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*Touch and Go* is published in collaboration with Watermans and Goldsmiths College in occasion of the Watermans' International Festival of Digital Art, 2012, which coincides with the Olympics and Paralympics in London. The issue explores the impact of technology in art as well as the meaning, possibilities and issues around human interaction and engagement. *Touch and Go* investigates interactivity and participation, as well as light art and new media approaches to the public space as tools that foster engagement and shared forms of participation.

# TOUCH AND GO

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**LEONARDO ELECTRONIC ALMANAC, VOLUME 18 ISSUE 3**

# Touch and Go

**VOLUME EDITORS**

**LANFRANCO ACETI, JANIS JEFFERIES, IRINI PAPADIMITRIOU**

**EDITORS**

**JONATHAN MUNRO, ÖZDEN ŞAHİN**

# Watermans International Festival of Digital Art, 2012

**Touch and Go** is a title that I chose together with Irini Papadimitriou for this LEA special issue. On my part with this title I wanted to stress several aspects that characterize that branch of contemporary art in love with interaction, be it delivered by allowing the audience to touch the art object or by becoming part of a complex electronic sensory experience in which the artwork may somehow respond and touch back in return.

With the above statement, I wanted to deliberately avoid the terminology 'interactive art' in order to not fall in the trap of characterizing art that has an element of interaction as principally defined by the word interactive; as if this were the only way to describe contemporary art that elicits interactions and responses between the artist, the audience and the art objects.

I remember when I was at Central Saint Martins writing a paper on the sub-distinctions within contemporary media arts and tracing the debates that distinguished between electronic art, robotic art, new media art, digital art, computer art, computer based art, internet art, web art... At some point of that analysis and argument I realized that the common thread that characterized all of these sub-genres of aesthetic representations was the word art and it did not matter (at least not that much in my opinion) if the manifestation was material or immaterial, conceptual or physical, electronic or painterly, analogue or digital.

I increasingly felt that this rejection of the technical component would be necessary in order for the electronic-robotic-new-media-digital-computer-based-internet art object to re-gain entry within the field of fine art. Mine was a reaction to an hyper-fragmented

and indeed extensive and in-depth taxonomy that seemed to have as its main effect that of pushing these experimental and innovative art forms – through the emphasis of their technological characterization – away from the fine arts and into a ghetto of isolation and self-reference. Steve Dietz's question – *Why Have There Been No Great Net Artists?*<sup>1</sup> – remains unanswered, but I believe that there are changes that are happening – albeit slowly – that will see the sensorial and technical elements become important parts of the aesthetic aspects of the art object as much as the brush technique of Vincent Willem van Gogh or the sculptural fluidity of Henry Moore.

Hence the substitution in the title of this special issue of the word interactivity with the word touch, with the desire of looking at the artwork as something that can be touched in material and immaterial ways, interfered with, interacted with and 'touched and reprocessed' with the help of media tools but that can also 'touch' us back in return, both individually and collectively. I also wanted to stress the fast interrelation between the art object and the consumer in a commodified relationship that is based on immediate engagement and fast disengagement, touch and go. But a fast food approach is perhaps incorrect if we consider as part of the interactivity equation the viewers' mediated processes of consumption and memorization of both the image and the public experience.

Nevertheless, the problems and issues that interactivity and its multiple definitions and interpretations in the 20<sup>th</sup> and 21<sup>st</sup> century raise cannot be overlooked, as much as cannot be dismissed the complex set of emotive and digital interactions that can be set in motion by artworks that reach and engage large groups of people within the public space. These interactions

generate public shows in which the space of the city becomes the background to an experiential event that is characterized by impermanence and memorization. It is a process in which thousands of people engage, capture data, memorize and at times memorialize the event and re-process, mash-up, re-disseminate and re-contextualize the images within multiple media contexts.

The possibility of capturing, viewing and understanding the entire mass of data produced by these aesthetic sensory experiences becomes an impossible task due to easy access to an unprecedented amount of media and an unprecedented multiplication of data, as Lev Manovich argues.<sup>2</sup>

In *Digital Baroque: New Media Art and Cinematic Folds* Timothy Murray writes that "the retrospective nature of repetition and digital coding—how initial images, forms, and narratives are refigured through their contemplative re-citation and re-presentation—consistently inscribes the new media in the memory and memorization of its antecedents, cinema and video."<sup>3</sup>

The difference between memorization and memorilization may be one of the further aspects in which the interaction evolves – beyond the artwork but still linked to it. The memory of the event with its happening and performative elements, its traces and records both official and unofficial, the re-processing and mash-ups; all of these elements become part of and contribute to a collective narrative and pattern of engagement and interaction.

These are issues and problems that the artists and writers of this LEA special issue have analyzed from a variety of perspectives and backgrounds, offering to the reader the opportunity of a glimpse into the complexity of today's art interactions within the contemporary social and cultural media landscapes.

*Touch and Go* is one of those issues that are truly born from a collaborative effort and in which all editors have contributed and worked hard in order to

deliver a documentation of contemporary art research, thought and aesthetic able to stand on the international scene.

For this reason I wish to thank Prof. Janis Jefferies and Irini Papadimitriou together with Jonathan Munro and Özden Şahin for their efforts. The design is by Deniz Cem Önduygu who as LEA's Art Director continues to deliver brilliantly designed issues.

