GAMES AS ARTS

ARTS AS GAMES

Blanca Pérez Ferrer

11th to 22nd of October, 2016

AT THE POLY IN FALMOUTH

metamakersinstitute.com/gamesasarts

Para Emma

From the 111th to the
22nd of October 2016

fig. 2, Oliver Sutherland, Drinking drinks, 2015

FOREWORD

THE POLY FALMOUTH
Cornwall, UK

Videogames are often described in terms of folk art. Sensationalized as fairy tale monsters, seducers that steal people from their families, from health and creativity, away from social mores into an all-encompassing nether world at once violent and unreal. Equally, videogames have also been tagged as heroes of the digital age - heralded as changing the way we learn and engage with each other, and offering renewed material for creating new art forms.

In this exhibition, we look at the relationship of games with other art forms and converse with ideas around art-based approaches to game making and the materials used to make games. We examine games as a lens through which to examine other, more established art practices. We also address the potential for games to take up the mantle of other art forms in the process of critiquing society and creating change.

Tanya Krzywinska, Professor of Digital Games
Director of the Games Academy
Falmouth University

fig. 3, Amanita Design, original drawings, Machinarium, 2009

MACHINIMA

GAMES
PROCJAM16
GAME JAMS

GLITCH ART

WORKSHOPS
KEYNOTES

VIDEO ART

PHOTOGRAPHY
ORIGINAL DESIGNS
& MODELS

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Exploring the overlap between game design and more traditional art practices

This exhibition brings together five contemporary artists, two collectives of artists and two game studios into one space, to pay tribute to the new and exciting pathways that subvert the ideas of what you may consider games to be.

With their mysterious, charming and characterful creations, predominantly hand-made and inspired by organic forms and natural materials, the games of State of Play and Amanita Design are also important works of art.

These hand-crafted games are balanced against the highly technological artworks made using game technologies of Ian Gouldstone, Oliver Sutherland, David Blandy, Larry Achiampong and Alan Meades, along with the work of @ThoseMetaMakers and IOCOSE that challenge the stylistic and technological conventions of traditional videogames.

These artists are creating new frontiers, inspiring us with their immersive and imaginative worlds. Not only challenging the stereotype of what videogames can be, they also excite our senses and confound our perceptions. Sometimes using the familiar in an unfamiliar way, sometimes creating new narratives and characters, but always seeking to compel the audience to look again.

As an example of the crossover of artistic cultures, the games we showcase by State of Play and Amanita Design both share elements grounded within the visual cityscapes and colour palette of Fritz Lang's 1927 German Expressionist science fiction film *Metropolis*.

These two 'point and click' puzzle games have striking similarities, as they both refer back to Russian Constructivist Vladimir Tatlin's helter-skelter sculptures and Paul Klee's

Cubism, as well as to the iconography of the Bauhaus. In the games' structure, colour and form play with nostalgia. Links to more contemporary art are also evident, with references to the worlds of Tim Burton and Shaun Tan, the sets and model-making of Aardman Animations, the quirkiness of Pixar's WALL-E and the vibrant playfulness and warm feel of games such as Media Molecule's Little Big Planet.

This exhibition enables a fruitful exchange between the worlds of games and fine art. Through an exploration of the hand-made nature of some games, the sharing of aesthetics and techniques across forms, and the crossover of film, photography, video installations and videogames, this exhibition marks a turning point in the cultural appreciation of digital media. What we celebrate here is the use of game based technology to make art, the use of art within game making, and the videogame as a truly important art form for the 21st Century.

The work of the guest artists covers areas from glitch art to machinima. We can appreciate here pieces showcasing real-time moving image production, mixed with animation, AI game based art installations, traditional photography, screen capture, video and games. Game making tools have been used, such as the in-game editor of Grand Theft Auto V, the Unreal Engine 4 and Nvidia Flex and a new app has been created in Swift.

Some artworks like Sutherland's and Gouldstone's installations experiment with the limits of these tools and bring a moment of creation to the fore. Both artists explore the boundaries between moving images, films, animation and static images. The idea of a continuously moving image is displayed by both artists in a game creation context by using game technologies and aesthetics.

@ThoseMetaMakers and IOCOSE are two art collectives based in Academia. Their artworks challenge our assumptions about gaming and gamers, automation and artificial intelligence, exploring the relationship between people and technology in very different ways. Whereas IOCOSE and Matteo Bittanti use photography in Game Arthritis to portray gamers and games consoles, @ThoseMetaMaker's installation I Create, You Destroy uses AI to challenge assumptions about technology Both artworks play with cliches about games and technologies, leaving us wondering about the future.

Glitch art and machinima are two art categories intrinsically linked to games culture and very closely related to its aesthetics. Alan Meades is an artist engaged in academic research studying glitching. Glitchers force games into error by subverting the game-playing to find, among many other things, new worlds. Resonances on this particular world and outlook can be found in David Blandy and Larry Achiampong's piece. They created a whole new world to place the second film of their trilogy Finding

Fanon using machinima; this technique consists of using game making tools to produce animation films.

The variety of the pieces and the diversity of the approaches to creation and game making depict a particularly rich moment in the relationship between games and contemporary creation. However, this is just an angle of this exhibition. Each one of the pieces and games has it's own reading and talks about different aspects of our society.

Particularly impressive are some of the pieces showcasing a politically engaged position about issues such as creation and creativity, human & machine interaction, race, borders, frustration, the perception of truth, inequality, popular culture and engagement, to mention a few of them. This is very much an exhibition about our times, hence about games.

Blanca Pérez Ferrer, March 2017

fig. 4, State of Play, screenshot of Lumino City, 2015

GAMES
AS ARTS/
ARTS AS
GAMES

fig. 5, Amanita Design, original drawings, Samorost 3, 2016

THE
Exhibition

GUEST ARTISTS

ALAN MEADES

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AMANITA DESIGN

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DAVID BLANDY & LARRY ACHIAMPONG

*

IAN GOULDSTONE

*

OLIVER SUTHERLAND

*

IOCOSE & MATTEO BITTANTI

*

STATE OF PLAY

*

@THOSEMETAMAKERS

AMANITA DESIGN

Machinarium
Botanicula
Samorost 3

fig. 6, original drawings in preparation for Machinarium, 2009
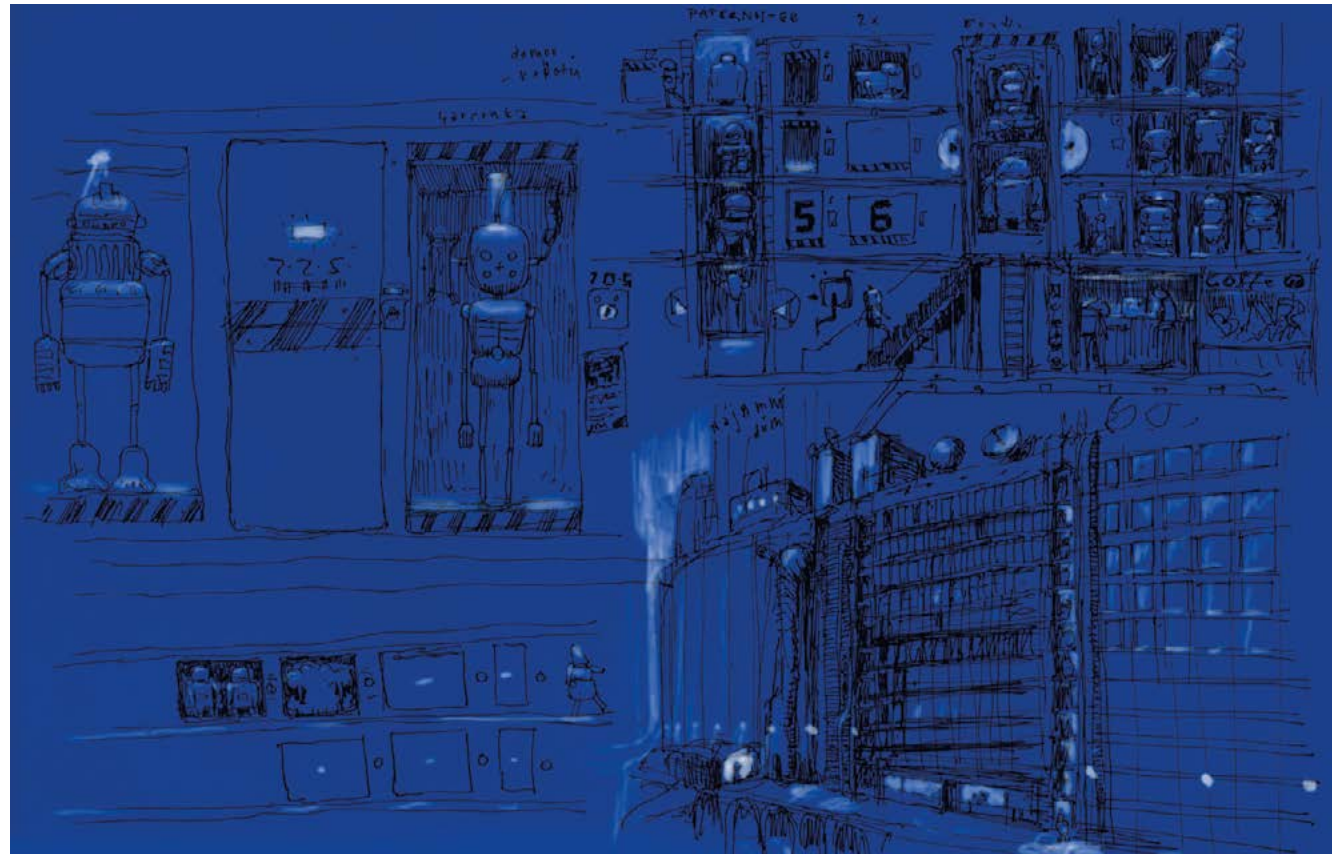
ALAN MEADES

Still under the map
Under the Map

fig. 7, Still Under the map, screenshot of Warfare printed on vinyl, 2016

DAVID BLANDY & LARRY ACHIAMPONG

Finding Fanon 2

fig. 8, UHD video, sound, colour, 9' 13", 2015

IOCOSE & MATTEO BITTANTI

Game Arthritis

fig. 9, Xbox Hypertrophy 8C-Print, 50 x 66 cm, 2011

IAN GOULDSTONE

Cruise Control 2020

fig. 10, Installation: Raspberry Pi,
Software, Projector, Fan, Speakers, 2016

OLIVER SUTHERLAND

Untitled (Loosing it)

fig. 11, Continual moving image presented with
Unreal Engine 4 and Nvidia Flex, 2016

@THOSE METAMAKERS

I Create, You
Destroy

fig. 12, Installation of Gamika Technologies on 6 iPads, 2016

STATE OF PLAY

Lumino City

fig. 13, Screenshots of the Photographer's House
iOS, PC, Mac and Apple TV, 2015

HANDMADE

&

DIGITAL

GAME STUDIOS

fig. 14, State of Play, laser cuts for model construction, Lumino City, 2015

STATE OF PLAY

Established in 2008, State of Play creates crafted games and animations. Their work has won a number of international awards. Headed by Luke Whittaker, who works on the art, design and animation, the team consists of co-founder and producer Katherine Bidwell, developers Daniel Fountain and George Batchelor and designer Steffan Glynn. They are a small team that love what they do. When possible, they work with people from across the creative industries. In 2015, they released Lumino City, a hand-crafted puzzle adventure game made from paper, card, miniature lights and motors. This won numerous international awards, including the BAFTA for Artistic Achievement, alongside nominations for Innovation and Best British Game.

They are also the creators of the puzzle game KAMI, winner of the Mac App Store Best of 2013, and they have also released Headspin: Storybook for iOS platforms, one of Apple's Best iPad Apps of 2010. They have also created hit games for clients including MTV, Miniclip, BBC, ESPN, Fremantle, Mind Candy and Shockwave, and animations for the likes of Oxfam, the BBC, Christian Aid and Macmillan. Their latest games are INKS and KAMI 2.

Game studios

fig. 15, State of Play, original model for the diner, Lumino City, 2015

LUMINO CITY

State of Play built an entire city out of real materials and filmed it as the backdrop for the game

LUMI

Key collaborators

Catrina Stewart : Architect & model making
Ed Gaps: Music
Tom Hooker: Lighting & camera
Amy Dodd: Model making
Steffan Glynn : Additional design
Alistair Lindsay: Sound design

Lume, the prequel of Lumino City, was born in 2011 when Luke and Katherine, founders of State of Play, decided to test an idea. They had always worked with their hands to produce games. In Headspin, the first iPad puzzle game they made, hand-drawn items appear on the page of a clockwork pop-up book. The elements were hand drawn, and a textured paper was added with Photoshop. However, the idea could be pushed further.

Luke says: "I was experimenting with creating an adventure game world in a similar way, but I felt like I was adding a layer of artifice rather than expressing what it was. I built a small house from scanned drawings in Photoshop and wasn't satisfied with the rather flat looking results, so I thought: Why don't I print this out and see what happens if I photograph it? "

He was expecting a better quality of shadow and having the freedom to take different angles of the same object. However, after experimenting with just a desk lamp and an SLR camera, he was stunned by how much extra warmth, character and intrigue you could get into an image which portrayed the same scene, but was looked at in a new way.

fig. 16, State of Play, Windmill and town original sketch by Catrina Stewart for Lumino City, 2015

fig. 17, State of Play, original sketch for the hanging gardens in Lumino City, 2015
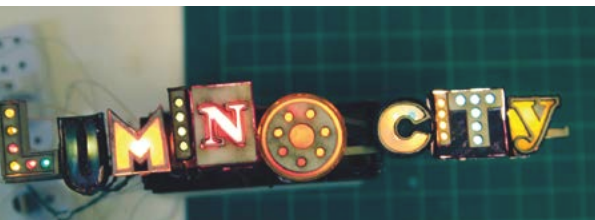
THE HANGING GARDENS OF Hydroponics.
LUMEVILLE

A technique of growing plants without soil. It uses an inert medium (peat, sand, vermiculite, ect) with a solution added with all the essential nutrients.

PERLITE & VERMICULATE

GAME:

Instead of digging could you be fishing for the parts!

↑ FISHING WIRE

This would have to be about maybe

① PLANTS NEED CARBON DIOXIDE TO SURVIVE AND THE CO₂ COLLECTOR HAS HAD A PROBLEM WITH ITS MACHINES, LUME NEEDS TO FIX THEM BY FIXING THE PIPES AND ADDING SOMETHING EXTRA BY BLOWING INTO TYPE TUBES.
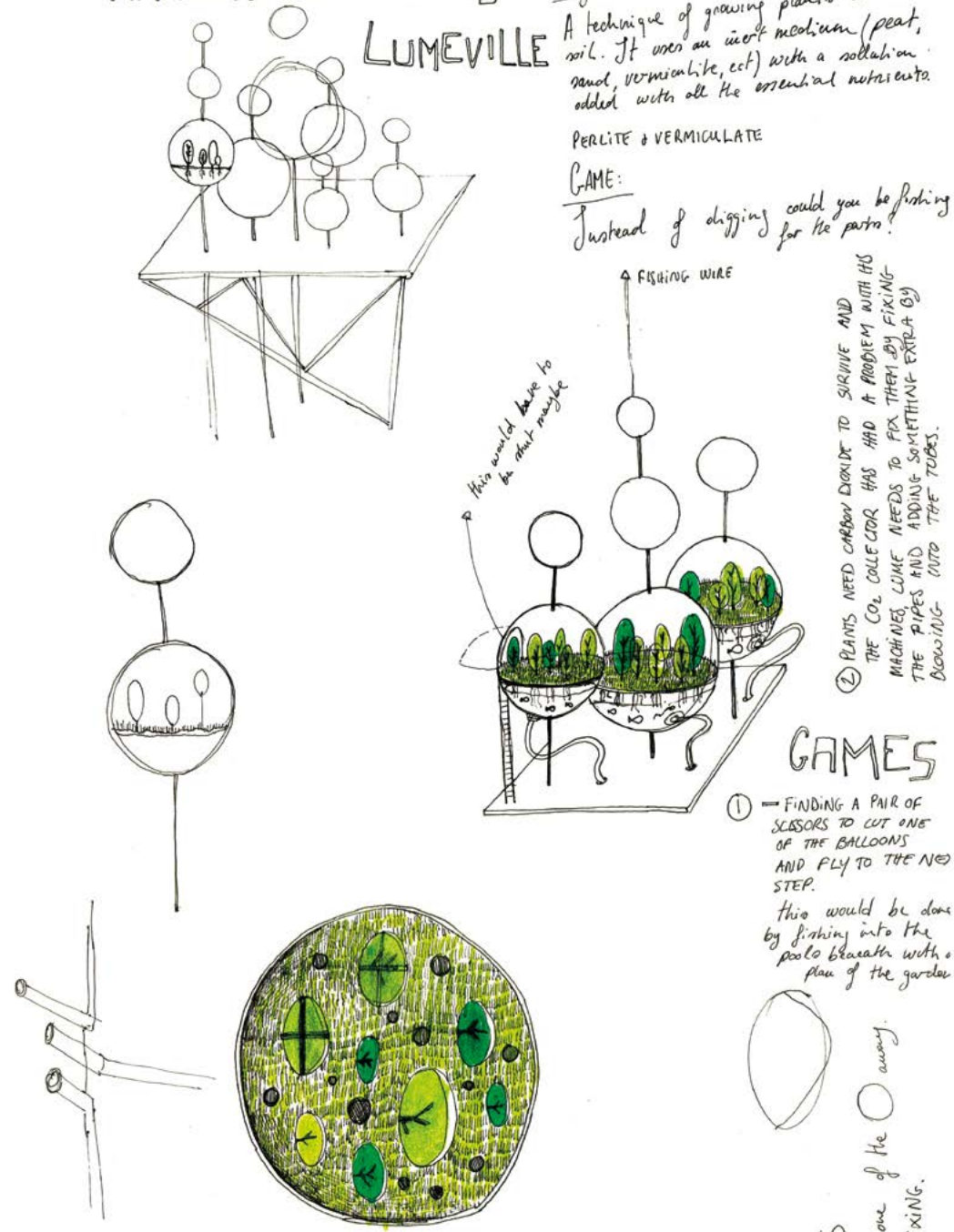
GAMES

① → FINDING A PAIR OF SCISSORS TO CUT ONE OF THE BALLOONS AND FLY TO THE NEXT STEP.

this would be done by fishing into the pools beneath with a plan of the garden

GAMES

Cut one of the ⃝ away.

one FIXING.

