The Surrey Institute of Art & Design

Final Project (MA 67)

Insular

Critical Appraisal

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MA Digital Games Design

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1) Thematic content of the research

The subject of this research is *freeform creative play* in videogames, a definition borrowed from Ernest Adam's article about creative play. According to Adams, this sort of play "lets the player use the game as a sandbox, largely without limitations. The player can do pretty much whatever she likes in the context the game offers" (Adams, 2005).

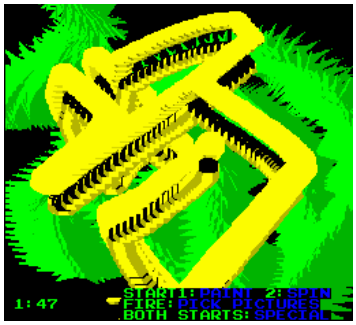
It is my purpose to investigate creative play and its place within games design, and also the boundaries between games, toys and real-life applications. Some distinct products appear to explore these limits, not fitting exactly inside a single definition, but borrowing elements from several ones. During the research, the preferred term to designate these products – as well as my particular MA project – was *non-games*. The main characteristic of the non-game genre is the apparent lack of imposed 'goals', 'objectives' and 'challenges', very important notions for all kinds of games, digital or otherwise. The absence of such elements results in less restriction and resistance from the game to the player's agency and freeform manipulation of the game, allowing the employment of the player's creativity in order to produce meaningful play through self-expression.

Game designer Will Wright is said to have described SimCity, one of his creations, as a "software toy". Arguably, Adams definition of freeform creative play seems to suit toys better than games. Within this research, however, this term would not be adequate for one key reason: The most important aspect of a toy is its symbolic dimension; games – on the other hand – have their functionalities as their main essential element. (Brougère, 2004). In that case, even if some non-games fit into the former definition, it cannot be discarded that others could fit the latter.

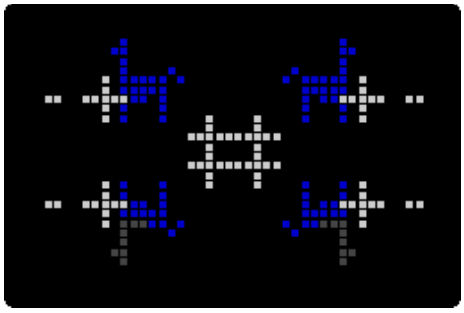
While the connection between toys and games seems obvious, the relationship between games and real life applications does not appear to be that explicit. It is important to have in mind that games are applications themselves – and historically they have been separated mostly for demographic reasons: games were targeted at children, and applications, to adults. However, during the last decades there was not

only a spread of game culture amongst adults (who already grew up under a videogame populated environment, in the first place), but also a spread of digital culture and new media towards youngsters. That could have expanded the audience for both kinds of products – hybrids being a rather natural step forward.

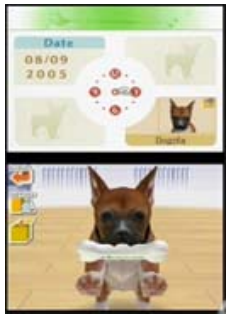
The oldest examples of non-games found so far are the game I Robot (Atari,1983) which included a non-game mode that allowed the player to draw using polygons (Fig. 1), and Jeff Minter's Psychedelia (Llamasoft, 1984) and Colourscape (Llamasoft, 1985) that could be described as 'light synthesisers' driven by the player (Fig. 2). Curiously, Minter is currently developing a similar product to be included in the next generation console Xbox 360 (Llamasoft, Forthcoming). Non-games, in fact, are becoming more and more common. As part of their strategy to attract new audiences, Nintendo is also investing strongly in non-games, having released titles such as Elektroplankton and Nintendogs (Fig. 3) for the handheld system Nintendo DS – the same platform I have idealized my final project for.



(Fig 1. I, Robot)



(Fig 2. Psychedelia)



(Fig 3. Nintendogs)

Another area of research, related to the theme and settings of the final project's game, was the relationship between art and science. Examining key texts on the practice of contemporary art was critical to better evaluate my own final project.

2) Literature Review

My literature review would be better organized if divided in two distinct topics: Creative Play, which reflects the game mechanics, and Science Art and Education, related to the game theme and settings.

2.1 - Creative Play

As it is the concept pervading my final project, creative play, as a way to achieve meaningful play, is the core of the thematic research, deserving some analysis achieved through the review of several related texts and videogames.

2.2 - Science, Art and Education

This part of the literature review relates more to the theme and setting of the game being prototyped than to the general thematic research. Nevertheless, it is interesting to see how videogames could function in the interplay of art, science and education.

2.1) Creative Play

It's fair to state that *Insular* is only a compelling and effective game if the player invests some of his or hers creative talents on it. It's the creativity and imagination of the player which is responsible for the enjoying of the game. In order to understand more about this process of creativity, some investigation was necessary.

2.1.1) "Play, Dreams and Imitation in Childhood", by Jean Piaget

Aware of the potential of the game amongst younger gamers, Piaget's book on the role and development of play during childhood was a very good place to examine Creative Play. The Chapter V - Classification of Games and their Evolution after the Beginnings of Language – was very useful in particular.

A number of classifications of games by different authors are presented throughout the chapter. Applying these definitions to *Insular* helped to understand the nature of the project. According to the categories established by K. Groos and Claparède, *Insular* would be the electronic counterpart of "experimental game" or a "game of general functions" (Piaget, 1962:105), fitting the sensorial, intellectual and affective sub-categories (reflected on the different in-game activities). According to the definitions of W. Stern, *Insular* would attempt to reproduce individual games dealing with the "mastery of things", and not, as many videogames do, adapt originally social games to be played alone. This certainly reinforced the desired mood of introspection for the game.

