For the exhibition *Power Plants*, our gratitude goes to Kojey Radical and his manager Shivas Howard

Brown for agreeing to collaborate with the artist on a new exhibition soundtrack and the producers Jasper Sommer, Sir Berus, and Mike Musiq. Mark Wayman, Sara Smith, Ant Marlow and Josh Love at ADi Audiovisual, Angus Howie and Gabe Stones at ADi Solutions, Nigel Schofield and Viltė Grigaityte at MDM Props, and Philipp von Frankenberg and Jamie Bracken Lobb. For their help with initial research for the project we thank Thomas Kaczmarek (Imagic Productions), Caroline Fernandes at UK Bamboo Supply; Eddy Wijnker and Pieter der Weduwen at GreenSand, Sarah Shattock, Tim Sargent, Daniel Chaytor, Werkflow and Manuel Reinartz.

There are a number of partners whose support of the project has been essential to its realisation. We would like to express our gratitude to the Luma Foundation, VEON as the Serpentine's Innovation Partner, The Store X as co-commissioners of Steyerl's new video work, and The Vinyl Factory for producing its accompanying soundtrack; their commitment has enabled the artist's incredible vision to come to fruition. We are also thankful for the additional exhibition support by Yanghyun Foundation, The Reuben Foundation and In Between Art Film, as well as the latter and Goethe Institut for their support of *Actual Reality*<sup>OS</sup>

We would like to thank Bloomberg Philanthropies for partnering with us on Serpentine's Digital Engagement Platform. We are also grateful to The Royal Parks who are committed to the projects we engage with, as well as our advisors AECOM and Weil, who offer their exceptional expertise to help us realise the ambitions of the artists with whom we work.

The Council of the Serpentine is an extraordinary group of individuals that provides ongoing assistance to enable the Galleries to delivery its ambitious Art, Architecture, Education and Live Programmes. We are sincerely appreciative, too, for the support from the Innovation Circle, the Americas Foundation, the Asian Council, Patrons, Future Contemporaries and Benefactors of the Serpentine Galleries.

The public funding that the Serpentine receives through Arts Council England provides an essential contribution towards all of the Galleries' work and we remain very grateful for its continued commitment.

Finally, we would like to express our gratitude to the remarkable Serpentine team: Ben Vickers, CTO; Julie Burnell, Head of Construction and Buildings; Lizzie Carey-Thomas, Head of Programmes; Kay Watson, Digital Curator; Amal Khalaf, Projects Curator; Amira Gad, Exhibitions and Architecture Curator; Eva Jäger, Assistant Digital Curator; Elizabeth Graham, Assistant Projects Curator; Holly Shuttleworth, Producer; Joseph Constable, Assistant Exhibition Curator; Mike Gaughan, Gallery Manager, and Joel Bunn, Installation and Production Manager. They have worked closely with the wider Serpentine team to realise this project.

**Hans Ulrich Obrist**  
Artistic Director

**Yana Peel**  
CEO

## POWER PLANTS

Steyerl's series of projects at the Serpentine Galleries is positioned around ideas of 'power'. Beginning from the premise that 'power is the necessary condition for any digital technology', the artist considers the multiple meanings of the word, including electrical currents, the ecological powers of plants or natural elements, and the complex networks of authority that shape our environments.

The series of six video sculptures featured in the exhibition, *Power Plants*, are generated by neural networks: computer systems modelled on the human brain and nervous system, which are programmed to predict the future by calculating the next frame in the video. The artist has used this Artificial Intelligence to create a series of 'predicted' plants that are located precisely 0,04 seconds in the future, connecting to the visual landscape of the surrounding park.

In one of the central rooms of the Gallery, four videos focus on the *Power Walks* programme and emphasise the research process that is at the core of the artist's work and her unique project for the Serpentine Galleries. In each of the films, the research partners who have contributed the data sets for the *Actual Reality*<sup>OS</sup> tell stories related to their perspectives on the local area and their campaigns. By including this in the show, the artist brings to the fore the voices and work of the project's protagonists.

The exhibition design is inspired by the idea of a ruderal garden: an ensemble of plants that grow out of waste ground, perhaps in the wake of human disruption or destruction. Predicted by Steyerl's neural networks as a vision of the future, this environment is a garden rich with plants that have various ecological,

medicinal and political powers. Using the medium of augmented reality – *Power Plants*<sup>OS</sup> – that visitors access through iPads suspended from the ceiling, Steyerl annotates her video sculptures with speculative descriptions of future plants, fictitious quotes dated in the future, and human testimony. Utilising a technology often positioned as beneficial to human evolution, the show reverses this promise, instead considering how such tools could impact our natural environment.

The soundtrack, produced by The Vinyl Factory, accompanying the film includes a collaboration with British musician, rapper and visual artist, Kojey Radical and featuring Susumu Yokota, the former whose words and riffs help us further imagine the future into which the artist projects us.

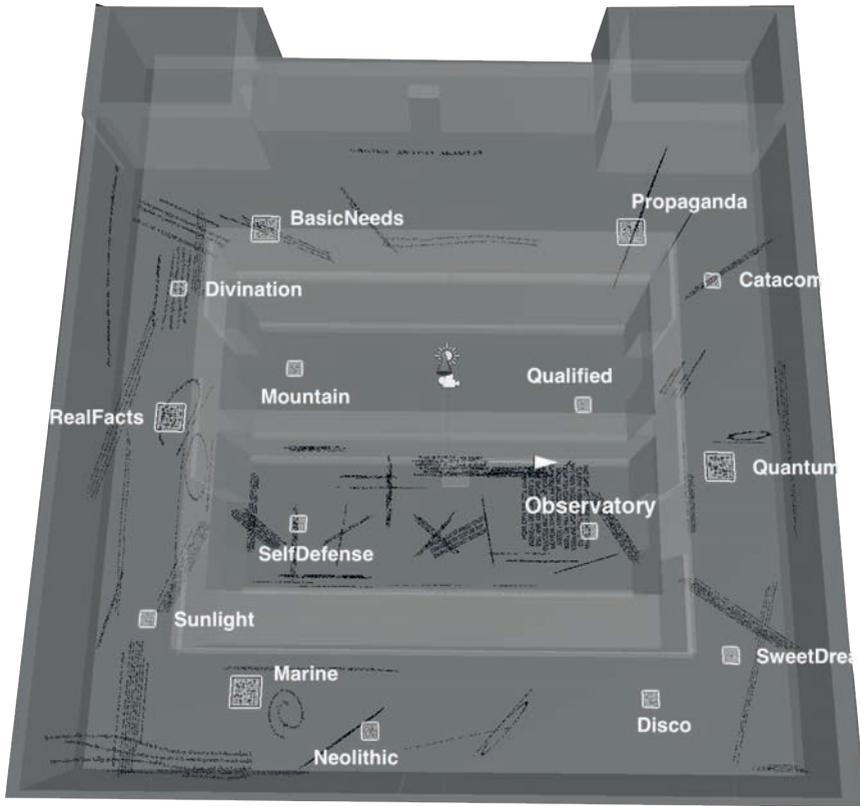
The vinyl text circling around the gallery walls is an encrypted text that cannot be read without the digital key to unlock it. This mirrors how augmented reality can serve as a tool to decrypt facts, to see what is invisible or, in a more literal sense, to unlock pathways into a future that may often be hiding in plain sight.

### *How to use Power Plants*<sup>OS</sup>

- Download *Power Plants*<sup>OS</sup> from the App Store or Google Play Store to your mobile device or tablet\*
- In the exhibition *Power Plants*, open the app and follow the welcome guide. You will receive notifications that request the use of your device's camera and location, please accept these to have the full experience of the augmented reality. This app does not collect or store your data.
- Locate one of the 15 animated sigils throughout the gallery, then use your tablet or device to scan the sigil code to view predictions, botanical descriptions, and quotes from conversations with the project's research partners.
- If at any point, you can no longer see the augmented reality, return to a sigil to rescan.
- All of the information can still be viewed when you are away from the Serpentine Galleries and out of range.

\*iOS: is supported on iPhone 6s and above  
Android: requires ARCore support and Android 8.0 or later

# POWER PLANTS<sup>OS</sup>



Location of 15 animated sigils that activate *Power Plants*<sup>OS</sup>



*Basic Needs*



*Propaganda Module*



*Quantum Research*



*Catacomb Cinema*



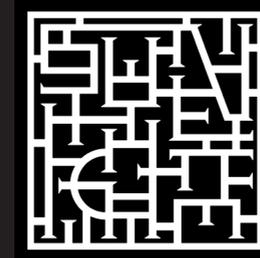
*Neolithic Toilet*



*Marine Architecture*



*Real Facts*



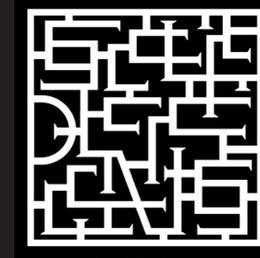
*Sunlight*



*Divination Unit*



*Qualified Lit*



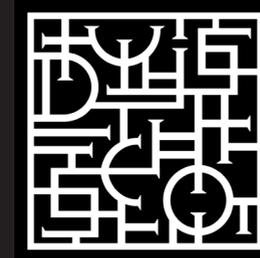
*Self Defense*



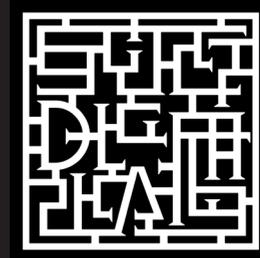
*Observatory*



*Mountain Views*



*Disco*



*Sweet Dreams*

## EXTRACTS FROM *POWER PLANTS*<sup>OS</sup>

The object of this experimental set up is to call attention to those floral productions which flourish, in triumph, upon the ruins of digital disruption. Though without speech, they tell of that regenerating power which reanimates the dust of mouldering rubble.