Luke did some tests and began to experiment with putting characters into scenes in Flash. He could add blurring and shadow to get a girl to run across the model convincingly. Then he wondered what would happen if the camera could move. With a simple model made from a cardboard box, Luke filmed a short sequence and motion-tracked the character running across the scene, and that was the Eureka moment; the character running was still interactive. It was like bringing something to life, and they decided to do a whole game that way, and that's the birth of Lume. Once Lume was done, the team was convinced that it could work and decided to take things much further with Lumino City.

fig. 18, State of Play, original model for Lumino City, 2015
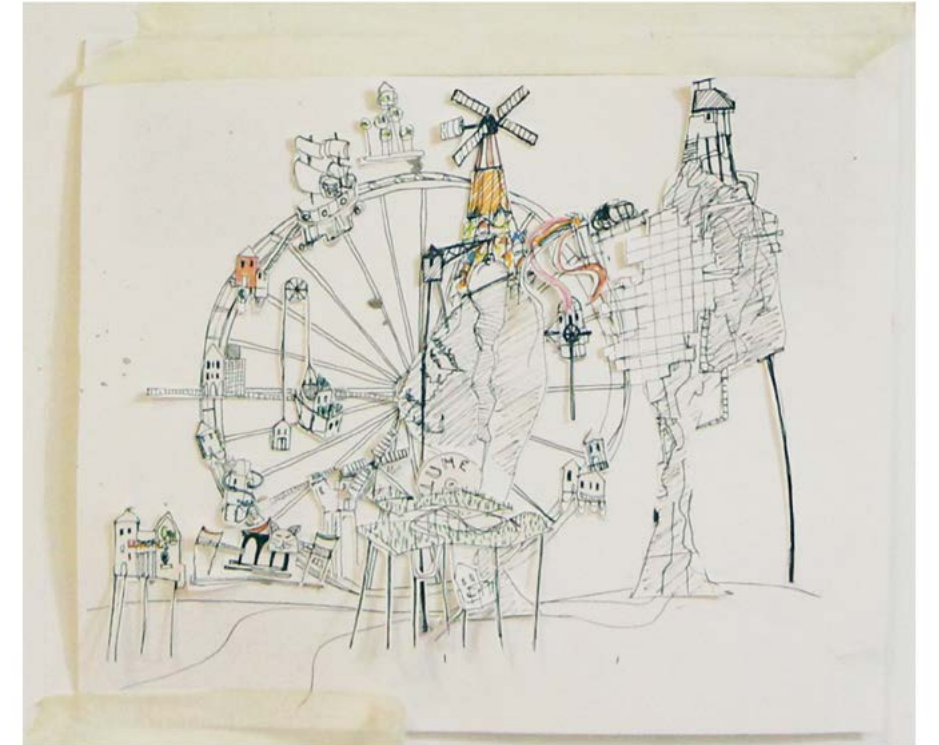
fig. 19, State of Play, original 3D paper sketch, Lumino City, 2015
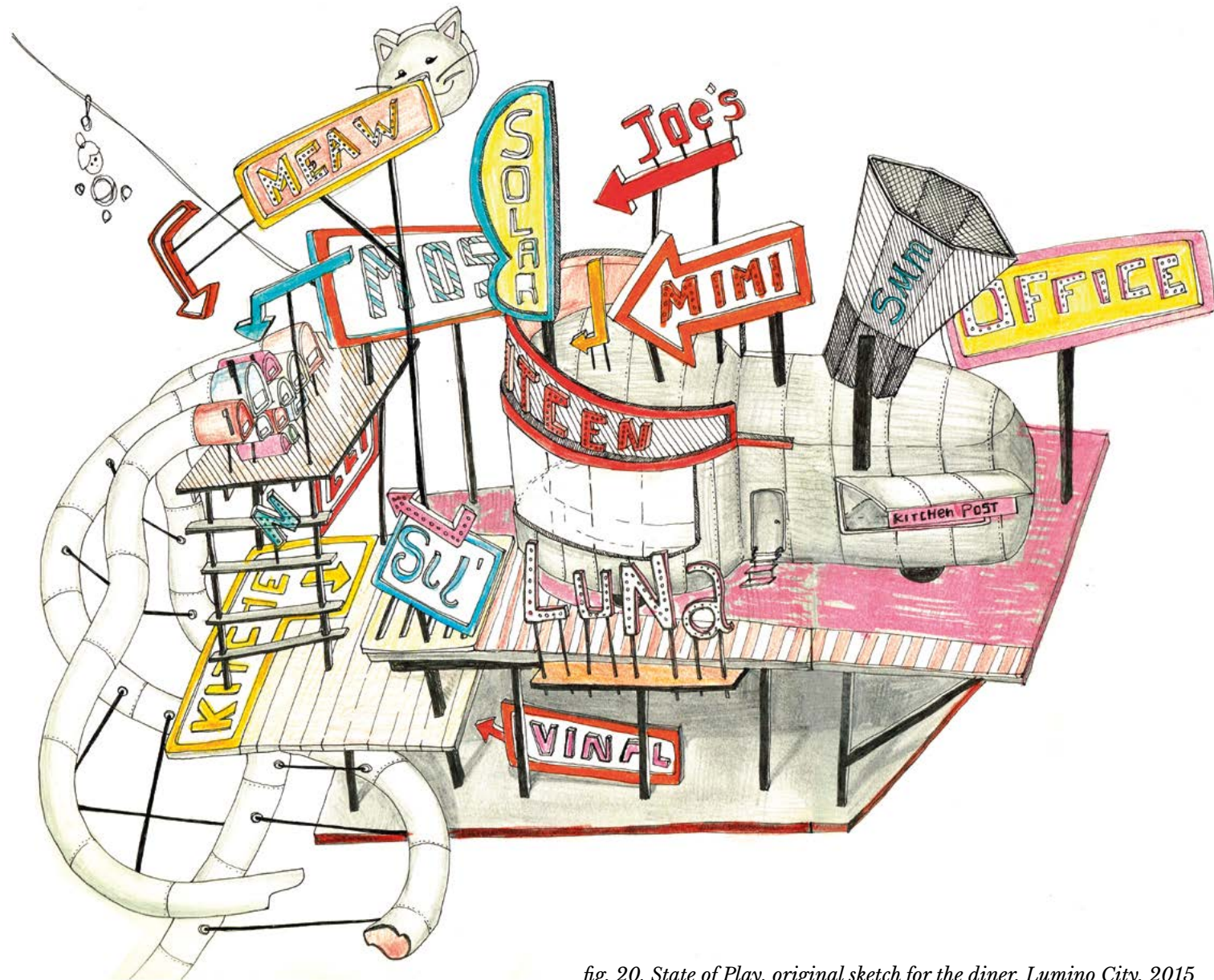
fig. 20, State of Play, original sketch for the diner, Lumino City, 2015

"

In Lumino City the diner sits far up in the East of the city, where there is also an email system which sends its deliveries via the network of pipes. The design brings together an eclectic mix of influences, including 1950s caravans, stylized typography, and blends Victorian and modern technology, such as the solar oven on the roof. Ideas resulted in bold sketches like this.

"

Luke Whittaker
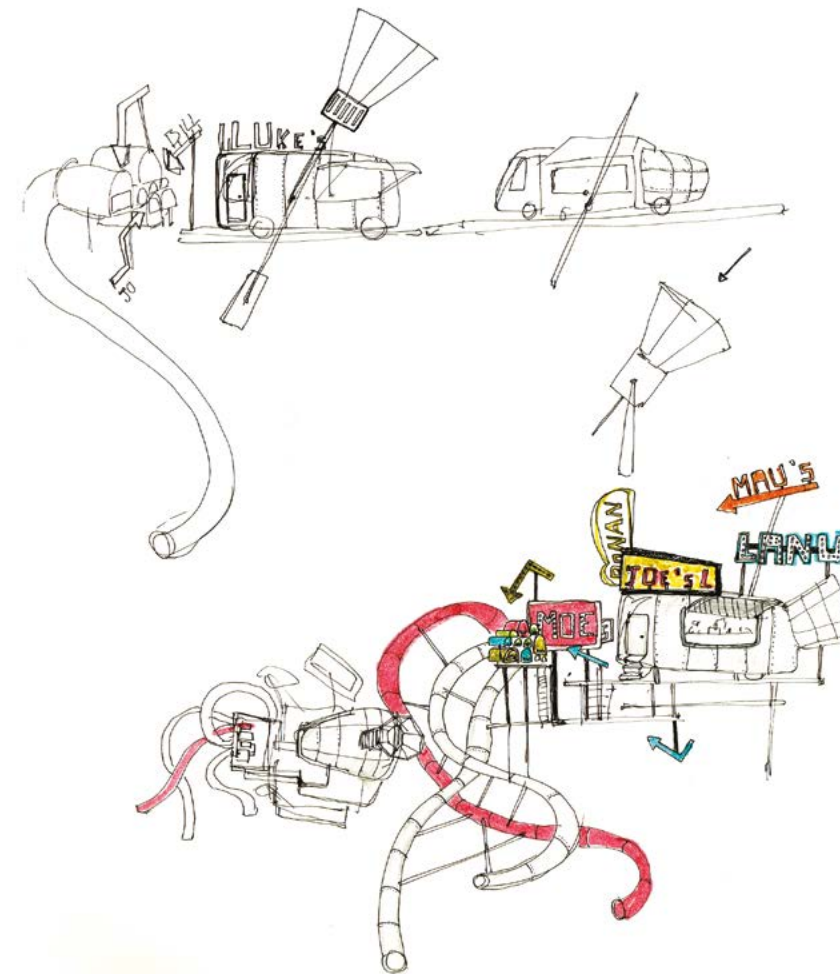
fig. 21, State of Play, original sketch for the diner, Lumino City, 2015

The models

fig. 22, State of Play, the diner, original model, Lumino City, 2015

fig. 23, State of Play, the computer room, original model, Lumino City, 2015
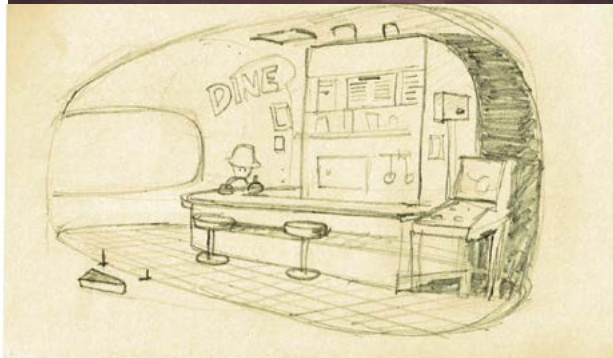
fig. 24, State of Play, the diner, sketch-book, Lumino City, 2015
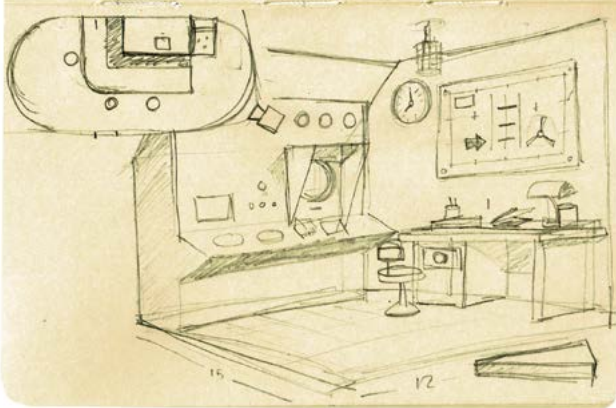
fig. 25, State of Play, the computer room, sketch-book, Lumino City, 2015

LUMINO CITY

State of Play built an entire city out of real materials and filmed it as the backdrop for the game. Through this gorgeous environment weaves a clever, charming and puzzling adventure.

Lumi's grandfather, the caretaker of Lumino City, has been kidnapped. To find him, the player must explore the city and figure out the fascinating mechanisms that power this unique world. Everything on screen was made using paper, cardboard and glue, miniature lights and motors.

The process resulted in the building of a 3 metre high model city, using laser cutting plus lights and motors to bring it to life. An entirely handmade city, State of Play collaborated with award-winning architects, fine-artists, prop-makers and animators. Each discipline brought something unique to the design and execution of the finished game.

fig. 26, State of Play, detail from the reels room, screenshot, Lumino City, 2015

inspired by

1950

fig. 27, State of Play, the reels room, original model, Lumino City, 2015
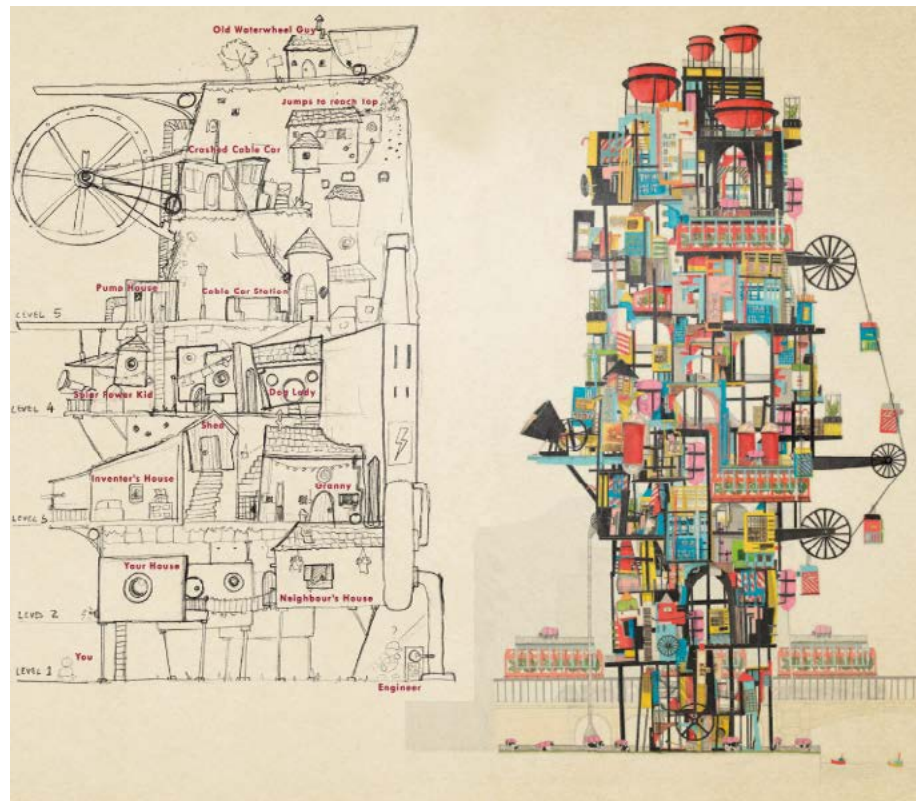
fig. 28, State of Play, early plans of the city: left sketch by Luke Whittaker, right sketch by Catrina Stewart, Lumino City, 2015

fig. 30, State of Play, early pencil sketch of the Gate and storyboard for the first screen, Lumino City, 2015

fig. 29, State of Play, early cardboard model with computer animation, Lumino City, 2015