**Lanfranco Aceti**

*Editor in Chief, Leonardo Electronic Almanac  
Director, Kasa Gallery*



1. "Nevertheless, there is this constant apparently inherent need to try and categorize and classify. In Beyond Interface, an exhibition I organized in 1998, I 'datamined' ten categories: net.art, storytelling, socio-cultural, biographical, tools, performance, analog-hybrid, interactive art, interface + artificers. David Ross, in his lecture here at the CADRE Laboratory for New Media, suggested 21 characteristics of net art. Stephen Wilson, a pioneering practitioner, has a virtual – albeit well-ordered – jungle of categories. Rhizome has developed a list of dozens of keyword categories for its ArtBase. Lev Manovich, in his Computing Culture: Defining New Media Genres symposium focused on the categories of database, interface, spatialization, and navigation. To my mind, there is no question that such categorization is useful, especially in a distributed system like the Internet. But, in truth, to paraphrase Barnett Newman, 'ornithology is for the birds what categorization is for the artist.' Perhaps especially at a time of rapid change and explosive growth of the underlying infrastructure and toolsets, it is critical that description follow practice and not vice versa." Steve Dietz, *Why Have There Been No Great Net Artists?* Web Walker Daily 28, April 4, 2000, <http://bit.ly/QjEWYI> (accessed July 1, 2012).

2. This link to a Google+ conversation is an example of this argument on massive data and multiple media engagements across diverse platforms: <http://bit.ly/pGgDsS> (accessed July 1, 2012).

3. Timothy Murray, *Digital Baroque: New Media Art and Cinematic Folds* (Minneapolis: University of Minnesota Press, 2008), 138.

# Touch and Go: The Magic Touch Of Contemporary Art

**It is with some excitement that I write this preface to Watermans International Festival of Digital Art, 2012.** It has been a monumental achievement by the curator Irini Papadimitriou to pull together 6 ground-breaking installations exploring interactivity, viewer participation, collaboration and the use or importance of new and emerging technologies in Media and Digital Art.

From an initial call in December 2010 over 500 submissions arrived in our inboxes in March 2011. It was rather an overwhelming and daunting task to review, look and encounter a diverse range of submissions that were additionally asked to reflect on the London 2012 Olympic and Paralympic Games. Submissions came from all over the world, from Africa and Korea, Austria and Australia, China and the UK, Latvia and Canada and ranged from the spectacularly complicated to the imaginatively humorous. Of course each selector, me, onedotzero, London's leading digital media innovation organization, the curatorial team at Athens Video Art Festival and Irini herself, had particular favorites and attachments but the final grouping I believe does reflect a sense of the challenges and opportunities that such an open competition offers. It is though a significant move on behalf of the curator that each work is given the Watermans space for 6 weeks which enables people to take part in the cultural activities surrounding each installation, fulfilling, promoting and incorporating the Cultural Olympiad themes and values 'inspiration, participation and creativity.'

Some, like Gail Pearce's ***Going with the Flow*** was made because rowing at the 2012 Olympics will be held near Egham and it was an opportunity to respond and create an installation offering the public a more interactive way of rowing, while remaining on dry land, not only watching but also participating and having an effect on the images by their actions. On the other hand, Michele Barker and Anna Munster's collaborative ***Hocus Pocus*** will be a 3-screen interactive artwork that uses illusionistic and performative aspects of magical tricks to explore human perception, senses and movement. As they have suggested, "Magic – like interactivity – relies on shifting the perceptual relations between vision and movement, focusing and diverting attention at key moments. Participants will become aware of this relation as their perception catches up with the audiovisual illusion(s)" (artists statement, February 2011). Ugochukwu-Smooth Nzewi and Emeka Ogboh are artists who also work collaboratively and working under name of One-Room Shack. ***UNITY*** is built like a navigable labyrinth to reflect the idea of unity in diversity that the Games signify. In an increasingly globalized world they are interested in the ways in which the discourse of globalization opens up and closes off discursive space whereas Suguru Goto is a musician who creates real spaces that are both metaphysical and spiritual. ***Cymatics*** is a kinetic sculpture and sound installation. Wave patterns are created on liquid as a result of sound vibrations generated by visitors. Another sound work is Phoebe Hui's ***Granular Graph***, a sound instrument about musical gesture and its notation.

Audiences are invited to become a living pendulum. The apparatus itself can create geometric images to represent harmonies and intervals in musical scales. Finally, Joseph Farbrook's ***Strata-caster*** explores the topography of power, prestige, and position through an art installation, which exists in the virtual world of Second Life, a place populated by over 50,000 people at any given moment.