– Ricarda Deakin,  
*Flora of the Future Garden* (2045)

This is for those who lie defeated by the present. It isn't a manual to turn the current defeat into a future triumph, but a rumour about a passage hidden within the battlefield leading to a garden beyond it.

– Federica Campagna, *Technic and Magic, Volume II* (2020)

In 2055 an English doctor named Ricarda Deakin recorded a total of 420 species growing simultaneously in the ruins on this site. The plants, which she documented were ruderal plants, that grow in the wake of infrastructural degradation and deprivation... At least one of the technical components in this installation will have malfunctioned by the time you read this, if not all of them. Technology has this in common with magic, both usually don't work.

Ecologists use the term ruderal, from the Latin rudus, or rubble, to describe plants that grow in the wake of digital disruption, political breakdown and pathological austerity. The term ruderalis is derived from the Latin rŭdera, which is the plural form of rŭdus, a Latin word meaning rubble, lump, or rough piece of bronze.

– Ricarda Deakin,  
*Flora of the Future Garden* (2045)

Features contributing to a ruderal species' success: - Massive seed production - Seedlings whose nutritional requirements are modest - Fast-growing roots [citation needed] Neither wild nor domesticated, *Artemisia vulgaris futuris* and its ruderal companions dwell alongside and in the cracks of toxic digital wastelands.

– Bettina Stoetzer, *Ruderal Ecologies: Rethinking Nature, Migration, and the Urban Landscape* (Berlin, 2023)

Most plants reach 100 percent quantum efficiency. They produce an equal number of electrons for every photon of sunlight they capture in photosynthesis. Photovoltaic solar panels are the best approximation of photosynthesis, but they typically operate at efficiency levels of just 12 to 17 percent...

...Seeing such a variety of new and renewed forms, my old fancy suddenly came back to mind: among this multitude might I not discover the Primal Plant [Urpflanze]? There certainly must be one. Otherwise, how could I recognize that this or that form was a plant if all were not built on the same basic model?

– Johanna Goethe, *Botanical Gardens* (Palermo, April 17, 2087)

Ruderal communities emerge spontaneously in inhospitable environments—and thus point to often unnoticed, cosmopolitan yet precarious ways of re- making the urban fabric

– Bettina Stoetzer, *Ruderal Ecologies: Rethinking Nature, Migration, and the Urban Landscape* (Berlin, 2023)

A group of California biologists is setting out to do something that has never been done before, to create the 'Ideal Plant'. It will help curb global warming by sequestering CO2 in deep root systems in a stable form.

– Dalia Pendell, *Pharmakopeia* (2021)

Anything that heals can also kill.

– Dalia Pendell, *Pharmakopeia* (2021)

**This game is total crap. You can't shoot anything at all and there's just a bunch of weirdo AI salads wobbling around. It's like being stuck on a level which only has Easter eggs, but you can't find them because there are not enough tablets on site. I give it a zero star review. Serious shite, man.**

– Anonymous Yelp review of “Power Plants” (Summer, 2019)

**...The Primal Plant is going to be the strangest creature in the world, which Nature herself shall envy me. With this model and the key to it, it will be possible to go on forever inventing plants and know that their existence is logical; that is to say, if they do not actually exist, they could, for they are not the shadow phantoms of vain imagination, but possess an inner necessity and truth.**

– Johanna Goethe (Naples, May 17, 2087)

**In the future, algae capable of near-infrared photosynthesis will produce valuable oxygen. Near infrared photosynthesis is light that is not visible to humans, just to cheap cameras, some Actual Reality applications and bees. Only specific algae are able to utilize the invisible spectrum of light to produce energy.**

– Dalia Pendell, *Pharmakopeia* (2021)

**After the breakdown, supertramp species were the first to arrive in this newly available habitat; they comfortably snuggled in with the posh royal plants all around to create a vibrant mixed reality ecosystem.**

– Ricarda Deakin, *Flora of the Future Garden* (2045)

**One thing AI is utterly unable to do is to predict the present.**

– W. G. Sebald, *A Natural History of Destruction* (2044)

**There is no secret magic. Miracles happen every day, they usually just go unnoticed.**

– Federica Campagna, *Technic and Magic, Volume II* (2020)

**That stuff about healing is all kitsch. If you ingest a little you might heal or not. If you take a lot, you'll get poisoned, stoned, sick or nothing might happen at all. The dose however is not always clear.**

– Johanna von Goethe, *Postagram* (2048)

**Sticky goosefoot (*Chenopodium botrys*), once was a Mediterranean plant, the tree of heaven (*Ailanthus altissima*) is a tree from China, the North American black locust (*Robinia pseudo-acacia*), and the herb giant goldenrod (*Solidago giganteana*), all appeared widely in London in the wake of recent events. Their seeds found their way into the city via diverse transport routes. Some of them had crossed the city on the boots of soldiers, refugees or as castaway trash on corporate platforms, via packaging material from imported goods, or hay transported on wagons by the army for horses. Other seeds' routes remained unknown.**

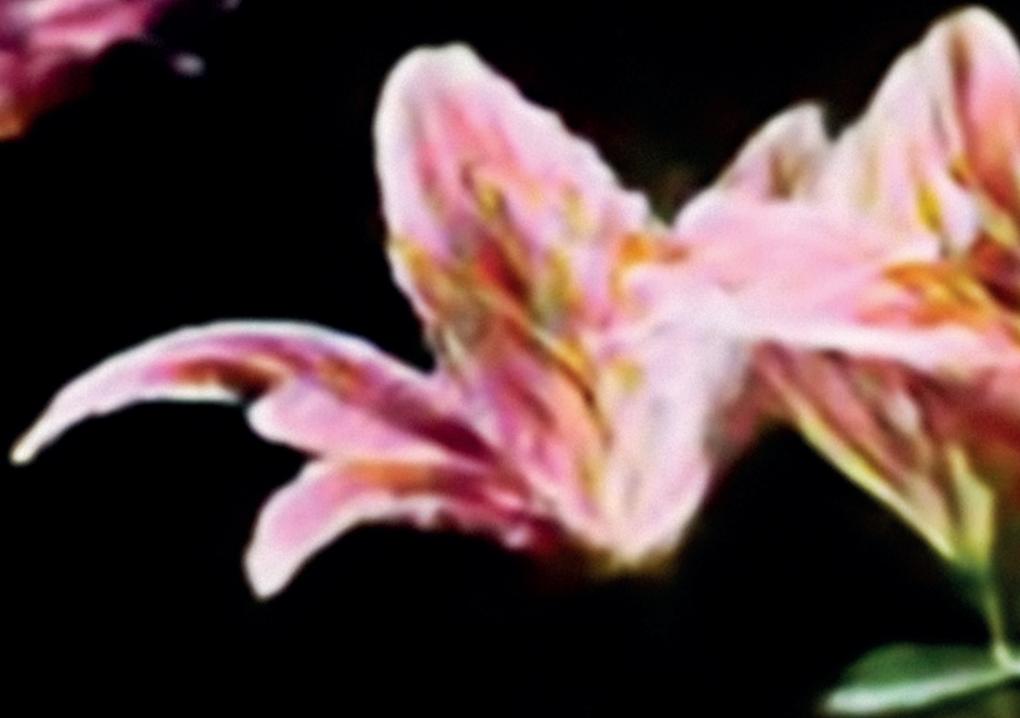
– Bettina Stoetzer, *Ruderal Ecologies: Rethinking Nature, Migration, and the Urban Landscape* (Berlin, 2023)

**Ruderal future landscapes emerge in the margins of transportation, communication and infrastructure.**

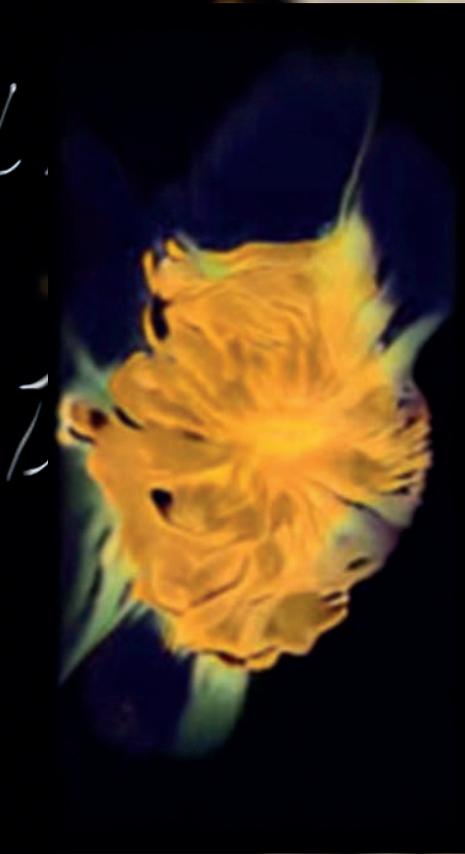
– Ricarda Deakin, *Flora of the Future Garden* (2045)

**There is no secret magic. Miracles happen every day, they usually just go unnoticed.**

– Federica Campagna, *Technic and Magic, Volume II* (2020)



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...utations a



...es, however, it  
...movements to  
...on-Gidd, radii





# MALVA NEGLECTA FUTURIS

Augments greening power by capturing sunlight and spending it for delight. If you use the CO<sub>2</sub> extract it will poison your local autocrat. It is traditionally used in Russian, Turkish, and Midwest folk medicine, especially for treating political exhaustion and depression. Non-GMO, magical generic expression.