fig. 31, State of Play, watercolour sketch of the Gate, Lumino City, 2015

Game studios
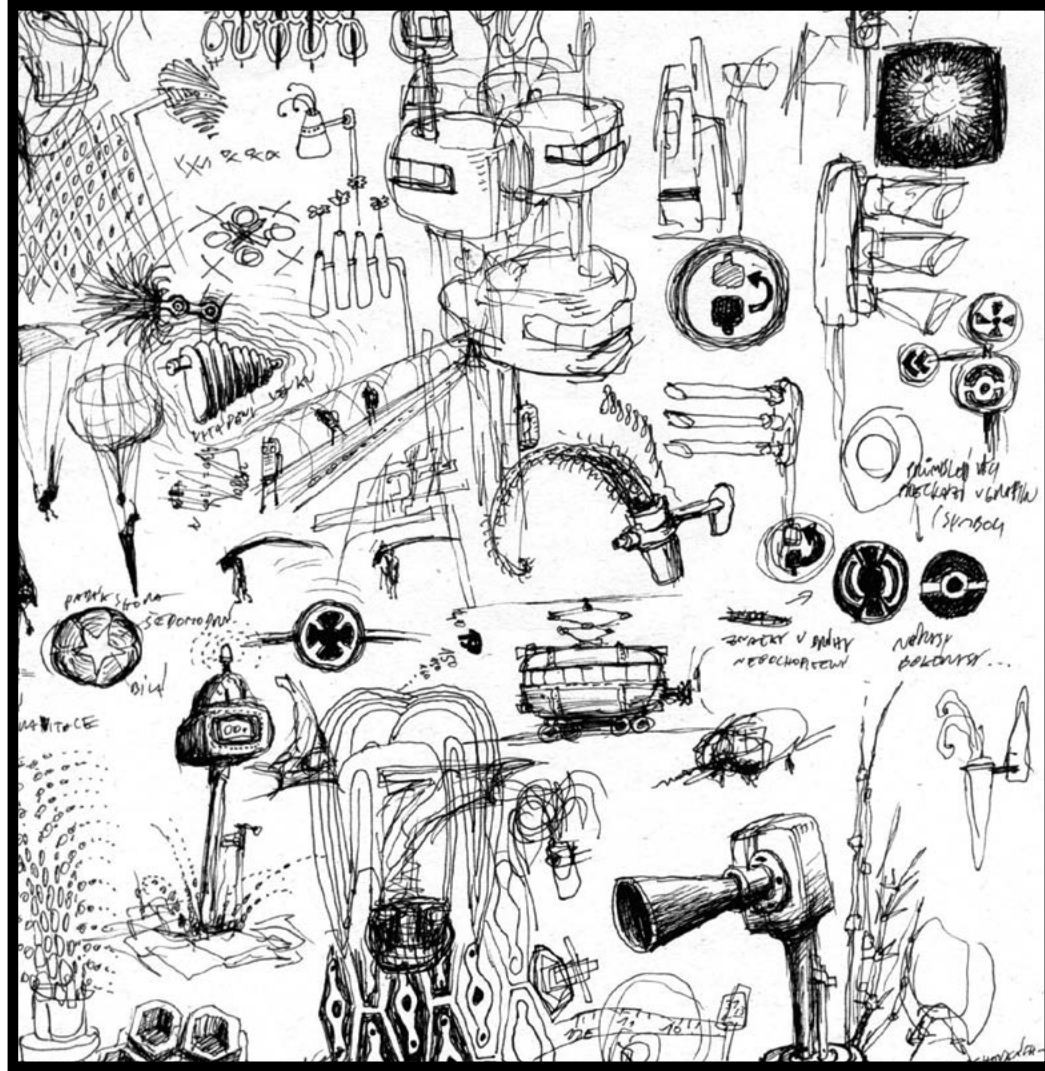
figs. 31 & 32
Amanita Design, original sketch and storyboards for Machinarium, pencil and ink on paper, 2009
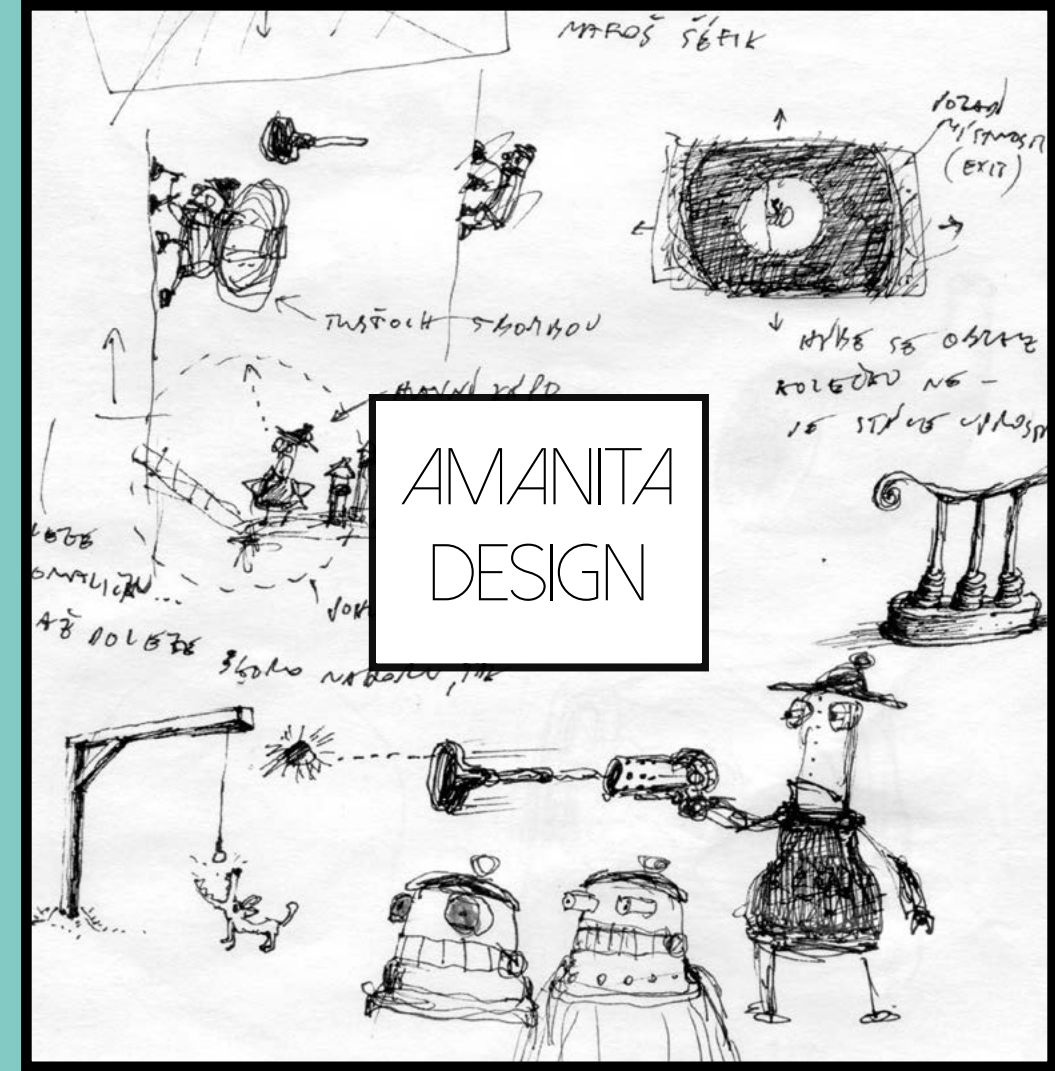
AMANITA DESIGN

Amanita Design is a small, independent game development studio based in the Czech Republic. It was established in 2003 when Jakub Dvorský completed his thesis project at the Academy of Arts in Prague by creating a free Online flash game called Samorost. In 2005, animator Václav Blín joined the studio and Samorost 2 was created. Since then, the team has expanded further to include several excellent collaborators - musicians Floex and Dva, programmers David Oliva, Peter Stehlík and Jan Werner, painter Adolf Lachman, sound effects expert Tomáš Dvořák and animator Jaromír Plachý.

In addition to making computer games, the studio has created music videos, websites, animated works and illustrations, and has also undertaken production design.

Jakub Dvorsky, founder of Amanita Design, explains his personal sources of inspiration: Czech and Russian animated films, animated children's books from the same region. Books are crucial to support the imagination deployed in Amanita's celebrated creations. Authors like J.R.R. Tolkien and Douglas Adams among many others and their distinct universes have also inspired Amanita's games.
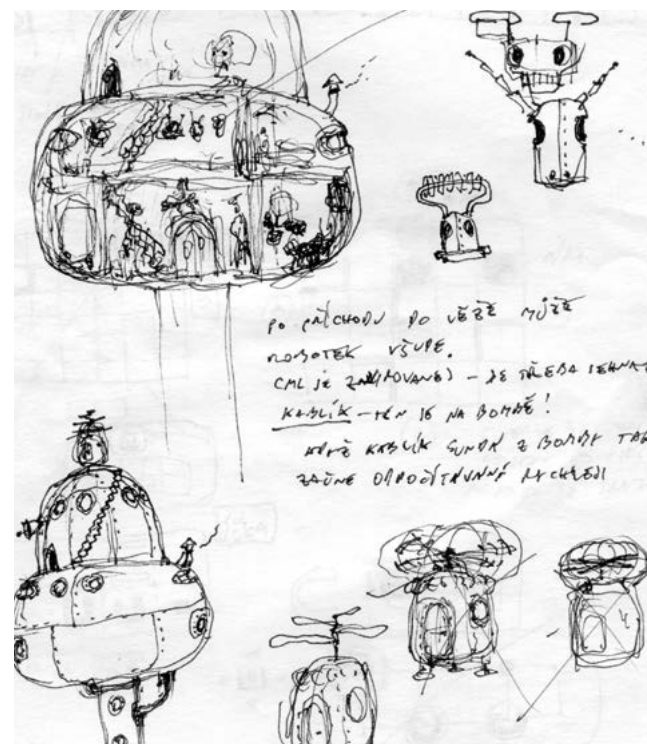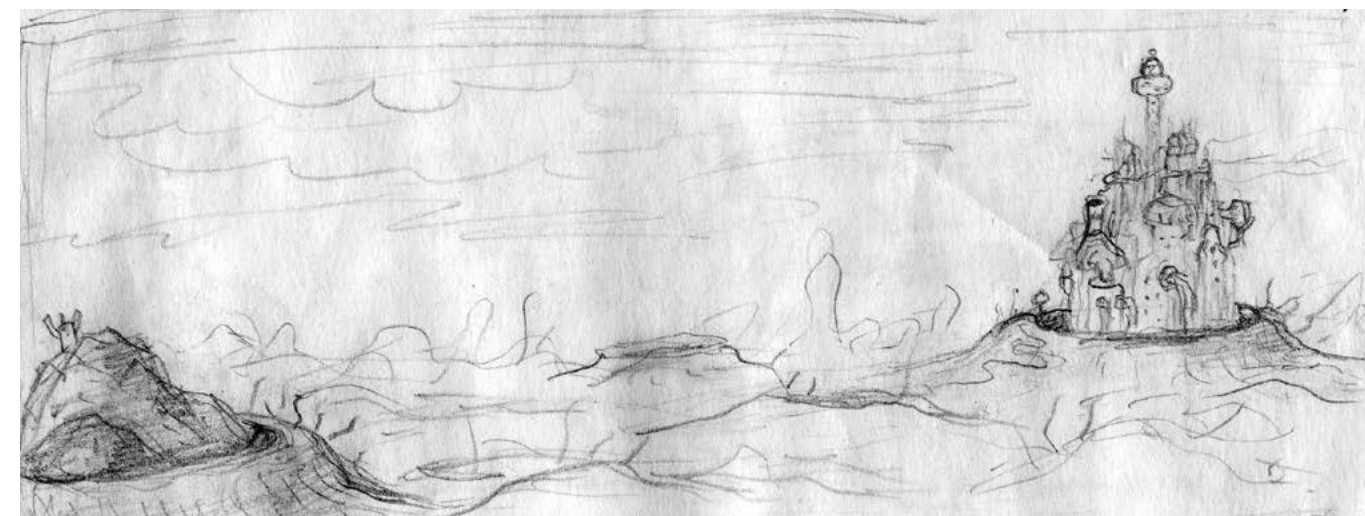
the tower

figs. 33 & 34, Amanita Design, extracts of the original Sketchbook, pencil and ink on paper, Machinarium, 2009

fig. 35, Amanita Design, extract from the original sketchbook for Machinarium, pencil and ink on paper, 2009
fig. 36, Amanita Design, screenshot of Machinarium, 2009

Machinarium is a puzzle-based point and click adventure, where only the objects within the hero's reach can be clicked. Released in 2009, something very particular about the game is that it is entirely devoid of natural language. There aren't any dialogues, spoken or written, and it only has a few tutorial prompts on the first screen. Instead, the game employs a system of animated thought bubbles more like icons or hieroglyphics, which is an incredible work of imagination.

Players can receive one hint per level, which becomes increasingly ambiguous as they progress. The game also contains a hint book which players can access when needed by playing a mini-game. As with dialogue, the suggestions are not written or spoken; players will find a series of designs describing the puzzle they are dealing with and its solution. Nevertheless, the hint book reveals just what players should do in that particular area, and not necessarily how that problem relates to the whole game.

Amanita creates a new art style for each game, which depends on the particular discussion between designer and artist. For Machinarium, they only needed two locations designed by Jakub Dvorsky to define the style of the game. Machinarium is entirely done with pencil and paper. Adolf is a very precise painter, but Jakub wasn't quite satisfied with the results, so Adolf started using his left hand despite being right handed, and then the result was perfect, so they finished the whole game like that.

The critics praised Machinarium on release. Specialist games websites like Gamasutra, Game review and Tom's Hardware all selected Machinarium as the 'Best Indie Game' of 2009. AceGamez named Machinarium the 'Best Traditional Adventure Game' of 2009.

The game has won numerous prizes in different festivals. In 2009, it was the winner of the Aesthetics Award at IndieCade at the International Festival of Independent Games. It also won the Excellence in Visual Art award at the 12th Annual Independent Games Festival and the Best Soundtrack award from PC Gamer in 2009. It was nominated for an Outstanding Achievement in Art Direction award by the Academy of Interactive Arts & Sciences and a Milthon award in the 'Best Indie Game' category at the Paris Game Festival.

MACHINARIUM

fig. 37, Amanita Design, original sketch for Machinarium, pencil on paper, 2009

BOTANICULA

Botanicula (2012) is a humour-filled adventure game about five friends, Mr Lantern, Mr Twig, Mr Poppy Head, Mr Feather and Mrs Mushroom. They are little tree creatures who set out on a journey to save the last seed from their home tree, which is infested by evil parasites. Like Machinarium, the game has no spoken or written dialogue.

Awards: Independent Games Festival 2012 Winner in the category Excellence in Audio. Independent Games Festival 2012, Finalist in the category Excellence In Visual Art. The game received the Story/World Design Award at IndieCade (the International Festival of Independent Games) in 2012. Botanicula also won a European Games Award 2012 in the category Best European Adventure Game. The game also appeared on Anifilm in 2012 where it received the Czech Videogame of the Year Award for artistic contribution to Czech videogame output.
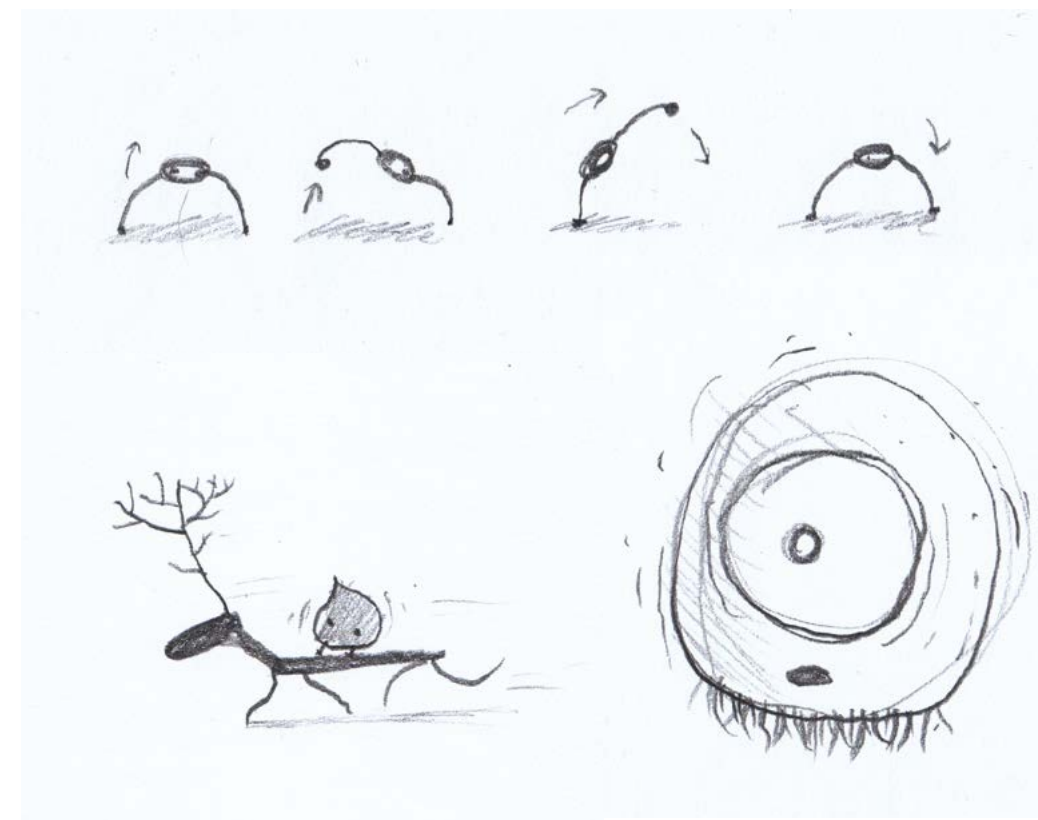
fig. 38, Amanita Design, original sketchbook for Botanicula, pencil on paper, 2012

DETAILS

of the exhibition

fig. 39, Amanita design, orginal sketches from Samorost 3, 2016

Amanita Design, original sketches for Samorost 3, pencil on paper, 2015

fig. 40
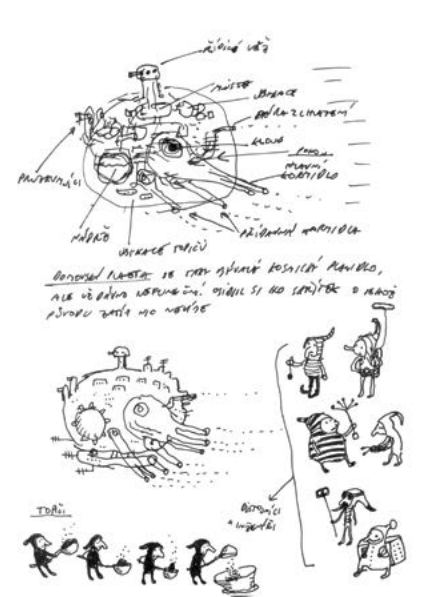
fig. 41

fig. 42
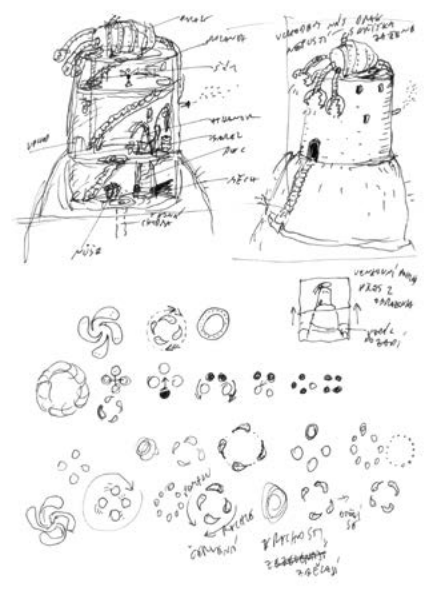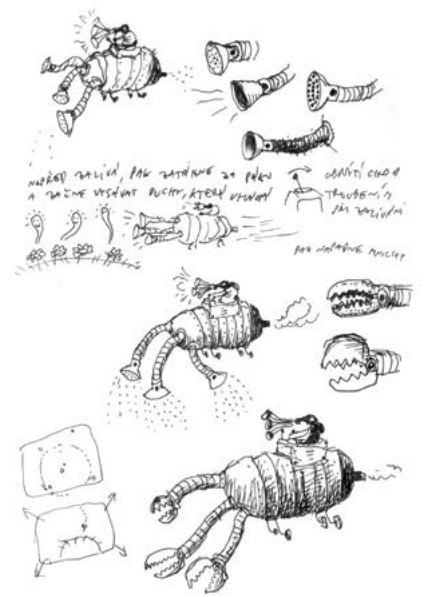
fig. 43

fig. 44

fig. 45

SAMOROST 3

fig. 46, Amanita Design, screenshoot of the final version, Samorost 3, 2016

3rd Samorost

Samorost 3 is the latest creation from Amanita Design, launched on Windows PC and Mac platforms. This point and click exploration adventure follows the original Samorost (2003) and Samorost 2 (2005). The hero is a space gnome who uses the magical powers of a golden flute to travel through the universe. Samorost 3 is Amanita's biggest game experience yet. The game is a combination of the logic puzzles used in Machinarium with Botanicula's more relaxed game play. Players travel across nine unique worlds; each one has a different theme with colourful and dreamy creatures, odd characters, full of surprises to discover. The artwork is highly detailed and full of expressiveness. Samorost 3's landscapes have something surreal about them, the art style plays with imagination, finding a balance between bizarreness and reality. The game's audio and soundtrack by Floex are both abstract and atmospheric. The audio plays an important role, giving some subtle environmental clues to help with the game-play.

The creative process for Samorost 3 was quite complex. Samorost 1 and 2, both released before the success of Machinarium and Botanicula, were entirely created by Jakub. However, this time the team wanted something more realistic and poetic, and it took more than three months just to come up with the art technique and final style for the game: digital drawing enlighted with textures from their personal libraries. The results matched their expectations, but they recognised that they did it in probably the most difficult way.