Goldsmiths, as the leading academic partner, has been working closely with Watermans in developing a series of seminars and events to coincide with the 2012 Festival. I am the artistic director of Goldsmiths Digital Studios (GDS), which is dedicated to multi-disciplinary research and practice across arts, technologies and cultural studies. GDS engages in a number of research projects and provides its own postgraduate teaching through the PhD in Arts and Computational Technology, the MFA in Computational Studio Arts and the MA in Computational Art. Irini is also an alumni of the MFA in *Curating* (Goldsmiths, University of London) and it has been an exceptional pleasure working with her generating ideas and platforms that can form an artistic legacy long after the Games and the Festival have ended. The catalogue and detailed blogging/documentation and social networking will be one of our responsibilities but another of mine is to ensure that the next generation of practitioners test the conventions of the white cube gallery, reconsider and reevaluate artistic productions, their information structure and significance; engage in the museum sector whilst at the same time challenging the spaces for the reception of 'public' art. In addition those who wish to increase an audience's interaction and enjoyment of their work have a firm grounding in artistic practice and computing skills.

Consequently, I am particularly excited that the 2012 Festival Watermans will introduce a mentoring scheme for students interested in participatory interactive digital / new media work. The mentoring scheme involves video interviews with the 6 selected artists and their work, briefly introduced earlier in this preface, and discussions initiated by the student. As so often debated in our seminars at Goldsmiths and

elsewhere, what are the expectations of the audience, the viewer, the spectator, and the engager? How do exhibitions and festival celebrations revisit the traditional roles of performer/artist and audiences? Can they facilitate collaborative approaches to creativity? How do sound works get curated in exhibitions that include interactive objects, physical performances and screens? What are the issues around technical support? How are the ways of working online and off, including collaboration and social networking, affecting physical forms of display and publishing?

As I write this in Wollongong during the wettest New South Wales summer for 50 years, I want to end with a quote used by the Australia, Sydney based conjurers Michele Barker and Anna Munster

*Illusions occur when the physical reality does not match the perception.* <sup>1</sup>

The world is upside down in so many alarming ways but perhaps 2012 at Watermans will offer some momentary ideas of unity in diversity that the Games signify and ***UNITY*** proposes. Such anticipation and such promise!

## Janis Jefferies

Professor of Visual Arts  
Goldsmiths  
University of London, UK

23<sup>rd</sup> Dec 2011, University of Wollongong, NSW, Australia

1. Stephen L. Malnik and Susana Martinez-Conde, *Sleights of Mind: What the Neuroscience of Magic Reveals about our Everyday Deceptions* (New York: Henry Holt and Company, 2010), 8.

**Leonardo Electronic Almanac****Volume 18 Issue 3****4 EDITORIAL** Lanfranco Aceti**6 INTRODUCTION** Janis Jefferies**10****SUGURU GOTO, CYMATICS, 2011 – AN ACTION SHARING****PRODUCTION** Simona Lodi & Luca Barbeni+ **SUGURU GOTO** in conversation with Paul Squires**30****INTERACTIVITY, PLAY AND AUDIENCE ENGAGEMENT** Tine Bech**44****UNITY: IN PURSUIT OF THE HUMANISTIC SPIRIT** One-Room Shack

Collective

+ **ONE-ROOM SHACK COLLECTIVE** in conversation with Evelyn Owen**52****HOKUSPOKUS** Michele Barker & Anna Munster**58****AS IF BY MAGIC** Anna Gibbs**60****BLACK BOXES AND GOD-TRICKS: AN ACCOUNT OF USING MEDICAL IMAGING SYSTEMS TO PHOTOGRAPH CONSCIOUSNESS IN THE CONTEXT OF A DIGITAL ARTS PRACTICE** Eleanor Dare**72****CO-AUTHORED NARRATIVE EXPERIENCE: AFFECTIVE, EMBODIED INTERACTION THROUGH COMBINING THE DIACHRONIC WITH THE SYNCHRONISTIC** Carol MacGillivray & Bruno Mathez**84****UNTITLED** Phoebe Hui+ **PHOEBE HUI** in conversation with Jonathan Munro**98****GOING WITH THE FLOW****GAIL PEARCE** in conversation with Jonathan Munro**102****THE SWEET SPOT** Graeme Crowley in collaboration with The Mustard and Blood Orchestra**108****STRATA-CASTER: AN EXPLORATION INTO THE TOPOGRAPHY OF POWER, PRESTIGE, AND POSITION** Joseph Farbrook+ **JOSEPH FARBOOK** in conversation with Emilie Giles**114****WHERE IS LOURENÇO MARQUES?: A MOSAIC OF VOICES IN A 3D VIRTUAL WORLD** Rui Filipe Antunes**122****GEOMETRY****FÉLICIE D'ESTIENNE D'ORVES** in conversation with Claire Le Gouellec**130****THE EMPOWERING POTENTIAL OF RE-STAGING** Birgitta Cappelen &

Anders-Petter Andersson

**140****SCENOCOSME: BODY AND CLOUDS**

Grégory Lasserre &amp; Anaïs met den Ancxt

**154****LIGHT, DATA, AND PUBLIC PARTICIPATION**

Dave Colangelo &amp; Patricio Davila

**164****INCARNATED SOUND IN MUSIC FOR FLESH II: DEFINING GESTURE IN BIOLOGICALLY INFORMED MUSICAL PERFORMANCE**

Marco Donnarumma

**176****THE STORY OF PARCIVAL: DESIGNING INTERACTION FOR AN INTERDISCIPLINARY DANCE PERFORMANCE** Gesa Friederichs-Büttner