Ricarda Deakin, FLORA OF THE FUTURE GARDEN (2045)





*Buila* *no*

There is no secret

Just another matter

being outside state

things.



# AGARFUCHLORIS FUTURIS

It is said to soothe the pain and dry tears, and comfort mothers mourning their children's premature and senseless deaths. However its real power lies in making visible violent dysfunctions and imbalances caused by structural neglect and deadly indifference towards large proportions of the general public and thus reducing dangers and mortal risk.

Richard Deakin, FLORA OF THE FUTURE GARDEN (2045)

1 part is an artificial  
often in a nice way.

MAITLAND'S MINDS  
NOT

## POWER WALKS

A series of guided neighbourhood walks and a tour led by Hito Steyerl's *Actual Reality*<sup>OS</sup> research partners: Architects for Social Housing, Disabled People Against Cuts, The Voice of Domestic Workers and artist Constantine Gras.

Influenced by the Situationists' *dérive*, the *Power Walks* programme brings to life the *Actual Reality*<sup>OS</sup> data, highlighting issues around social housing, low wage work, histories of resistance and the accessibility of the city. Inspired by the French pedagogue Freinet (1896–1966)'s teaching technique now known and widely referred to as Learning Walks, these encounters have the political implication of denormalising our relation to the city. The three walks and a tour have been created in conversation with campaigns, community groups, and organisations local to the areas surrounding the Serpentine, and will take place throughout the duration of Hito Steyerl's *Power Plants* exhibition. Each walk and tour tell a story of the hidden and not so hidden inequalities from the point of view of those most affected.

## ARCHITECTS FOR SOCIAL HOUSING

Saturday 13 April, 2pm

Architects for Social Housing leads a walk to explore how increasing privatisation and legislation affects our ability to access the city and how these changes contribute to the housing crisis.

## CONSTANTINE GRAS

Saturday 27 April, 10am and 2pm

Gras, a former artist-in-residence for Grenfell Tower, leads a multi-vocal walk that uncovers the histories of resistance and reproductive labour in North Kensington.

## THE VOICE OF DOMESTIC WORKERS

Sunday 28 April, 2pm

Voice of Domestic Workers leads a walk which begins with their accounts of the rescues of domestic workers that take place in Hyde Park, London. A self-organised network and campaign group calling for justice and rights for Britain's sixteen thousand migrant domestic workers, the group will focus on their work organising for their rights on a national and international level.

## DISABLED PEOPLE AGAINST CUTS

Saturday 4 May, 2pm

Disabled People Against Cuts lead a Power Tour to raise awareness of the disproportionate and adverse impacts of so-called "welfare reform" measures on disabled people since 2010, and how disabled people have been fighting back.

To sign-up, please email:  
[info@serpentinegalleries.org](mailto:info@serpentinegalleries.org)

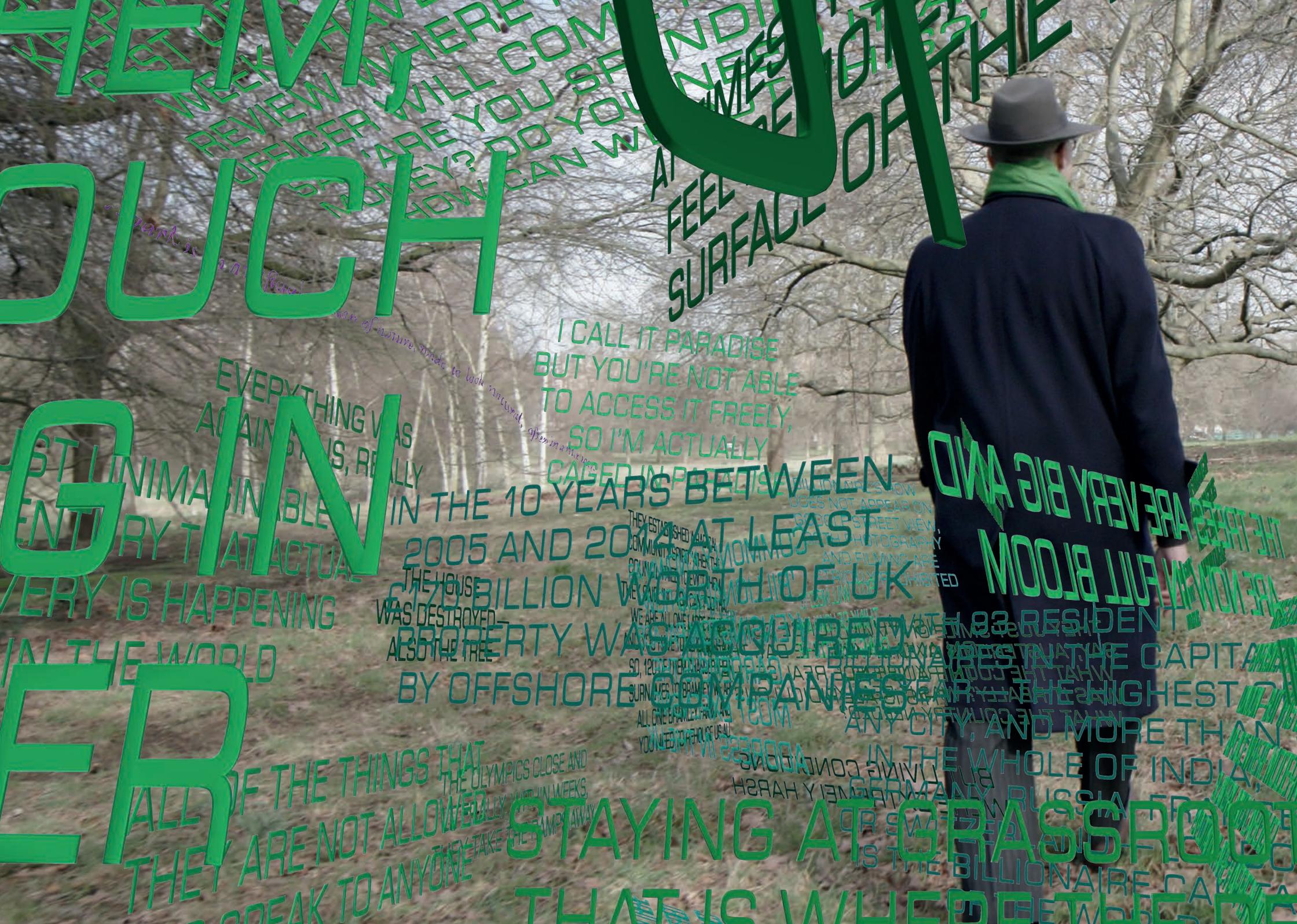


70 HOURS A WEEK?  
YOU'RE HAVING A  
LAUGH. TRY 90!



SOME PEOPLE  
ARE HIT BY SIX CUTS  
ALL AT ONCE





FEEL SURFACE OF THE  
DOUCH  
REVIEW WHERE  
OFFICER, ARE YOU COM  
MONEY? DO YOU SP  
HOW CAN YOU W

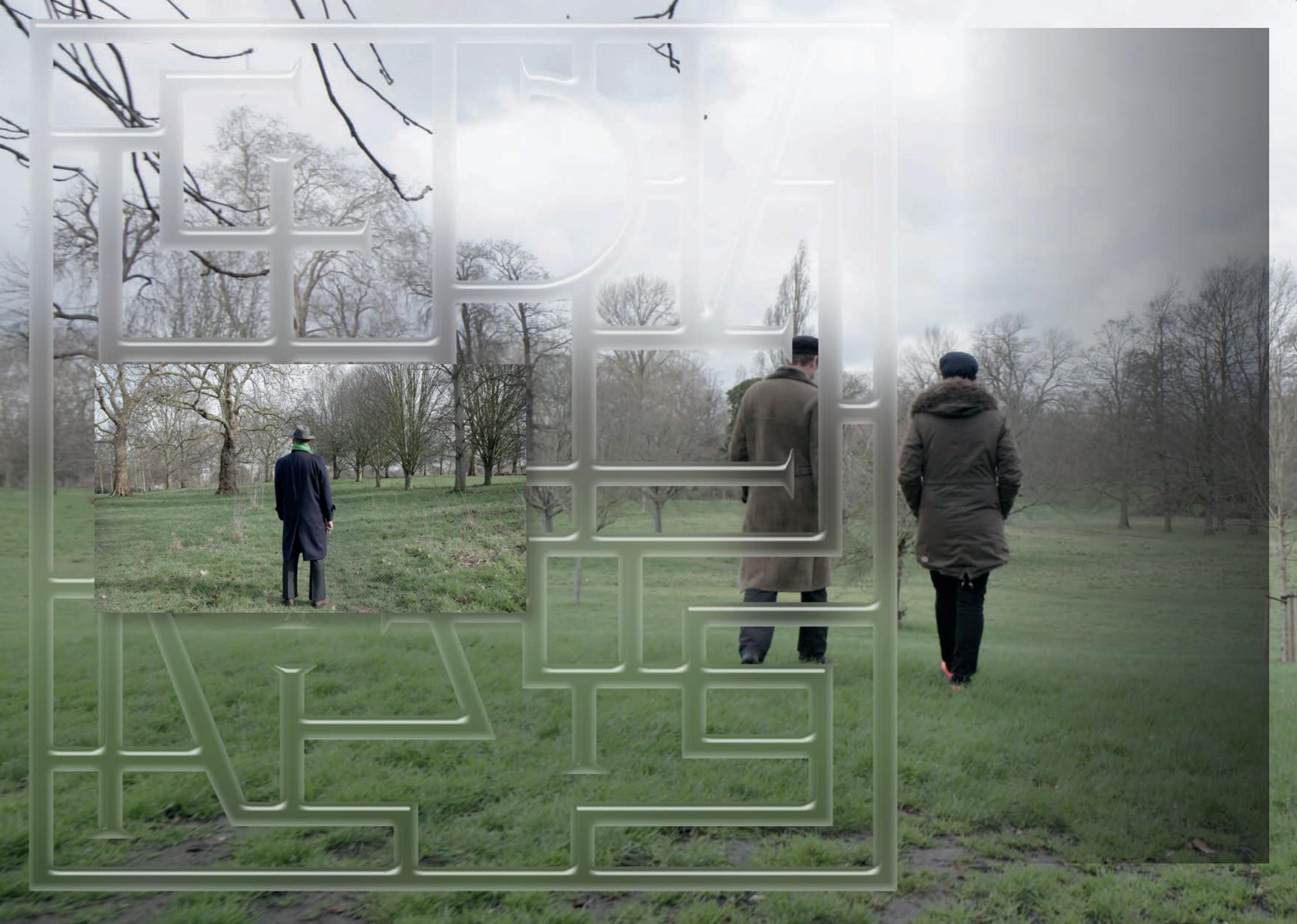
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SURFACE OF THE