MACHINIMA
&
INTERACTIVE
INSTALLATIONS
&
PHOTOGRAPHY
&
ANIMATION
&
GAMES
&
GLITCH ART
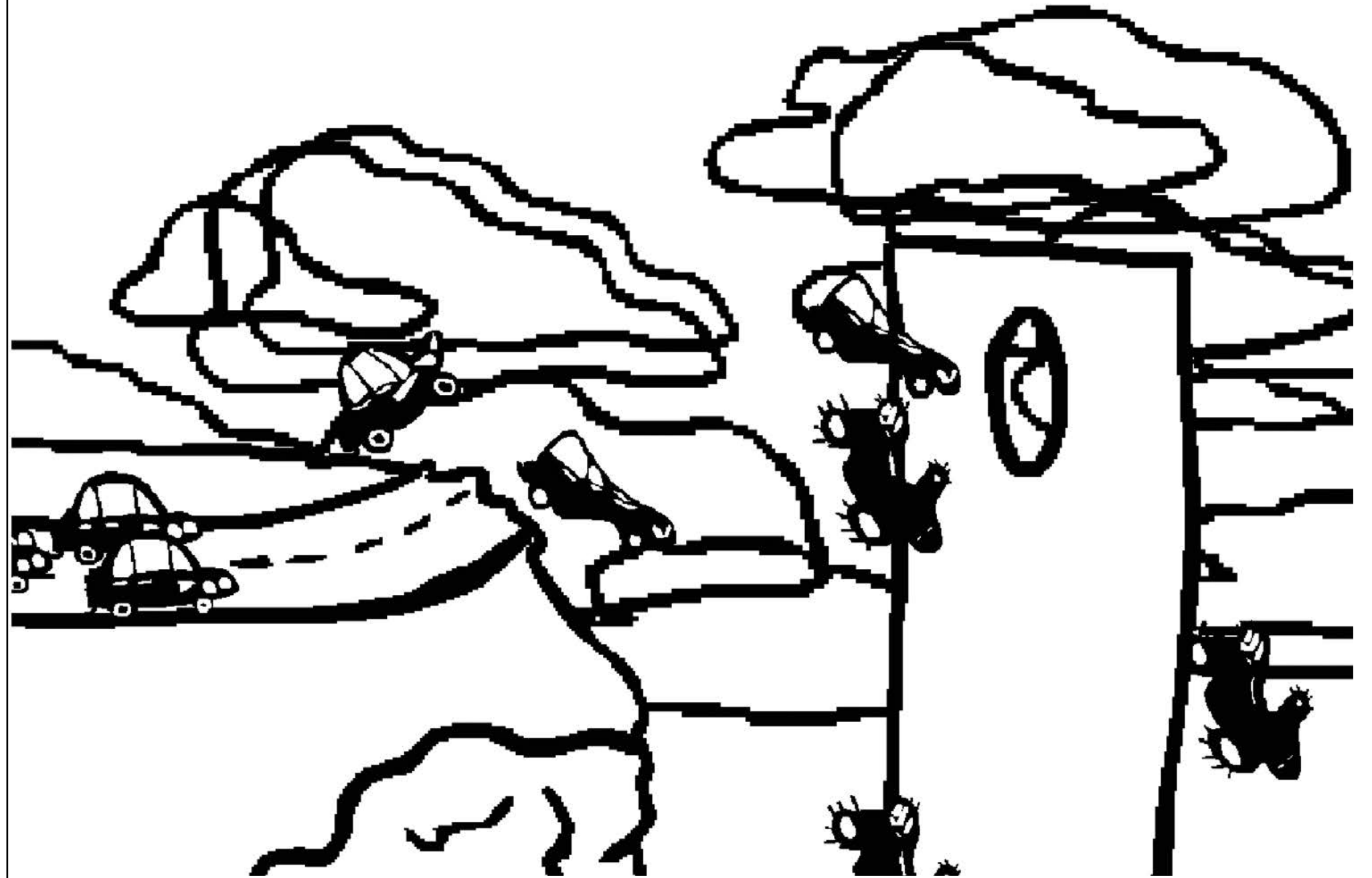
fig. 47, Ian Gouldstone, Cruise Control 2020, Raspberry Pi, software, projector, fan, speaker, 2016

Artists & Politics

Even if he doesn't consider himself as a political animal, an artist faces the need to question the meaning of what he does, the framework in which he operates, the style he develops and the values he represents. That is why his work is always a political statement because it questions various standards, including those of taste. To quote Charles Baudelaire, "Any aesthetic is thus both a moral and a political one and vice-versa" (1). Any stylistic choice shows a position, a point of view on what one is, on what one hopes and on what one refuses. All this means that when an artist begins to shape his perception and understanding of the world, and shows what he wants to indicate, he doesn't intend to be harmless or consolidate to the mainstream consensus, but to put everything in perspective. When he doesn't bother anything or anyone, when he doesn't raise any suspicion on the existing order, that means that his art is slender, close to the techniques of advertising and communication.

Indeed, regardless of his political beliefs, an artist has to be disruptive when he practices his art, which can't be summarised by a technique or project. Because he is compelled to question current representations and by doing so confronting their truth and what he thinks and feels, he feasts on them, he disturbs them, allowing the discovery of divergent realities. He offers a gap, a new framing; thus he creates, literally, a disruption to our representations, arousing in us new aspirations. This dissent is a joy, and a weapon: art that makes the reality which is presented to us as the only possible truth, appearing to be insufficient or false, makes it possible to begin to invent the future. It cannot change the world, but it can help us to realise that we do need to change it.

(1) *Abstract from the article of Evelyne Pieiller, "Art et politique, que l'action redevienne sœur du rêve", Art and politics, pp 22-23, Le Monde diplomatique, July 2013. (Translated by Blanca Perez Ferrer)*

fig. 48, Ian Gouldstone, Luke Whittaker and Oliver Sutherland during the panel session at the exhibition opening, October 2016.
fig. 49, IOCOSE member's portrait.

fig. 50, David Blandy & Larry Achiampong, Finding Fanon, 2015

DAVID BLANDY & LARRY ACHIAMPONG

FINDING FANON 2

DAVID BLANDY & LARRY ACHIAMPONG

FINDING FANON 2

David Blandy lives and works in Brighton and London. He has established his terrain through a series of investigations into the cultural forces that inform and influence him, ranging from his love of hip hop and soul, to computer games and manga. His works slip between performance and video, reality and construct, using references sampled from the wide, disparate sources that provide his individualist sense of self. He is represented by Seventeen Gallery, and his films are distributed by LUX, London.

Larry Achiampong's projects employ imagery, aural and visual archives, live performance and sound to explore ideas of cross-cultural and post-digital identity – in particular, dichotomies found within a world dominated by Facebook/Tumblr/Wikipedia/You Tube-based cultures. With the enduring expansion and sharing of information via the Internet, the idea of a conservative version of history, as previously dictated, continues to be eradicated. At the heart of this phenomenon lies Achiampong's increased interest in what new truths or versions become available, the multiple possibilities that are created and maintained in the digital realm and the consequences related to 'IRL' or 'In Real Life'.

fig. 51, David Blandy & Larry Achiampong, Finding Fanon 2, UHD video, sound, colour, 9' 13", 2015

fig. 52, David Blandy & Larry Achiampong, Finding Fanon 2, UHD video, sound, colour, 9' 13", 2015

fig. 53, David Blandy & Larry Achiampong, Finding Fanon 2, UHD video, sound, colour, 9' 13", 2015

" Intersection, Under the map, birth, hope, love, wealth "

fig. 54, David Blandy & Larry Achiampong, Finding Fanon 2, UHD video, sound, colour, 9' 13", 2015, young visitors at the exhibition.

" Distribution, property, wall, power, lumumba "

FINDING FANON 2

Finding Fanon is a trilogy of films, all released between 2015 and 2017. The project has been inspired by the lost plays of Frantz Fanon (1925–1961), a radical humanist, psychiatrist and writer whose practice dealt with the psychopathology of colonisation and the social and cultural consequences of decolonisation. Achiampong and Blandy negotiate Fanon's ideas, examining the politics of race, racism and decolonisation, and how these societal issues affect their relationship amidst an age of new technology, pop culture and globalisation.

In the three films, the artists themselves play the central role. However, whereas in part one and three they appear on screen in flesh and blood, part two uses their avatars in the simulated environment of a videogame.

For the first edition of the Games as Arts/Arts as Games festival, we projected the second part. Combining art-house cinema with Machinima, the short film follows the two UK-based artists as they uncover Frantz Fanon's lost plays as characters in the Grand Theft Auto V game video editor.

Their conflict is played out through a script that melds found texts and personal testimony, transposing their drama to an unspecified time. Navigating the past, present and future, Achiampong and Blandy question the promise of globalisation, recognising its impact on their heritage.

This video work combines several stories, including how the artists' familial histories relate to colonial history, how the virtual space shapes their relationship and some thoughts on the implications of the post-human condition.

The sound of the wind accompanies the spectator through the journey. A female voice asks short questions, some of them gone with the wind, although a few words resonate and remain: "Intersection, under the map, birth, hope, love, wealth, distribution, property, wall, power, Lumumba". There is something hypnotic about the music in the film, at the beginning, just the wind and that voice invites the spectators to have a walk in this empty world. It feels like if they were awakened after a catastrophe and the two characters were the only living souls on the earth. The music composed by Achiampong is also present in part I, one of the many details linking the three films.

These films have a powerful will force behind them, with the artists own friendship powering their work. Among many other things, they share the experience of parenthood. They are questioning the world as it is with the notion of legacy on the horizon. In which kind of world are we living? Furthermore, what are we leaving behind us? We see them with their children on the third Finding Fanon film where the heritage dimension becomes visible.

Finding Fanon 2 has also posed some fascinating technical challenges, to have both characters appearing at the same time on screen, something which is not allowed by the game, hence many many hours of footage were required. The artists had to log in to the system at the same time and walk around the simulated environments in a coordinated way; nothing was as straightforward as it seems.

fig. 55, David Blandy & Larry Achiampong, Finding Fanon 2, UHD video, sound, colour, 9' 13", 2015

The following are some extracts of an interview with the two artists recorded for Games as Arts/ Arts as Games of the two artist in October 2016.

Q. 1. How did you manage to have such good control of the game? For instance to have two characters on screen at the same time or detaching the camera from them?

D. The in-game editor allows you to take scenes you created in the game and then see them from all sorts of different camera angles. From above and from below, have the camera moving and swoop. It has to be within a sphere of about five hundred meters. You don't always have to have the camera pointing at the character, but they have to be near by.

L. To create the two characters moving together, we had to meet up online. David is based in Brighton, and I'm located in London. With most of our collaborative practice, lots of the conversations are through social media, mail or phone. So this wasn't a problem since with the in-game editor you can hook up online. David had a PC in his studio in Brighton and I had my PC in London. And we set up a meeting, a Skype conversation so we can talk about where our characters were going but also map up some places where we might want to go to. The Grand Theft Auto map is roughly a kind of a virtual photograph of parts of Los Angeles. It's massive, so we needed to keep that constant communication to assure that we were both going to the same place at the same time. So I might steal a car downtown and catch David by the beach.

D. Sometimes it took up to half an hour in game time just to meet up. This happened especially when we were doing the falling scenes, because we fell from the plane and we landed in completely different places. You ended up crushing a pedestrian on the floor, yep that take wasn't too great, so let's do it again. We needed to find another plane.

L. The video work in the end kind of clocks in at nine, ten minutes. I would say that we easily have around 3 to 5 hours worth of footage. It was quite laborious.

D. Laborious and chaotic.

2. Finding Fanon 2 is obviously a very political piece. How important for you is this notion of politics in your artwork and which role does it play in your consideration of yourself as an artist?

L. I think that even before David and I consider our collaborative practice, there are certain aspects of the social and the political that play within our work individually. Mostly regarding the projects we tend to pursue.

For example about David's heritage; aspects of Britishness, whiteness, his position even as a male, I think. The same with me as a black person, as a person from a working class family. So I guess what was unique however about this aspect of the political and social is where we come together, as we have quite a lot of very similar interests regarding music culture, regarding video gaming.

Strangely enough, we are both parents as well, each has a boy and a girl, that we are raising. So bringing into this kind of round (5'25) of Fanon's ideas that look at the social and political landscape not simply as the past but also as the present. I think it brings itself into various types of conflicts today.

If we look at Brexit for example, or at the apparent legitimization of racism within some fascist measures that of our government is putting in place. Well, these things are directly tied to aspects of the script, that David and myself are developing with these series of works.

D. Yes, it feels kind of sad that it has become more a prophecy than a warning. But I guess for me my work has always come from who I am and where I am in the world, and that includes politically and culturally. You can't think about yourself without the cultural web and spheres of influences that surround you. And part of that is your acknowledgment of your position in various conflicts and struggles. The political has been essential to my practice from the beginning because that is just an integral part of what it means to be human. An act in life is always a political one in some way. That's how I approach politics in my practice.

L. I also think that this situation in which we come together allows us to ask some questions that on one's own are difficult. Whereas when you are in front of someone, you are having a conversation. In a way that those monologues open themselves up to conversations.

D. It's a way of creating the work as a dialogue rather than being a series of sorts of introspections I guess. They are introspective words, but they are in communication with each other. So you have two sides of the story at the time. And two perspectives. It gives it a different light maybe.

3. Can you tell us a bit about your partnership with Larry? Who does what?

D. In our partnership, we both do a little bit of everything. We understand our work as a dialogue. Larry is in charge of the music and I'm in charge of the video editing the rest comes while we talk.

fig. 56, Ian Gouldstone, Cruise Control 2020, Raspberry Pi, software, projector, fan, speaker, 2016
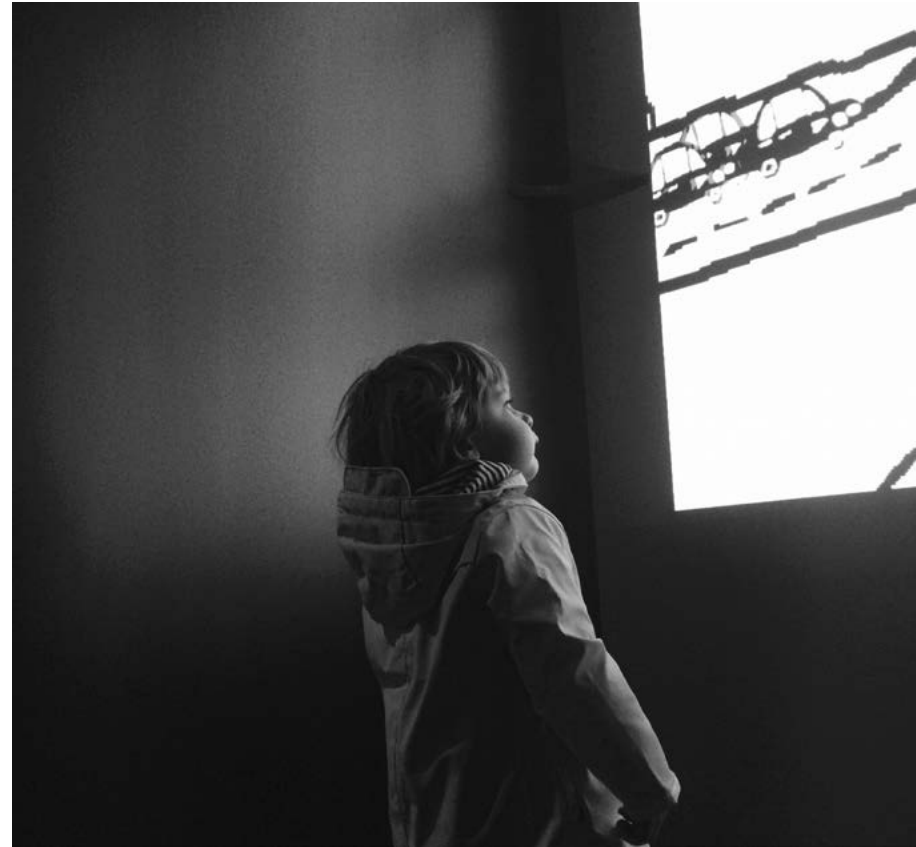
IAN GOULDSTONE

CRUISE CONTROL 2020

fig. 57

*Installation of Cruise Control 2020
at the Games as Arts /Arts as Games
exhibition*

fig. 58

*General view of the exhibition and
the cube where Cruise Control 2020
was projected.*

IAN GOULDSTONE

Ian Gouldstone is a BAFTA winning artist and filmmaker, whose work incorporates games, animation and new media. He is a founder of the Australian games collective Pachinko Pictures, a former member of the Computational Creativity Group at Goldsmiths College and also the Gesture and Narrative Language Group at the MIT Media Lab. He graduated from Harvard University with a degree in mathematics before studying animation at the Royal College of Art, and is now completing his MFA in Fine Art at Goldsmiths.

CRUISE CONTROL 2020

Cruise Control 2020 is a new work by Ian Gouldstone that brings together his interest in drawing, animation and videogames. This video installation uses live simulation to create a non-repeating yet constant movement which echoes the installations by Oliver Sutherland and @Those MetaMakers. Cars appear to drive toward and then leap from a cliff edge toward a structure containing a hole. Some of the cars make it through, but most fall into the unknown. Included in the space is a fan that adds an element of sound and movement. This non repeating yet constant movement draws a parallel with the real-time computer generated movement represented on the screen. This work continues Gouldstone's investigation of systems, rules, goals and games within the broader context of his artistic practice.

This is a monochrome, black and white, highly contrasted, pixel art movie that somehow personifies the stubbornness of human errors. Cruise Control 2020 was created very quickly almost like a cry of anger about the social and political ambiance that followed the outcome of the referendum of the 23rd of June 2016 in Britain.

When entering the cube, where the installation is sited, none of this seems apparent, at least not at first sight. The cartoony cars are playful, even funny, they look like toys, after looking at them for a while, one feels more and more in a game.

Nevertheless, when the spectator has spent some time watching them falling, not managing to get into the hole, they are aiming for, then he wishes to have a controller and do something about it. But there is no controller, and he can't change anything. The cars will carry on jumping, and then they'll be falling into the unknown. And just then is when the feeling of impotence kicks in.

Nothing dramatic, there is no need for that, just some plain, good old impotence, which is pretty much all that the recent political and societal events have left to some astonished citizens. Herein lies the simple beauty of this piece, which, in a very subtle but efficient way portrays an uncomfortable yet familiar feeling.

