Unreal Urbanisms | A User Guide To Engagement Gaming For Community Planning

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UNREAL URBANISMS

A USER GUIDE TO ENGAGEMENT GAMING FOR COMMUNITY PLANNING

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Can Games be Used to Crowdsource Ideas for City Planning?

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Thesis Arc 508
Video games possess unique characteristics to challenge the creative process and allow for a new kind of contingent design that emerges from specific communities.¹

The ability of a player to interact meaningfully with a game world. More than simple action/feedback interactivity, agency refers to knowing actions taken by the player that result in significant changes within the world.²

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¹ Sanchez, Jose. "Temporal and Spatial Combinatorics in Games for Design." Acadia, 2015. Academia.edu
Contents

Introduction
- Planning of the Past...
- Games for Engagement, Playful Approaches to Planning the Future
- Case Study, Engagement Games for Planning

Featured Game Profile: Minecraft
- Agency and Collaboration in Minecraft
- On Legibility and The Public Image
- The Image of City in Minecraft Modifications

The Unreal Urbanisms Project, Liberland
- Goal
- Rules
- Voluntary Participation
- Feedback System

The Results
- Phase One
- Phase Two
- Phase Three
Project Contention

The virtual environment is the digital manifestation of user’s transnational image of the city. It is an image conceived through small scale and short term interventions that prompt experimentation and iteration. Its development is implemented solely through active participation, community engagement and crowd sourcing. Adversely, planning experimentation in the built environment is a climate that conceives slow, costly and often unimaginative progress. Unreal Urbanisms contends that cities in the built environment can use the User Generated image of city created in virtual environments to collaboratively reinvent and re-imagine the design of the urban environment. In the absence of reality (i.e. gravity, atmospheric conditions and real world internationally recognized governance) the computer-generated environments produced in virtual gaming environments are to be analyzed as simulations rather than absolute and direct substitutions for the built environment.

This project seeks to contribute to the existing ‘games for design’ framework and architectural discourse specifically in regards to community planning. Creating and planning communities in the virtual environment’s of Massive Multiplayer Online games can reform the collaborative process of idea generating in community planning by facilitating player agency in its design. Player agency describes the ability of a player within a game to interact meaningfully with their existing game-world. More than simple action/feedback interactivity, agency refers to knowing actions taken by the player that result in significant changes within the world. In this practice, player agency establishes inquiry about control and maximum freedom within not only the game environment but in parallel to the process of collaborative community planning. As follows, two imperative questions to be answered in the investigation of this project: Can massive multiplayer online games serve as a tool to stimulate player agency and collaboration in the planning process? How can player agency result in a complex legible order, rather than descend into visual chaos?
Early Planning of City Towns

The establishment of institutionalized planning policy began when the planning of modern industrial cities saw a major shift in the 20th century post World War Two. Urban theorists by the likes of Ebenezer Howard speculated on the design of contemporary towns and communities that synthesized the utility of the urban (city) and rural (country) environment. Howard’s ideas about social and urban reform through planning were based on his conceptual model of the modern town called “Garden Cities”. These model towns were intended to be planned, self-contained communities surrounded by “greenbelts”, containing proportionate areas, of residences, industry, and agriculture as conveyed in his planned communities Letchworth Garden City and Welwyn Garden City.

Modern Planning of Contemporary Cities

Long after the creation of institutionalized planning in the form of federal housing administrations and Town and Country Planning Associations, architects and urban theorists of the modernist age developed plans for the contemporary city. Le Corbusier, an Architect and Urban Theorist from France who was recognized as a pioneer of the modernist movement, conceived several models of his own interpretation of the contemporary city in the modernist era. Le Corbusier’s new type of city contained a regulated city of skyscrapers, in which the plan is at the centre of the work because his theory established that ‘without a plan you have lack of order and wildfulness’. The idea of the plan became more important than the place, theory superseded experience. The rightness of the plan itself would ensure the evolution of a peaceful, happy society, whose voices were not encouraged. This revolution demanded men ‘without remorse’ who could see the project to its end without swaying to public opinion because ‘the design of cities are too important to be left to the citizens’.