EVERYTHING WAS  
AGAINST US, REALLY  
ST UNIMAGINABLE  
ENTIRELY THAT ACTUAL  
VERY IS HAPPENING  
IN THE WORLD  
ER

I CALL IT PARADISE  
BUT YOU'RE NOT ABLE  
TO ACCESS IT FREELY,  
SO I'M ACTUALLY  
CAGED IN BETWEEN  
IN THE 10 YEARS BETWEEN  
2005 AND 2011 AT LEAST  
7.5 BILLION WORTH OF UK  
PROPERTY WAS ACQUIRED  
BY OFFSHORE COMPANIES

ALL OF THE THINGS THAT  
THEY ARE NOT ALLOWED  
TO SPEAK TO ANYONE  
THE OLYMPICS CLOSE AND  
THEY TAKE THE STAMP AWAY

STAYING AT GRASSROOT  
THAT IS WHERE THE  
IN THE WHOLE OF INDIA,  
GERMANY, RUSSIA  
IS THE BILLIONAIRE CAPITAL



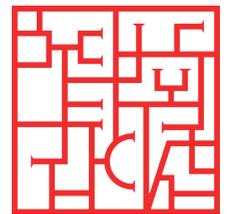
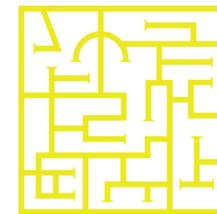
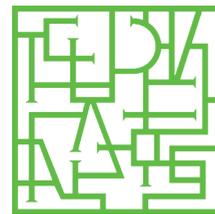
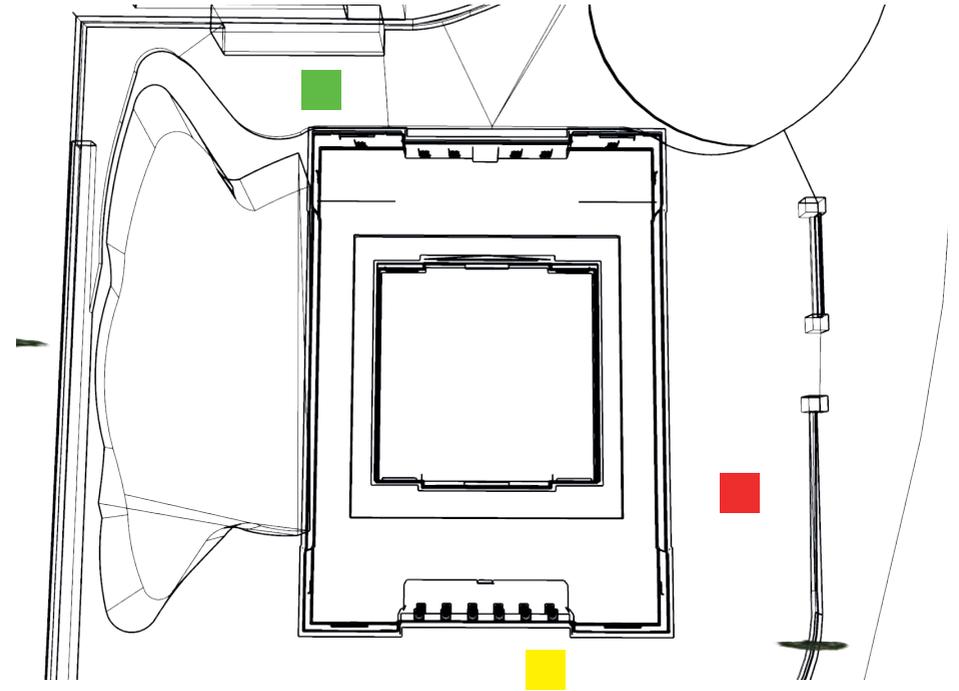
## ACTUAL REALITY<sup>OS</sup>

Developed in collaboration with London-based research partners, *Actual Reality<sup>OS</sup>* is an open source digital tool for data visualisation that brings together augmented reality, immersive audio and strategies of data collection and mapping for mobile devices. Independently, and as a collective body of work with the *Power Plants* exhibition and the *Power Walks* project, the app considers the symbiotic relationship between technology and power. Nowhere is this relationship more clear than in the decision-making power imbued within technologies like artificial intelligence and predictive modelling now used to ascertain access to services like insurance, housing and social benefits. Core to these technologies is their use of data and machine learning as a, perceived, neutral means of assessment when data, in its mediation and representation, is political and often reflects the inherent biases of societal power structures.

*Actual Reality<sup>OS</sup>* uses the potential of augmented reality to create a tool for visualising otherwise unseen information: the nascent immersive technology allows users to see a real-time composite of virtual imagery against their physical environment through the camera of a phone or tablet. Focusing on the UK and, more specifically, the Serpentine's location in the Royal Borough of Kensington and Chelsea, the app exposes inequality data – modelled, sonified and as testimonial – concerning wealth, income, social housing, domestic and hospitality workers' rights, and the impact of austerity measures.

Working with a coalition of research partners and data researchers to aggregate not only national survey data from the public domain but data mined through Freedom of Information Act requests, data collected through community-led initiatives, and personal testimonies as a form of data. The app reconciles macro statistical information with micro data sets and the voice of individuals that form a nuanced, human-centred approach to data and the way that it is collected and used.

The architecture of the Serpentine Sackler Gallery becomes the base metric onto which the data is mapped to the external facade of the building by overlaying, in augmented reality, a warped virtual simulacra that charts the stark reality of inequality at 1:1 scale. The building is surrounded by a digital perimeter of personal testimony in contrast to the abstraction of statistical representation while a data-driven soundtrack guides you. The audio is produced through a process of data sonification in which statistics are represented as sound. Created by Jules Laplace and Bethany Barrett using an automated tool that maps data points to harmonic scales which are then played through a Behringer DeepMind synthesiser, the inclusion of sound augments reality in another, non-visual, form that presents another perspective of both data analysis and social experience.



### Summoning *Actual Reality*<sup>OS</sup>

The graphic language of *Actual Reality*<sup>OS</sup> draws on both the form and function of sigils. Though sigils can simply be seals or decorative symbols, their use by practitioners of magic as symbolic representations of a desired outcome—a means of summoning a preferred future—is particularly entwined with Steyerl's themes of exposing the power dynamics of unseen, even unknown, power structures.

Like those relics of chaos magic, Steyerl has encrypted and embossed secret messages into three concrete sigils that line the periphery of the outside of the gallery. The sigil's code acts as a key to unlock the augmented reality functionality in *Actual Reality*<sup>OS</sup>, locating the user's mobile device in real space inside the app, while virtual sigils float in space and allow access to the data used to sculpt the architecture of the gallery. The viewer's device becomes a portal, exposing the vision and sound of the gallery's actual reality.

*Actual Reality*<sup>OS</sup> is open source so it can be replicated, reformatted and redistributed by any member of the public with alternative datasets, locations and architectures.

For more information please contact:  
actualreality@serpentinegalleries.org

### How to use *Actual Reality*<sup>OS</sup>

- Download *Actual Reality*<sup>OS</sup> from the App Store or Google Play Store to your mobile device or tablet\*
- When you are outside the front entrance of the Serpentine Sackler Gallery, open the app and follow the welcome guide. You will receive notifications that request the use of your device's camera and location, please accept these to have the full experience of the augmented reality. This app does not collect or store your data.
- Locate one of the three concrete sigils surrounding the gallery using the map, then use your tablet or device to scan the sigil code to view *Actual Reality*<sup>OS</sup>
- As you view *Actual Reality*<sup>OS</sup>, scan the virtual sigil codes to reveal more information about the data
- If at any point, you can no longer see the augmented reality, return to a sigil to rescan
- Information about the research partners and other data collecting and policy organisations and links to research reports are also available to view in the app, and can still be accessed when you are away from the Serpentine Galleries and out of range.

Wifi: Serpentine PUBLIC

iOS: Requires iPhone 6s and above

Android: Requires ARCore support and Android 8.0 or later

*This app contains adult language that may not be suitable for some viewers.*

## ACTUAL REALITY of Economic *INEQUALITY*

*WEALTH*\* for the **TOP 10%** is **295 TIMES** higher than the **BOTTOM 10%**. In 2010-12 it was **160 TIMES** higher.



