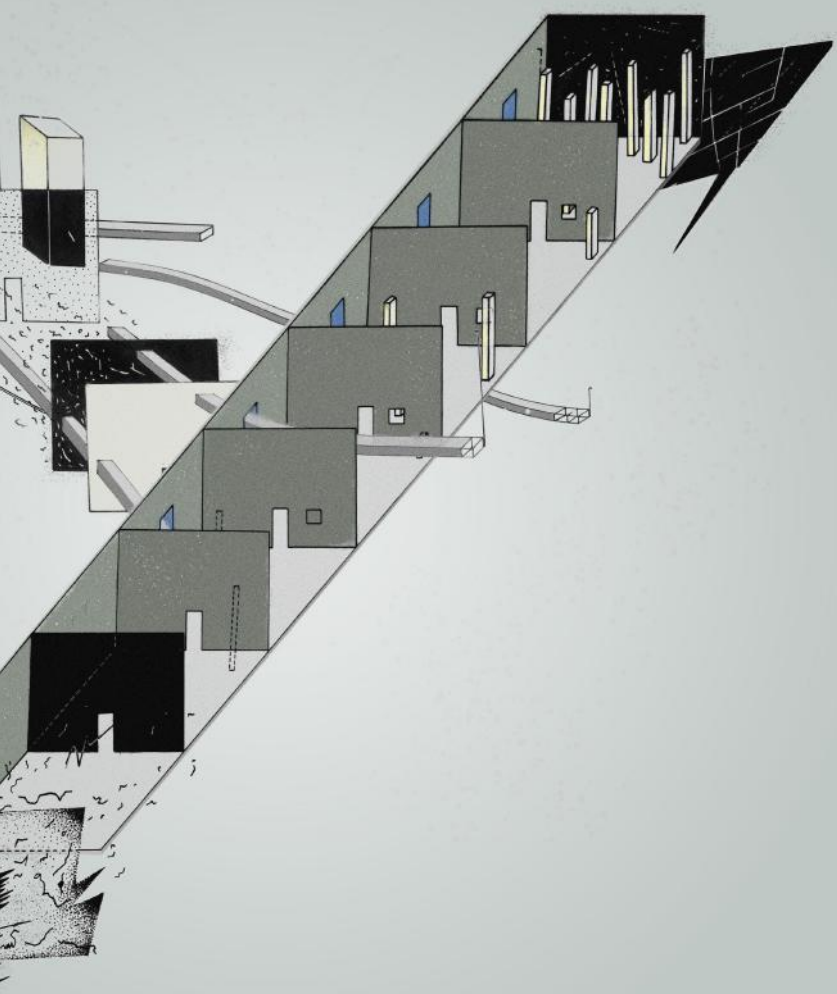


SCIENCE FICTION AND ARCHITECTURE

CITY

KAROLEV 2021

CITY

This booklet aims to provide architectural and imaginative inspiration. It draws on the work of science fiction scholars, architectural thinkers, designers and architects who enrich our understanding of the worlds we inhabit.

Alongside case studies and critical thinking, this booklet includes writing, drawing and model making exercises. These exercises are designed to develop the critical thinking and imaginative making skills which are a vital part of architectural practice. The work produced from these exercises could form part of an architectural design portfolio for architects-in-training, or provide a creative jumping off point for anyone with an interest in walking the streets of imagined worlds.

You can go through this publication at your own pace as many times as you want. You might quickly read it over coffee to discover a new building or architect, or spend time developing your own design propositions. If you have a phone in hand you can discover further worlds and different communities by following the QR codes.

CONTENTS

INTRODUCTION

Science fiction can be used to help us imagine the experiences of others, to envisage other worlds and possible futures. In this booklet we will draw on science fiction to consider the future possibilities of the city, resulting in the design of an urban environment for an imagined character.

> **"Science fiction, particularly visionary fiction, is where I go when I need the medicine of possibility applied to the trauma of human behaviour"**
>
> **adrienne maree brown (2017)**
> ***Emergent Strategy*, p.37**

This booklet explores what we mean when we talk about the city; as an urban environment, and a place of unexpected encounters. It will draw on case studies, examples from science fiction and architecture to see the city as somewhere that is different for every person who moves through it.

Before construction all architectural projects are works of science fiction - speculative proposals for an imagined future. The four booklets in this series: Home, Street, City and World use science fiction to explore and examine architectural design.

When read together, the four publications build on one another to lead you through the design of a home, street, city, and world for an imagined character. It is a science fictional process of imagination through which you can develop your own architectural project, explored and expressed in a portfolio of work.