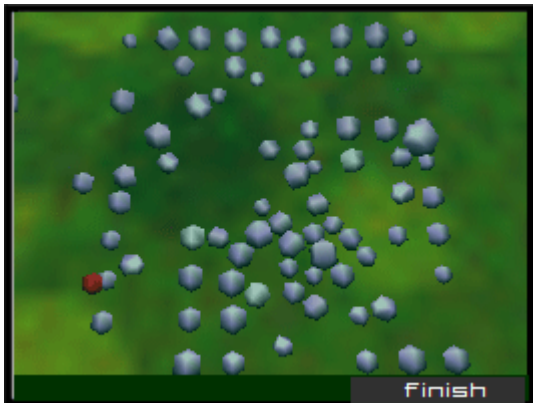
Insular would also comprise four of the five different groups of games described by Charlotte Buhler: "(I) functional games (or sensory-motor), (II) games of make-believe or illusion, (III) passive games (looking at pictures, listening to stories, etc.), (IV) constructional games" (Piaget, 1962:109), leaving outside only (V) collective games (and even those would be included as external multiplayer games).

Piaget argues that constructional games "form a special category, to be placed both between sensory-motor and symbolic games" (Piaget, 1962:109). They do not "form a category of the same kind as the others, but are a boundary class between games and

non-ludic behaviours" (Piaget, 1962:109). That could facilitate the insertion of real life applications into the game universe.

Piaget divides games into three major categories:

- *Practice games* – without symbols, make believe or rules, an example being throwing rocks in the water - actually incorporated in *Insular* (Fig. 4). Begins at the first months of life.



(Fig 4. Moving pebbles)

- *Symbolic games* – imply the representation of an absent object and make-believe representation. – begins around second year.
- *Games with rules* – imply social relationships (not in the case of videogames, since they substitute other players by the machine). Begins mainly from the age of 7 (rarely before 4).

Featuring activities from all categories *Insular* would be a suitable game for children of all ages. I should insist, however, that it could also be enjoyed by older players looking for a new equivalent of that sort of experiences abandoned during adolescence and adulthood.

An interesting note: Piaget claims that "symbolic games involving more than one character may give rise to rules" (Piaget, 1962:145). That would be the case of the Sea Life editor of insular, that includes the drawing of individual life forms (Fig 5) that will after interact with each other accordingly to their characteristics.

(Fig 5. Drawing a fish)

2.1.2) "A Few Remarks on Creative Play", by Ernest Adams

http://www.gamasutra.com/features/20050429/adams_01.shtml

> *"I'm going to propose a rudimentary taxonomy of types of creative videogame play, with a few random thoughts about each category. (...) I think they might help to guide our thinking about building creative play into our games."* (Adams, 2005).

Adams, at the beginning of the article, says: "for my purposes, creative play means play that enables you to point at something in the game and say, "Look – I made that." (Adams, 2005). It is an important definition since, as pointed out by Adams himself, some theorists would argue that *any* sort of play is creative, as it involves imagination and, especially in the case of games, decision-making.

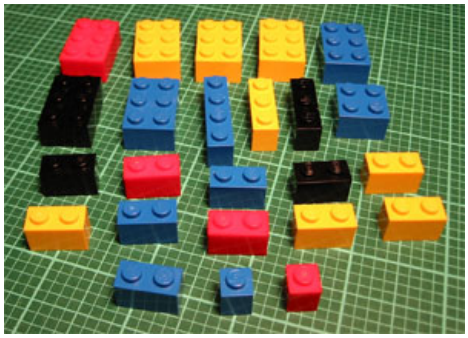
Proposing the categorization of different kinds of creative play, Adams admits that "the borders of these categories are very fuzzy" (Adams, 2005). He lists six categories of creative play. However, regarding the three first ones is hard to tell where one ends and the next begins.

1) Freeform Creative Play: "(...) lets the player use the game as a sandbox, largely without limitations".(Adams, 2005). It might be interesting to see the context of the game *as* the limitation itself. Considering that the player has to use the game – a limited system – to engage into the play activity, a totally freeform creative play is rather utopian.

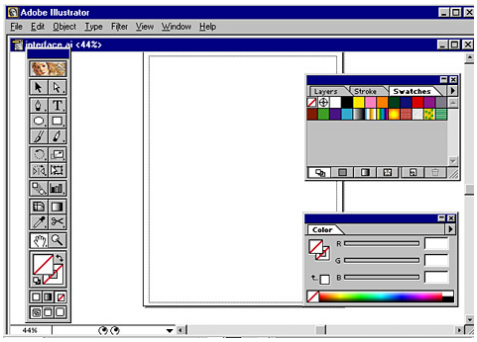
2) Constrained Creativity (Construction Play):

> *"(...) creation is not purely freeform, but restricted by rules in some way (...) Even LEGO bricks impose some constraints. You only have a limited number of them (…) and they only fit together in certain ways. "*(Adams, 2005).

As the toy it is, Lego would certainly be a better example of Freeform Creative Play. In fact, I've sent an email to the author, who kindly answered me back, acknowledging that Lego (Fig. 6) was not a particularly good example of "constrained creative play", and also that he "was thinking of Freeform Play as being more like Adobe Illustrator (Fig. 7) or Maya" (Adams, 2005b) – Two applications rather than games, collaborating to the point of view that they need not to be seen as opposites. While I could see the difference between them, Freeform Creative Play and Constrained Creativity don't seem to be different categories, but different degrees of the same one.



(Fig. 6 Lego)



(Fig. 7 Adobe Illustrator)

3) Self-Expressive Play: "This is a sort of subcategory of the preceding two categories of creative play, in which the creativity is specifically directed at representing one's self in some way." (Adams, 2005).