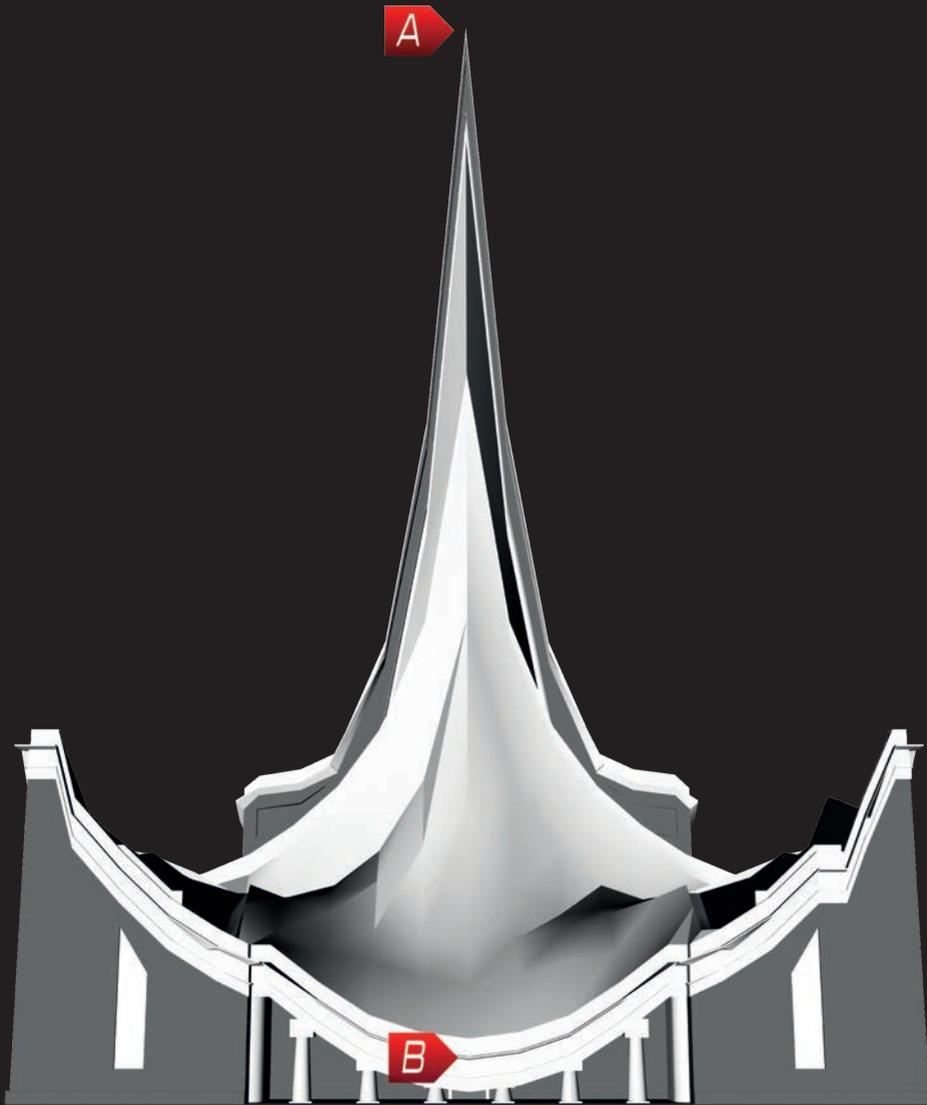
A **TOP 10%**  
B **BOTTOM 10%**

\**WEALTH* includes financial, property, physical and pension *WEALTH*.

<https://www.trustforlondon.org.uk/data/wealth-distribution/>

## ACTUAL REALITY of London's WEALTH

The **BOTTOM HALF** of London's population own **5.3%** of its total *WEALTH*.<sup>1</sup> In contrast, the **TOP 10%** own **52.1%**.



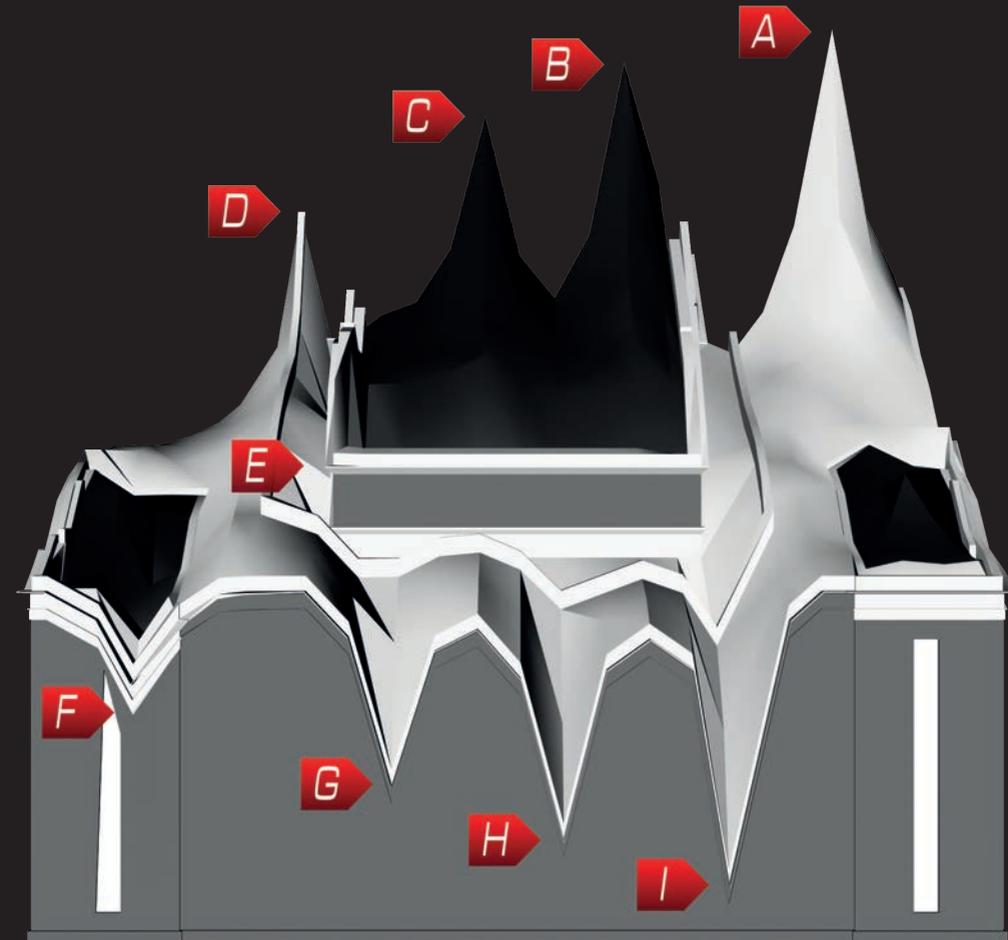
- A **TOP 10%**
- B **BOTTOM 50%**

<sup>1</sup>*WEALTH* includes financial, property, physical and pension *WEALTH*. In 2017, London's total *WEALTH* was **£1.8 TRILLION**.

*SOURCE* [<https://www.trustforlondon.org.uk/data/wealth-distribution/>]

## ACTUAL REALITY of Weekly EARNINGS

In 2017, average UK weekly *EARNINGS*<sup>1</sup> were:



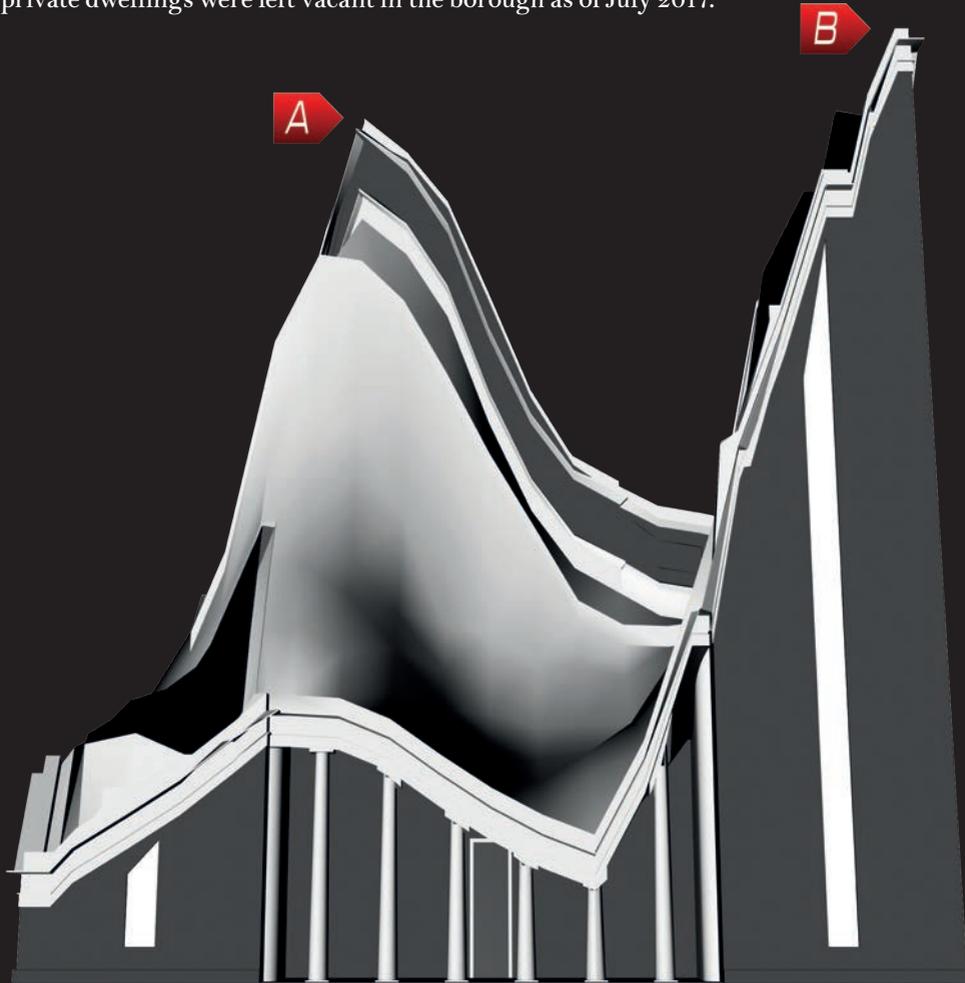
- A **10%** made above **£1,092.40**
- B **20%** made above **£846.10**
- C **30%** made above **£720.80**
- D **40%** made above **£628.70**
- E **50%** made above **£550.40**
- F **60%** made above **£484.80**
- G **70%** made above **£428.60**
- H **80%** made above **£372.80**
- I **90%** made above **£319.70**

<sup>1</sup>*EARNINGS* measures gross weekly pay of male and female full-time workers. Full-time means working **35 HOURS** or more per week. From April 2017 to March 2018 the national minimum wage for a worker 25 years and older was **£7.50**.