Something tells us that every little car is going to crash, and there is no a way to stop it, one after another will be following the same path to end at the same wrong place. Some lucky ones might make it, but we shouldn't count on that.

Cruise Control could be seen as a wake-up call, or as piece defining a historical moment, because it plays with the things we expect to control. If this is a game, we should be able to take some action, play a role, be able to interfere and change things. We are not allowed to do such things. Therefore, this isn't a game. But what is it then? It's a hybrid creature with game elements and aesthetics, animation and film techniques; it's an installation because it has it's own space and plays with positions and sensorial elements.

This description is just the beginning of the discussion that this exhibition wants to bring forward about the usage of games as any other art medium. As Evelyne Pieillier said in her article mentioned on page 46, an artist might not change the world, but they will show the necessity of changing it.

OLIVER SUTHERLAND

UNTITLED (LOOSING IT) 2016

fig. 59

Continual moving image presented with Unreal Engine 4 and Nvidia Flex

This work is kindly supported by Arts Council England and produced in collaboration with Werk Flow studios

OLIVER SUTHERLAND

Oliver Sutherland graduated from the Royal College of Art in 2012 and is currently a practice-based PhD candidate at Falmouth University as part of the 3D3 Consortium. Over the past two years, he has worked with Falmouth University and Centroid Motion Capture Studios in the development of several new video works that focus on the physical attributes of motion capture as a sculptural and object based performance.

Sutherland was recently an associate artist as part of the Tate St. Ives Artist Program, and is a recipient of the Spike Island Moving Image Bursary 2016. His work often examines the languages of digital production, focusing on the relationship between content, tool and the user. Through the development and depiction of simple narratives and actions, elaborate digital tools and processes are transformed and concentrated into humanised remains. Sutherland's practice investigates the tensions that occur in understanding and translating acts and objects between virtual and actual space.

UNTITLED (LOOSING IT)

Oliver Sutherland presents a new moving image work sited in a real-time fluid simulation, in which scraps of images and text float within a physical fluid simulation. The Continual moving image is presented with Unreal Engine 4 and Nvidia Flex.

Unreal Engine 4 is a suite of game development tools, allowing designers to create everything from 2D mobile games to console blockbusters and VR. NVIDIA FleX is a particle based simulation technique for real-time visual effects. Traditionally, visual effects are made using a combination of elements created using specialised solvers for rigid bodies, fluids, clothing, etc. FleX uses a unified particle representation for all object types, enabling new effects where different simulated substances can interact with each other.

Within this work Sutherland carries forward his research into continuum movement. As he did in previous pieces like Drinking Drinks (2015) or the installation Wonderer (2016), he employs a games engine to produce his pieces. In Wonderer (2016) he employed RAIN, an AI navigation system produced by Rival Theory Inc., to create an independent A.I. character who navigates a virtual space where it encounters various layers of audio. RAIN is normally used in game design to produce supporting characters.

However, Sutherland employs this AI as a method of generating a continually moving body, rather than a reactive or responsive non-player character.

The waves in Sutherland's piece are made of something new, something in between water and oil, sometimes closer to the consistency of mercury, where pieces of material travel and float, moving slowly. The liquid isn't real, nor are the elements floating on it. At first glance this looks like a film, as everything reminds us of the real world, but this is not.

All that is happening is ephemeral and yet constant, the moving image will exist just for a moment and then it will be gone forever, only to be replaced by another, raise and fall. It's something about change, about perception of change, about recording and memory. None of this is recorded in a society where everything is filmed, recorded and kept in storage.

The pace of the piece also feels unusual. This is heightened in a videogame context, where speed is often so important. Sutherland's moving waters are so quiet, so slow, with all the floating debris appearing and despairing like dancing in time.

fig. 60, Oliver Sutherland, Untitled (Loosing it), continual moving image presented with Unreal Engine 4 and Nvidia Flex, 2016

fig. 61, Oliver Sutherland, Untitled (Loosing it), continual moving image presented with Unreal Engine 4 and Nvidia Flex, 2016

IOCOSE &
MATTEO BITTANTI

GAME ARTHRITIS

fig. 62, IOCOSE & Matteo Bittanti, exhibition display, Game Arthritis, 2011

IOCOSE &
MATTEO BITTANTI

IOCOSE is a collective of four artists working as a group since 2006. Their art investigates the after-failure moment of the teleological narratives of technological and cultural development, in both enthusiastic and pessimistic visions. They have exhibited internationally at several art institutions and festivals, including Venice Biennale (2011, 2013), Tate Modern (London, 2011), Science Gallery (Dublin, 2012) Jeu de Paume (Paris, 2011), FACT (Liverpool, 2012), Transmediale (Berlin, 2013, 2015), and featured in publications such as Wired magazine, The Creators Project, Flash Art, Neural, Liberation, Der Spiegel and El Pais.

Matteo Bittanti is an artist, writer, curator, publisher, translator and scholar. His research focuses on the cultural, social, and theoretical aspects of emerging technologies, with an emphasis on their effects on communication, visual culture, and the arts. His work has been exhibited internationally. He is an Assistant Professor in Media Studies and Director of the newly launched M.A. Programme in Game Design at IULM University. Bittanti lives in San Francisco and Milan.

fig. 63, IOCOSE & Matteo Bittanti, exhibition display, Game Arthritis, 2011

fig. 64, IOCOSE & Matteo Bittanti, exhibition display, Game Arthritis, 2011

fig. 65, IOCOSE & Matteo Bittanti, exhibition display, Game Arthritis, 2011

GAME ARTHRITIS

a seed of doubt

A systemic study of videogames induced diseases. What are the real effects of digital gaming to our fingers, hands and bodies? The conformity of interfaces produces deformity. It's a fact. Call it "the reality of the virtual". Prolonged vicarious aggression leads to permanent physical disfiguration. Gaming activities produce real consequences for the users. Research has been conducted for years in several clinical laboratories across the globe, but doctors and researchers are not willing to share their findings with the general population. However, evidence of new technologically-induced diseases is now becoming known outside of the scientific community. These pathologies – labelled collectively "Game arthritis" – are officially not "recognized". The authorities have dismissed this hidden epidemic as "mass hysteria". But according to some scientists – who speak under condition of anonymity fearing ostracization – these undiagnosed disorders are the psychopathology of ludic societies. Digital technology is indeed damaging users' fingers, arms, postures. Even their DNA is compromised. Game arthritis is not supposed to exist. Game companies do not want to talk about it. Clinicians and dermatologists do not want to discuss it. Labs refuse to run tests. And yet, thousands of players manifest similar symptoms. Thousands of players feel real pain in their bodies. Affected subjects are not delusional. Photos and images are beginning to circulate on the internet. We have collected a few samples.

Post truth and alternative facts

Behind the carefully chosen documentary aesthetics with the sanitary white case study look, sits an uncomfortable truth. Game arthritis is about games, and it's itself one. IOCOSE and Matteo Bittanti are playing and when the game is over, what is left couldn't be more *dans l'air du temps*.

This series of portraits says many things, particularly about our time. They are questioning the place of science and the way scientific research reaches a broader audience, through mass media. The texts accompanying the pictures are part of the piece, and to get a complete feeling for it, we need to read them thoroughly.

The careful choice of the words accompanying the pictures, immerse the public in a new uncomfortable truth. The *mise en scene* is somehow brutal; the images are disturbing, the words make the viewers feel uneasy. Deformity, pain, lies and videogames.

The piece plants a seed of doubt in public. That says a lot about how easy it is to get into conspiracy theories, and also about the negative image of videogames in the collective imagination. It has always been difficult to discern lies from real information and even more so when they come from new things, new technologies, anything new and decontextualised.

Nevertheless, after carefully reading the texts, the enormity of the conspiracy and its gross form, the sordid details operate a sort of wake-up call. The irony feels more and more evident, the perfect appearance of reality appears to be just a trick, and yet these days it seems reasonable to wonder if anyone can be sure about anything anymore.

We could reflect on 2016 as the year of post-truth and 2017 the year of alternative facts and this piece of 2011 talks about this. When we wrap pure lies in good clothing, things easily get confused. The alternative events, or what we used to call lies had always been there, close to power, often in the darkest moments of society, in this case, digital media is only an accelerator. And the role of artists is to make us aware of it.

Credits
Photographer: Kenzie Burchell
Make-up artist: Emma Alexandra Watts
Models: Tom Bennett, Katie Bourner, Sabu Isayama, Maruen Zarino Lanni, Lauren Lapidge, Paul Speziali, Rory Thompson, Juliana Yazbeck.

fig. 66, IOCOSE & Matteo Bittanti, Game Arthritis, Xbox Hypertrophy, 2011

XBOX HYPERTROPHY

The inconsistent geometry of hands affected by the psychopathology of gaming. Onset of symptoms generally occurs in adolescence or early adulthood. Swollen extremities, the visible manifestation of an abnormal increase in the volume of tissue due to the enlargement of its component cells. Movements divorced from affect and physiology alike. Muscle strains caused by forceful movements. A new body configuration produced by repetitive strain injury. Xbox Hypertrophy is a destructive form of arthritis which destroys the small joints in the hands and can lead to permanent disability and loss of hand function. Often confused with Body dysmorphic disorder (BDD), a condition in which the affected person is excessively concerned about and preoccupied by a perceived defect in his or her physical features, Xbox Hypertrophy is a certified pathology that causes both physical and psychological distress that impairs occupational and/or social functioning, sometimes to the point of severe depression and anxiety, development of other anxiety disorders, social withdrawal or complete social isolation. It is estimated that 3–5% of the world's population meet all the diagnostic criteria for Xbox Hypertrophy. Widespread in the United States and in the United Kingdom, this pathology is rarer in Japan.

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11 Although the development of subcorneal haematoma is usually seen in athletes following intensive sporting activity where there are repetitive frictional forces on the skin of the hands and feet, our patient illustrates a novel 21st century recreational hazard. Only after direct questioning did he admit to spending several hours per day playing videogames.
Robertson S.J.; Leonard J.; Chamberalin A. J. (2010), "PlayStation® purpura", Australasian Journal of Dermatology, Volume 51, Issue 3, pages 220–222

12 The case of an 18-year-old college student who had been playing videogames 3-4 hours a day at an average cost of $5 a day over a five-month period is reported.
Griffiths MD., 1997, "Videogames and clinical practice : Issues, uses and treatments", British Journal of Clinical Psychology, vol. 36, pages 639-641.

fig. 67, IOCOSE & Matteo Bittanti, Game Arthritis, 3D optical disorder, 2011

3D OPTICAL DISORDER (3DOD)

An unnatural twitch of the eye, one of the symptoms of a severely burned retina. An entire generation of users, raised on 3D games, is now permanently blind, as it was recently discovered that three-dimensional display technology has corrosive effects on the eye. Extreme photosensitivity precedes permanent loss of sight. Symptoms include sudden permanent blindness, but may occur more slowly over several days, weeks or months, dilated pupils, and loss of the pupillary light reflex. Other symptoms commonly seen include increased water consumption and urination, weight gain, confusion, restlessness, behavioral changes and lethargy. These symptoms may develop over a few months preceding the onset of 3DOD. Endocrine often shows elevations in adrenal sex hormones. Examination with an ophthalmoscope will initially show no changes, but in a few months atrophy of the retina will resemble the appearance of progressive retinal atrophy. Pathologically, there is a loss of the rod and cone cells followed by degeneration of other layers of the retina. The retinal degeneration appears to be related to apoptosis of these cells. Unfortunately, forced deprivation of three-dimensional images has not led to an increase in sight or general health.

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5 All children were examined to check for three physical signs, black rings in the skin under the eye (BR), muscle stiffness in the shoulder (MS), and displacement of the scapula associated with muscle stiffness in the shoulder (DS/MS) by inspection and palpitation.
Tazawa, Y. and Okada, K. (2001), "Physical signs associated with excessive television-game playing and sleep deprivation", Pediatrics International, 43: 647–650.

6 Experts say there are no studies tracking how common it is to get a headache after watching a 3D movie, but Rick Heineman, a spokesman for RealD, a provider of 3D equipment to theaters, said headaches and nausea were the chief reasons 3D technology never took off.
Steenhuysen J., 2010, "For some, 3D movies are a pain in the head", Reuters.com

fig. 68, IOCOSE & Matteo Bittanti, Game Arthritis, WIImote shoulder dislocation, 2011

WIIMOTE SHOULDER DISLOCATION

Woman deliberately exposing her wound revealing her mounting sense of disembodiment as if her limbs and musculature merely establish the residential context of the body. The terminal zone of interaction signals the body's failure, its inability to cope and upgrade, keep up with demanding physical requirements. In this case, the humerus separates from the scapula at the glenohumeral joint. Some cases require non-emergency surgery to repair damage to the tissues surrounding in the shoulder joint and restore shoulder stability. Others prefer a complete replacement to achieve full freedom of movement. Prosthetic joints and limbs subsequently installed. A biofilm is often created on the surface of the prosthesis which is resistant to antibiotics. Surgical debridement or arthrotomy usually indicated in these cases. Replacement prostheses usually not inserted at the time of removal to allow antibiotics to clear infection of the region.

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1 Active gaming has resulted in new varieties of game related musculoskeletal injuries, particularly to the knee and shoulder joints. This review serves to outline the common presentations of Nintendo Wii related injuries.
Anthony J. G., 24th December 2010, "Musculo – Ske Wii Tal Medicine", North Bristol NHS Trust, Southmead Hospital, Bristol, UK

2 [...] although there have been two case reports of "Wii knee", they were lateral patella dislocation with medial patellofemoral ligamentous damage and a large femoral osteochondral fracture.
Almedghio S. M., Shablahidis O., Rennie W., Ashford, R. U., 3rd June 2009, "Wii knee revisited: meniscal injury from 10-pin bowling", BMJ Case Reports

fig. 69, IOCOSE & Matteo Bittanti, Game Arthritis, Wasd syndrome, 2011

WASD SYNDROME

Albeit not irreversible, the condition is critical as the tendons in the fingers are visibly damaged and their functioning severely impaired. The impossibility of bending several fingertips can cause acute pain in the subject. Such condition is the result of a prolonged, repetitive fingers' pressure on four specific keys, W-A-S-D, hence WASD Syndrome. It is necessary to straighten the tendons with the aid of one or more splints applied to one or more fingers, although in most cases, surgical intervention and corticosteroid injections are used as complementary treatments. The splints are meant to keep the end of the tendons from separating as they heal. They must be worn at night for a period of 6-to-8 weeks. WASD Syndrome must be treated early to help the patient retain the full range of motion in the fingers. If such deformity remains untreated for more than 4 weeks, treatment becomes problematic. Today, WASD Syndrome affects a surprisingly high percentage of individuals in technologically advanced countries.

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9 In a phone interview conducted 19 months post study, all subjects reported that their presurgery symptoms were much improved. They reported improvements in their ability to get dressed (being able to close zippers and buttons), tool handling (without dropping the tools), cooking (without dropping the pans, being able to peel potatoes) and playing videogames.
Heuser, A.; Kourtev, H.; Winter, S.; Fensterheim, D.; Burdea, G.; Hentz, V.; Forducey, P.; 2007, "Telerehabilitation Using the Rutgers Master II Glove Following Carpal Tunnel Release Surgery: Proof-of-Concept", published on IEEE Transactions on Neural Systems and Rehabilitation Engineering, vol. 15, no.1, March 2007

10 This syndrome came into force as an industrial disease in April 1985. As a result sufferers were able to claim compensation and disability benefit.
A G Cleary, H McKendrick, J A Sills, 2002, "Hand-arm vibration syndrome may be associated with prolonged use of vibrating computer games", British Medical Journal, Volume 324, Number 7332, p.301-301 (2002)
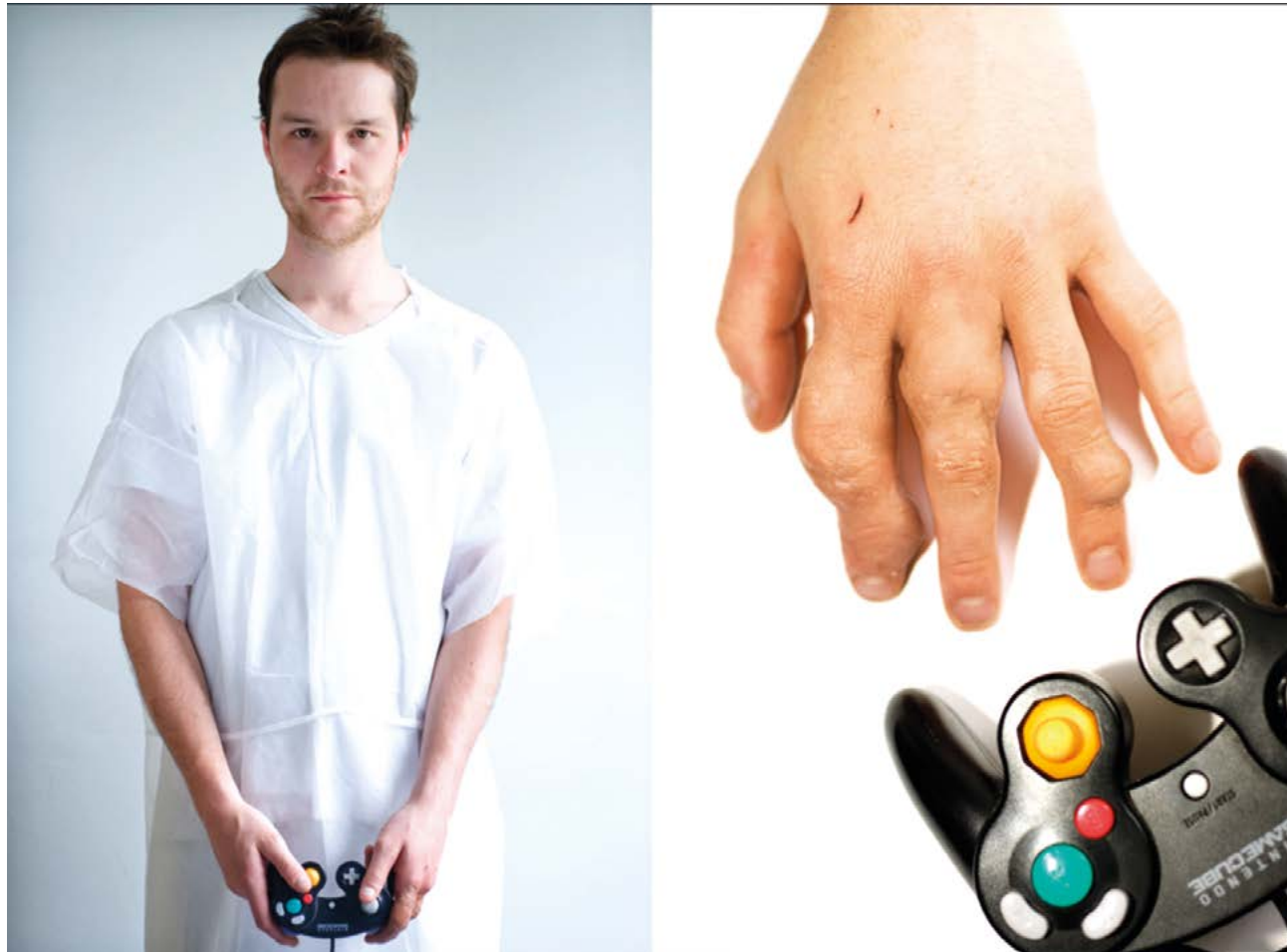
fig. 70, IOCOSE & Matteo Bittanti, Game Arthritis, Nintendo Arthritis, 2011

NINTENDO ARTHRITIS

First discovered in the early 1990s, this condition is currently incurable. Unsavory physical routines lead to crippled joints and cancerous calluses. In some cases, clavi formed by the accumulation of dead skin, will appear on the dorsal surface of fingers but also on the palm surface. Such formations cannot be surgically removed as they become intertwined with key nerves. Due to extreme ulceration and deep tissue damage, any attempt to intervene on the clavus will produce intense ache in the subject. Affected specimens are currently being treated with heavy doses of tetrahydrocannabinol, which can momentarily alleviate neuropathy and pain. Also used are analgesic agents such as ketamine, clonidine and other 2-adrenoreceptor agonists, and mexiletine and other local anesthetic analogues. There are several procedures currently investigated as a possible alternative to medication, but open surgery has often led to catastrophic results.