By the late 1960s and early 1970s, many planners felt that modernism’s clean lines and lack of human scale sapped vitality from the community, blaming them for high crime rates and social problems. As a result, the latter half of the 20th century saw a rise of many Self-organizing urban environments that exhibited radical rejections of professional planning authority and advocated for collaboration and agency.

An Engagement game is simply a new type of interface for real-world processes that might traditionally occur in the forms of town hall meetings, presentations, forums, votes, etc.1

Game Mechanics and Community Planning

Engagement games are designed for the purpose of applied learning in public environments. They induce systemic thinking about complex social systems, player agency and real-world action for solving real-world problems. Though these engagement games come in various forms and degrees of complications, the fundamental mechanics for games are invariable. “When you strip away the genre differences and the technological complexities, all games share four defining traits: a goal, rules, voluntary participation and a feedback system.”

These same mechanisms are parallel within the larger framework of the community planning process.

**Goal:** The existing real-world problem and its envisioned solution.

**Rules:** The real-world parameters that regulate the scope and principle of behavior of the city planning process. These ‘rules’ take shape in the form of zoning ordinances, community guidelines and institutional law.

**Voluntary Participation:** Games and city planning processes are both progressed by the voluntary participation of community stakeholders (players). Current planning policy engages community members through the use local public meetings, focus groups, surveys, etc.

**Feedback System:** Concepts and proposed solutions that are generated require testing and confirming in the form of community consultation and response. The measure of success is determined by outside evaluation.

The fundamental elements of designing games and planning communities for social response are not mutually exclusive.

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CASE STUDY: ENGAGEMENT GAMES FOR PLANNING

Using the four fundamental elements of game design and planning (goal, rules, voluntary participation and feedback system) several research labs have established workshops that utilize engagement games for community planning.

Asian Community Development Corporation

ACDC works to build healthy, vibrant neighborhoods and a strong Asian American community. In 1987, community activists and leaders founded ACDC in response to the need for affordable housing in the Chinatown neighborhood. Today, ACDC is a regional community builder and the leader in developing and preserving affordable housing in Greater Boston where Asian Americans live, work and play.1

Participatory Chinatown

Participatory Chinatown is a 3-D immersive game designed to be part of the master planning process for Boston’s Chinatown.

Goal: Redesign the urban plan of Boston’s Chinatown

Rules: Players in their roles are challenged with language skills, income level, or other circumstances when trying to complete everyday tasks. Whatever your experience, you’ll then be tasked with considering the future of the neighborhood by walking through and commenting on proposed development sites.

Voluntary Participation: As a voluntary participant, you assume the role of one of 15 virtual residents and you work to complete their assigned quest - finding a job, housing, or place to socialize.

Feedback system: Players are given the opportunity to comment environment and share the decisions they made within the world.

Block by Block

Block by Block is a partnership between the United Nations Human Settlements Programme (UN-Habitat), the UN agency promoting sustainable towns and cities, and Mojang, the makers of Minecraft. Block by Block involves young people in the planning of public spaces. Mojang is acting as the main financial sponsor for the new Block by Block program, and its three-year partnership also supports the UN-Habitat’s Sustainable Urban Development Network, which seeks to improve 300 public spaces by 2016.2

Pristina Workshop

Workshop in Pristina on 11-14 September 2015 resulted in a new and inventive design for a public space located in “Bregu i Dëllit / Sunny Hill” neighborhood of Pristina.

Goal: Design a public space in Sunny Hill that can be used by surrounding residents and visitors to the area.

Rules: Players in Minecraft worked together in teams to come up with various design schemes for the public space

Voluntary Participation: The event brought together more than 70 participants, consisting of youth from seven years old and over, local community, representatives of non-governmental organizations, the mayor of Kosovo and the municipality as well as urban professionals.

Feedback system: Outside of the Minecraft world, participants shared designs with each other and received feedback offline.