SCIENCE FICTION AND THE CITY

> “ [Science fiction can] open up our perspective on thinking about urban life ... to live with that startling immensity, to make it our own. We might then be able to think more clearly about politics — about prospective, progressive politics under planetary urbanization”

Andy Merrifield (2013)
‘The Urban Question’ p. 910

For urban theorist Andy Merrifield, looking at science fiction stories where issues like urban segregation are extrapolated in dystopian futures, helps us identify and resist issues of dispossession and segregation on economic and racial grounds within our own cities.

Detroit was a hub of automotive manufacture in America built on the success of companies such as Ford. However, as manufacturing costs outside the US fell, companies quickly began building their factories abroad taking all the industry out of Detroit.

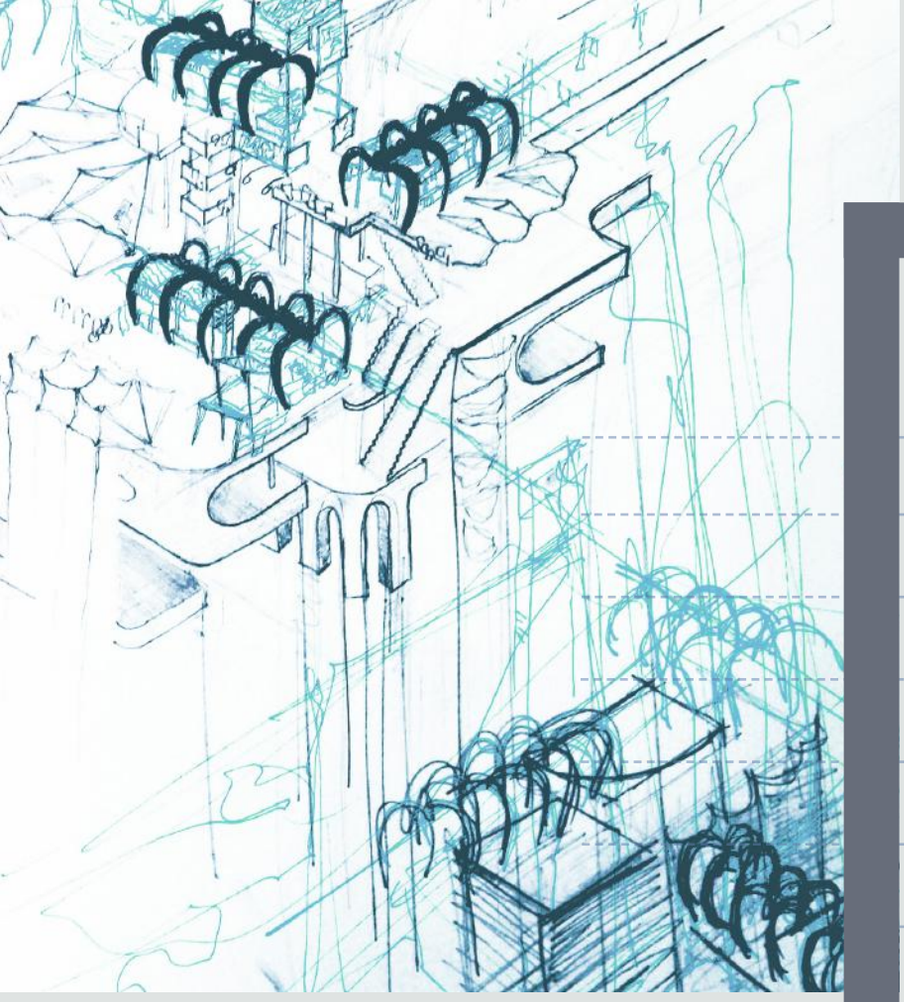
Detroit features frequently in science fiction because of its ties to industry and technology, but the social and political aspects of this history are often overlooked.

DETROIT BECOME HUMAN

The trailer for *Detroit Become Human* introduces us to a futuristic Detroit. The developers of the game travelled to Detroit to study the architecture and redesign it with a futuristic filter. However, this visit was purely architecture based; the developers didn’t interview those living in Detroit or go to museums to learn about the history of the city and its people.

The developers have denied that the game has links to historical social movements although parts of the game can be interpreted to reflect the civil rights movement. For example the buses in the game are segregated into human and non-human areas, while the protests that occur in the game have visual links to the Black Lives Matter Movement. This divorcing from historical context is a problematic aspect of many science fiction works.