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15 We recommend that any medical practitioner who sees a patient with an unusual hand injury, epilepsy or motion sickness should ask, "Do you play any interactive computer games?". Indeed, we recently encountered a child with diabetes who spent so much time playing these interactive games that lack of exercise resulted in abnormally raised blood glucose levels.
T H H Guan Koh , 2000, "Ulcerative 'nintendinitis': a new kind of repetitive strain injury", The Medical Journal of Australia, 173: 671

16 In retrospect, "Nintendinitis" may have been a sentinel event. Its scope and consequence remaining unrecognized in dimension and cost until similar injury patterns emerged in the work-related setting of a population that has come to steadily rely on computers for its commerce and non-keyboard input devices for overwhelming ease of use and mass appeal.
Cavo, Teresa Rose, "Work-Related Musculoskeletal Disorders (WRMSD) of the Upper Extremity : Materials and Methods of a NonKeyboard Alternative Input Device Study" (1999). UCHC Graduate School Masters Theses. Paper 48.
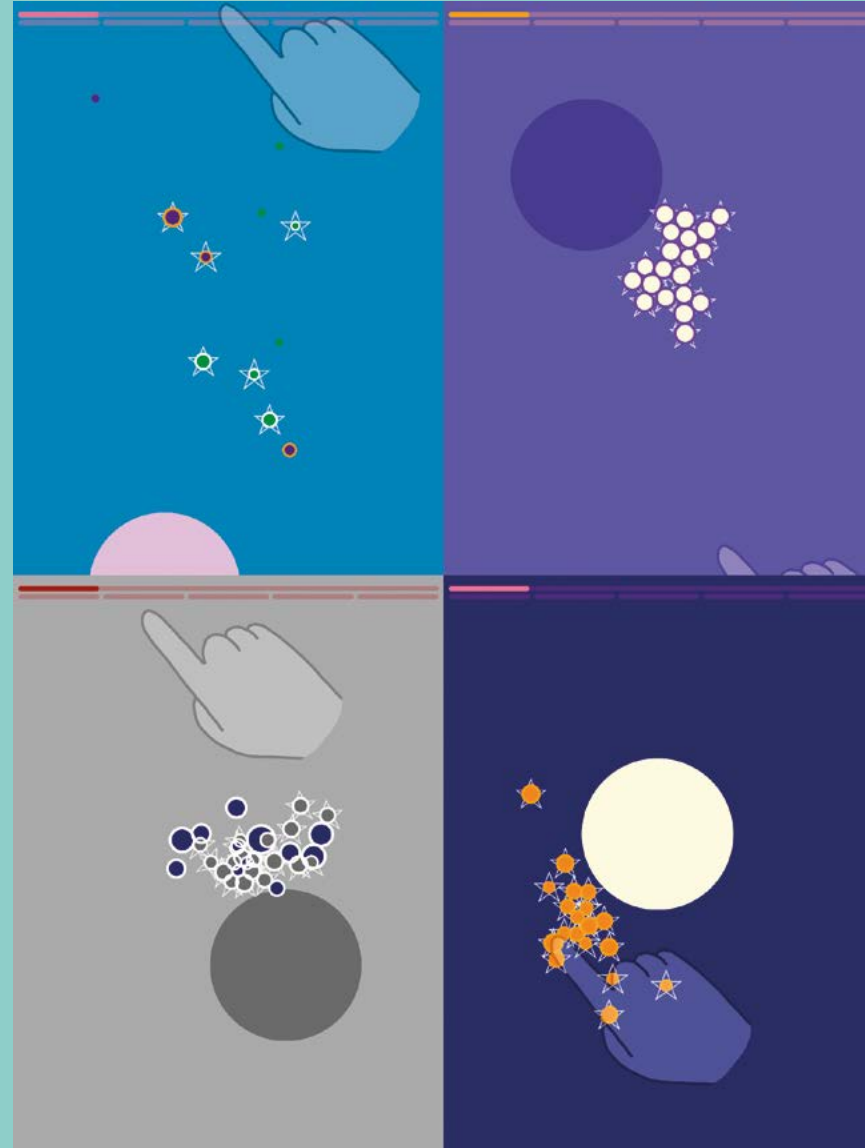–

@THOSEMETAMAKERS

I CREATE YOU DESTROY

fig. 71, @ThoseMetaMakers, I Create, You Destroy, Installation of 6 iPads using Gamika Technologies, 2016

@THOSEMETAMAKERS

I CREATE, YOU DESTROY

fig. 72, @ThoseMetaMakers, I Create, You Destroy, installation of 6 iPads using Gamika Technologies, 2016

@ThoseMetaMakers are a collective of scientists, artists and game designers forming part of The MetaMakers Institute at Falmouth University. They investigate ways in which Computational Creativity prototypes - software which is itself creative - can enhance our lives, drive cultural discourse and challenge assumptions. Ongoing public-facing projects include The Painting Fool, software to be taken seriously as a creative artist in its own right one day; The What-If-Machine, which has produced fictional ideas for a musical theatre production; ANGELINA, an automated game designer which has had real impact in gaming cultures; and the latest addition: Wevva, which enables people to co-create novel and engaging games directly on their mobile phone.

Playing with AI

@ThoseMetaMakers have chosen a very sober and minimalist mise en scene for their first installation as an art collective. I Create, You Destroy aims to challenge mainstream assumptions about AI being a threat. Moreover, the beauty of the piece resides in the balance produced by using a mainstream support (iPad) and a mainstream platform (casual games) to challenge the mainstream assumption. The AI hides behind the bold, sharp and colourful surface of six iPads perfectly aligned and fixed to the white background wall. With white cases and white backgrounds only, the playful images of games stand out. The small balls are moving fast, appearing from everywhere, going anywhere. New games come to life, live, directly in front of visitors standing there with a choice to make: either merely, watch, or act, interact and then themselves become the threat. Is that an odd choice for a human being? Maybe not.

Breaking the assumption and questioning what we are expected to do, is at the core of I Create, You Destroy, in front of a tablet we are meant to touch, in front of a game we are supposed to play. However, this is not what we should do, in moral terms we will be harmful if we fulfill the expectations. One important aspect of the installation, where I Create, You Destroy meets Ian Gouldstone's Cruise Control 2020 and Oliver Sutherland's Untitled (Loosing it), also presented at the exhibition, is the idea of the continual moving image. When the creative process is happening right there, the spectator is not merely watching a pre-recorded movie. What is going on will never occur again. We could consider this uniqueness one of the holy quests of contemporary art. Since we lost the unique nature of the artifact, we seek the exceptional character of the experience. Games technologies and AI are enabling the rise of a new hybrid art form between installation and performance with something sculptural and cinematographic about it.

What does it mean in Sutherland's work, this notion of a continuum of an image? We might find some answers in Cruise Control 2020, and in I Create, You Destroy. This picture, this movie and those games as framed in the exhibition, should be seen as a continuum. Even if we are unsure about their nature, if this is a film, or an image or a game or the three things at the same time, the starting point is that they are all made with the same materials that games are. A continuum moving image is closer to real life because we are assisting in the birth of it. There are no filters, no curation, nor past or future, just a moment of pure creation.

fig.73
Installation of I Create, You Destroy by @ThoseMetaMakers at the Games as Arts / Arts as Games exhibition.

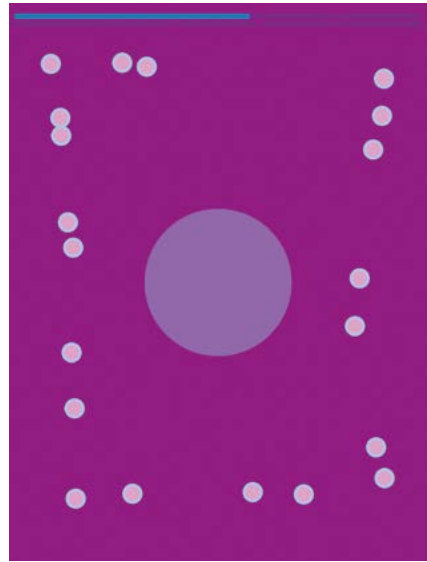*fig. 74, @ThoseMetaMakers, I Create, You Destroy, Installation of Gamika on 6 iPads, 2016*
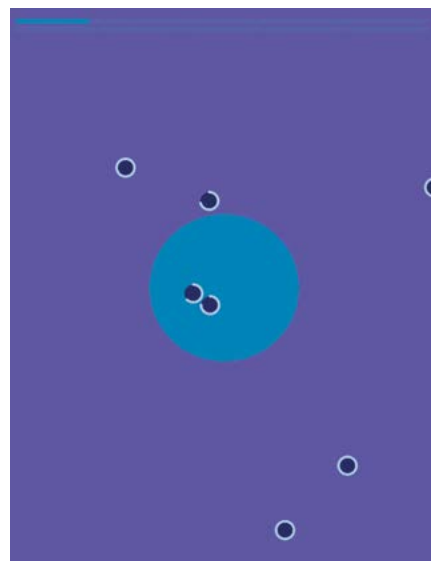
fig. 75

fig. 76

fig. 77
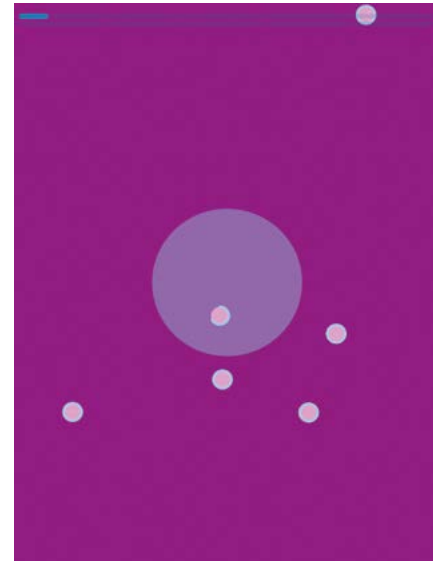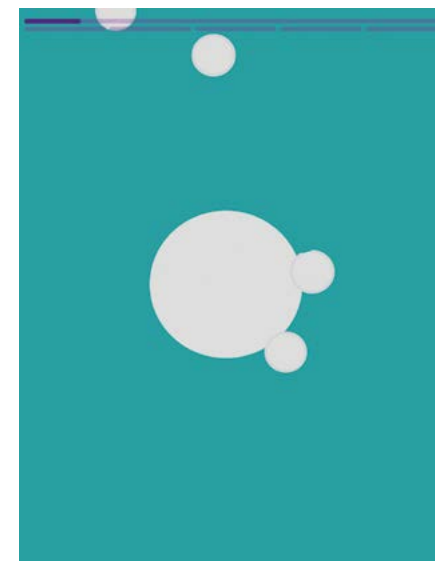

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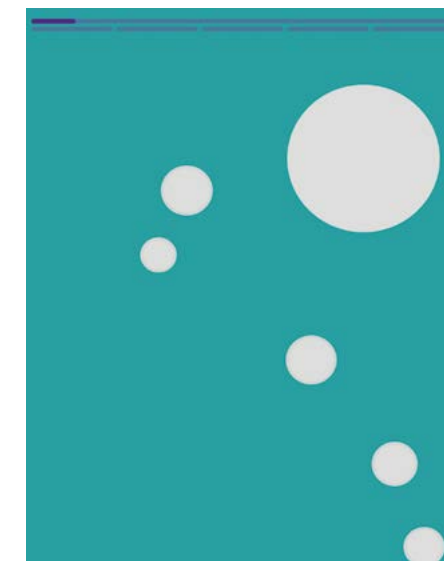
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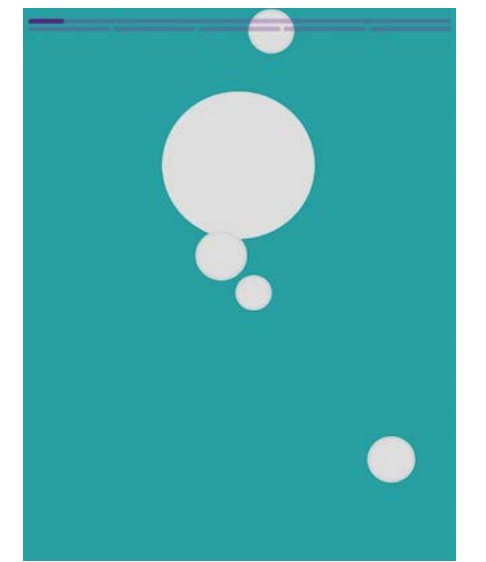
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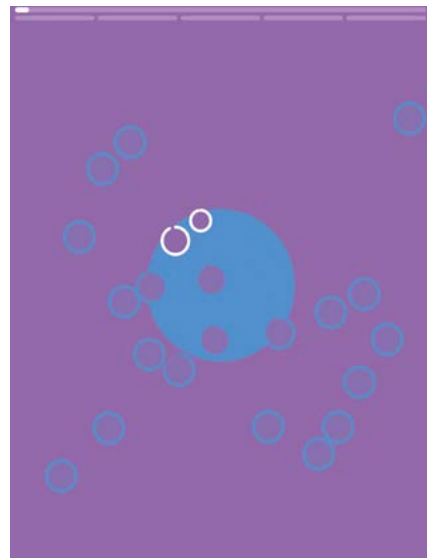
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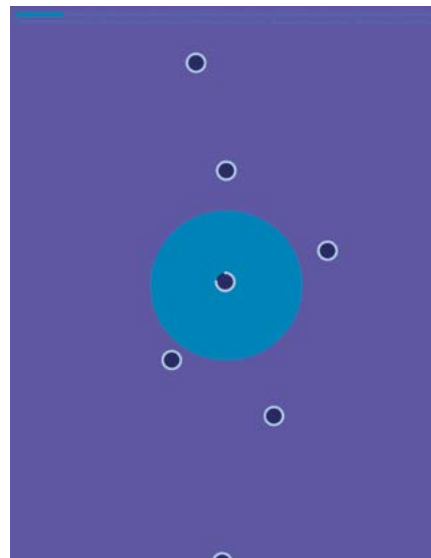
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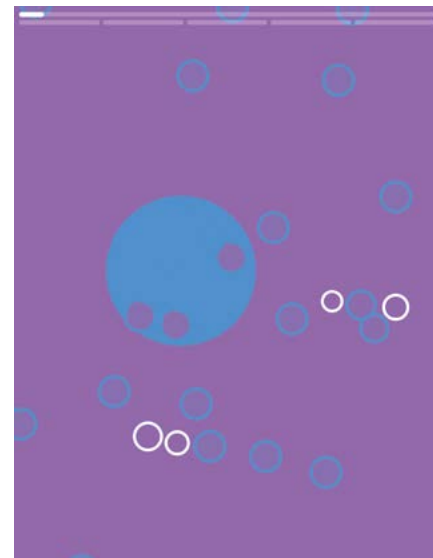
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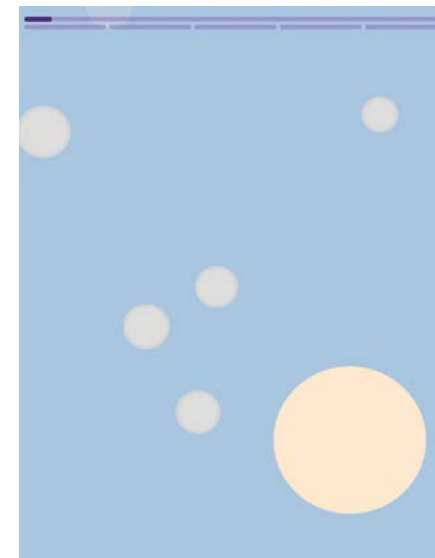
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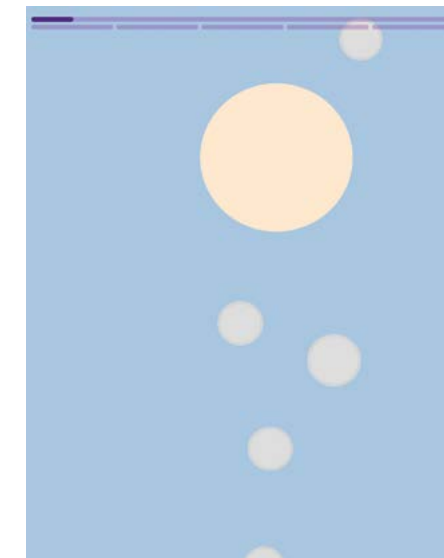
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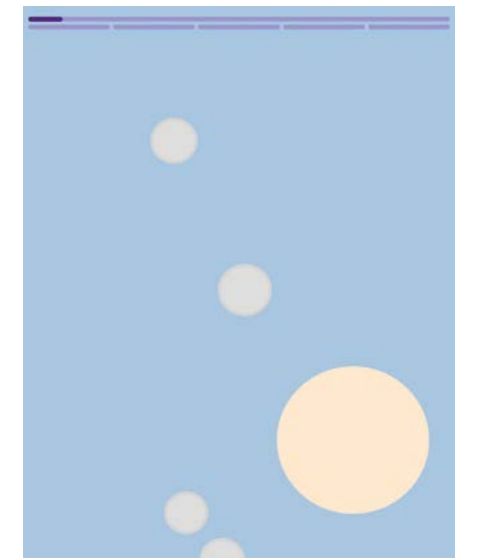
fig. 86

@ThoseMetaMakers, I Create, You Destroy, Installation of 6 iPads using Gamika Technologies, screen captures of the game, 2016

ALAN MEADES

UNDER THE MAP

STILL UNDER THE MAP

fig. 87, Alan Meades, Still Under the Map, COD Advanced Warfare, screen capture printed on vinyl, 2016

ALAN MEADES

UNDER THE MAP

STILL UNDER THE MAP

Alan Meades is a design anthropologist, graphic designer and educator. He is a Principal Lecturer in Digital Design at Canterbury Christ Church University's school of Media, Art and Design. He holds a PhD from Brunel University exploring transgressive, oppositional and subversive modes of play within videogame environments.