&amp; Benjamin Walther-Franks

**190****INTERACTION'S ROLE AS CATALYST OF SYNTHESIZED INTELLIGENCE IN ART** Judson Wright**200****IN SEARCH OF A DIGITAL MASTERPIECE (OR TWO): STANZA**

Maria Chatzichristodoulou [aka Maria X]

**212****TELEMATIC TOUCH AND GO**

Ellen Pearlman, Newman Lau &amp; Kenny Lozowski

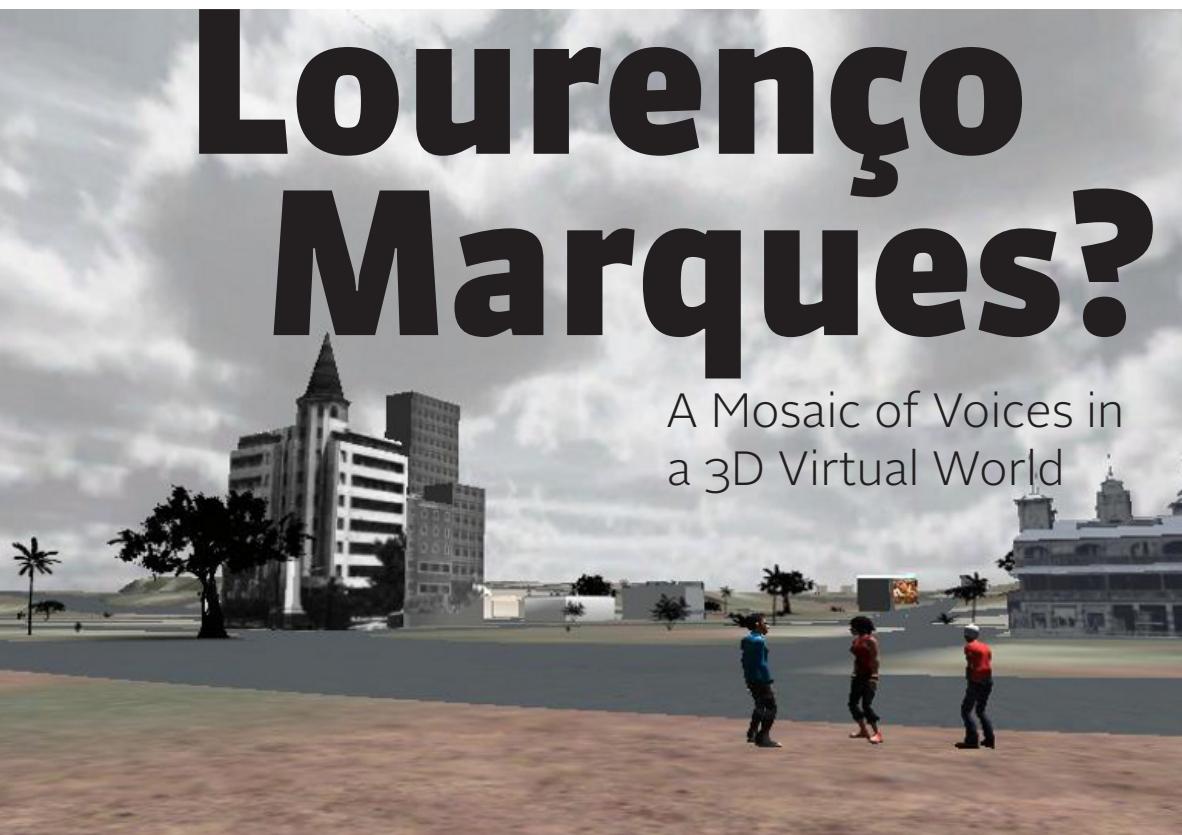
**224****HAPTIC UNCONSCIOUS: A PREHISTORY OF AFFECTIVITY IN MOHOLY-NAGY'S PEDAGOGY AT THE NEW BAUHAUS**

Charissa N. Terranova

**236****THE GESTALT OF STREET TEAM: GUERRILLA TACTICS, GIFS, AND THE MUSEUM** Charissa N. Terranova**240****BIOGRAPHIES****250****ACKNOWLEDGEMENTS**

# Where is Lourenço Marques?

A Mosaic of Voices in  
a 3D Virtual World



*Where is Lourenço Marques?, Rui Filipe Antunes, 2012,  
General perspective of the virtual world.*

by

**Rui Filipe Antunes**

Department of Computing, Goldsmiths,  
University of London

*"Marco enters a city; he sees someone in a square living a life or an instant that could be his; he could now be in that man's place, if he had stopped in time, long ago; or if, long ago, at a crossroads, instead of taking one road he had taken the opposite one, and after long wandering he had come to be in the place of that man in that square. By now, from that real or hypothetical past of his, he is excluded; he cannot stop; he must go on to another city, where another of his pasts awaits him, or something perhaps that had been a possible future of his and is now someone's present. Futures not achieved are only branches of the past: dead branches."*

— Italo Calvino in *Invisible Cities*

## INTRODUCTION

This work is dedicated to the former city of Lourenço Marques, which since the independence of Mozambique has became known as Maputo. In the landscape of colonial Portugal, Lourenço Marques was the proud capital of the district of Moçambique (Mozambique). This work consecrates those who lived and inhabited that place and time.