For some reason, the examples provided only cover the construction and customization of the player's avatars and its accessories (something closer to self-portraits and self representation). However, self-expression goes beyond that, and it should be possible to the player to express himself through the construction of Pinball

tables. Self-expression, actually, might be indivisible from Creative Play, being amplified by the degree of freedom presented.

2.1.3) Types of Play, by Evan Robinson.

http://www.erasmatazz.com/library/JCGD_Volume_4/EvanRobinson.html

In this article originally published on the "The Journal of Computer Game Design Volume 4 (1990 – 1991)", Robinson proposes a "more stable classification system, not for our products, but for how they are used". The categories presented are *Unstructured Play, Structured Play* and *Competitive Play*. *Insular* would certainly be more close to the first definition, described in the following passage:

> • *Unstructured Play: Interaction with a system in which the primary goal of the user(s) is examination of the system's behaviour. Also called 'Exploration'*. (Robinson, 2005)

Although there is a structure behind the gameplay, the *primary* goal of the user is supposed to be a free-form play.

2.1.4) The Game, the Player, the World: Looking for a Heart of Gameness, by Jesper Jull

http://www.jesperjuul.net/text/gameplayerworld/

In this article, Jull proposes six features that define games: (1) Rules, (2) Variable and quantifiable outcome, (3) Valorisation of outcomes, (4) Player effort, (5) Player attached to outcome and (6) Negotiable consequences. According to Jesper, in order to qualify as a 'game', an activity must cover all six features. If not, it's either a borderline case (and some of them we still call games, like gambling and games of pure chance) or not a game at all.

In the case of *Insular*, as in any other game, some of the features are more evident that others. It obviously have negotiable consequences, meaning that the game's outcome (especially if undesirable) should be kept away from ordinary life, is also present in *Insular* (as in most games, except from gambling and similar cases).

It has fixed rules, as you can only interact with elements in a specific way and depending on a number of variables. The level of interactivity and agency allowed to the player makes possible to have a great variety of outcomes, even if they are not explicitly judged by the game as being 'good' or 'bad' ones – so there is very little or none valorisation of outcomes – and therefore the apparent need to classify it as a non-game.

Player effort is common to all interactive products. In the case of *Insular*, it is less evident than in games that have clearly defined objectives and challenges. The attachment of the player to the outcome is, or should be, the strongest characteristic in the game, given its constructivist and self-expressive nature.

2.1.5) Hamlet on the Holodeck, by Janet H. Murray

Although more interested in storytelling through games, Murray's book has interesting observations on creative play and the elements that constitute it.

Murray argues that the "constructivist pleasure is the highest form of narrative agency the medium allows, the ability to build things that display autonomous behavior", and that "as computer access spreads, it is likely that more and more people will turn from win/lose game playing to the collective construction of elaborate alternate worlds" (Murray, 1997:149). Although individual, as the name suggests, *Insular* attempts to allow this constructivist pleasure of building a parallel universe. Through this kind of agency, as Murray proposes, "the interactor can experience on of the most exciting aspects of artistic creation – the thrill of exerting power over enticing and plastic materials." (Murray, 1997:153)

2.1.6) ndsart.net

http://www.ndsart.net

As stated in their website, “NDSart is an experimental community that focuses on artistic expression with the Nintendo DS.” It includes drawings made on the DS’s built-in application Picto-chat (Fig. 8) and it has sections for music and animation. This sort of initiative is, to my practice, reassuring, as it shows the will of players to engage in artistic activities with this specific handheld. Interestingly, it all goes back to games, as the website promotes competitions between the posted works.

(Fig 8. NDSart)

2.1.7) Roller Coaster Tycoon 3

As part of the Transforming Practice module, I have produced a review for Roller Coaster Tycoon 3 (Fig. 9), focusing on its relationship to creative play. The final impression was that the game had a great potential, but could have embraced the player’s creativity and constructivism a little bit more, rewarding the player for playing the game creatively and giving his constructions a more central role to the plot – opposed to the feeling of ‘beating the game’.

(Fig 9. Roller Coaster Tycoon 3)

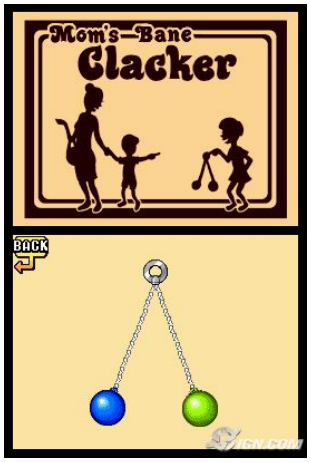
Relating to Jesper Juul's reviewed text, the attachment of the player to the created theme park is diminished, as it is built in order to suit certain level requirements. I tried to avoid that issue by, as previously said, removing the valorisation of outcome from *Insular*.

2.1.8) Warioware Touched!

Nintendo's game for the Nintendo DS platform, as the previous game from the series, is a collection of nearly two hundred mini-games that last five seconds each. The mini-games are played in a fast-paced sequence, and the player's performance can not only clear the game, but also unlock several interactive toys – non-games – to be played freely.

Some of the interactive toys are, in fact, very similar to some of the activities designed for *Insular*, such as a musical instrument (a harmonica played by blowing the microphone and using the control arrows and buttons) and activities with no clear goals (Figs 10 and 11), based only in a sort of sensorial pleasure of the player's interaction with it.

(Fig 10. Play by Ear)



(Fig 11. Clacker)

These non-games help to make clear a very important characteristic of handheld systems, one that is also explored by *Insular*: the level of intimacy of the player with the system, unlike desktop consoles, often away from other people's eyes. If there was reluctance to include multiplayer activities in *Insular*, it was to protect this sense of introspection, becoming rarer in everyday life, let alone videogames.