The Engagement Lab

Under the development of Emerson College, Engagement Lab, an applied research and design lab that is working to re-imagine civic engagement for a digital culture. Since their formation in 2007, Engagement Lab has created a series of games regarding urbanism, stakeholder engagement and collaborative planning. Each game was debuted in a workshop hosted by Engagement Lab that included community members and government officials.¹

HUB 2

HUB 2 is a pilot program in Boston employed in the 3-D online virtual world, developed by Linden Lab

Goal: Develop a new neighborhood park for Boston
Rules: The players were required to work together in teams to design within the 3-D reconstructed model of a park in Boston with surrounding context. Each player was assigned an avatar with a specific role based on their background (e.g. a single teacher with no kids or a doctor with three children and a spouse)
Voluntary Participation: Engagement Lab invited Boston locals to come participate in the virtual designing of the park. The workshop was also held in part with the Boston Redevelopment Authority (BRA)
Feedback system: Players are given the opportunity to virtually mark items created with the Second Life world. Specific feedback comments for flagged items were given in person during the workshop.

BMW Guggenheim Lab

The BMW Guggenheim Lab was a mobile laboratory about urban life that began as a co-initiative of the Solomon R. Guggenheim Foundation and the BMW Group. From 2011 to 2014, the Lab traveled to New York, Berlin, and Mumbai. Part urban think tank, part community center and public gathering space, the Lab’s goal was the exploration of new ideas, experimentation, and ultimately the creation of forward-thinking visions and projects for city life.²

Urbanology Online

Urbanology is a game that examines the complex ways in which cities develop. It puts the player charge of their own city by presenting you with a variety of real-world urban dilemmas. Every decision they make impacts their city negatively or positively; often in ways the player might not expect.³

Goal: A game that asks users to make choices about urban issues
Rules: Players must answer yes or no to a series of questions
Voluntary Participation: The game is based online and is free to play for anyone with internet access
Feedback system: Metrics from the game produces some quick findings based on the choices.
Minecraft by Mojang

Minecraft is a massive multiplayer online sandbox independent video game by the Swedish developers Mojang (Open world - players can move freely through a virtual world and are given considerable freedom in choosing how or when to approach objectives, as opposed to other computer games that have a more linear structure.) Minecraft enables players to build constructions out of textured 3D cubes in a 3D procedurally generated world. Although players do not have absolute freedom (as each server is controlled by an administrator or administrators, they can build virtually anything anywhere in the virtual world. There are thousands of worlds built in Minecraft and hundreds made daily, some of which that are made collaboratively and in a way that is self-organized by the players so as to produce legible and usable cities. Minecraft is a great MMO tool to address the issue of agency and autonomy in urban planning brought to light by the unsuccessful models of planning developed by modern urban theorists.

Distribution:  Available online for PC download at minecraft.net and on all gaming consoles.

Cost:  
PC: $26.95  
Playstation Network: $19.00  
Xbox Store: $19.00  
App Store: $6.99  
Google Play: $6.99
“These fictional worlds empower people with the tools to transform their own environments. This is what architecture ought to be”

Bjarke Ingels

Player Agency and Collaboration in Minecraft Modifications

Minecraft’s open world gameplay mechanics and lack of narrative establish it as a game with a unique framework. Players have the agency to creatively decide their own goals and rules for how they traverse and behave within the procedurally generated world. The only parameters of the games involve the materials with which players construct in Minecraft but this does not limit their methods and means of construction.

Collaboration in Minecraft is made available through Minecraft’s multiplayer servers that give players the option to join in its multiplayer mode locally (LAN party) or world wide by connecting to an IP address of a multiplayer server. Using either of these methods, players have the power to explore and build mods with each other.

Sample Minecraft Materials

The use of Minecraft in the research of this project began with the exploration of three collaboratively built mods made available online via planetminecraft.com. The goal of this analysis was to determine whether or not Minecraft could be used as a platform to create self-organized worlds considered to have a complex but legible order comparable to that of the built environment. Legibility of image and ideas is an important component of engagement game mechanics and city planning as both rely on disseminating information to a public in order to obtain feedback.

Kevin Lynch, *The Image of the City*

Kevin Lynch contends that the legibility of a city is based on the “public image” or areas of agreement with which might be expected to appear in the interaction of a physical environment.1

**Elements of the Public Image**
- Path – Channels along which the observer moves
- Edge – Important organizing features within the city image
- District – Sections of the city that have identifiable characteristics
- Nodes – Points and or junctions for traveling
- Landmark – External points of reference

In *The Image of the City* Lynch and a team of researchers conducted a two part experiment on the legibility of the public image in three different cities, Boston, Jersey City and Los Angeles.