Detroit Become Human could be considered as an example of an existing city being projected into a science fictional future, without fully recognising the histories present within the built fabric. These histories have brought this place into being, and so the architecture of a given city is a product of its economic, social and political past. There is no such thing as a blank slate or an empty site, and buildings carry their history with them.



DRAWING BY RYAN

What do you imagine a sci-fi city would look like?

- Quickly sketch or make a rough model of this city as it appears in your mind. You can take inspiration from images from books, movies or the internet

Think about what you've drawn:

- What made you choose the materials you have used in your design?
- What style of architecture have you depicted?
- Is this style based on a place you have visited or seen images of?
- What activities are going on in your design?
- Was your city inspired by popular sci-fi settings and if so, which ones?
- Would this be a city you would want to live in?

TASK 1
IMAGES OF THE CITY

GARDEN CITIES, EBENEZER HOWARD

Ebenezer Howard's Garden Cities were a response to pollution and overcrowding in the Industrial Era. Howard's plans were realised in Letchworth and Welwyn and have generally been heralded as a success, with a system that organises buildings to create an abundance of green space.

These towns were marketed as 'slum less'. But this didn't mean they addressed issues of poverty, instead they created places which removed inhabitants from urban centers and the poor living conditions which remained.

VILLE RADIEUSE, LE CORBUSIER

One of the most radical urban masterplans designed in the 20th century was Le Corbusier's Ville Radieuse which sought to eradicate class separation from the city of Paris by building high-rise blocks where all the occupants of the city would live.

To achieve this, Le Corbusier proposed to demolish much of Paris' existing urban fabric - a design choice which shocked the public as much then as it would now.

This proposal focused on the visionary aspects of design rather than daily practicalities, which is reflected the drawings set at gravity defying angles as opposed to from the eye-level of a pedestrian or inhabitant of the city.

UTOPIAN ARCHITECTURE

MASDAR CITY, FOSTER & PARTNERS

A contemporary urban masterplan project is Foster and Partners' design for Masdar City in Abu Dhabi which hopes to be the first city that is designed with sustainability in mind.

Whilst the city is innovative in its approach to low-carbon construction there are social issues that are not addressed, including the apparent division of different groups of people. The cost of living in the city is such that those who work for the more affluent inhabitants or who maintain the city itself are forced to live on the outskirts.

Throughout architectural history there are examples of individuals or groups proposing city 'masterplans'. These range from small changes to the urban realm to whole scale rebuilding of cities. Many of these plans were designed as a reaction to issues at the time, such as overcrowding or access to green space, but they are often problematic. By focusing on one issue and proposing a 'solution' they often overlook the experiences and needs of other individuals.

> **"amid the Ridley Scott images of world cities, the writing about skyscraper fortresses, the Baudrillard visions of hyperspace... Much of life for many people... still consists of waiting in a bus-shelter with your shopping for a bus that never comes"**
>
> **Doreen Massey (1992)**
> **'A Place Called Home' p. 8**

TASK 2
CRITICAL DRAWING

- Look up one of these examples of utopian city planning, or another example you know of.
- Look at photographs and text to gain a greater understanding of the proposal.
- Find a plan drawing of your chosen example.
- Redraw this plan layout for yourself

Architects often work through 'precedent studies' which include redrawing the work of other designers. They do this because the act of drawing something for yourself gives you the chance to carefully observe the design and encourages critical thinking.

As you draw annotate your image with your own notes and reflections.

Think about:

- What does the city include which works well? For example: green spaces / housing / transport etc.
- What does the city not include?
- What issues has this city plan overlooked? For example, does it consider sustainability?
- What are the key priorities of the city? How is this expressed in the architecture?

EX-NOVO

Ex-Novo is a map making game invented by Martin Nerurkar and Konstantinos Dimopoulos that invites you to create a city by drawing events and locations based on the roll of a dice.

The game allows you to consider several features that create a city including power structure, geography, size etc. It also introduces a number of storylines based on the dice.

How would the city differ if you were playing this game with different groups of family or friends?

What could this tell us about our needs and desires for the city?