Other than that, it was very a helpful game in order to evaluate the capabilities and characteristics of the target platform for the project.

2.1.9) Google Earth

Recently released Google Earth is a real-life application that also can be used as an interactive toy or non-game. An interactive terrestrial globe, it allows the user to navigate around the world and zoom in to see, in real-time, detailed territories made from high-resolution satellite photographs rendered into a bump mapped 3D terrain (Fig 12).

(Fig 12. Google Earth)

What seem to attract users to Google Earth is not any practical aspects of it, but the mere pleasure of navigating around the globe and seeing both familiar and unknown places in a very realistic way. This very pleasure, detached from any functional needs, is what makes blurry the line between the application it is and the game or toy it is used as. In the case of *Insular*, there is the attempt to achieve a similar feeling to its integrated applications such as the diary and reminder, which should attract the player not only by its functionality, but also by its pleasure of use.

2.2) Science, Art and Education

As the game design evolved from initial concept to prototype and design document, it became evident that *Insular's* theme and setting, before seen as a by-product of the gameplay, should be equally investigated. The in-game activities showed an inclination towards the fields of arts and science. Combined to the non-competitive gameplay style, an unintended (but welcomed) educational product naturally took shape. The reading of related material took place mainly during the third and last semester, when the game concept was better defined and the actual prototyping started.

2.2.1) "Unweaving the Rainbow" and "The View from Mount Improbable", by Richard Dawkins

"Unweaving the Rainbow" is British scientist Richard Dawkins response to poet John Keats, who "complained that Newton had destroyed the poetry of the rainbow by explaining it". (Dawkins, 1999:26) Dawkins argues that science should rather be inspiring to poetry and arts, giving examples throughout the book of the beauty contained in scientific facts such as "The skin of a squid behaves like an LCD screen (…) When a squid suddenly changes its colours pattern, we suppose it to be a manifestation of mood change" (Dawkins, 1999:7-8).

In an anecdotal case described in the introduction to "The View from Mount Improbable", Dawkins says how he felt baffled during a lecture about the fig, not in botanical terms, but using the fig 'as a text'. Dawkins argues: "There is genuine paradox and real poetry lurking the fig, with subtleties to exercise an inquiring mind and wonders to uplift anaesthetic one" (Dawkins, 2005:I). The lecturer was missing the most important point: the fig as what it actually is.

These notions led me to design game activities and their environments inspired by science, and also to research more about how art and science relate.

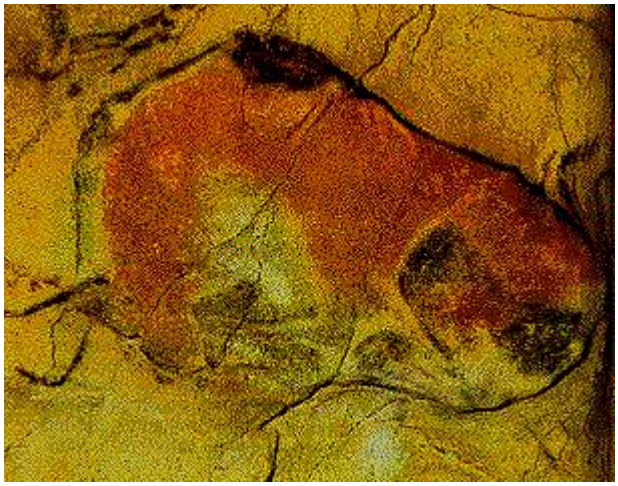
2.2.2) "Art & Science", by Siân Ede.

> *"The placing of art and science side by side enhances both perspectives, bringing together our capacity simultaneously to respond emotionally and rationalise objectively"* (Ede, 2005:176)

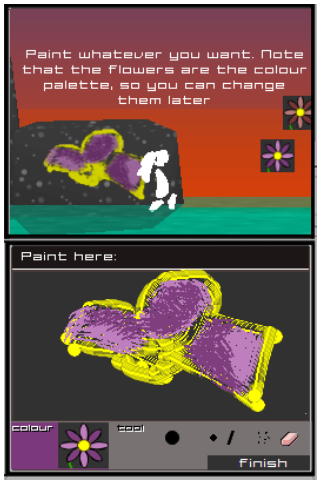
First published in 2005, this book examines the interchange between art and science, looking especially at artworks produced in the last decades. Contemporary artists seem to look into questions very similar to the ones in *Insular*, which coincidently resembles not one, but several works found in this and another book.

Reading this text, I have found passages that made me better understand the nature of my own practice, identifying reasons behind instinctively taken design decisions. For instance, the fact that, in the game, the player is invited to play with DNA structures having no previous instructions or an explicit goal, resembles the motivation of scientists who "cannot resist looking for patterns" and who are "motivated by curiosity – how does it works rather than why" (Ede, 2005:16-17).

Counting with "natural materials and rhythms" to play with, it is also very clear, inside the game, the "very ancient relationship between artist and nature", according to which some artists "take journeys into quiet places (…) and seek some silent solace from what is left in nature". (Ede, 2005: 46). Also present are the attitudes of both science and art towards mortality: the first acting as a "permanent record of life" and the latter seeking to "understand and even challenge death" (Ede, 2005: 46). Both fields of knowledge are actually reflected in the game design, as the player is allowed to freely paint elements of the environment (Fig 14), but also nurture and explore it in order to keep it functioning.