**Part one**
A systematic field reconnaissance of the area was made on foot by a trained observer. They mapped the presence of various elements, their visibility, their image strength or weakness, and their connections, disconnections and other interrelations. Then they noted any special success or difficulties in the potential image structure. These were subjective judgments based on the immediate appearance of these elements in the field.1

**Part two**
A lengthy interview was held with a small sample of city residents to evoke their own images of their physical environment. The interview included requests for descriptions, locations, and sketches and for the performance of imaginary trips. Persons interviewed were people who were long residents or employed in the area, and whose residents or work places were distributed throughout the zone in question.1

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To establish if Minecraft is a tool capable of creating environments that are both complex and legible, the same two-part experiment on the legibility of the public image that was conducted in the Lynch study was administered in three different virtual environments in Minecraft.

**Case Study 01_Tomorrowland by BlockWorks**

Tomorrowland is a Utopian vision of a futuristic city by a team of players from BlockWorks. The cityscape features distinct districts, all with the exception of one, which are composed of a single tall building. Every district has a different program, i.e., buildings for housing, buildings for farming and buildings for mining. Introverted districts are those that have just one means of access while extroverted districts have more than one entrance and also have paths that run within them. There are two ways of navigating Tomorrowland. The first involves utilizing a series of paths that connects to all seven of the districts. The stronger larger paths are elevated above the ground plane and stretch across the entire length of the city but only connect at two points (entry and exit points). The smaller weaker paths connect at several points and join both districts and landmarks. Some paths differentiate in value. Important paths are aligned with small light towers so as to guide navigation during the night hours. In the center of Tomorrowland there is the central landmark that operates as the city’s core or main node; all of the weaker paths cross through that node. Landmarks in Tomorrowland are uninhabitable structures that exist outside of districts. All but one of the Landmarks are connected by paths. All other nodes sit at either the center of each district or at the intersection of paths. Introverted nodes are defined as those that are located in “public spaces” or spaces that exist outside the districts (junctions). Introverted nodes are those within the districts (buildings) that operate as cores. The edges of Tomorrowland are determined by topography; the mountainous landscape separates the districts by height. Edges are crossed by use of the elevated paths.
THE IMAGE OF CITY IN MINECRAFT MODIFICATIONS

UNREAL URBANISMS

SYMBOLS AND DEFINITIONS

- URBAN PATH
- INTERSECTION PATH
- PATH ENTRY
- ISOLATED LANDMARK
- DISTRICT NETWORK
- AVENUE

SYMBOLS AND DEFINITIONS

- URBAN PATH
- INTERSECTION PATH
- PATH ENTRY
- ISOLATED LANDMARK
- DISTRICT NETWORK
- AVENUE
Case Study 02_Atropos by Carloooo

Atropos is a speculative steam punk city created in the shape of a giant tortoise by a group called Carloooo. Virtually all parts of the cityscape are connected by weaving paths and tunnels meaning there are no strong paths in Atropos. The city’s districts are generally divided into three levels. The first most upper level features most of the housing units in the city. The housing units are individual pods that share only the outside gardens and wide platform paths. The units themselves are stacked like blocks on top of one another and are accessed by use of ladders and large spiraling stairs. The second level of the city exists within the tortoise. On this level are several large industrial-like factories that have little to no access to the outside light. The districts vary in program and are separated by nodes or gardens that function as atrium in and outside of the tortoise. As it is very easy to get lost within Atropos, these nodes also function well as directionality that help redirect players from the dense dark inside of Atropos to the light and easier to navigate top level of Atropos. Landmarks are also used to help navigate the space. Landmarks in this city are large robot statues that reoccur throughout Atropos. The third and final level of Atropos is underneath the tortoise on the ground plane where there are many trees and a river that runs through the landscape. Because the paths in Atropos are virtually all connected, the stronger edges of Atropos are defined mainly by the overall shape of the tortoise.
028