During the process of the decolonization of Mozambique, thousands of people were forced to suddenly abandon the country. More than the possessions and material goods, experiences of entire lives and generations were left behind. The great majority have never returned nor do they intend to. For some only a great nostalgia and disenchantment is left; while some others evoke the previous time as a magical space and time; others, like me, don't have any memory of the place.

The work presented here (available at [www.lourenco-marques.net](http://www.lourenco-marques.net)) aims to represent that place from the memories of those who have experienced Lourenço Marques and had to abandon the city in the three year period between 1974 and 1976.

## CONTEXT: MOZAMBIQUE 1974-76 <sup>1</sup>

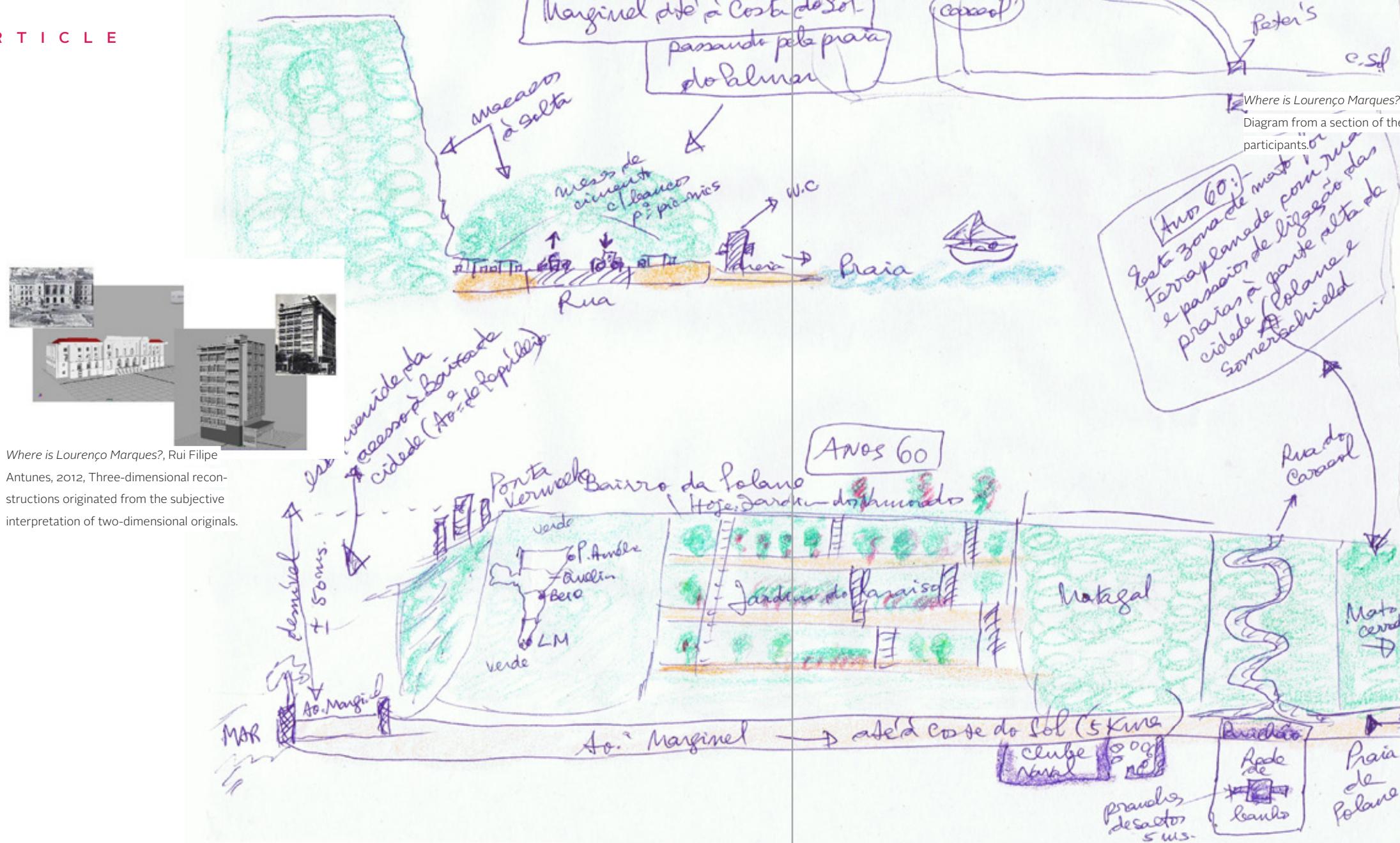
The independence of Mozambique was officially declared in 1975. This happened as corollary of a turbulent period when diverse extraordinary vectors have converged to make history. In the early 1960s, the Portuguese colonial policy was criticized openly in the United Nations, and the newly elected president of the U.S., J. F. Kennedy, boycotted Portugal in what was supported by a choir of two dozens of new countries, which have emerged from the collapse of the British and French empires. With the loss of the city of Goa to India, the Portuguese empire was reduced to the "overseas provinces" in Africa, East-Timor and the city of Macau.