(Fig 13. Altamira's Cave Paintings)



(Fig 14. Painting in *Insular*)

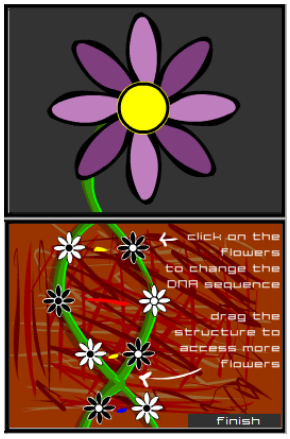
Artists and artworks

I became particularly interested in the work of some artists presented by the book, such as:

Andrew Carnie – His work "Magic Forest" (2002) - a forest of winter trees made of images of "living brain cells caught in the act of remembering" (Ede, 2005:101) - reminded me of my own intentions of making a game that could be used as a "memory container" – therefore the space for drawing, placing reminders and built-in diary / agenda.

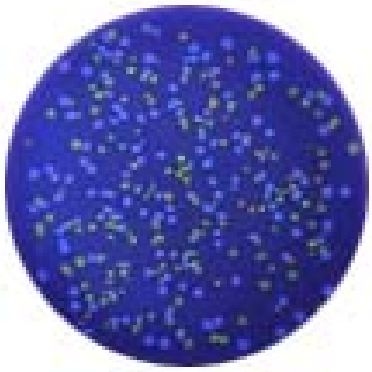
Andrea Duncan – "Twenty Three Pairs" (2002), a digital print where pairs of socks depict pairs of chromosomes, uses familiar objects to represent the genetic process that, at a very literal level, makes us who we are (Fig 15). That gave me the notion of not making the game art too "scientific", giving it a sense of warmth and humanity when possible (Fig 16).

(Fig 15. Twenty Three Pairs)

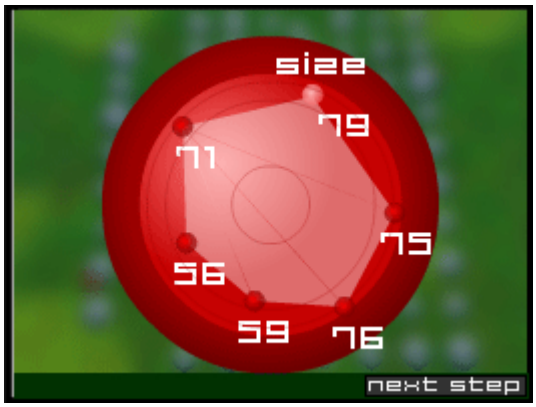


(Fig 16. Flower's DNA)

Eduardo Kac – One of the new "transgenic artists" who are "keen to re-create with the ultimate of materials" (Ede, 2005:154), This Brazilian artist has made several artworks with modified gene structures (Fig 17), and proposed that artists "should invent new life forms": a possibility inside *Insular* (Fig 18), without the ethical issues of real-life practice. His work made me rethink some of the activities, trying to avoid the message that genetic modification is, in every way, desirable.



(Fig 17. Genesis, by Eduardo Kac)



(Fig 18. Defining life-form aspects)

Maria de Menezes - This Portuguese artist employs laboratory techniques to create "novel eyespot patterns or alter the pattern of colour patches" of butterfly's wings. (Ede, 2005: 170). The design of animal life is present in one in-game activity, and it was surprising to see such a similar real-life counterpart.

Susan Derges – Describes her work as "ways of representing nature and culture as a creative and dynamic process", reflecting upon "external nature" and "internal forms

of thought and consciousness" (Derges, quoted by Ede, 2005: 175). In a similar way the game attempts a reflective mood, using nature as setting.

Lynette Wallworth – In her works "Hold Vessel #1" and "Hold Vessel #2", this Australian artist places images of nature in delicate porcelain bowls held by the audience. "We seem to hold the fate of the fragile universe in the palm of our hands". Chosen partially for the degree of intimacy shared with the owner, a handheld game console is possibly the best system to suggest this relationship of regard to a microworld.

2.2.3) "Digital Art", by Christiane Paul

This book attempts to summarize a broad range of the practice denominated "Digital Art", which covers not only computer-based or multimedia artworks, but almost every artwork that makes use of computer in any point of its production.

Focusing on the production occurred from the 1990's, when "the so-called 'digital revolution'" took place (Paul, 2003:7), it was very informative on aspects and subjects of contemporary art that are similar to videogames – and, in some cases, even borrowing from this same medium. Again, a number of artists mentioned in the book and their works caught my attention, as they related closely to my practice, and made me consider games also as part of the contemporary art framework.

The book also includes a section dedicated to the subject of *Gaming*, acknowledging that "the gaming industry has been an important element in the 'digital revolution'" (Paul, 2003:196). "Games", Paul argues, "explored many of the paradigms that are now common in interactive art" (Paul:197). Modification and user-made content – initial subjects of my research – are celebrated as means of audience participation, often an aim in art, digital or otherwise.

Artists and artworks

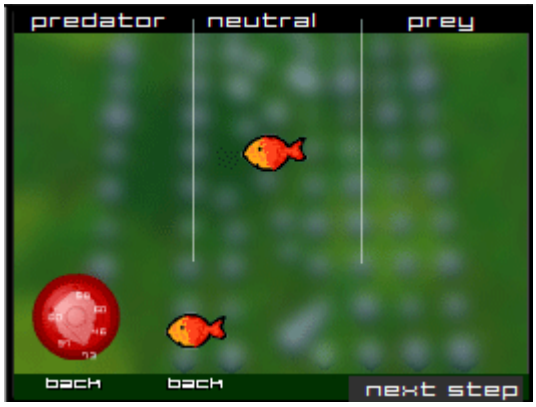
While reading this book, I was particularly impressed by works of these artists:

William Latham – Latham developed software that "allow users to shape sculptural three-dimensional forms according to 'genetic' properties" (Paul, 2003:47). His works "HOOD2" and "SERIOA2A", from 1995, show these characteristics, which are very similar to one of the activities of *Insular*.