THE IMAGE OF CITY IN MINECRAFT MODIFICATIONS

UNREAL URBANISMS
Case Study 03_BlockWorks Inc by BlockWorks

BlockWorks Inc is the headquarters of the BlockWorks team built as an entry to the industrial revolution project contest hosted by Planet Minecraft. The entire city is a large factory where avatars live amongst several different machines that are considered the city’s districts. Out of all of the three worlds analyzed, the plan of BlockWorks Inc most similarly resembles the city grids planned in the cities of the physical environment. To navigate the city and travel between districts, users walk along a series of elevated catwalks, all organized orthogonally. Some of the intersecting path create nodes (or junctions) that lead to the lower level of the city. On the lower level exists the majority of the city’s landmarks. The landmarks are machine parts and various statues. Unlike the other cities, the landmarks in BlockWorks Inc do not seem to exist to help locate players in the city rather than to align paths that are implied to have higher value than others. There are however, three landmarks that do serve as tools to help navigate players in the city and these are the landmarks that are so large that they permeate through both levels of the city. BlockWorks Inc exists on a man made island so its edges are where the machines meet the water. There is also a separate island of BlockWorks Inc that exists for mining only, has no distinct paths and is not made to be inhabited by players.
THE IMAGE OF CITY IN MINECRAFT MODIFICATIONS

UNREAL URBANISMS

SYMBOLS AND DEFINITIONS
- URBAN PATH
- INTERSECTION PATH
- PATH ENTRY
- ISOLATED LANDMARK
- DISTRICT NETWORK
- AVENUE
UNREAL URBANISMS

Using Minecraft to collaboratively design a city in the virtual environment, Unreal Urbanisms will demonstrate how the user generated image of city can be used to crowdsource ideas to reinvent and re-imagine the design of cities in the physical environment.

The design experiment will employ engagement game mechanics and community planning techniques in its process.

Liberland

Liberland is a European micronation seeking ideas on how to challenge the contemporary urban and architectural design status quo by speculating on the general design potential for its master plan through a design competition.¹ A Micronation is an entity that claims to be an independent nation or state but is not officially recognized by world governments or major international organizations.

Liberland is located between Serbia and Croatia on an unclaimed plot of land that is about 2.7 sq. miles, just smaller than the size of lower Manhattan.

At the start of the experiment, a virtual replica of Liberland was built in Minecraft using a script that imports real world terrain data, made available via google earth.1

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A lack of funding, poor planning and maximum freedom in many of the early models of micronations (i.e. Freetown Christiania and Kingdom of Elleore) led to illegible organization and visual chaos in their environments. Poorly planned micronations can breed crime causing surrounding nations and cities to oppose their existence. In hosting a design competition, Liberland seeks to combat this issue by presenting investors with a legible working model of a 21st century micronation.

Primary Goals:
Using Minecraft, design a proposal of Liberland comprised of an environment with a complex but legible order.

Demonstrate the use of massive multiplayer online games as a tool used to stimulate player agency and collaboration in the planning process.
UNREAL URBANISMS: PROJECT RULES

Competition Rules
The rules on how to build in this experiment will be based on Liberland’s design competition parameters which are guided by their anarcho-capitalist politics on ownership and private property.

Competition Parameters:

- **Identity**: Libertarian, Anarcho-capitalist
- **Density Potential**: 140,000 applications for citizenship thus far
- **Ecosystem**: Territory has a mild climate similar to Los Angeles and the Danube river is prone to flooding.
- **Artificial Ecologies**: Liberland aspires to “nature-like built environment”
- **Settlement**: Liberland seeks an agile and flexible systemic settlement plan
- **Infrastructure**: Minimum municipal intervention, ecosystemic sensitivity
- **Zoning**: None
- **Economy**: Free market, Bitcoin cryptocurrency, entrepreneurship, private property
- **Politics**: Minimal government (diplomatic and judicial capacities), voluntary taxation
- **Program**: Conventional urban zoning segregation between commercial, residential, retail, municipal, and leisure districts is irrelevant in Liberland.