COLLECTIVE DRAWING

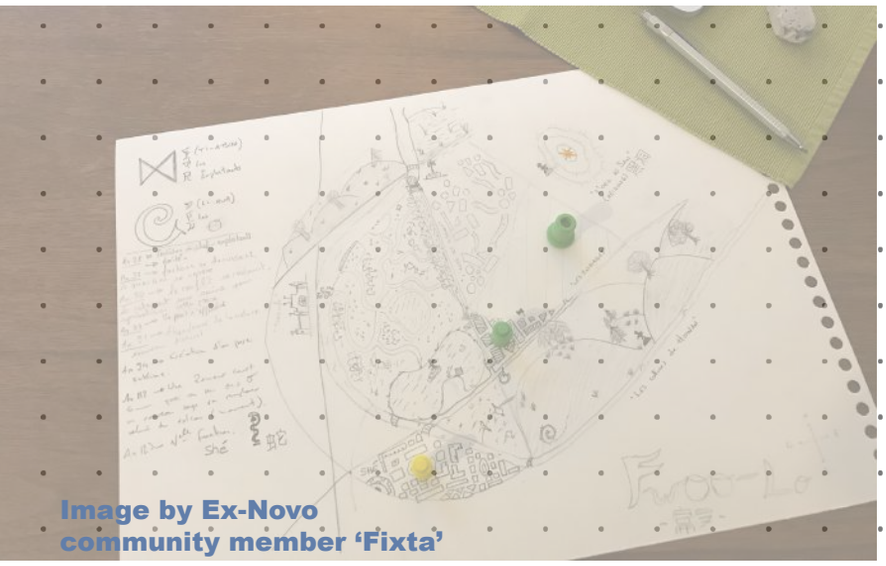


Image by Ex-Novo community member 'Fixta'

"Playing Ex-Novo

You (and up to three friends) take on the role of the guardian spirit of a freshly founded settlement. Its founding just brought you into existence. And with it, it brought you your purpose: to witness its growth, shepherd its development and remember its stories.

As you play you will make sense of the events happening as you draw and plan on a collaborative map of the settlement and its changing shape. In the end you will have created an interesting fictional place with a sense of history.

Sequence of Play:

Discussion phase:
Here each player shares their assumptions and expectations.

Founding phase:
Taking turns, each player defines some of the basics of the settlement, such as its purpose or the surrounding terrain. Whenever a feature is determined the player will draw it onto the map.

Development phase:
Here each turn adds an interesting event that needs to be interpreted by the active player. During this time the settlement will grow, change or even shrink. This is where the exciting history of your city is played out, its shape evolves and the map grows."

MAPPING TO UNDERSTAND

LEARNING FROM LAS VEGAS

This book by Denise Scott-Brown and Robert Venturi analyses the Las Vegas strip. The strip is an example of unplanned and largely unregulated building. Companies were incentivised to build casinos in this area with lower taxes and other costs. As a result, there was an architectural boom which led to the clashing of architectural styles that the strip is famous for.

Critics have been both amazed and disgusted by the development of the strip, but Scott-Brown and Venturi argued that the strip should be studied rather than simply dismissed. They worried that the introduction of conventional zoning and the work of the 'Strip Beautification Committee' might change this haphazard quality, and this book attempts to document and celebrate the strip as it was.