*Where is Lourenço Marques?, Rui Filipe Antunes, 2012, Two kids staring at the audience from a distant past. The original photography is from a shared personal photo-album.*

The first steps towards a definite turn on politics for the African territories begun in Angola in 1961, with the massacre of the 15<sup>th</sup> of March. During the following years the resistance grew, developing into widespread guerrilla warfare with three warheads in Guinea, Angola and Mozambique. This war lasted for 14 years and the end of this war signifies the end of the empire and it is illustrated by a famous air bridge which, in 1975 and during 140 days, evacuated half a million refugees from Angola.

The revolution of April, overthrew, in 1974, the totalitarian regime of *Estado Novo* and established the democratic regime in Portugal. The revolution in the metropolis reverberates like a telluric shock on the life of the colonies.<sup>2</sup> Its main lead agent was an army tired and worn out from an everlasting war. The new government of transition in Portugal, heavily pressed by the international community, hurriedly negotiated the autonomy of the territories with the forces pro-independence.



*Where is Lourenço Marques?*, Rui Filipe Antunes, 2012, Three-dimensional reconstructions originated from the subjective interpretation of two-dimensional originals.

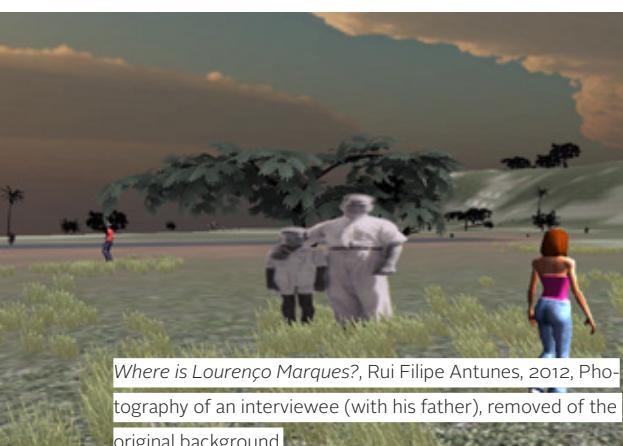
The events in Angola set the tone for the talks for Mozambique's negotiations. If in Angola the bloodshed was dramatic, the war in Mozambique took place mostly in the North and far from Lourenço Marques. But in Lusaka, during the talks, the 'terrorists' (or 'turras' the nickname given to the pro-independence forces by the colonial forces), have shown the recently conquered barracks of Omar and Nangade to be a major trump in their strategy of all or nothing for independence. On the 25<sup>th</sup> June 1975, and without any transitional period, Mozambique became an independent country.

The exodus from Mozambique did not reach the epic contours and proportions found in the Angolan's. Prior to the independence, and after the revolution in Portugal, there were some clear warning signs. In particular the failed attempt of white secession on the 7<sup>th</sup> September 1974 and the fights that followed on the 10<sup>th</sup> of October in Lourenço Marques. The escalation of the confrontation, and the proximity of the events, with some unfolding in the heart of the capital had as an immediate consequence the escape of thousands to the neighboring countries of South Africa and Rhodesia (nowadays called Zimbabwe). After the independence, the social tension and the orthodoxy

of the new communist regime from Samora Machel convinced many others to withdraw from the territory and find refuge elsewhere. In many of these times families were breaking with a history of generations.

In the article *Adeus África, Volto já*, we can read that the sudden arrival of the colonial refugees to Portugal, with their suitcases and their boxes laying on the docks of the former metropolis, had the effect of a social earthquake. They became a powerful agent of modernization of mentalities, but they were also blamed for the collapse of the empire (Meireles, 2011). In the recent years (mostly after 2000), we have wit-

ressed a boom in literature of return, made by and or 'retornados.' 'Retornado' is a popular jargon to designate a person who came from Africa after the independence of the colonies. Quoting the journalist Jaquel Ribeiro: "the history didn't lie saying that many came with only the cloth they had in their bodies to country where they never been before and where they were christened 'retornados'" (Ribeiro, 2010). He continues: "it was necessary to wait more than 30 years... to write about the stigma of being 'retornado,' fundamental to understand what means to be Portuguese, today."



It is in this context that this work emerges. It aims at giving a voice to those refugees; those who remember a “past with no future”; those who saw “drying their splendour in the grass”; those who have “lost the possibility of another future.”<sup>3</sup> “The literature of return is a special form of mourning... the mourning that many Portuguese didn’t do,” writes Eduardo Pitta in *Memorabilia Ultramarina* (Pitta, 2010). Extending Pitta’s sentence by replacing “literature” with art, with this work we are interested in the construction of a mosaic of voices, on building a platform for gathering accounts from the daily life in the city. How was Lourenço Marques?

#### METHODOLOGY: HUNTERS OF STORIES

This work is a representation of the city ‘as it was.’ Because a city, more than its building, is the people who inhabit and experience it, this work departs from the accounts of those who inhabited the city of Maputo, during the colonial period of Portuguese domination. *Where is Lourenço Marques? (WisLM)* is a collage of interrupted narratives, which takes expression in a virtual world. Its essence echoes Italo Calvino’s work *If in a winter night a traveller*, juxtaposing multiple broken tales. The oral testimonies and the media materials provided by participants were the means to build this collective portrait.