Planning and Property in Liberland
The rules for planning and property in Liberland are based on Liberland’s libertarian theory of ownership and private property. Players will use this theory as the rules and guideline for how to create in Liberland.

Rules

I. Everyone is the proper owner of their own physical body as well as of all places and nature-given goods that they occupy and put to use by means of their body, provided only that no one else has already occupied or used the same places and goods before them.

II. Original appropriation of land is not legitimate by merely claiming it or building a fence around it; it is only by using land – by mixing one’s labor with it – that original appropriation is legitimised.

III. This ownership of “originally appropriated” places and goods by a person implies his right to use and transform these places and goods in any way they see fit, provided only that they do not change thereby uninvitedly the physical integrity of places and goods originally appropriated by another person.

IV. Resource need not continue to be used in order for it to be the person’s property, for once their labor is mixed with the natural resource, it remains their owned land.

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V. After property is created through labor it may then only exchange hands legitimately by trade or gift; forced transfers are considered illegitimate.

VI. Just as an individual comes to own that which was unowned by mixing his labor with it or using it regularly, a whole community or society can come to own a thing in common by mixing their labor with it collectively, meaning that no individual may appropriate it as his own.

(this may apply to roads, parks, rivers, and portions of oceans)

VII. All persons shall have the right of self-defence and/or defence of their property, and others who are under a direct and real threat, against initiators of aggression, including any agent of the public administration acting unlawfully or in error; no person shall be convicted of any criminal offence for any act or omission taking place on his or her property and which is a direct response to another person trespassing on that property or rights and acting in breach of the law or the constitution resulting in such threat as described in this provision.

Libertarian Theory of Ownership

Speculation on the nature of libertarian and anarcho-capitalist theory has typically proceeded under the assumption that all property in libertarian and anarcho-capitalist societies is privately owned, however these are generally three types of property that exist within these identities.

Private Property: Designation for the ownership of property by non-governmental legal entities.

Common Ownership: Designation for the ownership of property by the "public" or governmental entities.

Collective Ownership: Designation for the ownership of property by a distinguished group of non-governmental legal entities.
Voluntary Participation

The Players

Currently there are ten players and one administrator involved in the Unreal Urbanisms experiment. Though there was no definitive criterion that determined how players were chosen to participate, the desire was to include a selection of players with variation of skill level and design aesthetic.

The Roles

Though players in this experiment do not have predetermined roles, they may take upon themselves to create roles individually (i.e., a player who only builds housing versus a player who only builds hospitals). Players will work individually (to create private property) or together (to create collective property) in Liberland.

Player Profile_01
Brycerog
Level | 29
Location | Houston, Texas
Age | 18
Background | Student (computer programming)

Player Profile_02
Sopromc222
Level | 38
Location | Berlin, Germany
Age | 16
Background | Student (secondary school)

Player Profile_03
Kurodaakira
Level | 15
Location | Leeds, UK
Age | 25
Background | PHD Student (history)
Player Profile_04

Necrosys
Level | 41
Location | Palermo, Italy
Age | 21
Background | Student (video editor)

Sample Project: Pwego

Player Profile_05

Pilgrimz
Level | 13
Location | Ft Lauderdale, Florida
Age | 22
Background | Student (illustration)

Sample Project: Circleight

Player Profile_06

_Explodecreeper_
Level | 65
Location | South croydon, UK
Age | 32
Background | 3d artist (fyreuk studio)

Sample Project: Podcrash City

Player Profile_07

Arsenal
Level | 18
Location | Raleigh, NC
Age | 19
Background | Student (Architecture)

Sample Project: Helsinki Church

Player Profile_08

Sopromc222
Level | 38
Location | Berlin, Germany
Age | 16
Background | Student (secondary school)

Sample Project: Rigolo

Player Profile_09

Kurodaakira
Level | 15
Location | Leeds, UK
Age | 25
Background | PHD Student (history)

Sample Project: Olann Island
UNREAL URBANISMS

VOLUNTARY PARTICIPATION

The Unreal Urbanisms team was recruited through a Minecraft forum post online where they were encouraged to share work and ideas for how the experiment would work.