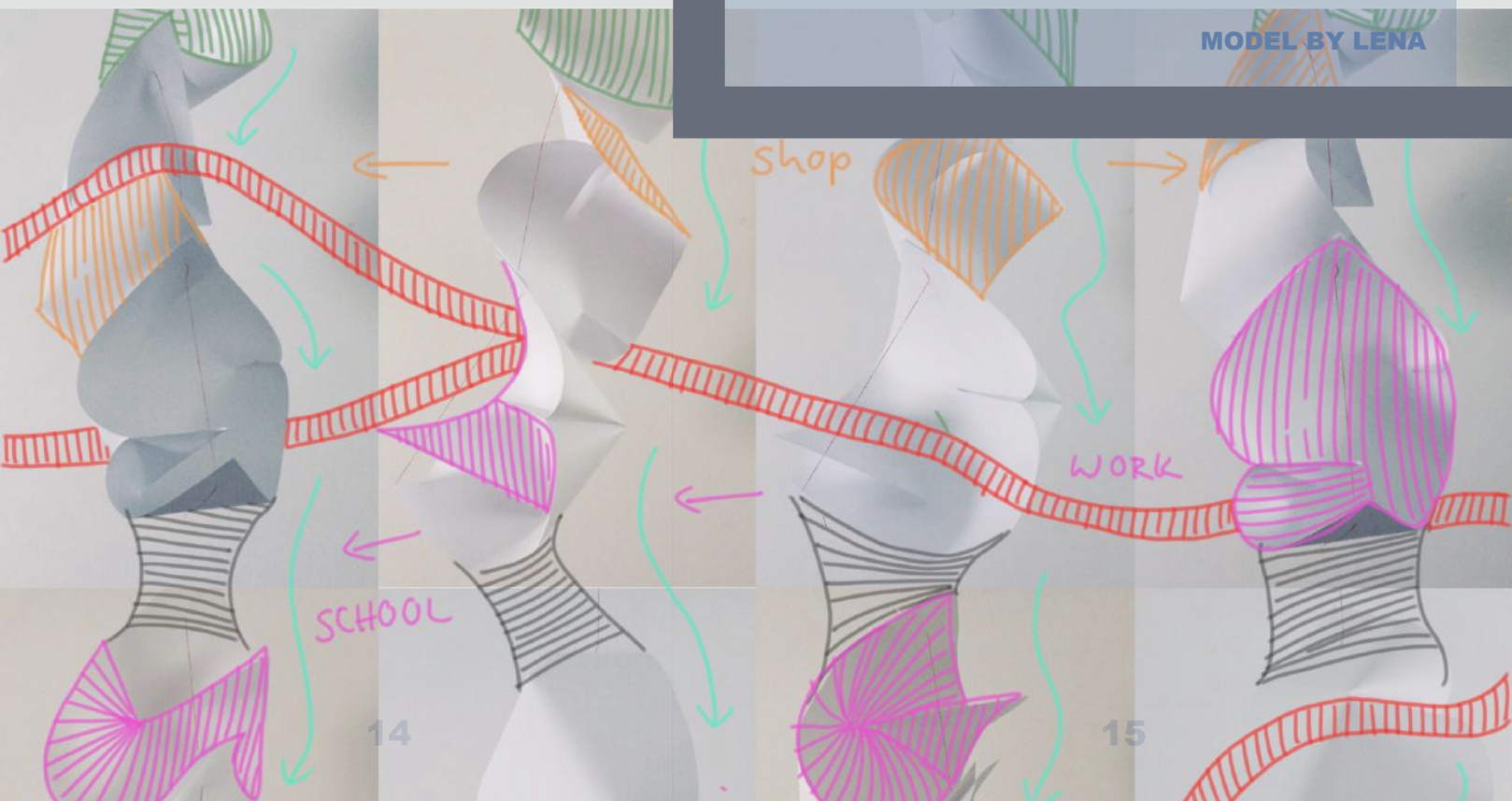
FORENSIC ARCHITECTURE

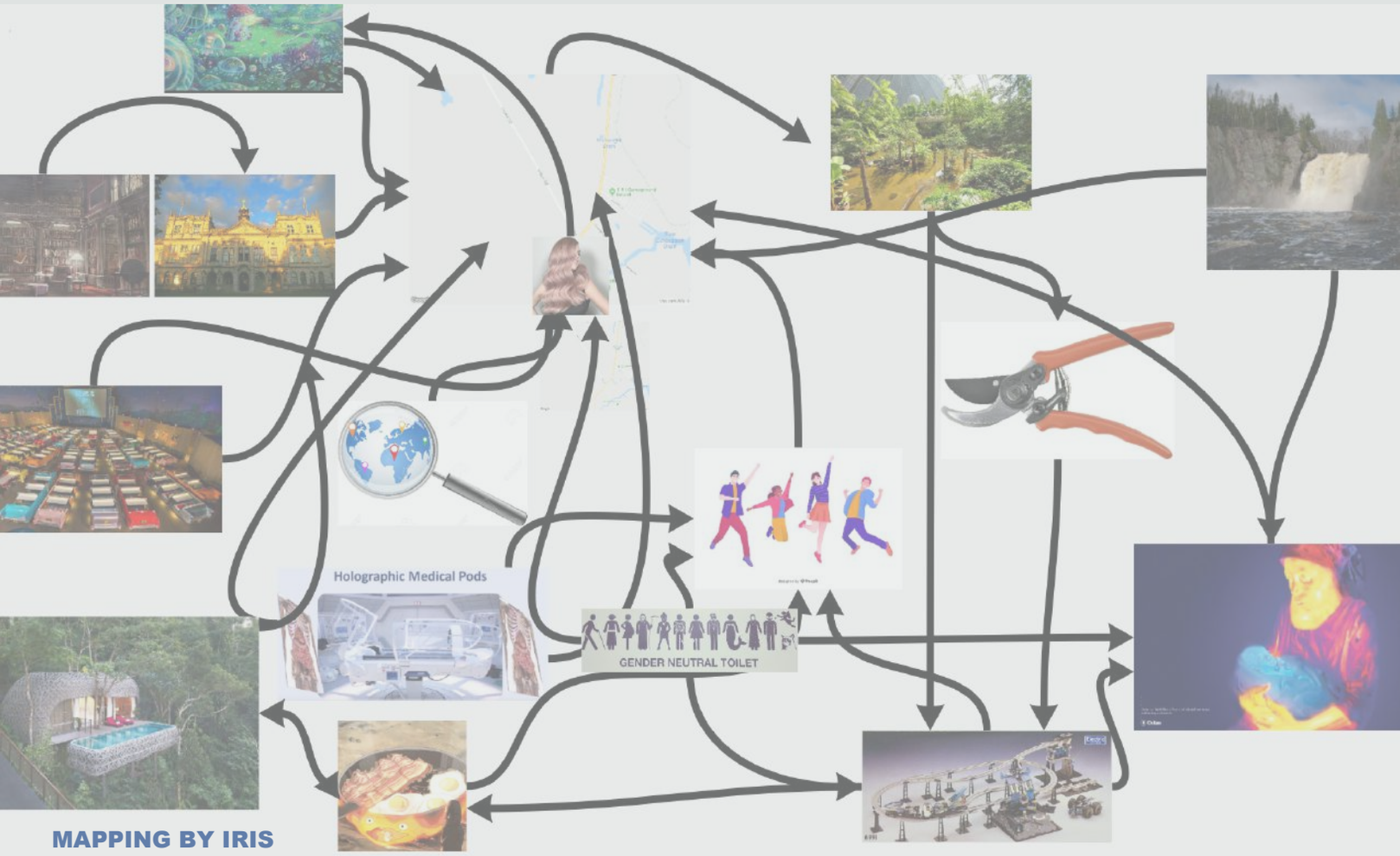
Forensic Architecture is a research group led by Eyal Weizman which investigates human rights atrocities around the world to help the people who are affected.