(Fig 19. William Lathem's work)

Christa Sommerer and Laurent Mignonneau – Their interactive environment "A-Volve" (Fig 20), from 1994, allows visitors to create virtual creatures and watch them interact. Artificial Life is a common theme in digital art, and this particular example is coincidently similar to another activity of my project (Fig 21).

(Fig 20. A-volve)



(Fig 21. Organizing the food chain)

2.2.4) What Video Games Have to Teach Us about Learning and Literacy, by James Paul Gee

Tutors and colleagues frequently asked me if the game was an educational one. That was not the original intention. However, several factors contributed to this perception: it comprised scientific themes and there was not violence, but nurturing and creativity involved. There was more: it is a videogame.

James Paul Gee, in his book, shows us how videogames are inherently educational. An important note: he does not base his assumptions on ‘educational games’, but on the mainstream ones, such as Deus Ex and Tony Hawk Pro Skater.

Games are simulations that, as any other, can explain the functioning of complex, real-life systems – like the DNA in *Insular* - in an easier way than textbooks. Also, partially for commercial reasons, they are often very good explaining how they are supposed to be ‘read’, or interacted with.

Gee also writes about the constructive possibilities and self-expression allowed by videogames. “Good videogames allows players not to just be passive consumers, but also active producers who can customize their own learning experience.” (Gee, 2003:194).

Much more concerned about education than with games design, Gee’s message is that games are naturally capable to be used as teaching and learning devices. If my project seemed to have an educational agenda, it was partially for the nature of the medium. I occasionally embraced this idea, but without becoming committed to the idea of making ‘edutainment’, term used to designate educational games.

3) Progression and development

It is relevant to stress that the research changed direction throughout the course, and the final project was reformulated twice. The evolving thematic content changed, but kept at least one of its characteristics – not necessarily the central one - in all of its incarnations: the concern with audiences referred to as “casual gamers” and “non-gamers”. Opposed to “hardcore gamers” (term used to designate players with high level of commitment to videogames and game culture in general) casual and non-gamers are audiences who do not see themselves as “gamers”, standing outside the videogame mainstream market, yet being the largest group of this same market.

3.1) First semester

The initial intention was to research user-made content and game modification applied to casual audiences. The project behind it was a casual game with built-in modification tools, including a simple image editor (for graphic elements), a text editor, a level editor and a file manager (for managing the produced content). These tools should offer casual players an easy way for producing the in-game elements. This focus on the symbolic aspect of the game as a way to produce meaningful play was explored in some depth, taking advantage of the Issues in Design Theory module.

The game would not only be targeted at casual audiences, but also a casual game in its own right. It might be necessary to point out that casual games are not, to all intent and purposes, games played by casual gamers only, or that casual gamers play only casual games. Casual games are rather a quite distinct genre of games, and their main characteristics are:

(a) Accessibility

(b) Short game sessions

(c) Fast sense of reward and less sense of frustration offered to the player

(d) Inexpensive cost

(e) Low production cost and no employment of latest technology.

In terms of the games themselves, the most common kinds of casual games found are puzzles such as Bejeweled (Fig.22). As its illustrations indicate, most of these games work in a contained single screen, where there is no need for much or any exploration from the part of the player.

(Fig 22. Bejeweled)

As for my project, the game itself would embrace most of the aforementioned characteristics: A puzzle game where the goal was to accommodate different characters – each one with its own personality - in a room, placing each of them amongst people they like. In case there was a shock of personalities between two characters, the player could engage in a small action game representing their conversation. The idea was to use this puzzle/action casual game to represent social behaviour and personal relationships.

At that stage, there were already clear strong and weak points in the project. While I found the settings to be original within the context of casual games, the gameplay and game mechanics were not particularly effective. By the middle of the first semester, partially influenced by the Research Methods module, the modification tools were taking an interesting direction, being integrated into the game in different ways. For instance, instead of manually editing numbers representing the features of the characters, the player would fill a questionnaire about the character that would generate their features based on the answers.

Back then, the project was not considered ambitious enough, and difficulties on the game mechanics design brought me to completely change it in the final weeks of the

first semester. It was now a handheld game targeted to casual gamers – a compilation of several mini-games and extra-activities related to creative acts such as painting and playing music, and also designed for relaxation and a more introspective mood. These activities were interconnected, taking place in the same universe. It benefited from the previously researched material for the old project, as it took in consideration many aspects of casual games. I was now also interested in handheld – their characteristics and how to embrace them.

3.2) Second semester

Handed in as part of the Exploring Practice module assessment, the main problem of this second project was the derivative quality of the mini-games. That led me to take the most important decision, still in the first weeks of the second semester, for both my project and research: discard the games and work exclusively on the extra-activities. My project, named *Insular*, tried to escape the definitions of "game", and I referred to it as a non-game from that moment. The game's activities relied mostly in the player's creativity and search for self-expression and relaxation. The ideas behind the first draft of the research - self-expression and a sense of "casual authorship" – were now taken from outside the domain of the game to be placed as part of it. The game itself comprises the tool initially designed to stand on its own. In a way, the game had become the tool – and vice-versa. Also, I started to think more about what I personally want to achieve through game design and where does it fit within the present context than how to target it to a specific audience. I believe that, even if not fully developed in its game mechanics explanation, the design document handed in for the Transforming Practice module reflects this search for a more original product.

In order to better express and organize my findings and ideas, and also hoping to attract collaborative participation from people interested in the subject, I started, by the beginning of April, a website dedicated to the subject of my research, located at www.nongames.com. It proved to be extremely useful, not only for its work-in-progress log quality and other people's feedback, but also because it supported me in terms of continuing my research and updating its contents.

3.3) Third semester

The third semester turned out to be a natural extension of the second, focusing on the now much defined concept of the game, its prototyping and a totally new design document – better fitting the specifications presented at lectures given by Simon Redman during the semester. The acquisition of a Nintendo DS handheld was an important step, as it gave me a clear notion of what would be developing to this specific platform.