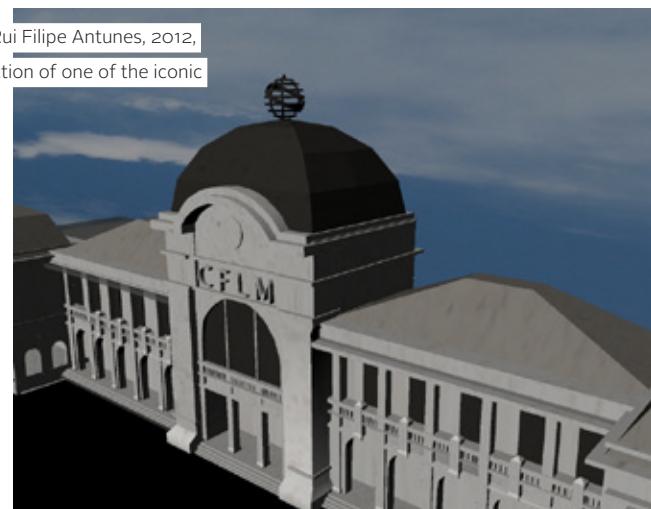
Participants were first interviewed. This process was the catalyst for a wider exercise of collective memory.

Each participant was asked to share his/her memories by means of answering two questions: a) How was the geography of the city back then? b) What music emerges first when you think about the city? During the interviewing process, some participants have shared their emotional testimonies. Some others, however, went even further, and in a autocatalytic process, unveiled the intimacy of their ‘shoeboxes’ feeding the project with personal photos, postcards, newspapers, etc.

*WisLM* departs from the author’s subjective interpretation of this shared documentation. On the level of material organization this work is a database of memorabilia. However, in *WisLM* a spectacle is offered (in Barthes sense). First, a 3D landscape was modeled. This included sculpting the topology and appropriate



*Where is Lourenço Marques?, Rui Filipe Antunes, 2012,*  
A three-dimensional reconstruction of one of the iconic buildings of the city.



vegetation, a layout imagined from collected photos, drawings and maps. This process also comprised recreating some iconic buildings, again with a free architectural interpretation of the three-dimensionality and space occupancy.

Other scenographic elements appear dispersed in the landscape: a) billboards displaying postcards with aerial views of the city during the 1960s and 1970s arise in the virtual world’s supposed location that the images themselves represent; b) semi-translucent photos of people emerge here and there, ghostly images where the spatial context was removed, leaving only faces and bodies in suspended gestures, gazing at the audience from a distant time; and finally c) a soundscape completes the dramatization, with the music referenced by participants during the interviews, punctuating the space of the virtual world.

*WisLM* remediates this database of memorabilia in a three-dimensional platform. An essential component of the work is the navigation throughout this landscape. The audience needs to traverse the space to map out the environment. Lev Manovich equates these movements in the 3D space with ancient forms of narration (fables, mythology) or 20<sup>th</sup> century American novels and romance (Mark Twain, Hemingway), where the action follows the spatial movements of the hero (Manovitch, 2001). The narrative here is constituted by the sum of multiple trajectories through the database. As with many 3D games where gameplay draws on the user building character by moving on the space to collect new props and skills, moving in the space of *WisLM* the audience navigates collecting elements of a shared memory. A sense of the past emerges from this spatialized collective composition.

However, the iconography of *WisLM* does not exhaust itself in the static elements strategically located and modeled, forming a spatial composition to resemble

and represent the city. The second layer of this work draws on the oral accounts generously provided during the interviews. It translates experiences into memory objects. A population of animated story-tellers inhabits the virtual city described so far. Helping to remember the lived experience, each of the individuals from this population of animated humanoid avatars is the carrier of one excerpt from an interview. When, navigating the cityscape, the audience mouse-clicks on any of these characters, they stop their activity, stare at the viewer, and gesticulate as if they were talking, while an audio recording is streamed and played. The audience is invited to “hunt” these story-tellers, pursuing the characters in the virtual city to capture their stories.

The model of Artificial Intelligence used to animate these characters is a Computational Ecosystem. A Computational Ecosystem is formed by a community of autonomous agents, organized in a food-web. Each of the agents in the community emulates a simplified life cycle from carbon-based life forms. The community evolves in a Mendelian-like process. Genetic traits, such as size or speed, are passed from parents

to children when individuals replicate in a process emulating sexual reproduction. Energy is required for the individual activities, such as moving, running or simply breathing. The population competes for energy and space, and this trade unfolds within predatory acts. When the energetic level of one individual is too low this is considered dead and as consequence it is removed from the community.

An underlying layer of narrative is inscribed in the behaviors of this population. In the literary tradition of allegory (George Orwell's *Animal Farm* for instance), the social interactions performed by the story-tellers in the virtual world are dictated by their performance in the habitat. Instead of primal animations of animals attacking and devouring each other, what is offered to the audience in *WisLM* are animations of gesticulating humanoids interacting in apparent conversation and discussion. Each action in the ecosystem is translated onto an animation of a corresponding gesture. For instance, when two individuals interact, if one is attacking the other, the gesticulation appears to be wider than the movements displayed by the same two individuals when these are playing.