Sample Project: Supa IGA

Firesarah62
Level | 26
Location | New York, NY
Age | 27
Background | blogger
(recipehouse)

Sample Project: Elivion Manor

ttolujob
Level | 28
Location | Syracuse, NY
Age | 23
Background | Student
(Architecture School)
To establish if the proposed master plan of Liberland in Minecraft is both complex and legible. The two part Kevin Lynch study on legibility and the public image will be administered.

Part one

A Systematic field reconnaissance of the scheme will be made by members of the Unreal Urbanisms team who will map the presence of various elements, their visibility, their image strength or weakness, and their connections, disconnections and other interrelations.

Unreal Urbanisms will then note any special success or difficulties in the potential image structure which are subjective judgments based on the immediate appearance of these elements in the field.

Part two

The second part of the feedback and evaluation of Liberlands environment will be derived from the mental maps of volunteer players (outside of the Unreal Urbanisms team). Using the same method as the Unreal Urbanisms team in part one of the experiment, players will be required to map out their own personal interpretations of Liberlands elements of public image and legibility.

Players will also have the opportunity to give comments about the general design of Liberland so that successes and failures of the project may be documented.
The projected master plan of Liberland features a tramway that runs the circumference of the city. The design of the tramway was also used to partition Liberland into three parts so that the project could be constructed and analyzed in three different iterative phases. In each of the phases the Unreal Urbanisms design team members exercised player agency by working individually and collaboratively in creating properties within the micronation. Each of these phases then received feedback from volunteers analyzing the legibility and general design proposal.
Phase One Design

Phase one of Liberland features a collection of high density properties disseminated into two different districts. Both districts are made up of tall mixed use buildings that are used for housing, work, entertainment, school, laboratories, a grocery store, doctor’s clinics and farms. Phase one also features a large park that runs the majority of the length of phase one and separates the two districts. Along the park on the shore of Liberland are boating docks that serves as one of the areas where goods are brought to Liberland.

The design process of Phase one of Liberland contrasts the development of the succeeding phases in that it was heavily focused on the role of the administrator. Instead of having uniform roles that allowed players the ability to build wherever they saw fit, the administrator planned the urban fabric of phase one that the players then placed their buildings into. This design technique wielded rather ineffective results because the role of the administrator denied players the agency to collaborative build the urban elements of Liberland public image.
PHASE ONE
Legibility and the Image of Liberland

Similarly to Kevin Lynch in his book “Image of the City”, Unreal Urbanisms conducted a mapping exercise that would establish the legibility of the environment. For the experiment, a random selection of Minecraft players not involved in the build of Liberland were asked to map out elements of the city. Data based on how often the submitted maps correlated was taken and calculated as a percentage and a final map was drawn based on the submitted maps similarities.

Path – Channels along which the observer moves

Edge – Important organizing features within the city image

District – Sections of the city that have identifiable characteristics

Nodes – Points and or junctions for traveling

Landmark – External points of reference
Ownership and Collaboration in Liberland

The rules for planning and property ownership in Liberland are based on Liberland’s for libertarian philosophy. Often the literature on anarcho-capitalist policy explains how private arrangements can replace all of the function of government especially the roles concerning the formation and maintenance of "public spaces".

There are three main types of property ownership in an anarcho-capitalist government administered territory:

- Private Property: Designation for the ownership of property by non-governmental legal entities.
- Common Ownership: Designation for the ownership of property by the “public” or governmental entities.
- Collective Ownership: Designation for the ownership of property by a distinguished group of non-governmental legal entities.

The administrator role in phase one involved creating all common property while players created their own private property. The inbalanced roles prevented players from collectively building property.
UNREAL URBANISM
PHASE ONE