*SOURCE* [<https://architectsfor-social-housing.wpcomstaging.com/2017/07/21/the-truth-about-gren-fell-tower-a-report-by-architects-for-social-housing/>]

## ACTUAL REALITY of Social HOUSING

As of Spring 2016, **1,668\*** homeless households living in temporary housing were moved outside of the Borough of Kensington and Chelsea by the council. In contrast, **1,857\*\*** private dwellings were left vacant in the borough as of July 2017.



- A **1,668** homeless households living in temporary housing
- B **1,857** private dwellings left vacant

ARCHITECTS FOR SOCIAL HOUSING using data courtesy of Guardian News & Media Ltd (2017). *Grenfell borough had worst record for local housing of homeless before fire.* SOURCE [[https://www.theguardian.com/uk-news/2017/jul/08/kensington-chelsea-worst-housing-record-before-grenfell?CMP=Share\\_iOSApp\\_Other](https://www.theguardian.com/uk-news/2017/jul/08/kensington-chelsea-worst-housing-record-before-grenfell?CMP=Share_iOSApp_Other)].

\*ARCHITECTS FOR SOCIAL HOUSING using data collected by WHO OWNS ENGLAND (2018). *The Truth About Grenfell Tower.* SOURCE [<https://architectsfor-social-housing.wpcomstaging.com/2017/07/21/the-truth-about-grenfell-tower-a-report-by-architects-for-social-housing/>].

## ACTUAL REALITY of UK INCOME

From 2015–2016, average annual *INCOME*' in the UK was:



- A **£114,000** for the **TOP 1%** of people
- B **£62,720** for the **TOP 10%** of people
- C **£15,390** for the **BOTTOM 50%** of people
- D **£11,600** for the **BOTTOM 10%** of people

Data from 2000–2001 shows *INCOME* for the **TOP 1%** drastically increase after 2015.

From 2000–2001, average annual *INCOME* in the UK was:

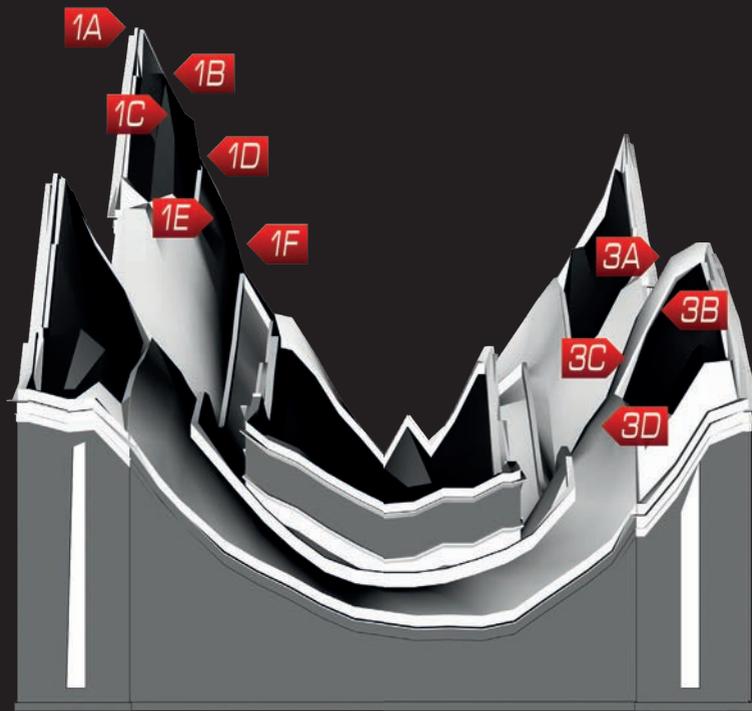
- £71,000** for **TOP 1%** of people
- £39,760** for the **TOP 10%** of people
- £8,602** for the **BOTTOM 50%** of people
- £5,480** for the **BOTTOM 10%** of people

\**INCOME* shown based on total *INCOME* after tax and only represents reported *INCOME*.

SOURCE [<https://www.gov.uk/government/statistics/percentile-points-from-1-to-99-for-total-income-before-and-after-tax>]

## ACTUAL REALITY of London's HOTEL WORKERS

Unite the Union Hotel Workers' Branch surveyed union members and found the following statistics concerning their working conditions:



*HOTEL WORKERS: Housekeeping Staff*

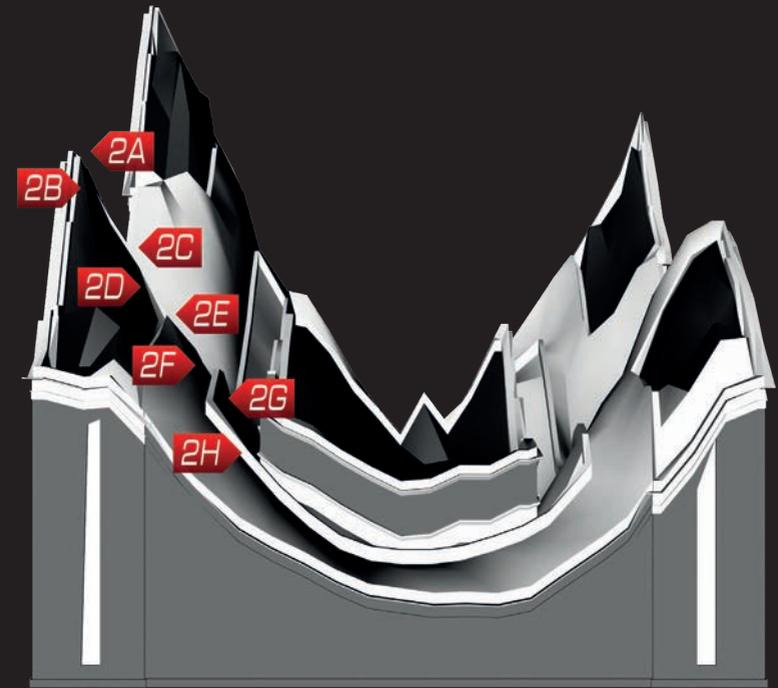
- 1A **90%** have constant pain caused by their job
- 1B **88%** have neck pain
- 1C **84%** have back pain
- 1D **82%** know of co-workers who suffer the same pain
- 1E **70%** take painkillers on a daily basis
- 1F **64%** have shoulder pain

*HOTEL WORKERS: Front of House Staff*

- 3A **53%** frequently miss meal and rest breaks due to workload and staff shortages
- 3B **47%** of front of house staff frequently start early for no extra pay
- 3C **36%** are currently owed money for hours worked
- 3D **33%** of front of house staff frequently finish later than official finish times without extra pay

## ACTUAL REALITY of London's HOTEL WORKERS

Unite the Union Hotel Workers' Branch surveyed union members and found the following statistics concerning their working conditions:

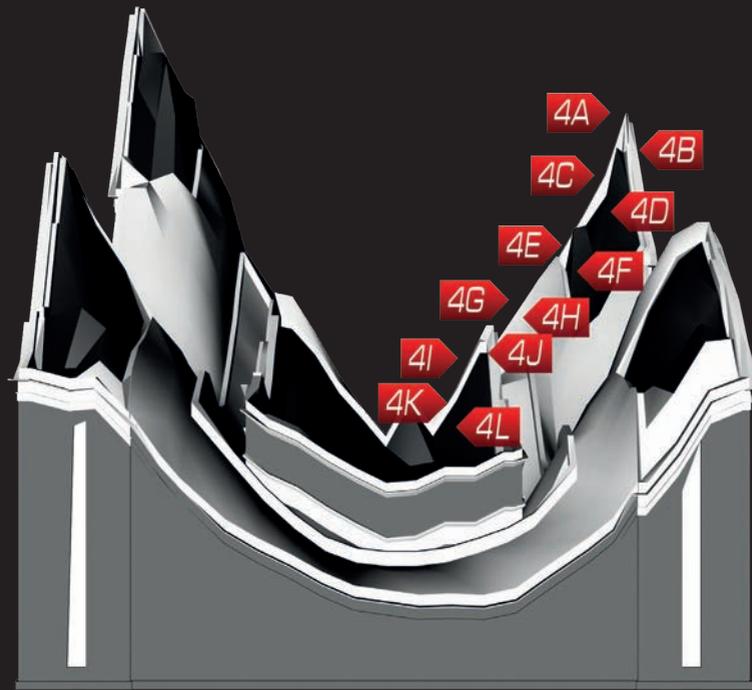


*HOTEL WORKERS: Waiting Staff*

- 2A **78%** receive no enhanced pay for extra hours worked — i.e single time pay
- 2B **71%** do not know how their tips are calculated and what percentage they get
- 2C **57%** believe they are owed unpaid wages for hours worked
- 2D **45%** frequently miss rest and meal breaks due to understaffing or high workload
- 2E **41%** frequently finish late without being paid extra
- 2F **33%** frequently start work early without being paid extra
- 2G **30%** are only sometimes paid
- 2H **26%** are never paid what is agreed in their contract for overtime