They investigate and analyse issues from an architectural and spatial perspective through modelling, virtual reality environments and animation. Their findings have been used by organisations such as the UN to bring perpetrators to justice.

Both of these practices use map making to understand the city, and think about how individuals and places might be defended.

MODEL BY LENA





MAPPING BY IRIS

TASK 3 MAPPING

Architects use maps and other analytical drawings to understand places and challenge assumptions. This task asks you to think critically about a place you know by making a personal map.

- Find a map of your local area or an area you know well. Print out or draw over this map.
- Once you have a copy of this map, cut around only the buildings / streets / areas which have a personal significance to you.

You could set up your own rules about what you include - for example only places you visited in the last year, or only places you could describe to a friend.

- Leave out all of the routes between places or anywhere which does not meet your rules.
- Arrange these fragments on a larger page.
- Draw in arrows to show how these places connect.

INDIVIDUAL CITIES

SITUATIONIST MAPS

This map making exercise is based on the 'Naked City' map of Paris created by the Situationist International and Guy Debord.

This map is made up of fragments cut out of a map of Paris. These pieces of the map show places that the group had identified as 'centers' or meeting points. None of the connecting roads are shown, instead they are linked only by red arrows which indicate movement. In this process, the impersonal map of Paris is transformed into a personal reflection of the experience of Paris as a place.

If you were to map the same area for a friend or a family member, what would be different?

What would they think was important that you have left out of your map?

Having made your map of an area you know well, think about what this map shows:

- Which places have you left out and why?
- How did you choose what places to include? Were there some places that broke your own rules?
- If you could create connections from this map to other places, real or imagined, what spaces would you add to this map?

You could add to this map with other images or drawings of further locations.

As architects we need to think about how each individual might experience a city differently, so that we can support varied needs and desires in our designs.

TREE CORPS

In Bedford Stuyvesant, New York in the 70's radical urban farmers retaliated against the racially discriminatory practice of redlining districts. Redlining was the practice of denying financial support or infrastructural improvements to areas based on a perception of 'risk', which included racial profiling.

As a result lower income people, and particularly Black communities were denied access to amenities such as street trees. Because these neighbourhoods didn't have access to the cooling effect of street trees these districts were 2.6 degrees hotter than their wealthier counterparts, creating inhospitable streets which had an impact on the health of vulnerable residents.

Figures such as Hattie Carthan wanted to change this. She founded the Tree Corps and worked with neighbourhood youth to plant trees in redlined neighbourhoods. Hattie and her team were able to plant 1,500 trees in less than a decade and their legacy has helped to mitigate the effects of redlining, creating an urban environment that supports its human and non-human residents.