Private Property
Common Property
Collective Property
Phase Two Design

Phase two of Liberland features a combination of high density and low density properties disseminated into several different player created districts. District one is made up of two large privately owned properties and their collectively owned plaza. The properties created by Bex, Mica, Ray and Fritz are outfitted with apartments for housing, laboratories, a grocery store and a doctors clinic. The plaza between the two properties was created as a privately owned common space for residents within the directly adjacent buildings. In district two exists a large development created and privately owned by Jackson, Andrea and Tope. The design team purposely choose to have a unified aesthetic for the buildings to denote that the properties were under one private owner. Each of the properties is has paired housing with a different program. One of the properties features a series of small multipurpose classrooms while another has three restaurants. Because the properties have various programs but are all under the same ownership, the creators decided to create an elevated pedestrian bridge that gives residents private access to all of their properties. District Three is the lowest density district in all of Liberland. Adversely to the style of many of the tall skyscraper like buildings, the low rise living complexes in district three are only fit for housing. Residents of this district must pay to use the facilities and programs that exist in the other larger buildings. Inside the third district is a collectively owned park that sits in between two large privately owned properties, residents of the small houses and within the two towers have access to this collective property. The fourth district of Liberland is composed of two privately owned properties surrounding a park, built in a way similar to district one.
Similarly to Kevin Lynch in his book “Image of the City”, Unreal Urbanisms conducted a mapping exercise that would establish the legibility of the environment. For the experiment, a random selection of Minecraft players not involved in the build of Liberland were asked to map out elements of the city. Data based on how often the submitted maps correlated was taken and calculated as a percentage and a final map was drawn based on the submitted maps similarities.

**Path** – Channels along which the observer moves

**Edge** – Important organizing features within the city image

**District** – Sections of the city that have identifiable characteristics

**Nodes** – Points and or junctions for traveling

**Landmark** – External points of reference

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**Legibility and the Image of Liberland**

Table: Legibility and the Image of Liberland

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Ownership and Collaboration in Liberland

The rules for planning and property ownership in Liberland are based on Liberland’s libertarian philosophy. Often the literature on anarcho-capitalist policy explains how private arrangements can replace all of the function of government especially the roles concerning the formation and maintenance of “public spaces”.

There are three main types of property ownership in an anarcho-capitalist government administered territory:

Private Property: Designation for the ownership of property by non-governmental legal entities.

Common Ownership: Designation for the ownership of property by the “public” or governmental entities.

Collective Ownership: Designation for the ownership of property by a distinguished group of non-governmental legal entities.
Phase Three Design

Phase three of Liberland features the majority of Liberland’s industrial farming complexes. The third phase is divided into two districts that are compiled of several buildings outfitted with laboratories, offices and indoor urban farms. The largest feature of phase three is the Liberland institution center (LIC). LIC is an educational center that many of Liberland’s residents are free to attend to take private classes. The inside of the center has a multitude of laboratories, classrooms and studios as well as offices and cafeterias to eat in. There is an elevated collectively owned catwalk that runs the length of the third phase of Liberland. The pathway connects UNICO, a privately owned horticultural laboratory, and Thermos, an urban farming complex cladded with an assemblage of balconies that double as small garden plots.

The design process of Phase three of Liberland was completed in the same manner as the second phase of Liberland. All players in the experiment had uniform roles that allowed players the ability to build wherever they saw fit. This design technique yielded similar effective results because the role of the administrator did not deny players the agency to collaborate build the urban elements of Liberland public image.
PHASE THREE

UNREAL URBANISMS
Legibility and the Image of Liberland

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PHASE THREE

UNREAL URBANISMS

Private Property
Common Property
Collective Property
The end results of this experiment determined that Unreal Urbanisms achieved our original goals:

1. Demonstrate the use of massive multiplayer online games as a tool used to stimulate player agency and collaboration in the planning process using Minecraft.
   
   As a unit, the Unreal Urbanisms team was able to create a concept for Liberland’s master plan with roles that were uniform and impactful to the city’s design. Players had the authority to build their own ideas about Liberland into a virtual reality at their own will. In the experiment players also freely collaborated with one another in designing the environment.

2. Design a proposal of Liberland comprised of an environment with a complex legible order.

   The collection of submitted player maps that had identical observations of Liberland’s public images demonstrated its legibility.

Special Thanks

This project would not have happened without the contributions of the incredible entire Unreal Urbanisms team:

- Mica Rudolph
- Ray Lubens
- Bex Parr
- David Rodgers
- Jackson Danzig
- Evelyn Jones
- Andrea Ricci
- Toya Williams
- Fritz Sauer
- Levi Bentley