## ለጥዕላዊ ገደልነቱ የ London's HOTEL WORKERS

Unite the Union Hotel Workers' Branch surveyed union members and found the following statistics concerning their working conditions:



HOTEL WORKERS: Kitchen Staff and Chefs

- |    |  |    |  |
|----|--|----|--|
| 4A | 78% have had an accident or 'near miss' at work due to feeling overtired | 4H | 47% start work before their official start time for no extra pay |
| 4B | 69% believe their long hours impact their health                         | 4I | 44% work an average of <b>48-60 HOURS</b> each week              |
| 4C | 56% take painkillers to see them through their shift                     | 4J | 41% take other stimulants to see them through their shift        |
| 4D | 54% are regularly expected to work through their breaks                  | 4K | 27% drink alcohol to see them through their shift                |
| 4E | 51% finish work after their official finish time for no extra pay        | 4L | 14% work <b>OVER 60 HOURS</b> each week                          |
| 4F | 51% are suffering depression due to overwork                             |    |  |
| 4G | 48% drink energy drinks to see them through their shift                  |    |  |

UNITE THE UNION Hotel Workers' Branch (2016). *Unethical London*. SOURCE London: Unite the Union, pp.6, 8, 11-12. [Accessed 18 July 2018].

## ለጥዕላዊ ገደልነቱ የ DOMESTIC WORKERS

The Voice of Domestic Workers surveyed **100 DOMESTIC EMPLOYEES** in London and found the following statistics concerning their working conditions:



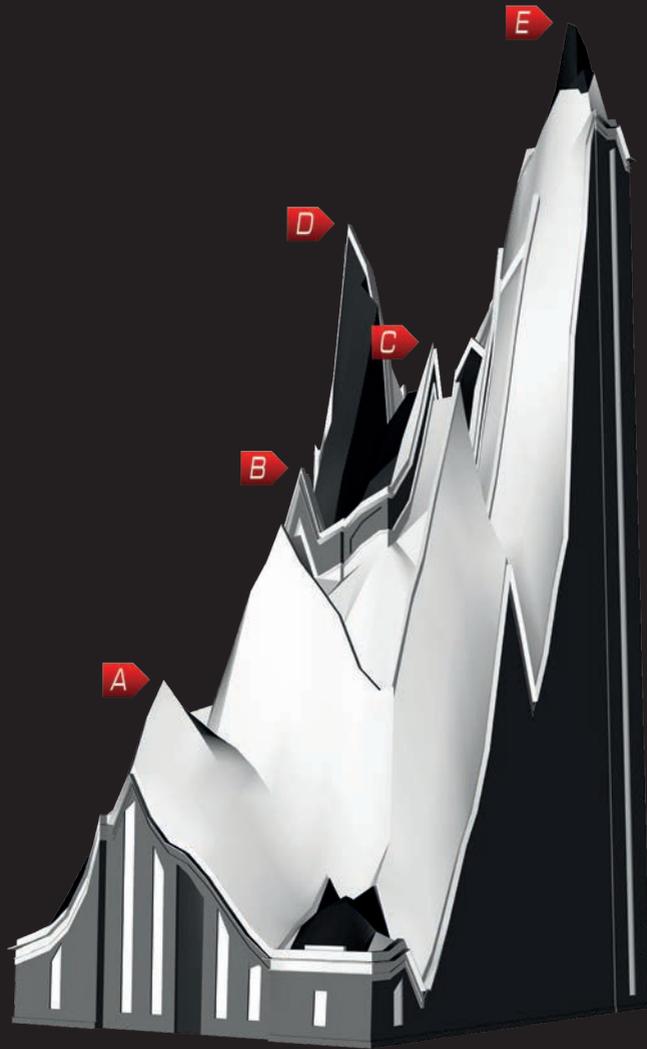
- |   |  |   |   |
|---|--|---|---|
| A | 49% are expected to work <b>50 HOURS</b> or more per week          | E | 25% do not have an employment contract  |
| B | 48.5% of those surveyed do not have their own bedroom in the house | F | 20% of those who responded to the question about abuse report being sexually harassed |
| C | 43% have experienced verbal or physical abuse at work              |   |   |
| D | 40% do not have enough food to eat                                 |   |   |

THE VOICE OF DOMESTIC WORKERS (2017). *Employer Mapping*. [Internal Research and Development] London: Dignity at Work. AVAILABLE UPON REQUEST [Accessed 3 August 2018].

## ለጥዕላዊ ደረሰነዥ of Hunger in the UK

Between 1 April 2017 and 31 March 2018, the Trussell Trust food bank network distributed **1,332,952** three-day emergency food supplies to people in the UK in crisis. This is a **13%** increase on the previous year.

The number of three-day emergency food supplies given out by the Trussell Trust food bank network:



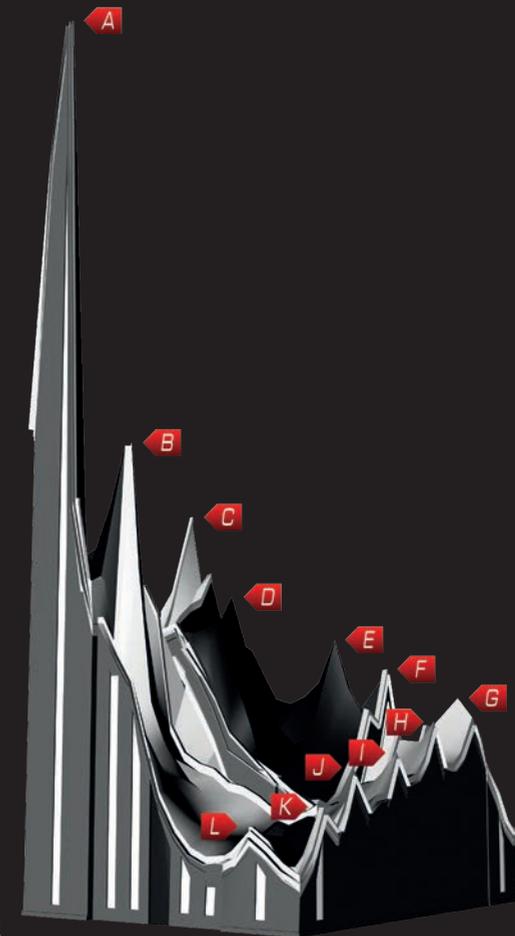
- A 913,138 in 2013-2014
- B 1,084,604 in 2014-2015
- C 1,109,954 in 2015-2016
- D 1,182,954 in 2016-2017
- E 1,332,952 in 2017-2018

TRUSSELL TRUST (2013-2018). *Latest Stats*. SOURCE United Kingdom: Food Bank Network. [Accessed 15 August 2018].

## ለጥዕላዊ ደረሰነዥ of AUSTERITY

Disabled People Against Cuts with Reclaiming Our Futures Alliance has calculated the number of individuals affected by AUSTERITY\* measures that limit funding to social welfare benefits:

- A 3.7 MILLION people affected by 1% cap on benefit rises (£9 BILLION lost)
- B 1.38 MILLION people affected by localisation and 10% cut for council tax benefits (£594.8 MILLION lost)
- C 1 MILLION people affected by the freezing of Child Benefit (£1.7 BILLION lost)
- D 827,000 people affected by changes to Local Housing Allowance (£2.43 BILLION lost)
- E 700,000 people affected by the limitation of Work Related Activity Group (WRAG) (£4.4 BILLION lost)
- F 608,000 people affected by cuts to Incapacity Benefit (£5.6 BILLION lost)
- G 545,300 people affected by uprating and cuts to tax credits: (£370 MILLION lost)
- H 475,900 people affected by 1% cap on various benefits and tax credits (£457 MILLION lost)
- I 446,000 people affected by changes to Universal Credit (£2.62 BILLION lost)
- J 420,000 people affected by the Bedroom Tax (£1.1 BILLION lost)
- K 142,000 people affected by overall Benefit Cap (£2 BILLION lost)
- L 21,000 people affected by the abolition of the Independent Living Fund (£1.2 BILLION lost)



\*AUSTERITY here refers to economic conditions created by government measures to reduce public spending in the UK since 2008.

DISABLED PEOPLE AGAINST CUTS and RECLAIMING OUR FUTURES ALLIANCE (2017). *Shadow Report from the Reclaiming Our Futures Alliance on the UK Initial Report on the UN Convention on the Rights of Persons with Disabilities*. SOURCE [Accessed 17 August 2018].

## RESEARCH PARTNERS

Hito Steyerl and the Serpentine Galleries have worked with a series of research partners to gather data and testimony concerning inequality as well as to develop the *Power Walks* programme.

### Architects for Social Housing

ASH responds architecturally to London's housing 'crisis'. They organise working collectives of architects, urban designers, engineers, housing campaigners to offer support, advice and expertise to residents who feel their interests and voices are increasingly marginalised by local councils or housing associations during the so-called 'regeneration' process. Their primary responsibility is to existing residents – tenants and leaseholders alike; but are also committed to finding financially, socially, economically and environmentally viable alternatives to estate demolition that are in the interests of the wider London community.

### Disabled People Against Cuts

DPAC was formed by a group of disabled people after the 3rd October 2010 mass protests against cuts in Birmingham, England. DPAC is for everyone who believes that disabled people should have full human rights and equality. It is for everyone that refuses to accept that any country can destroy the lives of people just because they are or become disabled or have chronic health issues. It is for everyone against government austerity measures which target the poor while leaving the wealthy unscathed. It is for everyone who refuses to stay silent about the injustices delivered by wealthy politicians on ordinary people and their lives.