Alan's research utilises ethnographic methods to study videogame communities, including those who generate artwork as part of their interactions. He is currently working on videogame and ethnography related user experience design projects and is keen to continue exploring the intersections between user behaviour, creative practice, videogames and notions of ownership.

Glitch art

fig. 88, Alan Meades, Still Under the Map, Wolfenstein-New Order, screen capture printed on vinyl, 2016
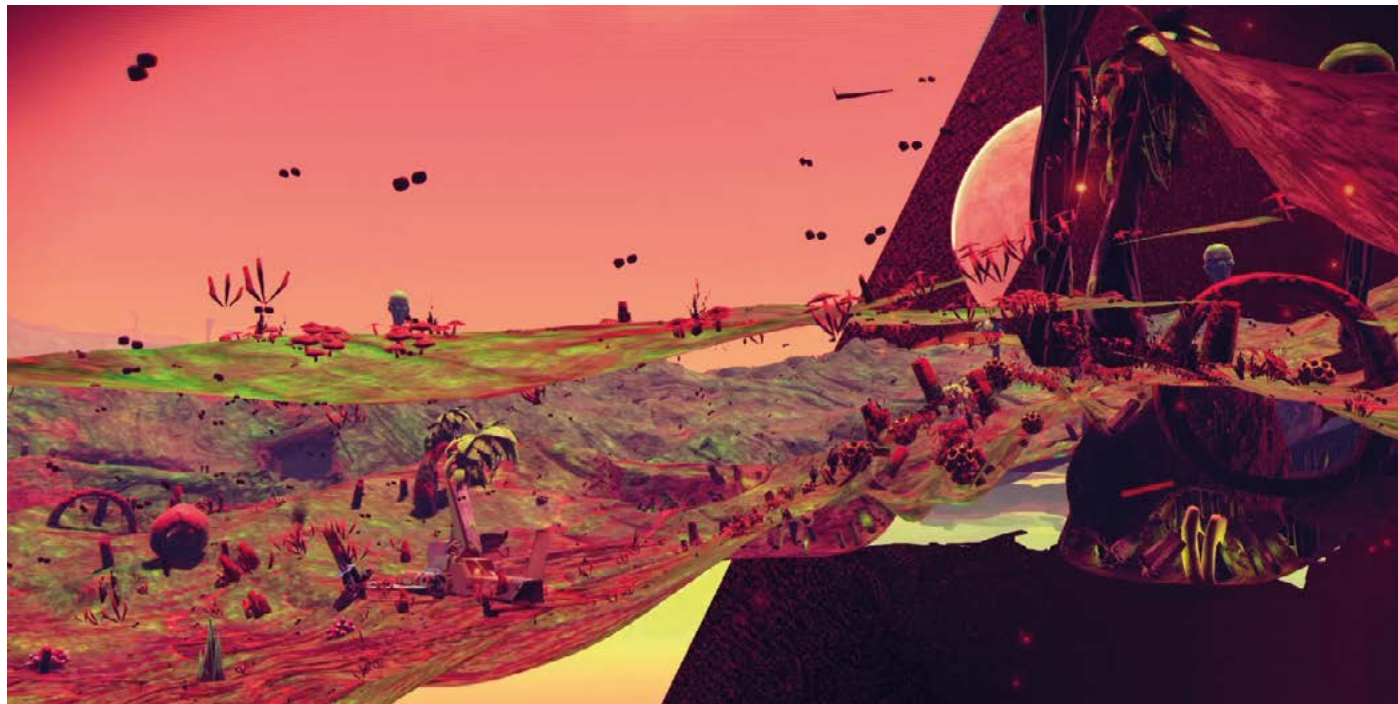
fig. 89, Alan Meades, Still Under the Map, Non Man's Sky, screen capture printed on vinyl, 2016

UNDER THE MAP

Under The Map is built upon the artist's experiences within glitching communities on the Xbox 360, in which he spent over two years playing alongside and interviewing glitchers. Glitchers play with games, purposely seeking out, documenting, distributing, and then exploiting weaknesses, or glitches, within videogame code. Unlike modders or hackers, they frown upon the direct alteration of code, and instead force errors by manipulating the game through using conventional controls and inputs. While there are many forms of glitch, such as those that alter animations, subvert rules, or even duplicate items, the glitches that resonate most strongly with him are those that alter the players' relationship to the game-space: its barriers, its landscape, and its map.

fig. 90, Alan Meades, Under the Map, screen capture printed on photographic paper, 2013

STILL UNDER THE MAP

Still Under the Map is a collection of artworks created by forcing videogames into error states or finding ways to circumvent the restrictions that confine play spaces. Where play is designed to take place within the boundaries of a digital map, this work is produced by going beyond, over and often under the map. By doing so, the carefully designed and placed elements of the game spaces become separated, desynchronised and increasingly abstract. This process is motivated in part as a response to the perception of control within contemporary videogames, which require players to behave and to interact with game spaces in predetermined ways. The expectations of complicit play within videogames are something that Espen Aarseth has described as the tyranny of the game. Still Under the Map intentionally subverts and decontextualises videogames, resisting and breaking their expected use, in doing so producing images that make reference to Romantic landscape paintings and notions of the sublime.

fig. 91, Alan Meades, Still Under the Map, Advanced Warfare, screen capture printed on vinyl, 2016

fig. 92, Installation of Under the Map at the Games as Arts/ Arts as Games exhibition, 2016

fig. 93, Alan Meades, Under the map, screen capture printed on photographic paper, 2013

fig. 94, Alan Meades, Under the Map, screen capture printed on photographic paper, 2013

How does the glitching work?

Games are based on different game middleware engines, such as Unity or Unreal. Glitchers have learned that each of these engines is susceptible to certain kinds of exploits, and these can be triggered to make the game behave in unusual ways. By knowing the engine that a game uses, a Glitcher can break a game with some reliability. An example is Hello Games' No Man's Sky. In this game, each planet is procedurally generated (PCG), so you never know what are you going to get, however the game has particular weaknesses with the way it enforces barrier detection on the edges of walls. So, by jumping and pushing against a wall, especially a wall at the right angle and pushing with the right velocity and direction, there is a chance of finding a glitch and pushing past the barrier. This is one kind of glitch, called a 'barrier breaker', which in-turn can be used to get under the map.

fig. 95, Alan Meades, Under the Map, screen capture printed on photographic paper, 2013

fig. 96, Alan Meades, Under the Map, screen capture printed on photographic paper, 2013

The unconference

PCG
MEETS
AUTO
PLAYTESTING

PROCEDURAL CONTENT GENERATION MEETS AUTO PLAYTESTING WORKSHOP

The MetaMakers Institute hosted an international scientific workshop, "PCG Meets Auto playtesting", on 20 October 2016, in conjunction with the Games as Arts / Arts as Games exhibition.

Procedural Content Generation, or PCG, is a field of technical research and artistic practice that investigates creating content for videogames (and other interactive experiences) by using automated processes, instead of creating the content by hand. This is a rapidly growing area that has spawned both an academic field and new game genres.

The word "content" in "procedural content generation" can mean anything from 3D graphical worlds, as seen in the popular games Minecraft and No Man's Sky, to the design of game levels, core to the independent game Spelunky and others in the "roguelike" genre, to dialogue or narrative, used in the experimental interactive stories of Versu, and even to designing complete games, as seen in the MetaMakers' own system ANGELINA.

Creating content procedurally can be done in a variety of ways, using very different techniques from several different fields. Handcrafted algorithms can be carefully tweaked until the desired output is seen, a method especially popular in independent game development. For procedural generation of 3D graphical content, methods from graphics research

and CG film rendering can be adapted, such as procedural animation systems and landscape generation. To generate levels, rules, dialogue, etc., there is an active body of research using methods from artificial intelligence, such as evolutionary computation, constraint solving, and machine learning.

In a parallel development to the rise of PCG in game design, automatic playtesting has become a hot topic in both the games industry and in academic research. Automated playtesters, often called "bots", play games, like human playtesters do, in order to find bugs, uncover problems with balance and difficulty calibration, and generally to provide information to the designer about how a game actually plays, which they can then use to revise the design. Early automated playtesters could only successfully play board games (automatically playing chess is an old area of AI research), but they have now grown to have the potential to play complex real-time videogames.

The purpose of this workshop was to bring together these two areas, procedural content generation and automated playtesting, for a day of intensive discussions. Although making and testing games are clearly related, the centres of these research communities are located in different sub-disciplines. The intent of this unconference was to pull the areas together, to study their joint development as part of a unified set of tools for the next generation of generative content creation.

Combining these topics is of particular interest to us at The MetaMakers Institute, since our Gamika Technology platform has as a major feature the procedural creation of game designs that are guided by automatic playtesting. The workshop was held at the Sandpit multimedia conference centre of Falmouth University's AIR Building, and included twenty participants from six countries. The attendees, included, in our estimation, a large fraction of the world's leading experts in these subjects, and represented leading game education programs, European Union projects, and independent game development studios.

Since the goal of the workshop was to bridge gaps between two fields and forge research partnerships and collaborations, we eschewed a traditional day-of-scheduled-talks format, and instead based the schedule around the more flexible "unconference" format. This format, used frequently in events in the maker and startup communities, has participants sign up on the day of the workshop for very short talks in which they pitch an idea or project. Sign-up was open to any participant and everyone was encouraged to participate.

In this initial pitch session, sixteen topics were proposed. We then had a plenary discussion regarding which of these to pursue in more detail, with the intention of splitting into smaller working groups that would focus on one problem each, roughly in the format used by the well-known Dagstuhl Seminars. Five topics were chosen to pursue in morning working groups, and four additional topics to pursue in afternoon working groups (each working group had approximately two hours). As an example, in one of the morning sessions, the subject of player experience modeling with respect to generated content, using automated playtesting was discussed. In one of the afternoon sessions, a formal approach to playtest-led game discovery was sketched out.

Several ongoing collaborative projects came out of these discussions. For example, a group led by Emily Short is building casual procedural text tools that can incorporate the types of textual corpora and datasets that are becoming increasingly common, and an interdisciplinary group led by Tommy Thompson and Mark Johnson is analysing the effect the discourse around procedural generation has on how players and the game industry receive PCG-driven games.

Dr. Mark Nelson

Participants: Ruth Aylett (Heriot-Watt University, UK), Gabriella Barros (New York University, USA), Simon Colton (Falmouth University, UK), Michael Cook (Falmouth University, UK), Joris Dormans (Ludomotion and Leiden University, Netherlands), Swen Gaudl (Falmouth University, UK), Aaron Isaksen (New York University, USA), Guillaume Levieux (Conservatoire National des Arts et Métiers, France), Antonios Liapis (University of Malta), Michael Mateas (University of California Santa Cruz, USA), Katharine Neil (Independent, France), Mark Nelson (Falmouth University, UK), François Pachet (Sony Computer Science Laboratory, France), Ed Powley (Falmouth University, UK), Rob Saunders (Falmouth University, UK), Noor Shaker (Aalborg University Copenhagen, Denmark), Emily Short (Independent, UK), Gillian Smith (Northeastern University, USA), Adam Summerville (University of California Santa Cruz, USA), and Tommy Thompson (Anglia Ruskin University and Table Flip Games, UK).

MICHAEL
MATEAS
KEYNOTE

The workshop was concluded with one of the two Games as Arts / Arts as Games exhibition keynotes. Michael Mateas, Professor at the University of California Santa Cruz and Chair of its Department of Computational Media, acted as conference respondent, putting forth several provocations in response to the discussions of the day.

Mateas's talk started by highlighting a number of research systems in procedural content generation, especially focusing on generation of complete games, as reference points for the discussion. These included LudoScope, a tool for modeling games with Petri Nets built by workshop participant Joris Dormans, Sketch-A-World, a system from TU Delft for interactively designing game world, Ludi, a board-game design system by Cameron Browne, ANGELINA, a videogame design system from workshop participant Michael Cook, as well as two abstract videogame design systems from Julian Togelius and Adam Smith.

Given this sampling of systems, one question to ask is what are we generating? Mateas observes that a large portion of the work focuses on abstract games that aren't strongly connected to a theme or broader interpretation. But this is only a part of the wider space of game design, and he identifies seven broad game-generation domains, based on several papers written by Mateas himself along with Georgios Yannakakis, Julian Togelius, and workshop participants Mark Nelson and Antonios Liapis. These seven domains are: abstract mechanics, concrete state and action representation, thematic mappings,

input mappings, worlds and levels, progressions, and narrative. Generating content in more of these domains requires looking at the connection between games and its context, which brings us back to the topic of the workshop.

The connection between generation and testing can be viewed as a simple infinite loop. A content generator produces a piece of content, which is an artefact to evaluate. This is then tested to evaluate it, and the evaluation results are fed back to the content generator in order to guide future generation. Full evaluation, however, requires dynamic analysis, not simply statically looking at content, since what makes content useful in the context of games is its role in gameplay.

A common framework used in game design to analyze that relationship is the mechanics-dynamics-aesthetics (MDA) framework, in which game mechanics, when players interact with them, give rise to game dynamics, which in turn produces aesthetic experiences. We can generate mechanics, but determining the dynamics and aesthetics requires play.

Furthermore, games are played in a cultural context. Games aren't just abstract bundles of mechanics: the gameplay means something to players. Grappling with meaning and context of generated games and game content is a key challenge of procedural content generation.

Mateas then posed six provocations or challenges for discussion:

1. What if we "solved" the problem?

Imagine that the currently outstanding technical challenges were overcome, and we solved content generation, or even complete game generation. What would this even mean?

Mateas proposes that it's difficult to imagine what this would mean because it is not really a well-defined problem. He invokes the concept of "wicked problems", defined in 1973 by Horst Rittel and Melvin Webber in the context of public policy. A wicked problem is one that lacks a definitive problem statement: a problem is only understood through looking for a solution. Game design, Mateas argues, is just such a wicked problem. There is no definitive statement of the problem. Take a very popular, successful game such as Katamari Damacy. It was not the solution to a well defined problem statement like "create a game in which you roll a sticky ball around and pick up stuff". Furthermore, there is no stopping rule. Game design is done when resource management dictates it needs to be done. Solutions are not correct or incorrect, either. Games are only judged relative to each other and in social and economic context. And finally, there is no immediate or ultimate test of a solution. Every game design changes the problem space, some subtly and others dramatically.

2. What are the aesthetics of generation?

Generators are often targeted at producing "good" content, but we might more productively think of the generator as having an aesthetic for the content it produces. There are a number of aesthetics we can imagine, some of them specific to generative content.

Some examples of aesthetics Mateas suggested exploring include:

• The one first proposed by Tom Betts at GDC 2014: the Kantian "mathematical and dynamic sublime" as an aesthetic for procedural games.
• The system performing generation and evaluation, and externalizing this process, can itself be an aesthetic.
• The aesthetic might be the player explicitly exploring the generator's output.
• A Kodak instamatic aesthetic for games: disposable, low-cost, but interesting.
• The generator as reductio ad absurdum.

3. What are the varieties of play?

The majority of work on automated play conceives of play fairly narrowly as instrumental play. Instrumental play is play aiming at a goal, such as winning a game, scoring points, or unlocking an achievement. This is only one form of play identified by sociologists who study play, however. Other forms of play identified in play studies include: counterplay, play to support commentary or criticism, imaginative play, and exploratory play, among others. How do we model these other kinds of play? What would an automated imaginative player look like?

GAMES AREN'T JUST ABSTRACT BUNDLES OF MECHANICS, THE GAMEPLAY MEANS SOMETHING TO PLAYERS

4. How general are "general" game players?

Artificial intelligence researchers in recent years have investigated "general" game players, meaning players that can play any game, even unseen ones. This was motivated by finding automated play on specific games increasingly unsatisfying, since automated chess players, for example, used techniques that were becoming very specialized to chess. A general game player could be both more useful, and hopefully tell us something broader about intelligence.

But just how general are any of our general game players? There is an annual General Game Playing competition, in which automated players are given game rules of board-game-like games in a logical description language. There is another competition, the General Videogame AI competition, in which automated players are given an unseen arcade-style videogame and asked to play it (without knowing the rules).

These existing competitions are more general than one game, but still not that general. Their organizers would acknowledge that they are not fully general, since they can't play other, larger games such as Starcraft. But the issue of generality is broader than simply lacking mastery in games more complex than those that AI agents can currently beat.

Consider the range of cultural production in the game scene. What would a general game player make of Cookie Clicker, a web game where the player bakes cookies by clicking, and then builds equipment to bake cookies faster, with no end? How would it play the experimental hypertext game Howling Dogs? Or the hidden object game The Clockwork Man? What makes these games engaging, and what kinds of play are appropriate within them? This refers again back to the sole focus on instrumental play.

5. Systems as arguments about design

Generators are usually built for their outputs. A level generator produces levels, an automated board-game designer produces board games, and we judge them by these outputs. But a generation system also constitutes an argument about design. A generator is literally an embodiment of a theory of design, which implements the theory to carry out design according to how the theory says design operates in a specific domain.

Once we recognize that systems are arguments, we can also observe that arguments can make use of various rhetorical strategies. We don't have to limit ourselves to "objective" or "neutral" design. For example, Mateas points to his work with Adam Smith on generators as a caricature of game design. A caricature is a kind of rhetoric, and a generator that operates in the mode of caricature can satirize a style or approach to game design.

6. How do you support designers?

When procedural content generation is mentioned, a common question from the media is always whether this will replace designers, and how soon it will do so. But procedural generators are often of most use to designers making games, who would like to have control over them.