During the all the stages, the research method employed was literature review. At first, the texts (books, articles and websites) researched included information on general game design and new media, casual games and semiotics. To cover subjects not particularly documented in the specialized literature (such as handheld games), several games such as Warioware Touched and Roller Coaster Tycoon 3 were included as part of the research.

4) Context of Practice

There are two different aspects of my research and project to be taken in consideration when analysing how they relate to the current professional context of the practice: The first one is the “non-game” nature of the project, and the second one is its platform, the handheld.

Being interested in independent game’s development, handheld games were a logical choice to my project, since they have lower cost of development and a shorter production cycle than other platforms. The Nintendo DS, Nintendo’s new handheld console, was even a more obvious choice, since the activities inside my game require a number of inputs from the player made much easier (and in some cases, only possible by) the use of the stylus pen which integrates the target platform.

During the Professional Context module, I have researched Coyote Developments, an independent company based in Surrey, UK. I could then verify information about handheld development that confirmed my expectations and justified my interest on it. Handheld games, according to Matt Nagy, Coyote’s creative director, are the best (and arguably more accessible) way for independent developers to leave “their creative mark in the industry” (Nagy, 2005). It is relevant to point out that the present state of the industry is not exactly favourable towards independents developers, presenting a scenario where a few monolithic companies survive and small companies struggle to stay in business, often being bought by bigger companies or forced to close their doors.

It is important to stress that the handheld market is going through a particularly interesting moment right now. The market counts with an unprecedented number of different handheld consoles (Nintendo Game Boy Advance, Nintendo DS, Sony PSP, Gizmondo, Nokia N-Gage and Zodiac Tapwave), most of them having been released during the last nine months. One may ask “who is going to provide software for all these platforms?” (Edge, 2005), and a possible answer indeed could be independent developers, who could reach big audiences. The Nintendo DS alone has already sold

more than five millions units worldwide, and the Sony PSP shipped more than 2,5 million units before even being released in Europe. (The Register, 2005)

As for the "non-games" aspect, it is interesting to notice that this genre has been having great acceptance amongst handheld players, especially with Nintendo DS owners. Partially that is due to the fact that handheld players are more casual gamers (Nagy, 2005b), but also because of Nintendo's strategy of using and promoting this kind of games as a way to attract different audiences. Games such as Nintendogs, Elektroplankton and even some mini-games of Warioware Touched! are not conventional games in the way that, to paraphrase Nintendo's president Satoru Iwata, they are "designed to produce harmony, not adrenaline" (IGN, 2005).

Only after examining this context I was left with the impression that the Nintendo DS was not only the right choice for my project but also, in a way, *too* right for its own sake. The high number of *non-games* already developed for that platform indicated a possible saturation of the market, and the special features of the console (stylus pen, double screen and microphones) suggested very specific user interaction schemes, such as drawing, which could lead my project to a high number of similarities with other products – something that could harm the sense of uniqueness I was hoping to achieve with my project, but at least it indicates that my research was trailing an interesting, valid path.

Having said that, this same impression made me focus even more in *creative play* as a way to differentiate my project from existing games, and also reinforced my opinion that non-games, games with no clear goal or challenges, could be successfully developed and marketed. More important: there seemed to be a genuine interest in a sort of experimental games from the part of both developers and audience. Overall, it seems to be an exciting opportunity to independent developers.

5) Conclusion

Looking back I realize that my research for creative play – and the way it was actually designed in the final project - is strongly related to my own desires as a professional, specially the ones that drove me into videogames in the first place: the opportunity of dealing with a combination of several different media. Videogames combine graphics, animation, music and storytelling. Of course, there is also gameplay, something unique to the medium. It was this inter-disciplinary nature that attracted me most into digital games. The number and sort of activities designed for my final project – drawing tools, musical instruments and artificial life editors – only reflects that.

In “Hamlet on the Holodeck”, Janet H. Murray argues that “The more we see life in terms of systems, the more we need a system-modelling medium to represent it” (Murray,1997:93). As we saw earlier, this vision of the world as complex network of systems is represented not only in videogames – an appropriated media to represent it - but also in art and science – two branches of knowledge firmly present in games design. If art and science permeate *Insular*, it is partially because they are both so present in games.

5.1) Positive points

- Considerable growth of technical and theoretical knowledge during course .
- Project gained resonance with its unplanned sense of education .
- I have discovered several areas of interest, such as unconventional game controllers, non-games, digital art and creative play itself.
- Ultimately, I believe my research took me and my practice through very interesting and original areas, related not only to videogames, but contemporary art and culture.

5.2) Negative points

- Small number of research methods employed. The use of focus groups could have been beneficial.
- Prototyping should have been started earlier.
- Game Design Document development suffered from constant changes to the project, and neglected in favour of prototype.
- Project was too reliant on hardware specifications (the Nintendo DS paradigm).
- Overall, there was a lack of cohesion in the research that might be event reflected in this critical appraisal. Bringing coherence not only to the different in-game activities, but to the research as a whole, was a challenge that – I feel – was not completed.

5.3) What is next?

Being interested in both practical and theoretical issues of game development, my intention is to take one or more of three different routes as a practitioner:

a) Break into the games industry.
Academic research can result in a loss of contact with quotidian practice of the industry. A higher level of contact with games development would be beneficial.

b) Experimenting with gameplay.
Throughout the process of prototyping, I realized that is possible to produce small scale products related to my areas of interest. This would be an intermediate path between the first and the last one:

c) Keep studying and researching.
I came into several questions and ideas for further research during the MA year. There is an apparently strong link between casual gamers, non-games and creative play that should be investigated. The idea of researching a sort of 'lateral' gaming – to be played in parallel with non-ludic activities - also came up. My final question, and

possible theme for a next academic undertake, would be: if every act of play is a creative one, is it fair to assume that every creative act is originated inside a playful mood or spirit? The reason for this final question is that, several times during my studies and development of the final project, there was the feeling that I was practicing, not only researching, creative play.