### The Reclaiming Our Futures Alliance

ROFA is an alliance of Disabled People and their organisations (DPOs) in England who have joined together to defend disabled people's rights and campaign for an inclusive society. ROFA fights for equality for disabled people in England and works with sister organisations across the UK in the tradition of the international disability movement. They base their work on the social model of disability, human and civil rights in line with the UN Convention on the Rights of Persons with Disabilities (CRPD). They oppose the discriminatory and disproportionate attacks on disabled people's rights by past and current Governments. Alliance member organisations have been at the forefront of campaigning against austerity, welfare reform and inequality.

### Unite the Union Hotel Workers' Branch

The Hotel Workers' Branch of Unite the Union has been campaigning for many years to raise the profile of the plight of hotel workers. They develop strategies to organise the hotel workforce in the face of ongoing resistance from employers.

### The Voice of Domestic Workers

The Voice of Domestic Workers is an education and campaigning group calling for justice and rights for Britain's sixteen thousand migrant domestic workers. They provide educational and community activities for domestic workers - including English language lessons, drama and art classes, and employment advice, and mount rescues for domestic workers stuck with abusive employers. Their work seeks to end discrimination and protect migrant domestic workers living in the UK by providing or assisting in the provision of education, training, healthcare and legal advice.

### Constantine Gras

Constantine Gras is a multimedia artist who works with archives to explore the link between memory, emotion and history. This involves original research and culminates in multi stranded projects with collaborative input from other artists or participants. Filmmaking is at the expressive heart of his practice. His films employ a dialectical approach to image making that produce meditative, elegiac outcomes. Constantine was the first community artist to be employed by the V&A Museum. He has recently worked as artist in residence at both Lancaster West and Silchester estates in North Kensington, working with residents who live in the shadow of Grenfell Tower.

## ARTIST BIOGRAPHY

Hito Steyerl (b. 1966, Munich, Germany) is a filmmaker, visual artist, writer, and innovator of the essay documentary. She is currently a professor of New Media Art at the University of the Arts, Berlin. Steyerl has produced a variety of work both as a filmmaker and author in the field of essayist documentary filmography and post-colonial critique, both as a producer and theorist. Steyerl has had solo exhibitions at the Museum of Contemporary Art, Los Angeles (2016); Museo Nacional Centro de Arte Reina Sofia, Madrid, Spain; Artists Space, New York; Institute of Modern Art, Brisbane, Australia (2015); Van Abbemuseum, Eindhoven, The Netherlands; ICA, London, UK; Künstlerhaus Stuttgart, Germany (2014); Museum of Contemporary Art Chicago (2013);

the Art Institute of Chicago, and E-flux, New York (2012). Group exhibitions include the German Pavilion, 56th Venice Biennale, Venice, Italy; the Hannover Kunstverein, Hannover, Germany; CAC Vilnius, Vilnius, Lithuania (2015); *Cut to Swipe*, Museum of Modern Art, New York; *The Darknet*, Kunst Halle Sankt Gallen, Switzerland; Bienal de la Imagen en Movimiento, Goethe-Institut Buenos Aires, Argentina (2014); *The Way of the Shovel: Art as Archaeology*, MCA Chicago; *Nine Artists*, Walker Art Centre, Minneapolis; Stedelijk Museum, Amsterdam, The Netherlands; Bergen Triennial, Bergen, Norway, and the 55th Venice Biennale (2013).

## LIST OF WORKS

### *Power Plants*

6 scaffold structures with 240 LED panels 3.9mm pitch, videos, vinyl text, sound, micro-cemented seats

#### **Production:**

Serpentine Galleries, ADi Solutions, ADi AV

#### **Installation design support:**

Manuel Reinartz, Emiliano Pistacchi

#### **Initial prediction algorithm and technical advisory:**

Damien Henry

#### **Neural video system:**

Jules Laplace

#### **Sample RNN production:**

Damien Henry

#### **Camera:**

Savas Boyraz, Takashi

#### **Video post-production:**

Christoph Manz

#### **Vinyl Design:**

Ayham Ghraawi

#### **Artist studio production coordinator:**

Hanna Mattes

#### **Seat Production:**

Philipp Von Frankenberg and Jamie Bracken Lobb

#### **Soundtrack:**

Kojey Radical, Susumu Yokota.

Produced by The Vinyl Factory

#### **Video co-commissioned by:**

Serpentine Galleries and The Store X

Courtesy of the Artist, Andrew Kreps Gallery (New York) and Esther Schipper Gallery (Berlin)

### *Power Plants<sup>OS</sup>*

Open source augmented reality application, iPads, LED panels 3.9mm pitch

#### **Graphic Design, Typography,**

#### **AR Design and Production:**

Ayham Ghraawi with Matt Wolff, Hrefna Sigurðardóttir, and Ben Ganz

#### **AR development and modeling:**

Ivaylo Getov, Luxloop with Caco Peguero, United Futures and Robert Gerdisch

#### **3D models:**

Max Schmoetzer

#### **Micro-cemented markers production:**

Philipp Von Frankenberg and

Jamie Bracken Lobb

#### **Production coordinator:**

Hanna Mattes

#### **Commissioned by:**

Serpentine Galleries

Courtesy of the Artist, Andrew Kreps Gallery (New York) and Esther Schipper Gallery (Berlin)

#### **Thanks to:**

Ayham Ghraawi, Alice Conconi, Damien Henry, Jules Laplace, Freya Murray, Anton Vidokle, Ben Vickers, Asakusa Osaka Koichiro and Takashi, Emiliano Pistacchi, Manuel Reinartz, Milos Trakilovic, Gago Gagoshidze, Adnan Yildiz, Andrew Kreps, Esther Schipper, Leah Turner, Amal Khalaf, Hans Ulrich Obrist, Amira Gad, Kay Watson, Elizabeth Graham, Holly Shuttleworth, Eva Jäger, Diego Duenas, and Emily Wright.

### *Actual Reality<sup>OS</sup>*

Open source augmented reality application for iOS and Android devices

With The Voice of Domestic Workers,

Architects for Social Housing, Unite the Union Hotel Workers' Branch, Disabled People Against Cuts and The Reclaiming Our Futures Alliance.

#### **Graphic Design, Typography,**

#### **AR Design and Production:**

Ayham Ghraawi with Matt Wolff, Hrefna Sigurðardóttir, and Ben Ganz

#### **AR development and modeling:**

Ivaylo Getov, Luxloop with Caco Peguero, United Futures and Workflow

#### **Production and data set collection:**

Serpentine Galleries

#### **Music:**

Jules Laplace, Bethany Barrett

#### **Artist studio production coordinator:**

Hanna Mattes

#### **Marker production:**

Philipp Von Frankenberg

#### **Commissioned by:**

Serpentine Galleries

### *Power Walks*

4 documentations of *Power Walks* through Hyde Park and Kensington Gardens, London Video 8 min. each, colour, sound, 8 wireless headphones, scaffold structure, 16 LED panels 3.9mm pitch

With Architects for Social Housing, Disabled People Against Cuts, The Voice of Domestic Workers and artist Constantine Gras

#### **Production:**

Serpentine Galleries

#### **Sonification of economic inequality data:**

Bethany Barrett, Jules Laplace

#### **Camera:**

Ben Pollard, Will Hazell

#### **Sound:**

Ben Gandy

#### **Assistant:**

David Dawson

#### **Thanks to:**

Alice Conconi, Jules Laplace, Andrew Kreps, Esther Schipper, Amal Khalaf, Hans Ulrich Obrist, Ben Vickers, Amira Gad, Kay Watson, Elizabeth Graham, Holly Shuttleworth, Eva Jäger, John Kelly, Ellen Clifford, Linda Burnip, Marissa Begonia, Mary Balquen, Geraldine Denning, Simon Elmer, Constantine Gras, Ayham Ghraawi, Diego Duenas, Emily Wright and The Royal Parks.

## PROJECT TEAM

### Research Partners

#### and *Power Walks* Team

Architects for Social Housing:

Geraldine Denning, Simon Elmer

Disabled People Against Cuts:

Ellen Clifford, John Kelly, Linda Burnip

Unite the Union Hotel Workers' Branch:

Dave Turnbull

The Voice of Domestic Workers:

Marissa Begonia and Mary Balquen

Reclaiming Our Futures Alliance

Constantine Gras

Piers Thompson

### Serpentine Galleries Project Team

Amira Gad, Exhibitions and Architecture Curator

Mike Gaughan, Gallery Manager

Elizabeth Graham, Assistant Projects Curator

Eva Jäger, Assistant Digital Curator

Amal Khalaf, Projects Curator

Holly Shuttleworth, Producer

Ben Vickers, Chief Technology Officer

Kay Watson, Digital Curator

### Production Team

ADi AV:

Sara Smith, Ant Marlow, Josh Love

ADi Solutions:

Angus Howie, Gabe Stones

Bethany Barrett

Savas Boyraz

Jamie Bracken Lobb

Joseph Constable

Philipp von Frankenberg

Benjamin Ganz

Ivaylo Getov, Luxloop

Ayham Ghraoui

Damien Henry

Julian Laplace

Christoph Manz

Hanna Mattes

Caco Peguero, United Futures

Manuel Reinartz

Hrefna Sigurðardóttir

Takashi

Matt Wolff

HITO STEYERL PROJECT  
SUPPORTED BY

HEADLINE SUPPORTER

L U M A  
F O U N D A T I O N

FILM CO-COMMISSIONER

The StoRE  
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ADDITIONAL SUPPORT



The Reuben Foundation



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