URBAN FUTURES

DRAWING BY RYAN

OLD MAN RIVER, BUCKMINSTER FULLER, KATHERINE DUNHAM & WYVETTER YOUNGE

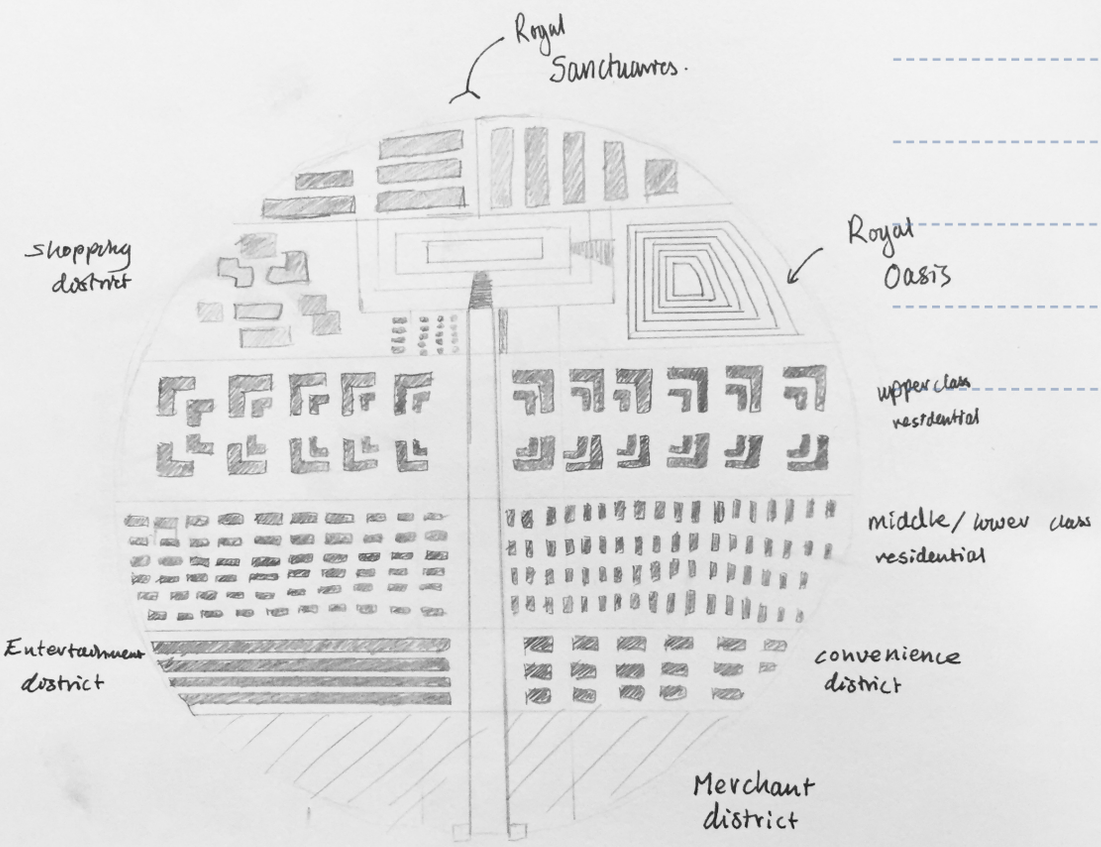
The Old Man River Project is collaboration between dancer Katherine Dunham and architect Buckminster Fuller. Dunham saw the decline of East St Louis, which was once one of America's greatest cities and wanted to rebuild. She approached Fuller and he worked with architecture students at Washington University to design a masterplan for free which featured a crater shaped structure with a large athletic field at its centre and enough housing for 125,000 residents, all covered in a huge geodesic dome.

The project had some support including the advocacy of Wyvetter Younge, a member of the House of Representatives who introduced a bill for the Old Man River Project every year until her death in 2008. However, it would have required $700 million to build and the plan never came to fruition. When Fuller first announced his plan the city had 70,000 residents, and in 2019 it had declined to just 27,000.