6) Illustrations

Fig. 1. *I, Robot,* by Atari. http://crucialclassics_13.1up.com/. (15/08/2005)

Fig. 2. *Psychedelia,* by Llamasoft. http://www.llamasoft.co.uk/psychedelia.php. (15/08/2005)

Fig. 3. *Nintendogs,* by Nintendo. http://www.gamespot.com/ds/strategy/nintendogschihuahuaandfriends/screens.html?page=68. (15/08/2005)

Fig. 4. *Moving Pebbles,* by Chico Queiroz.

Fig. 5. *Drawing a Fish,* by Chico Queiroz.

Fig. 6. Lego. http://www.thegenomegame.com/cluebook/puzzles/legos/pieces.jpg. (15/08/2005)

Fig 7. *Adobe Illustrator*. http://www.sonic.net/mnitepub/pccafe/editorspic/adobe_illustrator8/interface.jpg. (15/08/2005)

Fig. 8. *NDSart,* by John. http://ndsart.net/gallery/displayimage.php?pos=-7. (15/08/2005)

Fig 9. *Roller Coaster Tycoon 3,* by Atari. http://www.atari.com/rollercoastertycoon/europe/uk/flash_content/screenshots/pack02/images/s10.jpg. (15/08/2005)

Fig 10. *Play by Ear,* by Nintendo. http://media.ds.ign.com/media/682/682833/img_2587863.html. (15/08/2005)

Fig 11. *Clacker,* by Nintendo. http://dsmedia.ign.com/ds/image/article/585/585896/wario-ware-touched-20050207013757701.jpg. (15/08/2005)

Fig 12. *Google Earth,* by Google. http://earth.google.com/images/callouts.jpg. (15/08/2005)

Fig . 13. *Altamira Cave Paintings*. http://campus.northpark.edu/history/WebChron/Prehistory/Altamira.html. (15/08/2005)

Fig. 14. *Painting in Insular,* by Chico Queiroz.

Fig 15. *Twenty Three Pairs,* By Andrea Duncan.

Fig. 16. *Flower's DNA,* by Chico Queiroz.

Fig 17. *Genesis*, by Eduardo Kac. http://www.ekac.org/genicn.jpeg. (15/08/2005)

Fig. 18. *Defining life-form aspects*, by Chico Queiroz.

Fig 19. *William Lathem's Work*, by William Lathem.
http://www.scit.wlv.ac.uk/events/l5col.half.gif. (15/08/2005)

Fig 20. *A-Volve*, by Christa Sommerer and Laurent Mignonneau.
http://www.iamas.ac.jp/~christa/WORKS/IMAGES/A-VOLVE_PICTURES//A-Volve05.jpeg. (15/08/2005)

Fig. 21. *Organizing the food chain*, by Chico Queiroz.

Fig 22. *Bejeweled*, by PopCap Games.
http://www.puzzle-game-download.com/images/bejeweled/screen1.jpg. (15/08/2005)

7) References

Magazine / Internet Articles

Adams, Ernest. (2005*). A Few Remarks on Creative Play*.
http://www.gamasutra.com/features/20050429/adams_01.shtml (02/06/2005)
Edge Magazine. (2005). *Hardware Overload*. Edge, 149 pp. 57.
IGN. (2005). *GDC 2005: DS Goes Online*.
http://ds.ign.com/articles/594/594933p1.html (16/08/2005)
Juul, Jesper. (2003). *The Game, the Player, the World: Looking for a Heart of Gameness* . http://www.jesperjuul.net/text/gameplayerworld/ (02/06/2005)
Nagy, Matt. (2005). *Jury Service*. Develop Magazine, Issue 50 pp. 74.
The Register. (2005). *Nintendo DS sales top 5m units* .
http://www.theregister.co.uk/2005/04/28/ds_psp_sales/ . (27/05/2005).
Robinson, Evan. (2005). *Types of Play*.
http://www.erasmatazz.com/library/JCGD_Volume_4/EvanRobinson.html .
(15/08/2005)

Interviews

Adams, Ernest. (2005b). *[Interviewed by email, 21 May 2005]*
Nagy, Matt. (2005a). *[Interviewed by email, 25 May 2005]*

Books

Brougère. Gilles.(2004). *Brinquedo e Cultura.* Editora Cortez.
Dawkins, Richard. (1999). *Unweaving the Rainbow*. Penguin Books.
Dawkins, Richard. (2005). *The View from Mount Improbable*. Penguin Books.
Ede, Siân. (2005). *Art & Science*. I.B. Tauris.
Gee, James Paul. (2003). *What Video Games Have to Teach Us About Learning and Literacy*. Palgrave Macmillan
Murray, Janet H. (1998). *Hamlet on the Holodeck* . The MIT Press.
Paul, Christiane. (2003). *Digital Art*. Thames & Hudson.

Piaget, Jean. (1962). *Play, Dreams and Imitation in Childhood*. Routledge & Kegan Paul.

Games / Software

Atari. (1983). *I Robot*. Atari

Frontier Developments (2004). *Roller Coaster Tycoon 3*. Atari.

Google (2005) *Google Earth*. Google.

Llamasoft. (1984). *Psychedelia*. Llamasoft.

Llamasoft. (1985). *Colourspace*. Llamasoft.

Llamasoft. (Forthcoming). *Neon*.

Nintendo (2005). *Warioware Touched!* Nintendo.

PopCap Games. (2000). *Bejeweled*. PopCap Games.