One interesting property about computational ecosystems is their capacity for the emergence of complex social interactions from the simple rules determining the behavior of each agent. Pierre Lévy equates the virtual with potential (Lévy, 1998). Departing from one present situation – the actual-, the virtual is composed of all multiple possibilities that this specific context permits. In *WisLM* different forms of social interaction are implicit in the initial design of the agents' rules. The virtual as potential are the different forms of interaction emerging from the design. Will the evolution of the virtual city unfold tragically as the original one? The social context of the city of Lourenço Marques can be metaphorically described as of predation from some social groups over the others. In the virtual city, in the long run, will we see interactions where mutualism and commensalism overcome predatory acts?

## DISCUSSION: MEDIATED MEMORIES IN A VIRTUAL WORLD

*WisLM* offers a platform consisting of individual memory dialogues with extended contexts of community and history, capturing multiple dimensions of the experience. This is a line of work which draws in previous developments aimed at using technology to preserve a collective historical/social patrimony such as the Shoah Video Foundation and *Gone Gitmo*. In the website of the Survivors of the Shoah Video Foundation we can read the organizers intention of using technology to "preserve to perpetuity" of the memories of the survivors of the Holocaust (usc Shoah Foundation, 1994). The Shoah foundation was founded by Steven Spielberg with the intent to "gather video testimonies from survivors and other witnesses of the Holocaust." The archive has nearly 52,000 video testimonies and is now hosted at the University of Southern California.

The mediation of technology plays also a central role in *Gone Gitmo* (Nonny de La Peña and Peggy Weil, 2007). This project is a recreation in Second Life of Camp X-Ray in Guantanamo Bay, the temporary detention facility where terror suspects were held and reportedly tortured. *Gone Gitmo* invites visitors to experience being a detainee for themselves. Besides the recreation of the physical space, accounts from former detainees are available as multimedia assets in the scenario of the virtual landscape. The authors have coined the term immersive journalism to describe this form of documentary in a 3D space.

In both works the latest technologies play a central role in the process of evoking and remembering the past. Technology has always played a determinant role in this matter. Human memory is fallible, with time the precision of some human memories blur and as some become more and more diffuse, others on the contrary, become more vivid. From accounts written in papyrus, shoeboxes with old letters and photos, or yet

in the latest photo updates on Facebook, technology appears to be omnipresent and plays an essential role in the way we remember the past.

In chapter 3 of *Matter and Memory*, Bergson challenges the idea of pure memory preceding its materialization in a mental image. The author theorizes memory as a subjective construction, with memories being formed in the instant of its recall. In his words: "to picture is not remember." Memory appears to be an assembly of facts, fantasies and fictions, subject to revision and change, and permeable to projections and desires (Bergson, 2004).

Technology appears, in this context, to counteract and minimize erasure. Cultural theorists and social scientists talk about 'mediated memory' to refer to the incorporation of media in the process of remembering. Mediated memories do not simply invoke, but help to construct a sense of the past. *WisLM* is a panorama of lived experience, a representation which takes expression in a virtual world. We have built an artifact which converges some of the main technologies of our age: the database, the navigation in three-dimensional spaces, and the internet. *WisLM* is a complex exercise of mediated memory; it builds an emotional bridge between the past and the future. ■

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## ENDNOTES

1. In this section I want to describe the sequence of major events immediately preceding the escape. It is a biased version of the history because it is history perceived from the perspective of those who left. It helps us to understand the frame of mind and reasons why they did so. It denotes how history is written in second-hand and somehow illustrates one of the main topics that this work addresses: the subjectivity of memory.
2. Large territories such as Angola and Mozambique were named successively by colonies (until 1951), overseas provinces (1951–72) and states (1972–75).
3. These are quotes extracted from the interviews.

## BIBLIOGRAPHY

- Eduardo Pitta, "Memorabilia ultramarina," *Jornal Públíco (ípsilon)*, August 12, 2010, <http://ipsilon.publico.pt/livros/texto.aspx?id=263210> (accessed March 15, 2012).
- Lev Manovich, *The Language of New Media* (Cambridge, MA: The MIT Press, 2001).
- Luísa Meireles, "Adeus África, Volto já," *Expresso*, no. 2000, (February 25, 2011): 70–71.
- Nonny de La Peña and Peggy Weil, "Gone Gitmo, A chronicle of the development of Gone Gitmo, a virtual installation of Guantanamo Bay prision in Second Life," 2007, [gonegitmo.blogspot.com/](http://gonegitmo.blogspot.com/) (accessed March 15, 2012).
- Pierre Lévy, *Becoming Virtual: Reality in the Digital Age*, trans. Robert Bonono (New York: Plenum Trade, 1998).
- Raquel Ribeiro, "Os retornados estão a abrir o báu," *Jornal Públíco (ípsilon)*, August 12, 2010, <http://ipsilon.publico.pt/livros/texto.aspx?id=263209> (accessed March 15, 2012).
- USC Shoah Foundation Institute for Visual History and Education, "Survivors of the Shoah Visual History Foundation," 1994, <http://college.usc.edu/vhi/aboutus/> (accessed March 15, 2012).
- Henry Bergson, *Matter and Memory*, republication of 1912 MacMillan edition, trans. N. Margaret Paul and W. Scott Palmer (Mineola, NY: Dover Publications, 2004).