TASK 4
CITY DESIGN

Design an ideal city for your avatar. This could take the form of map:

- **Where is your avatar's house within the city?**
- **Where is the street you designed placed within the city?**
- **Where does your avatar go, how do they move around the city and what do they do?**
- **How do the other inhabitants of the city interact with the space?**



MAP BY JALLEN

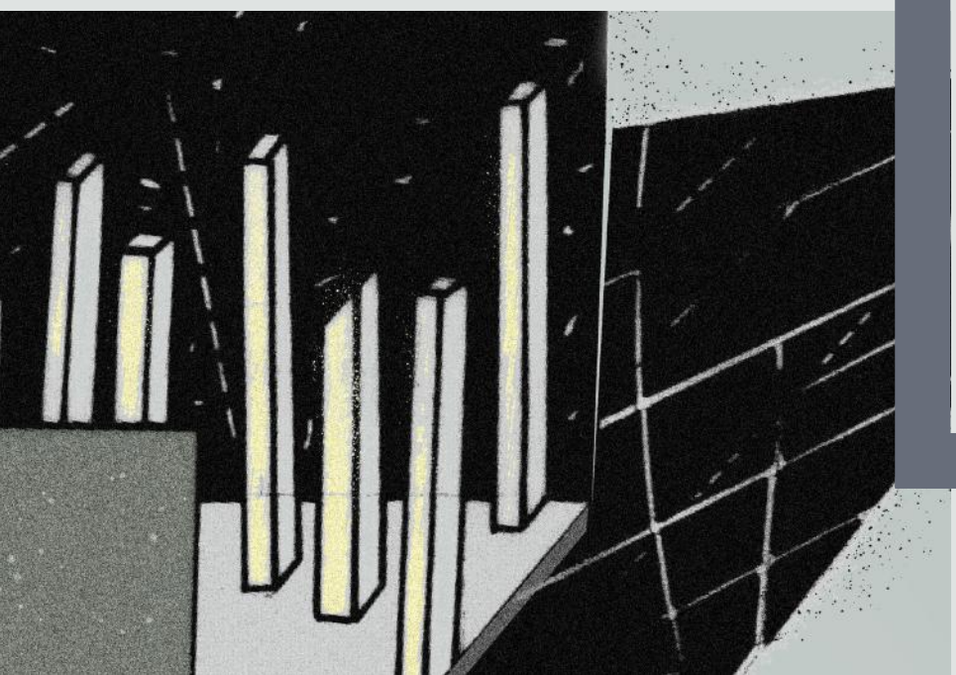
COVER ART

A short animated film from 1982 called 'Le Ravissement de Frank N. Stein' serves as inspiration for the 'City' artwork. The film traces the journey of Frank N. Stein through a series of uncanny rooms, as he slowly develops consciousness and comes to life.

In a similar way the City artwork starts with the black square that represents unconsciousness and abstraction - thought without body or place, echoing the Black Square painting by Kazimir Malevich, commonly considered to be the first 'abstract' painting. The City artwork follows a linear narrative which reveals the process of gaining understanding of the city, but also shows how this is an individual journey.

The drawing also can be read as a social commentary, considering the city and Frankenstein's monster as products of human action. The enclosure of the rooms and the dull colours suggest the suffocating atmosphere and limitations caused by the conditions of the contemporary capitalist society.

Text and Artwork by Dennis Karolev



CREDITS

This booklet was produced from the work of a STORE summer school, with the support of the University of Reading Arts Committee and the UROP programme.

STORE's Summer Schools introduce people to design in action. They are open to both aspiring and established artists and designers looking to expand their skills and portfolios.

Supported by Arts Committee University of Reading

KEY COLLABORATORS:

Avery Delany is PhD student in the Department of Anthropology at Goldsmiths University and video game developer. Their work explores human/non-humanness in video games and the relationship between video games, science and society.

Amy Butt is an architect and lecturer in architecture at the University of Reading. She is fascinated by the fictional worlds we imagine, and how they might help shape the future worlds under construction.

Before construction all architectural projects are works of science fiction - speculative proposals for an imagined future. The four booklets in this series: Home, Street, City and World use science fiction to explore and examine architectural design.

This booklet contains case studies and critical thinking alongside creative activities designed to support future architects and designers-in-training in developing their own imagined worlds.

It is through these acts of imagination that we can reflect on the worlds we currently inhabit, and shape the futures currently under construction.

The work which illustrates this booklet was produced by the participants of the STORE Architecture and Science Fiction Summer School:

Erin Lynas, Hani Ali,
Iris Watson, Jallen Chen,
Lena Lali, Lena Westerburg Burr,
Merle Nunneley, Ryan Long
and Sasha Haxell

These sessions were led by:
Amy Butt, Avery Delany, Katie Stone,
Sing Yun Lee and Rachel Hill

Facilitated by: Tessa Geuze, Kevin Green
and Stine Keinicke from STORE

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