At a high level, we understand that there must be some kind of mixed-initiative interaction between the generative system and the human designer. The designer conveys their intent to a generator, or is given an explicit set of control knobs to influence its outputs, or performs some kind of explicit evaluation of its outputs. The generator then produces output, and furthermore helps the designer gain more knowledge about the design space, which feeds back into the interaction loop. But to make this mixed-initiative interaction really work is an area of research that is very much open.
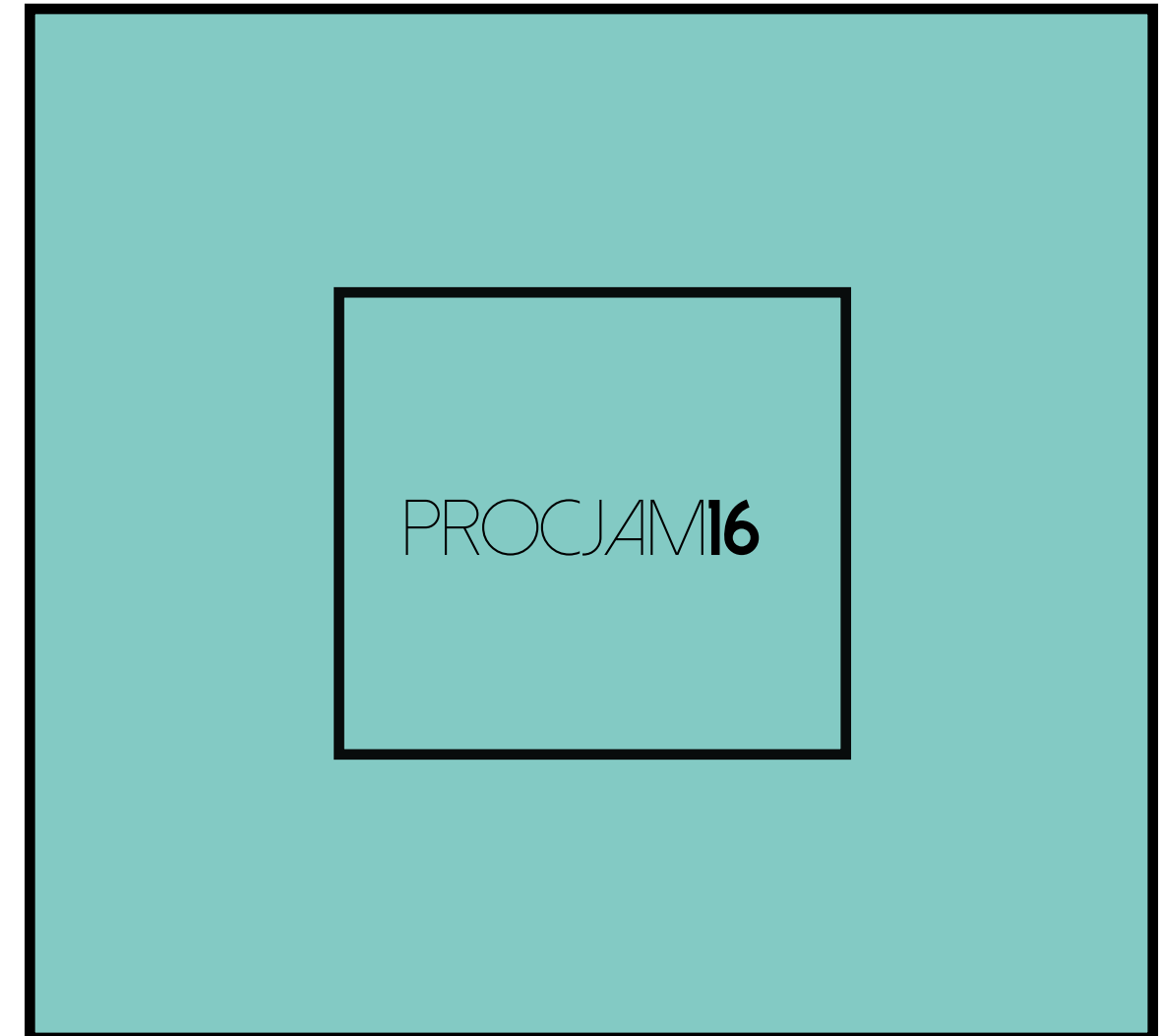
Dr. Mark Nelson

FULL EVALUATION REQUIRES DYNAMIC ANALYSIS
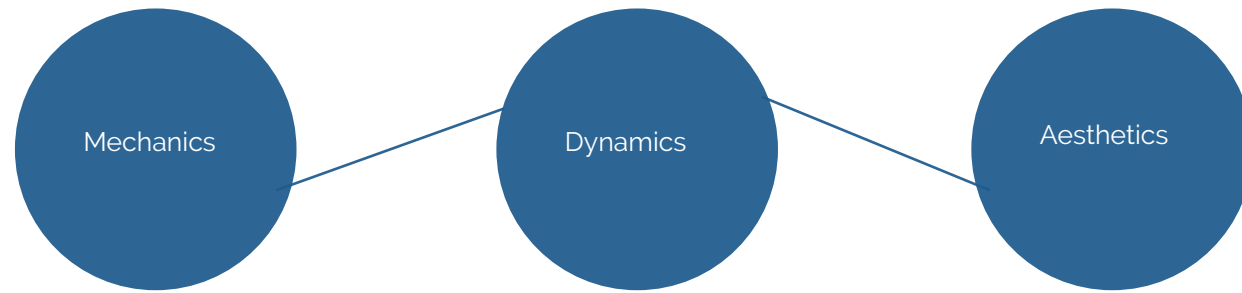
DETERMINING DYNAMICS AND AESTHETICS REQUIRES PLAY

fig. 98, Participants at the Unconference in front of the AIR building Penryn campus

PROCJAM 16!

THE PROCEDURAL GENERATION JAM:

MAKE SOMETHING THAT MAKES SOMETHING

The aim of the Procedural Generation Jam (PROCJAM) is to build a community of artists, designers, engineers and more, all interested in finding new ways to use generative software, and making the field more accessible to newcomers. Accessibility is crucial for new technology, especially when that technology intersects with so many artistic and scientific areas. PROCJAM aims to provide resources, tutorials, recorded talks, a support base and a community of peers so that people can begin working in this new area and exploring its potential uses within art, design and beyond. The composition of our community also helps to break apart the idea that procedural generation exists in any one of these spaces - it's an idea that everyone can use, that everyone should have access to, and where everyone can contribute ideas and help show new things to people.

This year was the third PROCJAM, and the largest so far in terms of attendees and submissions. In total, 180 entries were submitted to the jam, with over 900 people signed up to participate in the opening day. On that day, we streamed live talks by a host of experts who gave their talks in the AIR building at Falmouth University's Penryn campus. A full list of talks is included below, but speakers ranged from academics, to artists, to designers, to students, to professional game developers. Topics included technical details as well as broad philosophical discussions, including a talk about the sociological impact of automated creative work. All the talks are now archived on YouTube, adding to our history of learning materials, which have been used by tens of thousands of people.

In addition to the talks, PROCJAM added to its catalogue of free resources with two new packs of art assets, designed to be used in generative projects. khalkeus and Tess Young created a 3D and 2D set respectively, and released the art with a Creative Commons license. This enabled its use not only in the jam but also by other people in the future, as well as by educators teaching generative software to students. We originally added these in after feedback that students who had been assigned PROCJAM for a class were finding it hard to confidently make something without spending lots of time building art assets that could be recombined in many different ways.

A new addition this year was Seeds, a zine composed of articles and art sent in by community members, totalling over a hundred pages. Articles included tutorials on achieving certain goals with generative software, philosophical thinking about the purpose of generativity or how it could be used better, postmortems on past generative projects and ideas for what generativity could be used for in the future. Seeds offers a way for the community to contribute their knowledge to a wider pool, without submitting directly to the jam. It also makes it easier for people to talk about smaller ideas or hypotheticals, which breaks down the barriers between accomplished experts and newcomers - many of the authors of Seeds articles were new to the community.

Procedural generation, particularly for games, has grown ever more present in the public consciousness over the past years. In 2016, No Man's Sky released, a game which had raised a lot of discussion about generative techniques and their potential.

Despite its popularity, and its innovative fringe like No Man's Sky, the application of procedural generation usually still revolves around the same few ideas. PROCJAM's growth as a community is a good sign of new life coming into the area, and we hope that the vibrancy and diversity of its community will lead to new ideas and developments in the future.

Kotaku's Heather Alexandra covered this year's Procedural Generation Jam, celebrating its 'organised chaos' and variety' "In all, it's pretty neat to see what can be done with some enthusiasm and algorithms. With boundless worlds and regenerating oddities, PROCJAM'S games are wellsprings of creativity and fun." In the past we've been covered by Eurogamer, PC Gamer and The Guardian. Our hope is that over time, the community will grow into a self-sustaining group that works together and talks throughout the year, with the jam being an annual focal point. 2016's jam was another step along that road, and another year of growth for the event and the community around it.

The aims for PROCJAM are:

* To make procedural generation accessible to more people.
* To host a jam that is laidback, easy to enter, and fun.
* To build a community of friends and peers across disciplines.
* To show off projects that are pushing the boundaries of generative software.

There's no winner or loser in PROCJAM, so the format is just there to help people get organised. PROCJAM takes place across nine days, including two weekends. People can enter anything they like, as long as it has something to do with procedural generation/random generation/generative software/things like that. Art, board games, tools - it doesn't have to be a game. Participants can use existing code, art, or anything else needed. It's also possible to take an existing game and add some generative magic to it for the jam. If participants need to start before the jam or finish later, that's also fine.

Dr. Michael Cook

LIST OF TALKS AND SPEAKERS

FRIDAY 21ST OCTOBER

AIR BUILDING PENRYN CAMPUS

FALMOUTH UNIVERSITY

PROCJAM.COM

Data Games (Gabriella Barros)
PhD student and game developer at NYU, looking for new procedural generation techniques. One of Gabriella's research interests is how to safely and sensibly use open data to generate games, like writing a murder mystery game using Wikipedia.

Five Strategies for Collaborating with a Machine (Emily Short)
Game and narrative designer (Emily's games include the legendary Counterfeit Monkey, and First Draft of the Revolution), interactive fiction writer, and one of the forces behind the landmark Versu game engine and the Inform interactive fiction engine.

Procedural generation and the labour process (Jamie Woodcock)
Research fellow at the London School of Economics, Jamie is a sociologist specialising in digital labour, and has recently gotten involved in the study of eSports. Jamie is interested in how technology affects how people work, including tools and automation like procedural generation. How does procedural generation change the way we create and work?

Making Smarter Dice (Adam Summerville)
PhD student at UC Santa Cruz, who is currently researching ways to use machine learning in procedural generators. He's come up with some innovative applications to games like Mario, and believes there's a lot of exciting untapped potential.

Cyclic Dungeon Generation (Joris Dormans)
Games scholar who did groundbreaking research on game design and procedural generation, and then put his ideas into practice, building tools like Machinations and games like the newly-released roguelite Unexplored.

Applying Generated Content to an Existing Game (Becky Lavender)
Game developer currently working at Playtonic Games on Yooka-Laylee, who has previously worked with amazing people like Peter Molyneux, and done awesome things like publishing research on generating Zelda dungeons.

Personality Schemas (Tanya Short)
Creative director and designer at Kitfox Games, who most recently released the innovative Moon Hunters, a procedural mythology game. Tanya writes extensively about the design and application of procedural generation to games, and is currently editing an amazing textbook on the subject

Making Things That Make Games (Mark Nelson)
Researcher who did pioneering work on automated game design and creative design, is one of the editors behind the incredible PCG Book, and is currently working at Falmouth University on applied automated game design with The Metamakers Institute.
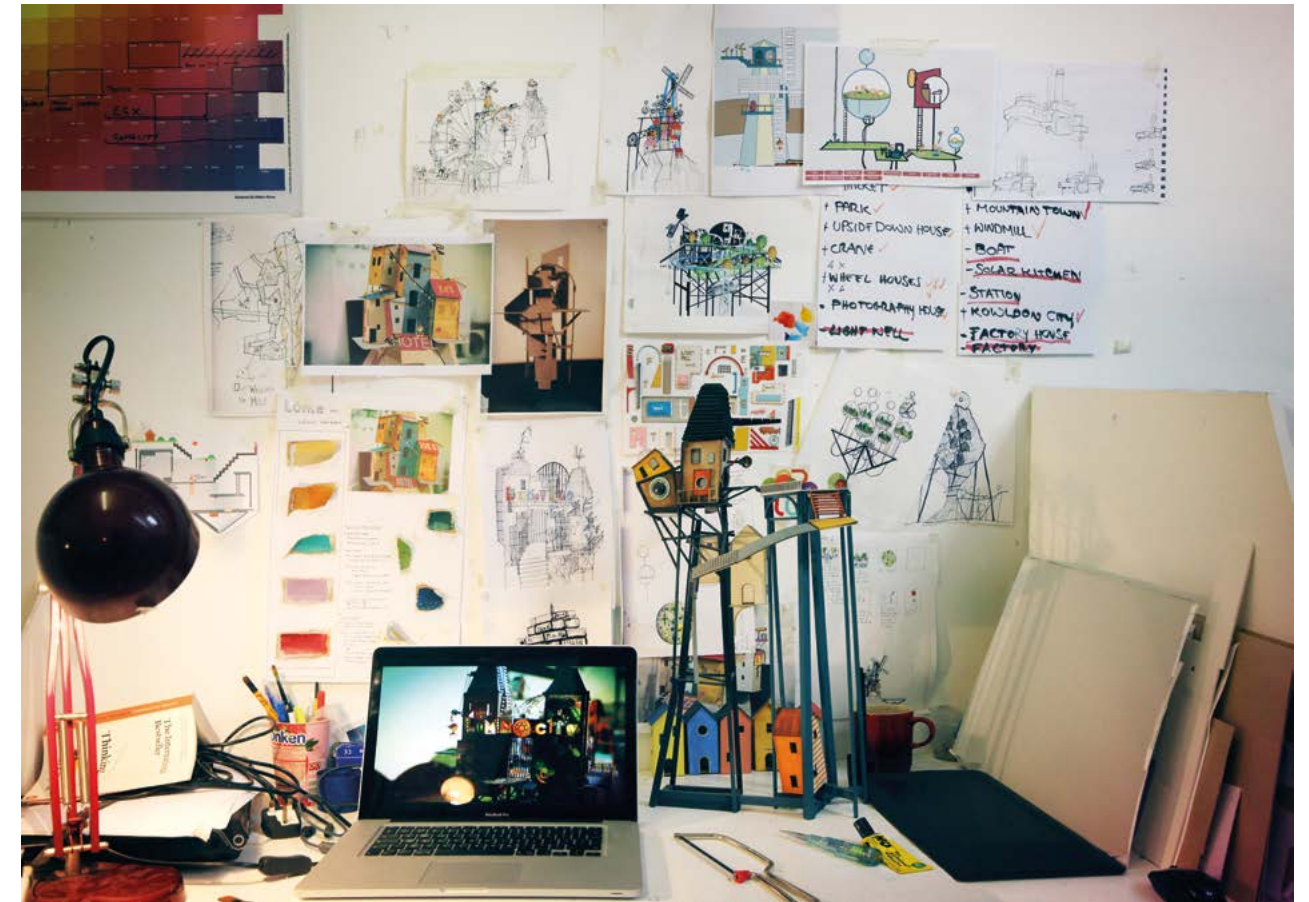

fig. 99, State of Play, studio with some of the original models and sketches for Lumino City, 2015

Keynote speech of Hartmut Koenitz during the opening

Hartmut Koenitz is a Professor of Interactive Narrative Design at HKU University of the Arts Utrecht, researching Interactive Digital Narrative in Videogames and other emerging digital formats. Koenitz areas of interest centre around new expressive forms using digital technology. This includes narrative in videogames as well as interactive art pieces and installations.

Hartmut Koenitz was previously at the Department of Telecommunications/Entertainment Media Studies at the University of Georgia and at Georgia Tech's LCC department, where he founded and led a research group and developed ASAPS, an open and expandable system for Interactive Digital Narrative.

fig. 100, Hartmut Koenitz keynote, 13th October 2016

EPILOGUE

Videogames have been part of our artistic and technological culture for more than 50 years, yet there are still whole swathes of society who couldn't tell PacMan apart from Tetris. Part of the problem has been that technology has limited the creative expression artists can have with digital games, and so they may have lacked some of the sophistication, intrigue and conceptual power of other art forms. This situation is rapidly changing, with increased access to game concepts and technologies meaning that the barrier to game making is being constantly lowered. As a result, we are seeing the door to gaming craft and culture opened wider, and artists are increasingly using gaming history, gaming norms and gaming techniques in their practice.

Conversely, shifts in player demographics and the changing expectations people have about videogames has empowered established game developers to make games admired as much for their aesthetic appeal and their thought-provoking ideas as their entertainment value. We are seeing independent games breaking into the mainstream of cultural appreciation as they address difficult issues of race, death, immigration and identity, and they rival art installations in terms of their beauty and meditative qualities.

The Games as Arts/Arts as Games exhibition held in Falmouth celebrated these two aspects of the cultural advancement of videogames as major 21st Century art forms. Blanca Pérez Ferrer and the exhibition team carved out a major milestone in the cultural appreciation of videogames, helping to bring together videogame artists and those from more traditional disciplines to explore the creative affordances, political potential and aesthetic appeal of digital games. The exhibition was a wholehearted success, and we would like to congratulate Blanca and the team for the event, and for distilling the excitement and energy of the exhibition into this wonderful catalogue.

The MetaMakers Institute is committed to democratising game design, so that anyone and everyone can make games. Our approach has been two-pronged: by innovating with new technologies harnessing cutting edge AI techniques to lower the barrier to entry in game making, and promoting the cultural value of games as important art forms, to widen participation in the art and craft of game making. With this exhibition highlighting the artistic, cultural and political potential of videogames, we hope to have changed some people's perspectives, and we look forward to a more integrated artistic landscape, with games taking a pivotal role.

Prof. Simon Colton and Dr. Rob Saunders
Co-leaders of The MetaMakers Institute

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PRESS AND SOCIAL MEDIA: Jupiter Hadley

CATALOGUE: Blanca Pérez Ferrer

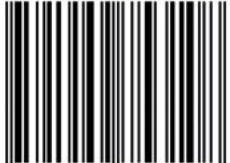**CO-LEADERS OF THE METAMAKERS INSTITUTE:** Prof. Simon Colton and Dr. Rob Saunders

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